A Bibliography of Publications on Floating-Point Arithmetic

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Introduction

This is a bibliography of material on floating-point arithmetic that I came up with while doing research on a floating-point package of my own. I don't claim it to be anywhere near complete. The material listed is only what I myself possess.

My main interest was in software based, binary floating-point arithmetic on a microprocessor, so you won't find much material about the hardware used in floating-point arithmetic (e.g. adders, carry propagation schemes, higher radix representation for multiplication and division, etc.) in this list. There is also not too much on non-binary floating-point arithmetic.

For most fields covered in this bibliography, the important or historically relevant articles should be included. There is also some material on integer arithmetic in this list as some of the methods used with integer arithmetic contain interesting ideas that may be useful in the realization of a floating-point arithmetic package.

Also, depending on the type of microprocessor used, one may need to implement integer multiplication and division for use in the floating-point package, so articles about this topic are included as well.

As I am German, there is a bit of material in German in this bibliography. However, English translations are provided for all non-English titles.

Thanks to the people who have helped me with previous versions of this document by sending me papers or additional references:

- Steven Sommars (`sesv@research.bell-labs.com`),
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- Nhuan Doduc (`ndoduc@framentec.fr`),
- K. C. Ng (`kwok.ng@eng.sun.com`),
- Nelson H. F. Beebe (`beebe@math.utah.edu`).

Bibliography entries in the **Books** section are ordered alphabetically by author; ordering is by ascending year in the remaining sections.

Warning: it has yet not been possible to bring this citation list up-to-date with the entries in the BibTE

Books, hardware oriented

[1757, 285, 1311, 1236, 3178, 3386, 1957, 856, 1183, 1017, 1487, 858, 1371, 7820, 7821, 1589]

Books, software oriented or theory

[1298, 476, 479, 480, 121, 1449, 2449, 924, 1067, 356, 3016, 2490, 3033, 2322, 324, 538, 7672]

Books, machine specific

[2223, 3285, 3180, 2492, 1805, 1943, 2341, 1976, 2525]

Journal Publications, Conference Papers, Technical Reports, Ph.D. Dissertations, Book Contributions, etc.

1 Choice of base, floating point formats

[508, 762, 764, 742, 739, 909, 1160, 1150, 2078, 2319, 2447, 2600, 2831, 2845]

1.1 Precision and Rounding

[438, 570, 757, 862, 896, 912, 981, 1049, 1059, 1063, 1214, 1322, 1465, 1405, 1570, 1765, 2332, 2510, 2585, 2902, 3226, 3351]

1.2 Determination of parameters of floating point arithmetic

[698, 836, 1669, 2325, 2250]

1.3 IEEE standards for floating point arithmetic

[1010, 1217, 1243, 1226, 1255, 1216, 1223, 1368, 1354, 1355, 1305, 1326, 1489, 1414, 1438, 1416, 1761, 1864, 1902, 1903, 1900, 2130, 2219, 2394, 2630, 3118]

1.4 Floating point arithmetic, general and implementation issues

[645, 731, 1031, 1052, 1101, 1114, 1113, 1258, 1260, 1230, 1299, 1290, 1506, 1524, 2033, 2053, 2267, 2268, 2427, 2500, 2404, 2584, 2832, 2833, 2760, 2830, 3076]

1.5 Floating point packages

[1312, 1733, 1712, 1811, 1767, 1924, 1889, 1925, 2008, 2123, 2146, 2253, 2352, 2353, 2354, 2533, 2534, 1380]

1.6 Floating point units

[421, 1172, 1347, 1303, 1358, 1382, 1350, 1377, 1295, 1342, 1351, 1529, 1572, 1528, 1565, 1588, 1695, 1608, 1610, 1611, 1713, 1643, 1640, 1648, 1675, 1752, 1651, 1828, 1814, 1752, 1793, 1824, 1754, 1836, 2049, 2011, 2039, 2005, 2058, 1997, 1990, 1991, 2174, 2125, 2200, 2297, 2326, 2361, 2302, 2328, 2303, 2232, 2263, 2375, 2314, 2264, 2339, 2515, 2463, 2464, 2488, 2377, 2497, 2461, 2458, 2369, 2480, 2517, 2418, 2378, 2498, 2383, 2621, 2553, 2575, 2615, 2568, 2545, 2618, 2601, 2592, 2718, 2828, 2790, 3021, 2932, 3004, 3163, 3112, 3256, 3418]

1.7 Test of floating point routines

[510, 1484, 1762, 1910, 1909, 2061, 2062, 2006, 2150, 2523, 2654, 2662, 2732, 2731, 2848, 2827, 2812, 3117]

2 Addition and Subtraction

[380, 1544]

2.1 Floating-point Summation

[329, 349, 366, 365, 582, 651, 689, 846, 1694, 2327, 2407]

2.2 Multiplication

[692, 1269, 1283, 1507, 1575, 1547, 1606, 1634, 1626, 1652, 1709, 1624, 1794]

2.3 Division

[212, 241, 226, 326, 352, 443, 1034, 1082, 1338, 1432, 1599, 1678, 1656, 1639, 1808, 1930, 2056, 2035, 2443, 2837, 2781, 3031, 3081, 7842, 3013]

3 Elementary functions, general

[389, 403, 598, 662, 627, 1141, 1289, 1660, 1689, 1792, 1755, 1753, 1833, 1880, 7761, 1986, 2094, 2201, 2142, 2329, 7780, 2616, 2654, 2603, 3405, 2605, 2574, 2756, 2910, 2720, 2872, 2873, 2749, 3438, 3406]

3.1 Elementary functions, CORDIC and related algorithms

[193, 194, 251, 267, 378, 534, 563, 671, 663, 679, 745, 870, 1086, 1103, 1318, 1319, 1481, 1734, 1937, 1743, 1851, 2004, 2206, 2436, 2364, 2597, 2624, 2775, 2870, 3075, 3070, 3196, 3133, 3181]

3.2 Elementary functions, function approximation

[243, 244, 491, 635, 780, 779, 1000, 1038, 1181, 2041, 2095, 2667, 2744, 2843, 2844]

3.2.1 Polynomial evaluation

[262, 283, 308, 431, 1079, 1248, 2406]

3.3 Square root, general

[1100, 1207, 1512, 1631, 1684, 2622, 2736]

3.3.1 Square root, bit-oriented, iterative, and table methods of computation

[122, 155, 363, 1039, 1025, 1170, 1381, 1474, 1435, 1401, 1456, 1569, 1865, 1963, 1874, 1927, 2012, 1993, 2076, 1996, 2047, 2089, 2132, 2185, 2227, 2305, 2446, 2634, 2590, 2768, 3103]

3.3.2 Square root, Newton's method

[161, 284, 306, 379, 351, 347, 388, 456, 432, 523, 528, 544, 608, 597, 591, 593, 714, 1356, 1344, 1426, 1616, 2388, 3083, 3011]

3.4 Sine and Cosine

[183, 1086, 1035, 1040, 1196, 1427, 1576, 1699, 1698, 1801, 1893, 1994, 2166, 2281, 2663, 3025, 3022, 2943, 3045, 3139]

3.5 Logarithm

[156, 274, 335, 702, 1015, 1131, 1325, 1560, 2151, 2152, 2664, 2794]

3.6 Exponential function

[143, 414, 1203, 1390, 1549, 1784, 1887, 2524, 2665, 3067]

3.7 Arctangent

[145, 163, 210]

3.8 Other transcendental functions

[509, 625, 164, 1041, 370, 279, 364, 2144, 1176, 2921, 3119]

4 Binary-decimal conversion

[192, 176, 225, 485, 588, 696, 1184, 1316, 1317, 1434, 1687, 1745, 2043, 2016, 2563, 2658, 2581, 2916]

5 BCD arithmetic

[686, 738, 789, 790, 791, 792, 793, 794, 795, 1411, 1523, 1740, 1673, 2079, 2704, 3024]

6 Multiple precision arithmetic

[296, 334, 415, 433, 644, 628, 970, 1019, 1118, 1117, 1289, 1378, 1460, 1574, 2865, 2849, 3098, 3292]

7 Conferences on computer arithmetic

[7700, 7710, 7715, 7724, 7727, 7740, 7758, 7759, 7801, 7831, 7839, 7833, 7865]

8 Additional contributions from Nelson H. F. Beebe

[123, 138, 172, 218, 301, 350, 372, 454, 764, 567, 863, 892, 937, 938, 991, 1005, 1019, 1024, 1088, 1090, 1118, 1117, 1212, 1182, 1241, 1268, 1288, 1296, 1313, 1417, 1455, 1460, 1490, 1491, 7740, 1750, 1760, 1763, 1777, 1783, 1895, 1901, 1935, 1964, 2020, 2063, 2074, 2104, 2147, 2162, 2170, 2216, 2327, 2328, 2384, 2540, 7813, 2587, 2591, 2604, 2611, 2621, 2662, 2674, 7839, 2799, 2800, 2825, 2829, 2846, 2865, 2919, 2920, 3036, 3117, 3338, 211, 218, 219, 255, 286, 298, 310, 311, 315, 346, 366, 426, 445, 483, 502, 537, 582, 604, 628, 651, 722, 806, 842, 844, 860, 879],[913, 915, 920, 942, 963, 990, 992, 999, 1001, 1033, 1081, 1089, 1275, 1308, 1385, 1460, 1467, 1492, 1495, 1591, 1596, 1657, 1671, 1680, 1681, 1738, 1780, 1822, 1827, 1847, 1848, 1853, 1855, 1872, 1883, 1884, 1977, 2009, 2054, 2065, 2141, 2187, 2217, 2234, 2301, 2316, 2331, 2355, 2415, 2426, 2430, 2511, 2535, 2541, 2588, 2636, 2650, 2714, 2725, 2761, 2805, 2857, 2922, 2991, 2997, 3032, 3059, 3067, 3102, 3155, 3164, 3244, 3258, 3261, 3306, 3349, 3396, 7669, 7708, 7716, 7725, 7726, 7751, 7763, 7760, 7806]

Title word cross-reference

[2971]. (p) [4446, 4531]. $(x+y)*(x-y)$ [6905]. -2 [755, 186, 209, 965, 814]. $-\infty < n < +\infty$ [143, 163]. 0 [5762]. $0 < N < 1$ [164]. $0 \div 0$ [711]. **\$1** [3819]. 1 [5091, 4439, 5257, 5763, 3772, 2212]. $1,000,000$ [630]. $1/\sqrt{x}$ [5911]. $1/t$ [2221]. $1/x$ [7635]. 10 [541, 6168]. 116 [4108]. 128 [4958]. 15 [541]. 16 [2558, 4279, 4162]. 17×69 [3112]. 2 [1022, 4397, 2092, 5802, 3297, 4080, 630, 6202, 435, 4439, 5112, 3354, 3533, 1796, 3543, 3208, 3550, 5735, 3565, 541, 325, 3758, 3898, 4547, 3772, 5200, 3432, 5044]. $2,576,980,370,000$ [5764]. $22n+1$ [2192]. 256 [4534]. 27 [438]. $\{2^{(2n+1)}+1, 2^{(2n+1)}, 2^{(2n+1)}-1\}$ [6504]. $2^{(}n+1)+1\}$ [4057]. $2^{2n+1}-1$ [6183]. $2^{2n+2}-1$ [6183]. 2^{2q} [6173]. 2^8-1 [2916]. 2^k [4580, 5099, 5611, 5141, 5149]. 2^k+1 [881]. 2^{k-1} [4580]. 2^m [4654]. 2^n [1600, 6183, 4057]. 2^n+1 [4057, 5091, 5850, 4557]. $2^{n+1}-1$ [6728]. 2^{n+k} [6728]. $2^n-(2^{n-2}+1)$ [5445]. 2^N-1 [3052, 4925, 6728, 4308, 4057]. 2^q-3 [7316]. $2^q \pm 1$ [6173]. $2^q \pm 3$ [6173]. $2^x p^y \pm 1$ [6415]. 2×2 [6061, 7607]. 3 [382, 5093, 4273, 435, 4123, 4297, 4128, 5133, 4976, 325, 6384, 4208, 6824, 5041, 5042]. $3-j$ [302]. 32 [4073, 4534]. 3×3 [2547]. 4 [4057, 4411, 4760, 2577, 2578, 435, 3500, 5855, 5639, 4479, 4816, 3014, 4162, 4164, 2871, 3066, 3599, 3604]. **\$49.95** [3785]. 5 [6173, 4902]. 54×54 [3557]. $6-j$ [302]. 64×64 [2330]. 8 [438, 3513, 4162, 3565]. 84 [311]. **\$85.00** [4232, 4233]. 88062 [541]. $8k$ [7113]. 8×8 [5200]. $9-j$ [302]. $<$ [6392]. $>$ [6392]. $[0,1]$ [5257]. ^{0} [4452]. ^{2} [5868]. ^{4} [2856]. ^{5} [3980]. ^{e} [1178]. $^{\mathrm{th}}$ [1178]. ^{TM} [4725]. $A(N+C)$ [1951]. $a+b$ [3714]. $a+b+c$ [6478]. $AB+CAB+C$ [7245]. $ab+cd$ [6254]. $ab+cd+e$ [7472, 7473]. $a \cdot (x \cdot x)$ [7058]. $A \cdot T$ [4154]. $\arctan Z$ [145]. $a \times b + c \times d$ [6478]. β [6513, 7372]. $C+AB^2$ [4376]. $c/\sqrt{(}a^2+b^2)$ [6459]. $\mathrm{CLP}(R)$ [2991]. $\cos^{-1}$ [3196]. $\cos N$ [183]. $\cos x$ [378]. $\cot^{-1} x$ [378]. d [4794, 5615, 3885]. Δ^0_2 [5045]. e [468]. e^n [143]. e^x [414]. ϵ [3546]. η_T [5793]. ηT [5350]. $\exp(x)$ [1390, 7524]. $\exp x$ [378]. $F(2 \times 2, 2 \times 2)$ [7091]. $f(x)=0$ [1242]. G_α [822]. $\mathrm{GF}(2)[x]$ [6005]. $GF(2^m)$ [4501, 4874, 4484, 6203, 5078, 5537, 5008, 6010]. $\mathrm{GF}(2n)$ [4294]. $GF(p^m)$ [4752]. H [5274]. I^2L [3307]. ∞/∞ [5120]. K [5545, 4397, 7657, 6063, 2151, 6153, 6513, 6108]. $k < m$ [6513]. L [4439]. L^2 [5358]. L^∞ [5357, 7275]. l_2 [6213]. $\ln(x)$ [1560]. $\ln x$ [378]. $\log n$ [1248]. $\log Z$ [145]. LU [7001, 7042, 6765, 6162]. M [4939, 183, 4222, 2683, 2688, 2697, 2981, 5439, 593, 6513]. $M^E \bmod N$ [2836]. $\mathbf{F}_2[X]$ [7371]. $\mathbf{f}_{2^m}$ [4324]. $\mathbf{F}_{5^{5n}}$ [5812]. $\mathbf{F}_{7^{7n}}$ [5812]. $\mathbf{R}^n$ [7187]. $\mathbf{Z}^2$ [4149, 5140]. $\mathrm{GF}(2)$ [5413, 1726]. $\mathrm{GF}(2^4)^2$ [6326]. $\mathrm{GF}(2^{4n})$ [4007]. $\mathrm{GF}(2^8)$ [6326]. $\mathrm{GF}(2^k)$ [5066, 3849, 5024]. $\mathrm{GF}(2^m)$ [5593, 4773, 5084, 3956, 4624, 5246, 3657, 4630, 3967, 5624, 2959, 2960, 3833, 4962, 5413, 5275, 4815, 4482, 5137, 2484, 5538, 4703, 4847, 5009, 5542, 3266, 4376, 5039, 4873, 2362]. $\mathrm{GF}(2^n)$ [5098]. $\mathrm{GF(p)}$ [2124]. $\mathrm{GF}(p^m)$ [3561]. $\mathrm{GF}(p_k)$ [4748]. $\mathrm{GF}(q^n)$ [4796]. MECIPTI [286]. μ [6684, 1456, 4969, 5011, 2363]. μP [1643, 2049]. N [4052, 821, 2388, 2389, 163, 164, 183, 4673, 5173, 5030, 6958, 6108, 5814, 4252, 6213, 1320, 3698]. $n^{\text{ième}}$ [1178]. $N'_0 = -N_0^{-1} \bmod W$ [4352]. $N \geq 32$ [5990]. $n\log(n)$ [6670]. $n \times n$ [3207]. $O(1)$ [6555]. $O(n)$ [1215, 3503, 1579]. $O(n^2)$ [2837, 2838]. $O(n \log n)$ [6725, 6894]. Ω [5026]. $\mathrm{Arccos}x$ [210]. $\mathrm{Arcsin}x$ [210]. $\mathrm{Arctan}x$ [210]. $\mathrm{mod}p$ [1956]. P [6713, 4736, 2102, 1149, 910, 1062, 1668, 7372, 4369, 4721, 3420]. p^k [6914]. π [1663, 2285, 2286, 4700, 271, 5764, 1727, 468]. $p \times p$ [4679, 4826]. q

5790, 5067, 5348, 5349, 2378, 1401, 2232, 2233, 1609, 1852, 6410, 6411, 2234, 2704, 3110, 1853, 4060, 4404, 4600, 4753, 4892, 4893, 5352, 5940, 6412, 7270, 303, 2092, 3936, 5231, 5689, 6417, 7273, 3937, 304, 2928, 5942, 4410, 5582, 5583, 7435, 6688, 2385, 2559, 6419, 2245, 1530, 5360, 6302, 6557, 2723, 4761, 5361, 621, 4763, 3942, 4251, 3477, 4607, 3639, 3116, 4069, 6119, 386, 387]. **arithmetic** [3301, 2392, 2393, 1622, 4608, 4767, 1123, 2002, 1535, 1625, 2252, 6563, 4770, 4081, 2003, 2105, 2398, 6565, 5823, 3952, 4423, 6429, 2938, 5498, 428, 4426, 4427, 2106, 2742, 3487, 4087, 5241, 5601, 5948, 4923, 3127, 474, 5244, 3130, 7156, 2573, 4264, 3956, 3957, 2109, 512, 2405, 5502, 1423, 5701, 2409, 3960, 5607, 1540, 1541, 1771, 2949, 3961, 4095, 746, 4626, 1043, 4787, 4789, 5704, 6882, 1044, 515, 4790, 2010, 747, 3320, 518, 2262, 4438, 7022, 3659, 477, 3498, 1046, 5390, 5614, 340, 4794, 4630, 4796, 3662, 633, 894, 1047, 2758, 6130, 1775, 287, 1883, 5836]. **arithmetic** [4943, 5506, 6132, 6214, 6215, 6581, 7582, 7583, 7584, 181, 311, 690, 2765, 1890, 6447, 6582, 3826, 1315, 3829, 5110, 1233, 2015, 1234, 1321, 1322, 1323, 4642, 4294, 6057, 5257, 5628, 4119, 839, 900, 3836, 3511, 6453, 1324, 4647, 6896, 6133, 441, 524, 525, 576, 2966, 6591, 6737, 6898, 2437, 7310, 7311, 7471, 1235, 2777, 5854, 2440, 2441, 1903, 1782, 3346, 4457, 5263, 5264, 5266, 5630, 6900, 4649, 5407, 5856, 1152, 1239, 1906, 2442, 2275, 6596, 1907, 3349, 3686, 6461, 1329, 6135, 2025, 6906, 6907, 3169, 2136, 2598, 3523, 3690, 3691, 4305, 4307, 4959, 3353, 6231, 640, 2285, 2286, 4310]. **arithmetic** [3355, 3695, 7774, 5410, 261, 1448, 4962, 7479, 641, 2288, 529, 2793, 2983, 1247, 1667, 2290, 2606, 5722, 7042, 6604, 1064, 7959, 5874, 647, 6070, 3986, 2471, 2798, 5417, 3989, 5972, 5279, 7483, 5421, 2475, 2991, 3990, 6140, 4320, 4971, 5726, 6076, 1, 4669, 3185, 4489, 4671, 5426, 5520, 5644, 5976, 6484, 355, 4672, 4673, 3860, 3861, 648, 535, 583, 2479, 1793, 5427, 6078, 1671, 3191, 4675, 6768, 1068, 2036, 2810, 237, 1340, 7498, 1796, 3005, 652, 699, 3714, 700, 586, 2301, 4979, 5731, 587, 6773, 6249, 2815, 5286, 5152, 452, 2619, 7669, 360, 361, 486, 773, 847]. **arithmetic** [998, 1070, 1071, 5287, 6926, 3867, 6927, 3206, 2486, 6146, 322, 707, 5649, 5434, 5435, 3720, 5651, 7197, 1346, 2040, 5735, 5440, 3375, 6150, 1800, 2625, 4505, 7506, 5988, 5893, 6628, 1001, 4833, 2310, 3212, 5, 1172, 7206, 1252, 2500, 4836, 3387, 592, 5293, 4169, 4997, 2629, 1472, 1696, 5992, 4343, 5168, 3217, 4345, 5741, 710, 3880, 3881, 3882, 4174, 4347, 4839, 2632, 2633, 5447, 712, 1006, 3883, 2635, 2319, 2636, 3396, 852, 3398, 1357, 5005, 1567, 3040, 3742, 3743, 5448, 853, 5540, 7369, 213, 5171, 6159, 4525, 3042, 3400, 1265, 2052, 1710, 6797, 5749, 5750, 6377, 2186]. **arithmetic** [7223, 4705, 4706, 5752, 6000, 5903, 1014, 3572, 4016, 3402, 2333, 3044, 4850, 3408, 3575, 3409, 2512, 3234, 3235, 4853, 2513, 4536, 3754, 7386, 3243, 5303, 6098, 2191, 6803, 3756, 3895, 3579, 5304, 5454, 2057, 3580, 2653, 2193, 28, 2655, 4200, 3583, 1016, 4537, 1084, 1085, 1819, 2059, 2060, 1188, 3900, 5310, 2869, 3061, 667, 1491, 109, 4541, 5022, 4542, 1492, 2065, 3589, 4543, 327, 5025, 464, 5764, 7235, 1495, 2199, 2347, 3068, 1271, 3069, 861, 5765, 3419, 1374, 4212, 2349, 4373, 546, 2883, 1375, 2527, 3259, 6525, 4033, 4554, 3772, 551, 2351, 3773, 4555, 4556]. **arithmetic** [5914, 3262, 2207, 2673, 4868, 5201, 3428, 4037, 4038, 4562, 5475, 5771, 5916, 2539, 1502, 1503, 2675, 3074, 5205, 2075, 2676, 298, 1979, 4725, 1384, 1592,

1843, 6021, 6985, 4393, 2371, 5063, 1396, 1848, 3458, 7425, 6115, 1029, 3459, 3460, 4055, 4239, 4240, 4241, 1990, 4595, 7426, 2377, 4400, 1991, 4886, 6988, 1608, 2553, 2233, 3795, 6675]. **Floating** [5796, 875, 1031, 1113, 2090, 2381, 2707, 2925, 4602, 4603, 5353, 5578, 5798, 6026, 6186, 6187, 6188, 6550, 6991, 7270, 3466, 3467, 7271, 1610, 1611, 1612, 3468, 2093, 1754, 6189, 2555, 2094, 739, 2383, 5358, 6029, 6300, 7432, 106, 1290, 1291, 1405, 6682, 4409, 4899, 5075, 6554, 6861, 7278, 6684, 7562, 3631, 6686, 2557, 5584, 250, 7436, 6556, 879, 5810, 174, 3295, 3473, 1528, 1529, 5493, 5232, 6865, 2246, 2718, 1616, 5690, 2722, 3637, 4414, 5587, 5943, 6303, 7135, 7439, 1295, 2725, 2726, 2727, 6118, 6191, 6421, 3116, 4070, 1760, 2563, 742, 1216, 1414, 1532, 1533, 1761, 1864, 2251]. **Floating** [2394, 3118, 4073, 6306, 4075, 1217, 1218, 1299, 1416, 1762, 6035, 3946, 4079, 5235, 5368, 5595, 5596, 2931, 4417, 4908, 3481, 3482, 3646, 2104, 2105, 3484, 3805, 6313, 6309, 3647, 3948, 3950, 4422, 7008, 2399, 2567, 2568, 6874, 4085, 4086, 4424, 2253, 4917, 628, 2401, 2942, 3311, 4431, 4619, 4621, 4776, 4920, 6041, 6042, 6198, 7013, 6312, 7285, 2005, 5374, 7570, 4780, 7155, 5376, 5243, 6704, 5950, 3812, 4435, 7157, 7016, 2006, 2108, 511, 6315, 3958, 1768, 1872, 2946, 2948, 2008, 5503, 514, 1423, 1873, 6576, 6881, 4625, 5384, 5608, 3492, 3816, 4096, 4268, 3318, 5609, 7292, 1877, 4789, 6318]. **Floating** [2261, 1303, 7019, 7020, 979, 1542, 3493, 1223, 6710, 1544, 4790, 6319, 5705, 4274, 7294, 834, 2263, 6711, 6883, 7296, 7454, 5100, 5952, 1304, 2264, 2952, 6436, 4627, 2756, 5831, 2580, 3321, 3819, 230, 231, 1640, 2011, 5615, 5835, 836, 892, 4108, 5956, 895, 1309, 7025, 1776, 2423, 2759, 2760, 4798, 982, 5505, 6054, 6437, 6886, 983, 1049, 1431, 1642, 6887, 4444, 4635, 5620, 7581, 310, 1643, 311, 689, 2267, 2268, 2427, 1888, 1889, 4280, 7302, 7170, 5842, 5843, 2766, 6327, 6441, 6442, 6443, 7027, 7460, 4948, 3825, 986, 6721, 7586, 396, 397, 3504, 3831]. **Floating** [4115, 4283, 4284, 5255, 5396, 3968, 6723, 3326, 2590, 1052, 1053, 7466, 3675, 3150, 7030, 5710, 1648, 2016, 1322, 440, 6895, 4453, 987, 6731, 7468, 3512, 5629, 6589, 6733, 2592, 5849, 1324, 7308, 2594, 2771, 2965, 6331, 6897, 6455, 6735, 1326, 1438, 7587, 7309, 5405, 5962, 7470, 3971, 1150, 6334, 1651, 5260, 3974, 6738, 1900, 1901, 1902, 2129, 2130, 6739, 7313, 7314, 4302, 5265, 5858, 6900, 3162, 3163, 4297, 3344, 346, 1904, 4301, 5262, 7590, 6740, 6904, 5713, 6228, 2970, 6059, 3164, 3165, 5861, 6458, 5634, 5864, 5866, 6060, 6062, 6459, 6599, 4128, 4460, 3976, 5635, 1330, 1659, 1241, 2447, 6341]. **Floating** [6463, 6908, 258, 6465, 7592, 1660, 7476, 6065, 6342, 638, 348, 1243, 1334, 1445, 2027, 2282, 2976, 3841, 3977, 3978, 4306, 4461, 4462, 4652, 4956, 4957, 5121, 5513, 5964, 4465, 3843, 754, 757, 3354, 7319, 5409, 3355, 1910, 5870, 2601, 6749, 1786, 906, 1059, 261, 2602, 3358, 5639, 7597, 842, 4314, 7481, 3529, 2463, 2983, 2984, 1157, 5414, 5415, 5968, 4474, 3850, 762, 763, 909, 2028, 7601, 4658, 911, 1063, 764, 6233, 7602, 5970, 7326, 6069, 6608, 3362, 6756, 6757, 6917, 7180, 7181, 6471, 6472, 4663, 4970, 6918, 6237, 6345, 6475, 6477, 5278, 1669, 6240, 5136, 2147, 353, 2473, 2799, 2801]. **Floating** [2992, 6347, 7484, 4666, 4972, 5139, 6348, 6480, 6761, 7485, 5879, 5880, 7047, 1559, 445, 5423, 5424, 7048, 7184, 7185, 7332, 7334, 7488, 7489, 7492, 6352, 1160, 6616, 2149, 7493, 5282, 6142, 6617, 846, 920, 1460, 582, 5881, 6353, 7494, 7605, 3366, 7338, 2997, 2998, 2297, 2480, 6489, 6767, 2805, 7608, 1929, 4986, 2611, 6769, 7053, 6246, 1795, 7339, 651, 698, 2613, 6080, 3715, 7054, 7192, 996, 6620, 1673, 2812, 7342, 1675, 7610, 6355, 3195, 5982, 7056, 4678, 536, 588, 926, 1166, 3865, 5888, 407, 2618, 1167, 4496, 7194, 6495, 2039, 6496, 3545, 3204, 5733, 4497, 7346, 7500, 999, 2305, 5650, 5433]. **Floating** [7502, 3868, 454, 6147, 6148, 6499, 6500, 6501, 6779, 6780, 366, 2488, 5652, 1562, 1799, 6358, 6783, 653, 1935, 2161, 2162, 2308, 2492, 3209, 7348, 5157, 6360, 5737, 6361, 6625, 1467, 4001, 1170, 2163, 2825, 7358, 4504, 2497, 2498, 6627, 6786, 6932, 6083, 931, 7613, 7063, 7203, 5164, 6084, 6154, 3872, 5291, 5441, 7357, 3555, 2834, 4168, 3727, 3729, 3731, 3875, 3876, 4167, 5167, 2626, 3026, 2627, 6086, 4511, 7615, 2837, 2838, 5528, 7361, 2044, 656, 1076, 1351, 2630, 2314, 7213, 4348, 7215, 7511, 6368, 657, 6938, 1175, 1255, 1256, 1354, 6088, 6155, 5742, 2173, 7067, 7366, 713, 4351]. **Floating** [4519, 6156, 2318, 2845, 2846, 3220, 2048, 6793, 5657, 852, 2849, 3037, 1810, 6267, 2639, 3223, 5003, 5744, 6794, 5535, 5536, 2049, 7072, 6636, 6637, 2324, 1008, 3040, 7621, 2325, 1260, 3745, 7622, 937, 938, 6373, 2326, 1010, 3226, 3041, 2327, 4704, 5745, 2328, 6375, 2857, 5174, 5544, 5545, 5747, 6094, 4357, 6942, 6642, 7078, 7375, 7376, 1572, 6516, 1712, 459, 1713, 6517, 4017, 4018, 5176, 1575, 4184, 2651, 461, 1484, 1813, 5014, 5178, 5451, 2334, 4192, 4363, 4535, 4854, 5179, 5905, 7226, 7379, 4711, 5181, 7081, 3048, 7625, 1718, 7384, 1814, 7627, 5757, 6002, 2652, 3757, 5018, 2515, 7628, 3759]. **Floating** [272, 215, 2193, 3049, 2058, 5908, 6272, 1578, 2517, 799, 1720, 2865, 3055, 3246, 3247, 3248, 3413, 3763, 3764, 2339, 6099, 6383, 7230, 7390, 3414, 6273, 6274, 6806, 2061, 2062, 1723, 1724, 3060, 6100, 2658, 5019, 5309, 5310, 5311, 5312, 5549, 5550, 5551, 5552, 5553, 2869, 3061, 858, 1366, 1489, 1490, 1823, 5663, 4028, 4029, 5191, 1189, 1368, 2343, 4203, 2066, 5910, 6007, 4367, 6384, 4031, 1824, 5665, 2524, 2664, 2665, 3067, 5194, 5195, 1496, 5666, 6952, 1828, 5320, 5464, 3592, 5027, 6276, 6819, 4211, 7632, 604, 3418, 4552, 6523, 7394, 6167, 7395, 6648, 1090, 5465, 2068, 3909]. **Floating** [863, 5466, 5667, 2882, 3258, 3593, 2884, 6954, 3421, 6524, 2886, 2887, 1377, 5198, 1093, 5669, 7398, 6009, 7238, 7400, 3773, 1378, 3912, 3261, 6389, 6649, 6650, 2353, 4035, 218, 6533, 1500, 1736, 2674, 1737, 807, 5204, 5329, 5473, 5474, 5676, 5677, 5769, 5772, 6652, 6958, 7637, 1588, 1382, 1502, 1503, 1504, 1505, 4040, 2074, 7640, 5918, 7403, 2075, 3076, 3077, 6106, 219, 3269, 2356, 6391, 2896, 7641, 4377, 6281, 136, 1836, 7098, 7528, 7529, 7642, 5332, 7101, 7531, 7645, 6107, 7104, 2682, 6654, 6961, 812, 1385, 3084, 1741, 3604, 5480, 5922, 4226, 964, 6962, 1982, 6963, 7105, 7106, 6109]. **Floating** [6835, 6967, 7534, 7536, 7647, 7648, 7650, 5563, 5564, 5565, 5211, 5680, 5777, 6534, 5212, 5481, 5338, 6838, 5697, 5825, 6038, 2570, 7446, 4723, 6527, 4375, 1978, 2219, 3446, 5482, 674, 2911, 1984, 1985, 6657, 4045, 1596, 5780, 6393, 3088, 3784, 3925, 5567, 5568, 6177, 6287, 6178, 732, 300, 1516, 2546, 2691, 3094, 3282, 3451, 3452, 3453, 3454, 4586, 6543, 6666, 6667, 7260, 2547, 1104, 1027, 5785, 1840, 2367, 1841, 1842, 1391, 2369, 1601, 1602, 2084, 2370, 4884, 6291, 4237, 1518, 2550, 2922, 3102, 5686, 6024, 2086, 1397, 1847, 2228, 2551, 2229, 6025, 4396, 2088]. **floating** [2374, 7265, 2700, 3289, 2701, 3104, 2375, 4399, 5348, 5349, 1110, 2230, 1399, 2378, 5938, 4889, 2552, 1210, 5228, 3935, 2379, 6410, 2380, 2234, 2704, 2705, 3110, 1853, 4404, 4601, 4754, 4892, 4893, 4894, 5229, 5352, 6116, 6412, 3796, 1752, 303, 2235, 678, 5355, 5688, 4407, 3936, 1032, 4897, 5490, 5689, 7273, 7433, 2236, 1033, 1213, 6553, 5942, 6862, 3294, 5076, 3632, 1293, 1855, 2238, 2714, 7435, 6555, 1995, 6687, 1406, 6688, 3472, 6419, 1407, 4904, 5077, 2720, 3296, 384, 1618, 6557, 3939, 5080, 1858, 2099, 2724, 3802, 3941, 6032, 1409, 1758, 2249, 2390, 4607, 5592, 4068]. **floating** [4069, 6119, 4906, 4907, 4072, 1622, 5594, 5818, 6307, 4255, 2733, 1123, 2002, 4078, 4259, 4260, 4772, 4614, 426, 5597, 3483, 5820, 7567, 2397, 2932, 2933, 2934, 3949, 4084, 3306, 6429, 2738, 6430, 5499, 5500, 976, 1301, 2740, 6568, 6122, 5826, 3124, 2941, 3310, 3487, 4620, 4777, 4919, 6311, 6200, 4087, 3126, 252, 4923, 5242, 5373, 4432, 978, 4623, 5699, 6877, 5244, 2572, 5378, 2573, 5090, 2403, 4264, 2945, 5379, 2255, 512, 1769, 1770, 2947, 6128, 4090, 1222, 5381, 5245, 5606, 746, 1135, 5096, 4269, 4270, 7163, 4787, 4788, 5703, 6709, 6882, 1543, 2009, 2415, 1772, 2010, 832]. **floating** [518, 3817, 7574, 1224, 5388, 1046, 6435, 2953, 2419, 4937, 6884, 4794, 5955, 4795, 286, 3141, 3322, 4797, 4940, 3142, 2582, 633, 894, 1047, 1228, 1308, 1775, 3500, 2955, 3143, 1048, 2761, 1883, 5617, 1884, 2586, 1885, 5837, 2425, 4943, 4944, 1886, 5506, 6132, 6214, 6715, 7582, 7583, 7584, 1312, 2426, 255, 181, 3965, 2430, 1890, 4447, 4947, 3966, 2588, 7169, 4111, 6891, 6892, 3145, 4112, 5108, 3669, 5961, 7304, 4113, 4638, 4801, 6720, 6722, 2957, 2958, 3671, 6585, 3148, 3506, 3672, 1316, 1436, 1233, 2015, 3674, 2269, 3507, 1437, 1323, 3331, 3155, 4119, 2270, 4646]. **floating** [2963, 2591, 3156, 2770, 5401, 5402, 1780, 2966, 6591, 6737, 6898, 5509, 5711, 5851, 2127, 5852, 526, 841, 1235, 2439, 5854, 693, 2441, 1238, 1903, 1782, 3346, 3684, 5263, 5264, 5266, 5630, 2273, 2274, 4123, 4649, 7589, 3683, 1152, 1239, 1906, 2442, 4808, 6058, 2969, 4651, 5862, 5863, 1657, 3349, 6134, 6339, 6460, 6461, 6598, 204, 2131, 3687, 6135, 6602, 2277, 2974, 3168, 3350, 6136, 2279, 2451, 2452, 2280, 3169, 2135, 2136, 3523, 3690, 3691, 4305, 4307, 5715, 5868, 4810, 2978, 3352, 3525, 3693, 3353, 6231, 640, 483, 756, 2455, 2456, 2457, 2458, 758, 759, 1244, 2287, 2141, 1665]. **floating** [315, 530, 4963, 4964, 6468, 2793, 7600, 1245, 1246, 2462, 2464, 2465, 1787, 1914, 1558, 1788, 5722, 7042, 3699, 3984, 4475, 3182, 3361, 4967, 5724, 2987, 3530, 5416, 844, 913, 990, 2034, 4317, 6070, 6235, 4969, 2607, 3363, 915, 992, 2989, 7328, 2293, 2294, 6072, 6609, 6474, 3988, 3989, 5972, 5279, 7483, 6350, 767, 2800, 2991, 3184, 4665, 5975, 6241, 6140, 6076, 4973, 3858, 4489, 4671, 6484, 355, 4673, 3992, 7049, 4974, 535, 583, 4822, 5728, 1793, 3993, 5427, 3706, 5729, 6078, 1671, 5429, 5430, 4325, 6144, 4976, 6768, 2299, 7609, 1068, 2036, 1340, 3005, 3713, 585, 652, 769, 770, 406, 700]. **floating** [701, 586, 6145, 2301, 4978, 2037, 2038, 997, 925, 3194, 1464, 2617, 4679, 4826, 6249, 3197, 2303, 2158, 2815, 5151, 2304, 5432, 3203, 2817, 6926, 7345, 1679, 1680, 1681, 707, 2620, 5889, 5985, 3547, 5434, 4985, 5153, 5436, 5437, 5438, 5523, 5651, 7197, 2621, 2040, 4000, 5156, 5525, 323, 1934, 2307, 2491, 2822, 3723, 6150, 5738, 3018, 3019, 933, 7354, 2495, 2496, 1001, 4338, 3380, 4833, 2311, 3212, 6364, 3381, 3382, 4006, 2500, 3877, 4994, 7209, 3387, 592, 4995, 5442, 5991, 6366, 490, 4340, 3214, 3215, 5443, 5655, 6262, 5992, 1002, 4343, 4173, 4346, 5895, 777, 1003]. **floating** [3881, 4174, 7364, 4839, 3394, 6264, 4998, 1355, 2045, 5896, 7365, 2315, 211, 712, 1006, 2316, 3032, 2317, 3883, 7367, 2319, 5994, 2636, 3396, 537, 7368, 3566, 2320,

1405, 4409, 6554, 6861, 7278, 7562, 3631, 6686, 5584, 250, 7436, 879, 5810, 174, 3295, 3473, 1528, 1529, 5493, 5232, 6865, 2718, 1616, 5690, 2722, 3637, 4414, 5587, 5943, 6303, 7135, 7439, 1295, 6421, 6561, 4070, 1760, 2563, 742, 1216, 1414, 1533, 1761, 2394, 3118, 4073, 6306, 4075, 1217, 1218, 1299, 1416, 1762, 6035, 3946, 4079, 5235, 5368, 5595, 5596, 2931, 4417, 3481, 3482, 3646, 2104, 3484, 6313, 6309, 3647, 3948, 3950]. **Point** [4422, 7008, 2399, 2567, 2568, 6874, 4085, 4086, 4424, 2253, 4917, 628, 2401, 2942, 3311, 4431, 4619, 4621, 4776, 4920, 6041, 6042, 6198, 7013, 6312, 7285, 2005, 7570, 7155, 5376, 1767, 5243, 6704, 5501, 5950, 3812, 4435, 7157, 7016, 2006, 2108, 511, 6315, 3958, 1768, 2946, 2948, 2008, 5503, 514, 1873, 6576, 7161, 6881, 4625, 5384, 5608, 3492, 3816, 4096, 4268, 3318, 5609, 1877, 6318, 2261, 1303, 7019, 7020, 979, 1542, 3493, 1223, 6710, 1544, 6319, 5705, 4274, 7294, 2263, 6711, 5100, 5952, 1304, 2264, 2952, 6436, 4627, 2756, 5831, 4440, 3321, 3819, 230, 231, 1640, 2011, 5615, 836, 892]. **Point** [4108, 895, 1309, 7025, 1776, 2759, 2760, 4798, 982, 5505, 6054, 6437, 6886, 983, 1049, 3964, 1431, 1642, 6887, 4444, 4635, 5620, 7581, 310, 689, 2267, 2268, 2427, 1888, 1889, 4280, 7302, 7170, 5842, 5843, 2766, 6327, 6441, 6442, 6443, 6446, 7027, 7460, 4948, 345, 986, 6721, 7586, 396, 397, 3504, 4115, 4283, 4284, 5396, 3968, 6723, 2590, 1052, 7466, 3675, 3150, 7030, 5710, 1648, 2016, 440, 6895, 4453, 987, 6731, 7468, 6589, 6733, 2592, 5849, 7308, 2594, 2771, 2965, 6331, 6897, 6455, 6735, 1326, 1438, 7587, 7309, 5405, 5962, 7470, 3971, 1150, 6334, 1651]. **Point** [5260, 6738, 1900, 1901, 1902, 2129, 2130, 6739, 7313, 5265, 5858, 6900, 3162, 3163, 4297, 3344, 346, 1904, 5262, 7590, 6740, 6457, 6904, 5713, 6228, 2970, 6059, 3164, 3165, 5861, 6458, 5634, 5864, 5866, 6060, 6062, 6459, 6599, 4460, 3976, 5635, 1330, 1659, 1241, 2447, 6341, 6463, 6908, 258, 6465, 7592, 1660, 6065, 6342, 348, 1243, 1334, 1445, 2027, 2282, 2976, 3841, 3977, 3978, 4306, 4461, 4462, 4652, 4956, 4957, 5121, 5513, 5964, 4465, 3843, 754, 757, 7319, 5409, 1910, 5870, 2601, 6749, 1786, 906, 1059, 5411, 7478, 3358, 5639, 7597, 4469, 842, 4314, 7481, 3529, 2463, 2984, 5414, 5415, 5968]. **Point** [4474, 3850, 762, 763, 909, 7601, 1063, 764, 5970, 7326, 6069, 6608, 3362, 3987, 6756, 6757, 6917, 7180, 7181, 6472, 6237, 6345, 6475, 6477, 5278, 6611, 7603, 1669, 6240, 5136, 2147, 2799, 2801, 2992, 5974, 6347, 7484, 4666, 4972, 5139, 6348, 6480, 6761, 7485, 5879, 5880, 4486, 1559, 445, 5423, 5424, 7048, 7184, 7185, 7332, 7334, 7488, 7492, 6352, 1160, 2149, 7493, 5282, 6142, 6617, 846, 920, 1460, 582, 5881, 6353, 7494, 3366, 7338, 2997, 2998, 2297, 2480, 6489, 6767, 2805, 7608, 4986, 2611, 6769, 7053, 7339, 651, 698, 2613, 6080, 7054, 7192, 6620, 1673, 2812, 7342, 1675, 7610, 5982, 7056]. **Point** [4678, 536, 588, 3865, 407, 2618, 1167, 4496, 2039, 6496, 3545, 3204, 5733, 4497, 6622, 7346, 7500, 999, 5650, 5433, 7502, 3868, 454, 6147, 6148, 6499, 6500, 6501, 6779, 6780, 366, 4499, 4686, 2488, 5652, 1562, 1799, 6358, 6783, 653, 1935, 2161, 2162, 2308, 2492, 3209, 7348, 5157, 6360, 5737, 6361, 6625, 1170, 2825, 7358, 4504, 2497, 2498, 6627, 6786, 6932, 6083, 931, 7613, 7063, 7203, 5164, 6084, 6154, 3872, 5291, 5441, 7357, 3555, 2834, 4168, 3727, 3729, 3731, 3875, 3876, 5167, 2626, 3026, 6086, 4511, 7615, 2837, 2838, 5528, 7361, 2044, 656, 1076, 1351, 2630, 2314, 4513]. **Point** [4692, 7213, 4348, 7215, 7511, 6368, 6938, 1175, 1255, 1256, 1354, 6088, 6155, 2173, 7067, 7366, 713, 4351, 4519, 6156, 2845, 2846, 3220, 3738, 6793, 5657, 2849, 3037, 1810, 2639, 3223, 5003, 5744, 6794, 5535, 5536, 7072, 6636, 6637, 2324, 1008, 7621, 2325, 1260, 3745, 7622, 937, 938, 6373, 2326, 1010, 3226, 2327, 4704, 5745, 2328, 2857, 5174, 5544, 5545, 5747, 6094, 4357, 6942, 6642, 7078, 7375, 1572, 6516, 1712, 459, 1713, 6517, 5904, 4018, 5176, 1575, 4184, 2651, 1484, 1813, 5014, 5178, 5451, 2334, 4192, 4535, 4854, 5179, 5905, 7226, 7379, 4711, 5181, 7081, 3048, 7625, 7384, 1814, 7627, 5757]. **Point** [6002, 2652, 3757, 2515, 7628, 272, 215, 3049, 2058, 5908, 6272, 1720, 2865, 3055, 3246, 3247, 3248, 3413, 3763, 3764, 2339, 6099, 6383, 7230, 7390, 3414, 6273, 6274, 6806, 2061, 2062, 1723, 3060, 6100, 2658, 5019, 858, 1366, 1489, 1490, 1823, 5663, 4028, 4029, 5191, 1189, 1368, 4203, 5910, 6007, 4031, 1824, 5665, 2524, 2664, 2665, 3067, 5194, 5195, 1496, 5666, 5555, 6952, 1828, 5320, 5464, 6818, 3592, 5027, 6276, 6819, 4211, 7632, 604, 3418, 4552, 6523, 6167, 7395, 6648, 1090, 5465, 2068, 863, 5667, 2882, 3593, 2884, 6954, 3421, 6524, 1377, 500, 5198, 7398, 6009, 6824, 7238]. **Point** [7400, 3912, 3261, 6389, 6650, 2353, 4035, 6957, 218, 6533, 1500, 1736, 2674, 807, 5204, 5329, 5473, 5474, 5676, 5677, 5769, 5772, 6652, 6958, 7637, 1588, 1382, 2074, 7640, 5918, 7403, 3076, 3077, 6106, 219, 3269, 2356, 6391, 7641, 4377, 6281, 1836, 7098, 4565, 7528, 7529, 7642, 5332, 7101, 7531, 7645, 7103, 7104, 2682, 6654, 6961, 812, 3084, 1741, 3604, 5480, 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1611, 1612, 1752, 303, 2235, 1754, 678, 5355, 5688, 4407, 3936, 1032, 4897, 5358, 5490, 5689, 7273, 7433, 2236, 1033, 1213, 6682, 4899, 5075, 6553, 5942, 6862, 6684, 3294, 5076, 3632, 1293, 2557, 1855, 4900, 2238, 2714, 7435, 6555, 6556, 1995, 6687, 1406, 6688, 3472, 6419, 1407, 2246, 4904, 5077, 2720, 3296, 384, 1618, 2721, 6557, 3939, 5080, 1858, 2099, 2724, 3802, 3941, 6032, 1409, 1758, 2249, 2725, 2726]. **point** [2727, 6118, 6191, 2390, 3115, 4607, 5592, 4068, 3116, 4069, 6119, 4906, 4907, 4072, 1532, 1622, 1864, 2251, 5594, 5818, 6307, 4255, 2733, 1123, 2002, 4078, 4259, 4260, 4772, 4614, 426, 2105, 5597, 3483, 5820, 7567, 3805, 2397, 2932, 2933, 2934, 3949, 4084, 3306, 6429, 2738, 6430, 5499, 5500, 976, 1301, 2740, 6568, 6122, 5826, 3124, 2941, 3310, 3487, 4620, 4777, 4919, 6311, 7445, 6200, 4087, 3126, 252, 4923, 5242, 5373, 5374, 4432, 4780, 978, 4623, 5699, 6877, 5244, 2572, 5378, 2573, 5090, 2403, 4264, 2945, 5379, 2255, 512, 1769, 1770, 1872, 2947, 6128, 4090, 1222, 1423, 5381]. **point** [5245, 5606, 746, 1135, 5096, 4269, 4270, 7163, 4787, 4788, 5703, 7292, 4789, 6709, 6882, 1543, 2009, 2415, 1772, 4790, 2010, 747, 832, 518, 834, 3817, 6883, 7296, 7454, 7574, 1224, 5388, 1046, 2116, 6435, 2953, 2419, 4937, 2580, 6884, 4794, 5955, 5835, 4795, 286, 3141, 3322, 4797, 4940, 5956, 3142, 2582, 633, 894, 1047, 1228, 1308, 1775, 3500, 2423, 2955, 3143, 1048, 2761, 1883, 5617, 984, 1884, 2586, 1885, 5837, 2425, 4943, 4944, 1886, 5506, 6132, 6214, 6715, 7582, 7583, 7584, 1312, 1643, 2426, 255, 181, 311, 2765, 3965, 2430, 1890, 4447, 4947, 3966, 2588, 7169]. **point** [4111, 6891, 6892, 3145, 4112, 3825, 5108, 3669, 5961, 7304, 4113, 4638, 4801, 6720, 6722, 3831, 5255, 2957, 2958, 3326, 3671, 4287, 6585, 1053, 3148, 3506, 3672, 1316, 1436, 5113, 1233, 2015, 3674, 2269, 3507, 1437, 1322, 3331, 3155, 6057, 4119, 2270, 3512, 5629, 4646, 2963, 2591, 3156, 1324, 2770, 5401, 5402, 1780, 6896, 2966, 6591, 6737, 6898, 5509, 5711, 5851, 3336, 3337, 2127, 5852, 526, 2776, 841, 1235, 2439, 5854, 693, 2441, 3974, 1238, 1903, 7314, 1782, 3346, 3684, 4302, 5263, 5264, 5266, 5630, 2273, 2274, 4123, 4649, 5407, 7589, 3683, 1152, 4301, 1239, 1906, 2442, 4808, 6058, 2969, 4651, 5862]. **point** [5863, 1657, 3349, 6134, 6339, 6460, 6461, 6598, 2445, 204, 2131, 4128, 3687, 6135, 6602, 2277, 2974, 3168, 3350, 6136, 2279, 2451, 2452, 2280, 3169, 7476, 2026, 638, 2135, 2136, 3523, 3690, 3691, 4305, 4307, 5715, 5868, 4810, 2978, 3352, 3525, 3693, 3353, 6231, 640, 483, 756, 2455, 2456, 3354, 3355, 2457, 2458, 758, 759, 1244, 261, 5126, 2602, 2287, 2141, 1665, 315, 530, 4963, 4964, 6468, 2793, 7600, 1245, 1246, 2462, 2464, 2465, 2983, 1787, 1914, 1558, 1788, 5722, 7042, 3699, 3984, 4475, 3182, 3361, 2028, 4967, 5724, 4658, 911, 2987, 3530, 5416, 844, 913, 990]. **point** [2034, 6233, 7602, 4317, 6070, 6235, 4969, 2607, 3363, 915, 992, 2989, 7328, 2293, 2294, 6471, 6072, 6609, 4663, 4970, 6474, 6918, 3988, 3989, 5972, 5279, 7483, 6350, 353, 767, 2473, 2800, 2991, 3184, 4665, 5975, 6241, 6140, 6076, 7047, 4973, 3858, 4489, 4671, 6484, 7489, 355, 6616, 4673, 3992, 7049, 4974, 535, 583, 695, 4822, 7605, 5728, 1793, 3993, 5427, 3706, 5729, 6078, 1671, 5429, 5430, 4325, 6144, 4976, 6768, 2299, 1929, 7609, 1068, 2036, 6246, 1340, 1795, 3005, 3713, 585, 652, 769, 770, 406, 3715, 700, 701, 996, 586, 6145, 2301, 4978, 2037, 2038, 997, 925, 3194, 6355, 3195, 1464, 2617, 4679]. **point** [4826, 5888, 6249, 3197, 2303, 2158, 7194, 6495, 2815, 5151, 2304, 5432, 3203, 2817, 6926, 7345, 1679, 6927, 3206, 1680, 1681, 707, 2620, 2305, 5889, 5985, 3547, 5434, 4985, 5153, 5436, 5437, 5438, 5523, 5651, 7197, 2621, 2040, 4000, 5156, 5525, 323, 1934, 2307, 2491, 2494, 2822, 3723, 6150, 5738, 6255, 1467, 4001, 2163, 3018, 3019, 933, 5740, 7354, 5526, 2495, 2496, 6628, 1001, 4338, 3380, 4833, 3023, 2311, 3212, 6364, 3381, 3382, 4006, 4167, 2500, 3877, 4994, 7209, 2627, 3387, 592, 4995, 5442, 5991, 6366, 490, 4340, 3214, 3215, 5443, 5655, 6262, 5992, 1002, 4343, 4173]. **point** [4346, 5895, 777, 1003, 3881, 4174, 7364, 4839, 3394, 6264, 4998, 657, 1355, 2045, 5896, 5742, 7365, 2315, 211, 712, 1006, 2316, 3032, 2317, 3883, 7367, 2318, 2319, 5994, 2636, 3396, 2048, 537, 7368, 3566, 2320, 852, 7660, 2640, 2851, 3039, 5004, 2049, 2323, 3399, 4177, 5899, 6371, 2505, 2643, 2855, 3040, 2644, 2645, 1811, 2181, 1360, 5171, 7075, 1009, 539, 1263, 1264, 1361, 718, 1080, 3041, 3042, 1081, 3400, 6090, 1710, 493, 5010, 3570, 785, 6091, 6375, 5749, 5750, 5997, 6378, 5902, 4014, 4015, 4181, 1364, 5011, 4706, 1954, 3227, 108, 5903, 5753, 6643, 1014, 3043, 2511]. **point**

References

Leibniz:1703:EAB

[1] G.-W. Leibniz. Explication de l'Arithmétique binaire. (French) [Explanation of binary arithmetic]. *Mémoires de mathématique et de physique de l Académie royale des sciences*, ??(??):85–89, ???? 1703. URL `https://hal.archives-ouvertes.fr/ads-00104781/document`. Leibniz is often credited with the invention of the binary number system, but there is other work from his era, and detailed analysis of Leibniz's use of binary numbers. See [395, 521, 634, 1249, 1428, 6433, 7234, 7409].

Pelicano:1712:APQ

[2] Wenceslao Josepho Pelicano. *Arithmeticus Perfectus Qui tria numerare nescit, ... (Latin) [A Perfect Arithmetic for who does not know how to count to three]*. ????, Prague, Czechoslovakia, 1712. ???? pp. URL `https://play.google.com/books/reader?id=cNxdAAAAcAAJ`.

Colson:1726:SAN

[3] John Colson, F.R.S. A short account of negativo-affirmative arithmetick. *Philosophical transactions of the Royal Society of London*, 34(392–398): 161–173, ???? 1726. CODEN PTRSAV. ISSN 0370-2316 (print), 2053-9207 (electronic). URL `http://arith22.gforge.inria.fr/slides/s2-ercegovac.pdf`.

Babbage:1837:MPC

[4] Charles Babbage. On the mathematical powers of the calculating engine. Manuscript held by Museum of the History of Science, Oxford, UK. Reprinted in [7729, §2.1]., December 1837.

Nystrom:1862:PNS

[5] John W. (John William) Nystrom. *Project of a new system of arithmetic, weight, measure and coins, proposed to be called the tonal system, with sixteen to the base*. J. B. Lippincott and Co., Philadelphia, PA, USA, 1862. 106 pp. LCCN QC96 .N95. URL `http://unifoundry.com/tonal/`

; https://catalog.hathitrust.org/Record/011602816; https://lccn.loc.gov/04025433.

Anonymous:1875:AOM

[6] Anonymous. The arithmetical operations of multiplication and division. *Scientific American*, 32(3):41–42, January 16, 1875. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL http://www.nature.com/scientificamerican/journal/v32/n3/pdf/scientificamerican01161875-41.pdf.

Anonymous:1879:TRA

[7] Anonymous. Three rules for abbreviating multiplication. *Scientific American*, 41(12):184, September 20, 1879. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL http://www.nature.com/scientificamerican/journal/v41/n12/pdf/scientificamerican09201879-184.pdf.

Newcomb:1881:NFU

[8] Simon Newcomb. Note on the frequency of use of the different digits in natural numbers. *American Journal of Mathematics*, 4(1/4):39–40, 1881. CODEN AJMAAN. ISSN 0002-9327 (print), 1080-6377 (electronic). URL http://links.jstor.org/sici?sici=0002-9327%281881%294%3A1%2F4%3C39%3ANOTFOU%3E2.0.CO%3B2-K.

Holman:1888:DPM

[9] Silas W. Holman. Discussion of the precision of measurement. *Technol. Q.*, 1(??):194–207, ???? 1888.

Holman:1892:DPM

[10] Silas W. Holman. *Discussion of the Precision of Measurements: With Examples Taken Mainly From Physics And Electrical Engineering*. Ferris Brothers Printers, New York, NY, USA, 1892. ???? pp.

Anonymous:1893:IDb

[11] Anonymous. The instantaneous divider. *Scientific American*, 68(21):325, May 27, 1893. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL http://www.nature.com/scientificamerican/journal/v68/n21/pdf/scientificamerican05271893-325a.pdf.

Felt:1893:MA

[12] Dorr E. Felt. Mechanical arithmetic. *Scientific American*, 69(20):309–310, November 11, 1893. CODEN SCAMAC. ISSN 0036-

8733 (print), 1946-7087 (electronic). URL `http://www.nature.com/scientificamerican/journal/v69/n20/pdf/scientificamerican11111893-309b.pdf`.

Aley:1897:DES

[13] Robert J. Aley. A device for extracting the square root of certain surd quantities. *American Mathematical Monthly*, 4(8/9):204–208, August/September 1897. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Anonymous:1898:OFA

[14] Anonymous. Our fingers as an aid in multiplication. *Scientific American*, 79(17):265–266, October 22, 1898. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL `http://www.nature.com/scientificamerican/journal/v79/n17/pdf/scientificamerican10221898-265.pdf`.

Ludgate:1909:PAM

[15] P. E. Ludgate. On a proposed analytical machine. *Scientific proceedings of the Royal Dublin Society*, 12(9):77–91, 1909. CODEN SPRDAP. ISSN 0371-2303. Reprinted in [7729, §2.4].

Babbage:1910:BBA

[16] H. P. Babbage. Babbage: Babbage's analytical engine. *Monthly Notices of the Royal Astronomical Society*, 70(??):517–526, 645, 1910. CODEN MNRAA4. ISSN 0035-8711 (print), 1365-2966 (electronic). Reprinted in [7729, §2.3].

TorresyQuevedo:1915:EAS

[17] L. Torres y Quevedo. Essais sur l'automatique. sa definition. Étendue théorique de ses applications (French) [Essays on automation. Its definition. Theoretical extent of its applications]. *Revue Générale des Sciences Pures et Appliquées*, ??(??):601–611, November 15, 1915. ISSN 0370-7431. Reprinted in [7729, §2.5]. Translated by Mr. R. Basu.

Barrow:1924:QDD

[18] D. F. Barrow. Questions and discussions: Discussions: On taking square roots of integers. *American Mathematical Monthly*, 31(10):482–484, December 1924. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Smith:1924:FPA

[19] David Eugene Smith. The first printed arithmetic (Treviso, 1478). *Isis*, 6(3):311–331, ???? 1924. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL `http://www.jstor.org/stable/224315`.

Karpinski:1925:HA

[20] Louis Charles Karpinski. *The History of Arithmetic*. Rand McNally & Company, New York, NY, USA, 1925. xi + 200 pp.

Cajori:1926:BRB

[21] Florian Cajori. Book review: *The History of Arithmetic* by Louis Charles Karpinski. *Isis*, 8(1):231–232, February 1926. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL `http://www.jstor.org/stable/223706`.

Smith:1926:FGC

[22] David Eugene Smith. The first great commercial arithmetic. *Isis*, 8(1): 41–49, February 1926. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL `http://www.jstor.org/stable/223673`.

Cajori:1927:EAP

[23] Florian Cajori. The earliest arithmetic published in America. *Isis*, 9 (3):391–401, December 1927. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL `http://www.jstor.org/stable/330806`.

J:1930:RPRb

[24] R. A. J. Recent publications: Reviews: *Standard Table of Square Roots*, by L. M. Milne-Thomson. *American Mathematical Monthly*, 37(6):314, June/July 1930. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Laughlin:1930:LND

[25] Harry H. Laughlin. Large-number division by calculating machine. *American Mathematical Monthly*, 37(6):287–293, June/July 1930. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Garver:1932:QDNb

[26] Raymond Garver. Questions, discussions, and notes: a square root method and continued fractions. *American Mathematical Monthly*, 39(9): 533–535, November 1932. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Polachek:1932:MMU

[27] H. Polachek. A method of multiplication used by Saadia Gaon in the 10th century. *Scripta Mathematica*, 1(??):245–246, ???? 1932. ISSN 0036-9713.

Simons:1932:IGA

[28] T. E. Simons. Isaac Greenwood's arithmetic. *Scripta Mathematica*, 1 (??):262–264, ???? 1932. ISSN 0036-9713.

Couffignal:1933:MCL

[29] L. Couffignal. *Les machines à calculer, leurs principes, leur évolution. (French) [Calculating machines, their principles, their evolution].* Gauthier-Villars, Paris, France, 1933. Extracts reprinted in [7729, §3.2]. Translated by Mr. R. Basu.

Kalbfell:1934:QDN

[30] D. C. Kalbfell. Questions, discussions and notes: On a method for calculating square roots. *American Mathematical Monthly*, 41(8):504–506, October 1934. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Simons:1935:EEC

[31] L. G. Simons. An early eighteenth century American readyreckoner. *Scripta Mathematica*, 3(??):94–96, ???? 1935. ISSN 0036-9713.

Calvert:1936:DDS

[32] H. R. Calvert. Decimal division of scales before the metric system. *Isis*, 25 (2):433–436, September 1936. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL `http://www.jstor.org/stable/225380`.

LeVita:1936:ALI

[33] Maurice H. Le Vita. *An Arithmetic of Life Insurance*. Life Office Management Association, New York, 1936. xii + 132 pp. LCCN HG8781 .L43. URL `http://hdl.handle.net/2027/mdp.39015017290688; https://babel.hathitrust.org/cgi/pt?id=mdp.39015017290688`.

Phillips:1936:BC

[34] E. W. Phillips. Binary calculation. *Journal of the Institute of Actuaries*, 67(??):187–221, 1936. ISSN 0020-2681. Reprinted in [7729, §7.1].

Zuse:1936:VSD

[35] K. Zuse. Verfahren zur selbsttätigen Durchfuhrung von Rechnungen mit Hilfe von Rechenmaschinen. (German) [Procedure for automatic

execution of calculations by calculating machines]. German patent application Z23624., April 11, 1936. Reprinted in [7729, §4.1].

Escott:1937:QDN

[36] E. B. Escott. Questions, discussions, and notes: Rapid method for extracting a square root. *American Mathematical Monthly*, 44(10):644–646, December 1937. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Millikan:1937:MMP

[37] Robert A. Millikan, Duane E. Roller, and Earnest C. Watson. *Mechanics, Molecular Physics, Heat, and Sound*. The MIT Press, Cambridge, MA, 1937. ???? pp. See Appendix: Significant Figures and Notations by Powers of Ten.

Shannon:1937:SAR

[38] Claude Elwood Shannon. A symbolic analysis of relay and switching circuits. Master of Science, Department of Electrical Engineering, MIT, Cambridge, MA, USA, August 10, 1937. 72 pp. URL `http://dspace.mit.edu/bitstream/handle/1721.1/11173/34541425.pdf`. Not submitted until 1940.

Benford:1938:LAN

[39] Frank Benford. The law of anomalous numbers. *Proceedings of the American Philosophical Society*, 78(4):551–572, March 1938. CODEN PAPCAA. ISSN 0003-049X (print), 2326-9243 (electronic). URL `http://links.jstor.org/sici?sici=0003-049X%2819380331%2978%3A4%3C551%3ATLOAN%3E2.0.CO%3B2-G`.

Couffignal:1938:AMA

[40] L. Couffignal. *Sur l'analyse mécanique. Application aux machines à calculer et aux calculs de la mécanique céleste. (French) [On mechanical analysis. Application to calculating machines and to calculation in celestial mechanics]*. PhD thesis, Faculté des Sciences de Paris, Paris, France, 1938. Extracts reprinted in [7729, §2.7]. Translated by Mr. R. Basu.

Hardy:1938:ITN

[41] G. H. (Godfrey Harold) Hardy and E. M. (Edward Maitland) Wright. *An Introduction to the Theory of Numbers*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 1938. xvi + 403 pp. LCCN QA241 .H28.

Shannon:1938:SAR

[42] Claude E. Shannon. A symbolic analysis of relay and switching circuits. *Transactions of the American Institute of Electrical Engineers*, 57(??): 713–723, December 1938. CODEN TAEEA5. ISSN 0096-3860.

Jager:1939:AAD

[43] Robert Jager and Boyd C. Patterson. The artificial arithmetick in decimals of Robert Jager (London, 1651). *Isis*, 31(1):25–31, November 1939. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL `http://www.jstor.org/stable/226014`.

K:1939:BRBd

[44] M. G. K. Book review: *Duodecimal Arithmetic*, by George S. Terry. *Journal of the Royal Statistical Society*, 102(2):299–300, ???? 1939. ISSN 0952-8385. URL `http://www.jstor.org/stable/2980013`.

Atanasoff:1940:CMS

[45] J. V. Atanasoff. Computing machine for the solution of large systems of linear algebraic equations. Unpublished memorandum, Iowa State College, Ames, IA, USA, August 1940. Reprinted in [7729, §7.2].

Bush:1940:AM

[46] V. Bush. Arithmetical machine. Vannevar Bush Papers, Container 18, Folder: Caldwell, Samuel, 1939–1940, 1940. Reprinted in [7729, §7.3]. Copyright interest in the unpublished writings of Vannevar Bush has been dedicated to the public.

Stibitz:1940:C

[47] G. R. Stibitz. Computer. Unpublished memorandum, Bell Telephone Laboratories, New York, NY, USA, 1940. Reprinted in [7729, §6.1].

Berry:1941:DED

[48] Clifford Edward Berry. Design of electrical data recording and reading mechanism. M.S. thesis, Iowa State College, Ames, IA, USA, 1941. 32 pp.

Lancaster:1942:MME

[49] Otis E. Lancaster. Machine method for the extraction of cube root. *Journal of the American Statistical Association*, 37(217):112–115, March 1942. CODEN JSTNAL. ISSN 0162-1459 (print), 1537-274X (electronic). URL `http://www.jstor.org/stable/2279437`.

Mauchly:1942:UHS

[50] J. W. Mauchly. The use of high speed vacuum tube devices for calculating. Privately circulated memorandum, Moore School of Electrical Engineering, University of Pennsylvania, Philadelphia, PA, USA, August 1942. Reprinted in [7729, §7.6].

Rajchman:1942:REP

[51] J. A. Rajchman, G. A. Morton, and A. W. Vance. Report on electronic predictors for anti-aircraft fire control. Technical report, Research Laboratories, R.C.A. Manufacturing Company, Inc., Camden, NJ, USA, April 1942. Reprinted in [7729, §7.4].

Crawford:1943:DNS

[52] W. S. H. Crawford. Discussions and notes: Square roots from a table of cosines. *American Mathematical Monthly*, 50(3):190–191, March 1943. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Rademacher:1943:MTI

[53] Hans Rademacher. Mathematical topics of interest in PX, part two: Summary of articles dealing with rounding off errors. PX Report 14, Moore School of Electrical Engineering, Office of the Director Records, University of Pennsylvania, Philadelphia, PA, USA, November 30, 1943.

Goudsmit:1944:SFN

[54] S. A. Goudsmit and W. H. Furry. Significant figures of numbers in statistical tables. *Nature*, 154(3921):800–801, December 23, 1944. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL `http://www.nature.com/nature/journal/v154/n3921/pdf/154800a0.pdf`.

Furry:1945:DND

[55] W. H. Furry and Henry Hurwitz. Distribution of numbers and distribution of significant figures. *Nature*, 155(3924):52–53, January 13, 1945. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL `http://www.nature.com/nature/journal/v155/n3924/pdf/155052a0.pdf`.

vonNeumann:1945:FDR

[56] John von Neumann. First draft of a report on the EDVAC. Technical report, University of Pennsylvania, June 30, 1945. Reprinted in [7729, §8.2].

Aiken:1946:ASC

[57] H. H. Aiken and G. M. Hopper. The Automatic Sequence Controlled Calculator. *Electrical Engineering (American Institute of Electrical Engineers)*, 65(??):384–391, 449–454, 522–528, 1946. CODEN ELENAC. ISSN 0095-9197. Reprinted in [7729, §5.2].

Burks:1946:PDL

[58] Arthur W. Burks, Herman H. Goldstine, and John von Neumann. Preliminary discussion of the logical design of an electronic computing instrument. Technical report, Institute for Advanced Study, Princeton, NJ, USA, June 28, 1946. 42 pp. URL `https://deepblue.lib.umich.edu/handle/2027.42/3972`; `https://grch.com.ar/docs/p1/Apuntes/eng/Logical%20Design%20of%20an%20Electronic%20Computing%20Instrument.pdf`. Report to the U.S. Army Ordnance Department under contract W-36-034-OKD-7481. Reprinted in [7670, Paper 2], [7689], [7703, pp. 221–259] and [7770, pp. 97–146].

Cesareo:1946:RI

[59] O. Cesareo. The relay interpolator. *Bell Laboratories Record*, 23(??): 457–460, 1946. CODEN BLRCAB. ISSN 0005-8564. Reprinted in [7729, §6.2].

Comrie:1946:BDC

[60] L. J. Comrie. Babbage's dream come true. *Nature*, 158(4017):567–568, October 26, 1946. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic).

Dreyer:1946:REM

[61] H.-J. Dreyer and A. Walther. Der Rechenautomat Ipm. Entwicklung Mathematischer Instrumente in Deutschland 1939 bis 1945. (German) [The Ipm calculator. The development of mathematical instruments in Germany 1939–1945]. Bericht A3, Institut für Praktische Mathematik, Technische Hochschule, Darmstadt, West Germany, August 19, 1946. Reprinted in [7729, §3.3]. Translated by Mr. and Mrs. P. Jones.

Goldstine:1946:ENI

[62] H. H. Goldstine and Adele Goldstine. The Electronic Numerical Integrator and Computer (ENIAC). *Mathematical Tables and Other Aids to Computation*, 2(15):97–110, July 1946. CODEN MTTCAS. ISSN 0891-6837. Reprinted in [7729, §7.7].

HUCL:1946:MOA

[63] Harvard University.Computation Laboratory. *A Manual of Operation for the Automatic Sequence Controlled Calculator*. Its Annals v. 1. Harvard University Press, Cambridge, MA, USA, 1946. 561 pp. LCCN QA3 .H3 v.1.

Turing:1946:PEC

[64] A. M. Turing. Proposed electronic calculator. Report E882, National Physical Laboratory, Teddington, Middlesex TW11 0LW, UK, 1946. 48 pp. URL `http://www.emula3.com/docs/Turing_Report_on_ACE.pdf`.

Goldstine:1947:PCPa

[65] Herman H. Goldstine and John von Neumann. Planning and coding of problems for an electronic computing instrument. Part 1, vol. 1. Technical report, Institute for Advanced Study, Princeton, NJ, USA, ???? 1947. ?? pp.

Goldstine:1947:PCPb

[66] Herman H. Goldstine and John von Neumann. Planning and coding of problems for an electronic computing instrument. Part 2, vol. 1. Technical report 1, Institute for Advanced Study, Princeton, NJ, USA, April 1, 1947. 69 pp. Report prepared for U.S. Army Ordnance Department under contract W-36-034-OKD-7481. Reprinted in [7670, 80–151]. Knuth [3982, p. 278] cites pp. 142–151 of this report as the first published treatment of double-precision arithmetic on digital computers.

Goldstine:1947:PCPc

[67] Herman H. Goldstine and John von Neumann. Planning and coding of problems for an electronic computing instrument. Part 1, vol. 2. Technical report, Institute for Advanced Study, Princeton, NJ, USA, ???? 1947. ?? pp.

Goldstine:1947:PCPd

[68] Herman H. Goldstine and John von Neumann. Planning and coding of problems for an electronic computing instrument. Part 2, vol. 2. Technical report, Institute for Advanced Study, Princeton, NJ, USA, ???? 1947. ?? pp.

Goldstine:1947:PCPe

[69] Herman H. Goldstine and John von Neumann. Planning and coding of problems for an electronic computing instrument. Part 1, vol. 3. Technical report, Institute for Advanced Study, Princeton, NJ, USA, ???? 1947. ?? pp.

Goldstine:1947:PCPf

[70] Herman H. Goldstine and John von Neumann. Planning and coding of problems for an electronic computing instrument. Part 2, vol. 3. Technical report, Institute for Advanced Study, Princeton, NJ, USA, ???? 1947. ?? pp.

Juley:1947:BC

[71] J. Juley. The ballistic computer. *Bell Laboratories Record*, 24(??):5–9, 1947. CODEN BLRCAB. ISSN 0005-8564. Reprinted in [7729, §6.3].

Mauchly:1947:PPE

[72] J. W. Mauchly. Preparation of problems for EDVAC-type machines. In *Proceedings of a Symposium on Large Scale Digital Calculating Machinery, 7–10 January 1947*. Harvard University Press, Cambridge, MA, USA, 1947. Reprinted in *Annals of the Computation Laboratory of Harvard University*, **16**, 203–207 (1948). Reprinted in [7729, §8.2].

Richeson:1947:FAP

[73] A. W. Richeson. The first arithmetic printed in English. *Isis*, 37(1–2): 47–56, May 1947. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL http://www.jstor.org/stable/226161.

vonNeumann:1947:NIM

[74] John von Neumann and Herman H. Goldstine. Numerical inverting of matrices of high order. *Bulletin of the American Mathematical Society*, 53(11):1021–1099, November 1947. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881X (electronic). URL http://projecteuclid.org/euclid.bams/1183511222. See [94] for Part II. Reprinted in [7664, vol. 5, pp. 479–557].

Alt:1948:BTLa

[75] Franz L. Alt. A Bell Telephone Laboratories' computing machine—I. *Mathematical Tables and Other Aids to Computation*, 3(21):1–13, January 1948. CODEN MTTCAS. ISSN 0891-6837. Reprinted in [7729, §6.4].

Eckert:1948:EC

[76] W. J. Eckert. Electrons and computation. *The Scientific Monthly*, 67(5): 315–323, November 1948. CODEN SCMOAA. ISSN 0096-3771 (print), 2327-7513 (electronic). Reprinted in [7729, §5.3].

Rademacher:1948:AEP

[77] Hans A. Rademacher. On the accumulation of errors in processes of integration on high-speed calculating machines. In Anonymous [7661], pages 176–187. LCCN QA75 .S96 1947.

Tukey:1948:NSR

[78] John W. Tukey. A note on the square-root iteration. SRG Memorandum report 10, Princeton University, Princeton, NJ, USA, 1948. 18 pp.

Turing:1948:REM

[79] A. M. Turing. Rounding-off errors in matrix processes. *Quarterly Journal of Mechanics and Applied Mathematics*, 1:287–308, September 1948. CODEN QJMMAV. ISSN 0033-5614 (print), 1464-3855 (electronic). URL `http://turing.ecs.soton.ac.uk/browse.php/B/18`. Reprinted in [7850] with summary and notes (including corrections).

Williams:1948:EDC

[80] F. C. Williams and T. Kilburn. Electronic digital computers. *Nature*, 162(4117):487, September 25, 1948. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). Reprinted in [7729, §8.4].

Davis:1949:MM

[81] Harry M. Davis. Mathematical machines. *Scientific American*, 180(4): 28–39, April 1949. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL `http://www.jstor.org/stable/24967160; http://www.nature.com/scientificamerican/journal/v180/n4/pdf/scientificamerican0449-28.pdf`.

Hartree:1949:NSR

[82] Douglas R. (Douglas Rayner) Hartree. Note on systematic roundoff errors in numerical integration. *Journal of Research of the National Bureau of Standards*, 42(??):62–??, ???? 1949.

Huskey:1949:PCP

[83] H. D. Huskey. On the precision of a certain procedure of numerical integration. *Journal of Research of the National Bureau of Standards*, 42(1):57–62, January 1949. CODEN JRNBAG. ISSN 0091-0635 (print), 2376-5305 (electronic). With an appendix by Douglas R. Hartree.

Tukey:1949:TRA

[84] John W. Tukey and M. F. Freeman. Transformation related to the angular and the square-root. SRG Memorandum report 24, Princeton University, Princeton, NJ, USA, 1949. ?? pp.

Forsythe:1950:NRE

[85] George E. Forsythe. *Note on rounding-off errors*. U.S. National Bureau of Standards, Gaithersburg, MD, USA, 1950. 3 pp.

Harrison:1950:BDC

[86] J. O. Harrison, Jr. Binary–decimal conversion on a desk calculator (in automatic computing machinery; discussions). *Mathematical Tables and Other Aids to Computation*, 4(32):231–234, October 1950. CODEN MTTCAS. ISSN 0891-6837 (print), 2326-4853 (electronic). URL `http://www.jstor.org/stable/2002500`.

Stifler:1950:HSC

[87] W. W. Stifler, Jr., editor. *High-speed computing devices*. McGraw-Hill, New York, NY, USA, 1950. xiii + 451 pp. LCCN QA75 .E5.

Wilkes:1950:E

[88] M. V. Wilkes and W. Renwick. The EDSAC. In *Report of a Conference on High Speed Automatic Calculating Machines, 22–25 June 1949*, pages 9–11. University Mathematical Laboratory, Cambridge, UK, January 1950. Reprinted in [7729, §8.5].

Worsley:1950:ED

[89] B. H. Worsley. The EDSAC demonstration. In *Report of a Conference on High Speed Automatic Calculating Machines, 22–25 June 1949*, pages 12–16. University Mathematical Laboratory, Cambridge, UK, January 1950. Reprinted in [7729, §8.6].

Anonymous:1951:R

[90] Anonymous. RECIPROOT. Manchester University Electronic Computer Web document., July 9, 1951. URL `https://0x5f37642f.com/documents/ManchesterRecipRoot.pdf`. To calculate square roots and reciprocal square roots.

Booth:1951:SBM

[91] Andrew D. Booth. A signed binary multiplication technique. *Quarterly Journal of Mechanics and Applied Mathematics*, 4(2):236–240, ???? 1951. CODEN QJMMAV. ISSN 0033-5614 (print), 1464-

3855 (electronic). URL `https://academic.oup.com/qjmam/article-abstract/4/2/236/1874893`.

Brown:1951:HRR

[92] G. W. Brown. History of RAND's random digits. In Householder et al. [7662], pages 31–32. URL `http://www.rand.org/pubs/papers/2008/P113.pdf`.

Gill:1951:PSS

[93] S. Gill. A process for the step-by-step integration of differential equations in an automatic digital computing machine. *Proceedings of the Cambridge Philosophical Society. Mathematical and physical sciences*, 47:96–108, 1951. CODEN PCPSA4. ISSN 0008-1981.

Goldstine:1951:NIM

[94] Herman H. Goldstine and John von Neumann. Numerical inverting of matrices of high order. II. *Proceedings of the American Mathematical Society*, 2:188–202, 1951. CODEN PAMYAR. ISSN 0002-9939 (print), 1088-6826 (electronic). URL `http://www.jstor.org/view/00029939/di970628/97p0185x/0`. See [74] for Part I. Reprinted in [7670, Paper 15, pp. 558–572].

MacMillan:1951:FDC

[95] Donald B. MacMillan and Richard H. Stark. "Floating decimal" calculation on the IBM card programmed electronic calculator (in automatic computing machinery; discussions). *Mathematical Tables and Other Aids to Computation*, 5(34):86–92, April 1951. CODEN MTTCAS. ISSN 0891-6837 (print), 2326-4853 (electronic).

Rademacher:1951:AEP

[96] Hans Rademacher. On the accumulation of errors in processes of integration on high-speed calculating machines. In *Proceedings of a Symposium on Large-scale Digital Calculating Machinery*, pages 176–185. Harvard University Press, Cambridge, MA, USA, 1951.

Shirley:1951:BNB

[97] John W. Shirley. Binary numeration before Leibniz. *American Journal of Physics*, 19(8):452–454, November 1951. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic). URL `http://scitation.aip.org/content/aapt/journal/ajp/19/8/10.1119/1.1933042`.

Wilkes:1951:PPE

[98] Maurice V. Wilkes, David J. Wheeler, and Stanley Gill. *The Preparation of Programs for an Electronic Digital Computer*. Addison-Wesley,

Reading, MA, USA, 1951. 167 pp. LCCN QA76.5 .W55 1951. See also second edition [153], and reprint [1590].

Andrews:1952:RBL

[99] E. G. Andrews. A review of the Bell Laboratories' digital computer developments. In J. C. McPherson, editor, *Proceedings of the AIEE-IRE '51: Papers and discussions presented at the December 10–12, 1951, joint AIEE-IRE computer conference, Philadelphia, PA: Review of electronic digital computers*, pages 101–105. ACM Press, New York, NY 10036, USA, 1952. LCCN ????

Davis:1952:ARS

[100] K. Davis, R. Biddulph, and S. Balashek. Automatic recognition of spoken digits. *Journal of the Acoustical Society of America*, 24(6):637–642, November 1952. CODEN JASMAN. ISSN 0001-4966.

Hammersley:1952:CSS

[101] J. M. Hammersley. The computation of sums of squares and products on a desk calculator. *Biometrics*, 8(??):156–168, 1952. CODEN BIOMB6. ISSN 0006-341X (print), 1541-0420 (electronic).

Irani:1952:SMT

[102] Rida A. K. Irani. A sexagesimal multiplication table in the Arabic alphabetical system. *Scripta Mathematica*, 18(??):92–93, ???? 1952. ISSN 0036-9713.

Michaelson:1952:BA

[103] R. L. Michaelson. Binary arithmetic. *The Incorporated Statistician*, 3 (1):35–40, February 1952. CODEN ???? ISSN 1466-9404. URL `http://www.jstor.org/stable/2986591`.

Morrill:1952:SEM

[104] C. D. Morrill and R. V. Baum. A stabilized electronic multiplier. *Transactions of the I.R.E. Professional Group on Electronic Computers*, EC-1(??):52–59, December 1952. CODEN ???? ISSN ????

Sheldon:1952:ICP

[105] J. W. Sheldon and L. Tatum. The IBM card-programmed electronic calculator. In *Review of Electronic Digital Computers. Joint AIEE–IRE Computer Conference. 10–12 December 1951*, pages 30–36. American Institute of Electrical Engineers, New York, NY, USA, 1952. Reprinted in [7729, §5.4].

Brooker:1953:FOE

[106] R. A. Brooker and D. J. Wheeler. Floating operations on the EDSAC (in automatic computing machinery; discussions). *Mathematical Tables and Other Aids to Computation*, 7(41):37–47, January 1953. CODEN MTTCAS. ISSN 0891-6837 (print), 2326-4853 (electronic).

IBM:1953:POT

[107] IBM Corporation. *Principles of Operation: Type 701 and Associated Equipment*. IBM Corporation, San Jose, CA, USA, 1953. 103 pp.

Samelson:1953:ORR

[108] Klaus Samelson and Friedrich L. Bauer. Optimale Rechengenauigkeit bei Rechenanlagen mit gleitendem Komma. (German) [Optimal calculation accuracy for calculators with a floating point]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 4(4):312–316, July 1953. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic).

Stiefel:1953:MCA

[109] E. Stiefel. La machine à calculer arithmétique "Z4" de l'Ecole Polytechnique Fédérale à Zurich (Suisse) et son application à la résolution d'une équation aux dérivées partielles de type elliptique. (French) [The arithmetic calculator "Z4" of the Swiss Federal Polytechnical University in Zurich (Switzerland) and its application to the solution of an elliptical type partial derivative equation]. In *Les machines à calculer et la pensée humaine*, Colloques internationaux du Centre National de la Recherche Scientifique, no 37, pages 33–40. Centre National de la Recherche Scientifique, Paris, France, 1953.

vanWijngaarden:1953:EAC

[110] Adriaan van Wijngaarden. Erreurs d'arrondiment dans les calculs systematiques. (French) [Rounding errors in systematic calculations]. *Centre National de Recherche Scientifique, Colloques Internationaux*, 37 (??):285–??, ???? 1953.

Backus:1954:ISS

[111] J. W. Backus. The IBM 701 Speedcoding system. *Journal of the Association for Computing Machinery*, 1(1):4–6, January 1954. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic). URL `http://community.computerhistory.org/scc/projects/FORTRAN/paper/p4-backus.pdf`.

Burroughs:1954:DH

[112] Burroughs Corporation.ElectroData. *Datatron handbooks*. The Division, Pasadena, CA, USA, 1954. 12 volumes in 1.

Freeman:1954:TSA

[113] H. Freeman and E. Parsons. Time-sharing analog multiplier (TSAM). *Transactions of the I.R.E. Professional Group on Electronic Computers*, EC-3(1):11–17, March 1954. CODEN ???? ISSN ????

Gorn:1954:AAC

[114] Saul Gorn. The automatic analysis and control of computing errors. *Journal of the Society for Industrial and Applied Mathematics*, 2(2):69–81, June 1954. CODEN JSIMAV. ISSN 0368-4245 (print), 1095-712X (electronic).

Kovach:1954:AMU

[115] L. D. Kovach and W. Comley. An analog multiplier using thyrite. *Transactions of the I.R.E. Professional Group on Electronic Computers*, EC-3(2):42–45, June 1954. CODEN ???? ISSN ????

Mayer:1954:ODF

[116] M. A. Mayer, B. M. Gordon, and R. N. Nicola. An operational digital feedback divider. *IRE Transactions on Electronic Computers*, EC-3(1): 17–20, March 1954. CODEN IRELAO. ISSN 0367-9950.

Moshman:1954:GPR

[117] Jack Moshman. The generation of pseudo-random numbers on a decimal calculator. *Journal of the Association for Computing Machinery*, 1(2): 88–91, April 1954. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Clenshaw:1955:NSC

[118] C. W. Clenshaw. A note on the summation of Chebyshev series. *Mathematical Tables and Other Aids to Computation*, 9(51):118–120, 1955. CODEN MTTCAS. ISSN 0891-6837 (print), 2326-4853 (electronic).

Crockett:1955:GMM

[119] J. B. Crockett and H. Chernoff. Gradient methods of maximization. *Pacific Journal of Mathematics*, 5(??):33–50, 1955. CODEN PJMAAI. ISSN 0030-8730 (print), 1945-5844 (electronic).

Eckert:1955:FFS

[120] W. J. (Wallace John) Eckert and Rebecca Bradley Jones. *Faster, faster; a simple description of a giant electronic calculator and the problems it solves*. IBM Corporation, San Jose, CA, USA, 1955. 160 pp. LCCN QA76 .E25.

Hastings:1955:ADC

[121] Cecil B. Hastings, Jr., Jeanne T. Hayward, and James P. Wong, Jr. *Approximations for Digital Computers*. Princeton University Press, Princeton, NJ, USA, 1955. viii + 201 pp. LCCN QA76 .H33.

Lenaerts:1955:ASR

[122] E. H. Lenaerts. Automatic square rooting. *Electronic Engineering*, 27 (??):287–289, July 1955. CODEN ELEGAP. ISSN 0013-4902.

Parsons:1955:SDC

[123] Frances L. Parsons. A simple desk-calculator method for checking binary results of digital computer arithmetic operations. *Journal of the Association for Computing Machinery*, 2(3):205–207, July 1955. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Richards:1955:AOD

[124] Richard Kohler Richards. *Arithmetic Operations in Digital Computers*. D. Van Nostrand, New York, NY, USA, 1955. iv + 397 pp. LCCN QA75 .R5 1955.

Robertson:1955:TCM

[125] J. E. Robertson. Two's complement multiplication in binary parallel digital computers. *IRE Transactions on Electronic Computers*, EC-4(3):118–119, September 1955. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5407911`.

Stiefel:1955:RID

[126] Eduard Stiefel. *Rechenautomaten im Dienste der Technik. Erfahrungen mit dem Zuse-Rechenautomaten Z4. (German) [Calculating machines in the service of technology. Experience with the Zuse-calculator Z4]*, volume 45 of *Arbeitsgemeinschaft für Forschung des Landes Nordrhein-Westfalen. Heft*. Westdeutscher Verlag, Cologne and Opladen, West Germany, 1955. 29–45; Diskussion 47–65 pp.

Estrin:1956:NHS

[127] G. Estrin, B. Gilchrist, and J. H. Pomerene. A note on high-speed digital multiplication. *IRE Transactions on Electronic Computers*, EC-5(3):140, September 1956. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219936`.

Hildebrand:1956:INA

[128] Francis Begnaud Hildebrand. *Introduction to Numerical Analysis*. International series in pure and applied mathematics. McGraw-Hill, New York, NY, USA, 1956. 511 pp. LCCN QA300 .H5.

Lazarus:1956:MI

[129] R. B. Lazarus, N. Metropolis, W. Orvedahl, J. H. Richardson, W. Spack, Jr., R. L. Bivins, J. V. Caulfield, I. Kral, A. F. Malmberg, G. T. McKinley, and R. E. Williamson. MANIAC II. Report LA-2083, Los Alamos Scientific Laboratory, Los Alamos, NM, USA, October 1, 1956. 54 pp. URL `https://sgp.fas.org/othergov/doe/lanl/lib-www/la-pubs/00320765.pdf`.

Lilamand:1956:TDM

[130] M. Lejet Lilamand. A time-division multiplier. *IRE Transactions on Electronic Computers*, EC-5(1):26–34, March 1956. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219789`.

Perkins:1956:EPC

[131] Robert Perkins. EASIAC, a pseudo-computer. *Journal of the Association for Computing Machinery*, 3(2):65–72, April 1956. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Robertson:1956:NCD

[132] J. E. Robertson. A new class of digital division methods. *IRE Transactions on Electronic Computers*, EC-5(??):65–73, June 1956. CODEN IRELAO. ISSN 0367-9950.

Stegun:1956:PC

[133] Irene A. Stegun and Milton Abramowitz. Pitfalls in computation. *Journal of the Society for Industrial and Applied Mathematics*, 4:207–219, 1956.

Sydnor:1956:AMS

[134] R. L. Sydnor, T. R. O'Meara, and J. Strathman. Analog multipliers and squarers using a multigrid modulator. *IRE Transactions on Electronic*

Computers, EC-5(2):82–85, June 1956. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219804`.

Weinberger:1956:OMA

[135] A. Weinberger and J. L. Smith. A one-microsecond adder using one-megacycle circuitry. *IRE Transactions on Electronic Computers*, EC-5 (??):65–73, June 1956. CODEN IRELAO. ISSN 0367-9950.

Wolontis:1956:CFD

[136] V. M. Wolontis. A complete floating-decimal interpretive system for the IBM 650 Magnetic Drum Calculator. *IBM Technical Newsletter*, ??(11): xxi + 63, March 1956. URL `https://babel.hathitrust.org/cgi/pt?id=coo.31924003945759&seq=7`.

Alt:1957:EDC

[137] Franz L. Alt, editor. *Electronic Digital Computers: Their Use in Science and Engineering*. Academic Press, New York, NY, USA, 1957. x + 335 pp.

Ercoli:1957:EDO

[138] Paolo Ercoli and Roberto Vacca. Errors due to overflow in arithmetic operations particularly as regards FINAC electronic computer. *Journal of the Association for Computing Machinery*, 4(4):450–455, October 1957. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic). See letter [202].

Gini:1957:SFD

[139] Corrado Gini. Sulla frequenza delle cifre iniziali dei numeri osservati. (Italian) [On the frequency of initial digits of observed numbers]. *Bull. Inst. Internat. Stat.*, 35(??):57–76, 1957. 29th session, 2nd delivery, Rio de Janerio.

Herzel:1957:SDD

[140] Amato Herzel. Sulla distribuzione della cifre iniziali dei numeri statistici. (Italian) [On the frequency of initial digits of statistical numbers]. *Atti dell XV e XVII Riunione, Societa Italiana di Statistica*, ??(??):??, 1957.

Howe:1957:TRA

[141] R. M. Howe and E. G. Gilbert. Trigonometric resolution in analog computers by means of multiplier elements. *IRE Transactions on Electronic Computers*, EC-6(2):86–92, June 1957. CODEN IRELAO.

ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5221576.

Kalbfell:1957:EAM

[142] David C. Kalbfell. An electronic analog multiplier. *IRE Transactions on Electronic Computers*, EC-6(2):100–103, June 1957. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5221579.

Kogbetliantz:1957:CEN

[143] E. G. Kogbetliantz. Computation of e^n for $-\infty < n < +\infty$ using an electronic computer. *IBM Journal of Research and Development*, 1(2):110–115, April 1957. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Lehman:1957:HSD

[144] M. Lehman. High-speed digital multiplication. *IRE Transactions on Electronic Computers*, EC-6(3):204–205, September 1957. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5222025.

Luke:1957:CLZ

[145] Y. L. Luke. On the computation of $\log Z$ and $\arctan Z$. *Mathematical Tables and Other Aids to Computation*, 11(??):16–18, ???? 1957. CODEN MTTCAS. ISSN 0891-6837.

Metze:1957:SPO

[146] G. Metze. A study of parallel one's complement arithmetic units with separate carry or borrow storage. Report 81, Digital Computer Laboratory, University of Illinois, Urbana, IL, USA, 1957. 77 pp.

Murphy:1957:PIA

[147] R. W. Murphy. A positive-integer arithmetic for data processing. *IBM Journal of Research and Development*, 1(2):158–170, April 1957. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/012/ibmrd0102G.pdf; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5392735.

Pawlak:1957:UEN

[148] Z. Pawlak. Use of expansions with a negative basis in the arithmometer of a digital computer. *Bull. Acad. Pol. Sci., Ser. Sci. Tech.*, 5(??):232–236, ???? 1957.

Taylor:1957:CCA

[149] W. Bruce Taylor. COIN (compile-interpreter): an automatic programming, fixed and floating-point library of subroutines for the ERA 1103 computer. Technical report, Operations Research Office, Johns Hopkins University, Bethesda, MD, USA, 1957. 43 pp.

Wadel:1957:NBN

[150] L. B. Wadel. Negative base number systems. *IRE Transactions on Electronic Computers*, EC-6(??):123–??, June 1957. CODEN IRELAO. ISSN 0367-9950.

Walker:1957:EMA

[151] R. M. Walker, D. E. Rosenheim, P. A. Lewis, and A. G. Anderson. An experimental 50-megacycle arithmetic unit. *IBM Journal of Research and Development*, 1(3):257–278, July 1957. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/013/ibmrd0103H.pdf; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5392687.

Weibel:1957:EAM

[152] Erich S. Weibel. An electronic analog multiplier using carriers. *IRE Transactions on Electronic Computers*, EC-6(1):30–34, March 1957. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5221558.

Wilkes:1957:PPE

[153] Maurice V. Wilkes, David J. Wheeler, and Stanley Gill. *The Preparation of Programs for an Electronic Digital Computer*. Addison-Wesley, Reading, MA, USA, second edition, 1957. xiv + 238 pp. LCCN QA76.5 .W52 1957. URL https://b-ok.org/book/3668116/b363ff. See also first edition [98].

Anonymous:1958:ARM

[154] Anonymous. Analysis and research memorandum 294. AR Memo 294 (AD 207929), Massachusetts Institute of Technology, Naval Supersonic Laboratory, Cambridge, MA, USA, October 23, 1958. 7 pp.

Bemer:1958:MMS

[155] Robert W. Bemer. A machine method for square-root computation. *Communications of the Association for Computing Machinery*, 1(1):6–7, January 1958. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Bemer:1958:SMC

[156] R. W. Bemer. A subroutine method for calculating logarithms. *Communications of the Association for Computing Machinery*, 1(5):5–7, May 1958. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Couleur:1958:BBD

[157] J. F. Couleur. BIDEC — a binary-to-decimal or decimal-to-binary converter. *IRE Transactions on Electronic Computers*, EC-7:313–316, 1958. CODEN IRELAO. ISSN 0367-9950.

Delury:1958:CAN

[158] Daniel B. Delury. Computation with approximate numbers. *The Mathematics Teacher*, 51:521–530, November 1958. ISSN 0025-5769 (print), 2330-0582 (electronic).

Ershov:1958:PAO

[159] Andrei P. Ershov. On programming of arithmetic operations. *Communications of the Association for Computing Machinery*, 1(8):3–6, August 1958. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Gill:1958:BFH

[160] S. Gill. A binary form of Horner's method. *The Computer Journal*, 1(2): 84–86, July 1958. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/1/2/84.full.pdf+html; http://www3.oup.co.uk/computer_journal/hdb/Volume_01/Issue_02/010084.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_01/Issue_02/tiff/84.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_01/Issue_02/tiff/85.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_01/Issue_02/tiff/86.tif.

Gower:1958:NIM

[161] J. C. Gower. A note on an iterative method for root extraction. *The Computer Journal*, 1:142–143, 1958. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic).

Hammer:1958:PST

[162] Franz Hammer. Nicht Pascal sondern der Tübinger Professor Wilhelm Schickard erfand die Rechenmaschine!. (German) [Not Pascal, but the Tübingen professor William Schickard, invented the calculator!]. *Büromarkt*, 20(??):1023–1025, ???? 1958. ISSN 0007-3148.

Kogbetliantz:1958:CANa

[163] E. G. Kogbetliantz. Computation of arctan N for $-\infty < N < +\infty$ using an electronic computer. *IBM Journal of Research and Development*, 2 (1):43–53, January 1958. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Kogbetliantz:1958:CANb

[164] E. G. Kogbetliantz. Computation of arcsin N for $0 < N < 1$ using an electronic computer. *IBM Journal of Research and Development*, 2(3): 218–222, July 1958. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Metropolis:1958:SDC

[165] N. Metropolis and R. L. Ashenhurst. Significant digit computer arithmetic. *IRE Transactions on Electronic Computers*, EC-7(4):265–267, December 1958. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5222657`.

Robertson:1958:NCDa

[166] J. E. Robertson. A new class of digital division methods. *IRE Transactions on Electronic Computers*, EC-7(3):88–92, September 1958. CODEN IRELAO. ISSN 0367-9950.

Robertson:1958:NCDb

[167] James E. Robertson. A new class of digital division methods. *IRE Transactions on Electronic Computers*, EC-7(3):218–222, September 1958. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5222579`.

Schmid:1958:TFQ

[168] Hermann Schmid. A transistorized four-quadrant time-division multiplier with an accuracy of 0.1 per cent. *IRE Transactions on Electronic Computers*, EC-7(1):41–47, March 1958. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5222094`.

Sisson:1958:IDR

[169] Roger L. Sisson. An improved decimal redundancy check. *Communications of the Association for Computing Machinery*, 1(5):10–12, May 1958. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Tocher:1958:TMD

[170] K. D. Tocher. Techniques of multiplication and division for automatic binary computers. *Quarterly Journal of Mechanics and Applied Mathematics*, 11(3):364–384, ???? 1958. CODEN QJMMAV. ISSN 0033-5614 (print), 1464-3855 (electronic).

Wadey:1958:TSR

[171] W. G. Wadey. Two square-root approximations. *Communications of the Association for Computing Machinery*, 1(11):13–14, November 1958. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ashenhurst:1959:UFP

[172] Robert L. Ashenhurst and Nicholas Metropolis. Unnormalized floating point arithmetic. *Journal of the Association for Computing Machinery*, 6(3):415–428, July 1959. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Buchholz:1959:FFC

[173] Wilfried Buchholz. Fingers or fists? (the choice of decimal or binary representation). *Communications of the Association for Computing Machinery*, 2(12):3–11, ???? 1959. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Carr:1959:EAF

[174] John W. Carr III. Error analysis in floating point arithmetic. *Communications of the Association for Computing Machinery*, 2(5):10–15, May 1959. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Carr:1959:PC

[175] John W. Carr III. Programming and coding. In Eugene M. Grabbe, Simon Ramo, and Dean E. Wooldridge, editors, *Handbook of Automation, Computation, and Control*. Wiley, New York, NY, USA, 1959. LCCN TJ213 .G72. Chapter 2.

Daggett:1959:DBC

[176] D. H. Daggett. Decimal–binary conversions in CORDIC. *IRE Transactions on Electronic Computers*, EC-8(5):335–339, September 1959. CODEN IRELAO. ISSN 0367-9950.

Ercoli:1959:BAD

[177] Paolo Ercoli and Roberto Vacca. Binary arithmetic for discretely variable word length in a serial computer. *Communications of the Association for*

Computing Machinery, 2(4):13–15, April 1959. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Forsythe:1959:RNR

[178] George E. Forsythe. Reprint of a note on rounding-off errors. *SIAM Review*, 1(1):66–67, January 1959. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Garner:1959:RMS

[179] Harvey L. Garner. A ring model for the study of multiplication for complement codes. *IRE Transactions on Electronic Computers*, EC-8(1): 25–30, March 1959. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5222757`.

Garner:1959:RNS

[180] Harvey L. Garner. The residue number system. *IRE Transactions on Electronic Computers*, EC-8(2):140–147, June 1959. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219515`.

Gray:1959:NFP

[181] H. L. Gray and C. Harrison. Normalized floating-point arithmetic with an index of significance. In *Proceedings of the Eastern Joint Computer Conference, Boston, MA, December 1–3, 1959*, volume 16, pages 244–248. AFIPS Press, Montvale, NJ, USA, 1959. LCCN TK7885.A1 J6.

Henrici:1959:TES

[182] Peter Henrici. Theoretical and experimental studies on the accumulation of error in the numerical solution of initial value problems for systems of ordinary differential equations. In ????, editor, *Proceedings of the International Conference on Information Processing, UNESCO*, pages 36–43. ????, ????, 1959. LCCN ????

Kogbetliantz:1959:CSC

[183] E. G. Kogbetliantz. Computation of $\sin N$, $\cos N$, and M th root of N using an electronic computer. *IBM Journal of Research and Development*, 3(2):147–152, April 1959. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Lucal:1959:AOD

[184] Harold M. Lucal. Arithmetic operations for digital computers using a modified reflected binary code. *IRE Transactions on Electronic*

Computers, EC-8(4):449–458, December 1959. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5222057.

Muller:1959:CMG

[185] Mervin E. Muller. A comparison of methods for generating normal deviates on digital computers. *Journal of the Association for Computing Machinery*, 6(3):376–383, July 1959. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Pawlak:1959:EDC

[186] Z. Pawlak. An electronic digital computer based on the '-2' system. *Bull. Acad. Pol. Sci., Ser. Sci. Tech.*, 7(??):713–722, ???? 1959.

Pfeiffer:1959:FQM

[187] Paul E. Pfeiffer. A four-quadrant multiplier using triangular waves, diodes, resistors, and operational amplifiers. *IRE Transactions on Electronic Computers*, EC-8(2):222–227, June 1959. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219526.

Rothstein:1959:RBN

[188] Jerome Rothstein. Residues of binary numbers modulo three. *IRE Transactions on Electronic Computers*, EC-8(2):229, June 1959. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219529.

Sarafyan:1959:NMC

[189] Diran Sarafyan. A new method of computation of square roots without using division. *Communications of the Association for Computing Machinery*, 2(11):23–24, November 1959. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See comments [217].

Sheridan:1959:ATC

[190] Peter B. Sheridan. The arithmetic translator compiler of the IBM FORTRAN Automatic Coding System. *Communications of the Association for Computing Machinery*, 2(2):9–21, February 1959. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Strachey:1959:TSR

[191] C. Strachey. On taking the square root of a complex number. *The Computer Journal*, 2(2):89, July 1959. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067

(electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_02/Issue_02/020089.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_02/Issue_02/tiff/89.tif.

Taranto:1959:BCF

[192] Donald Taranto. Binary conversion, with fixed decimal precision, of a decimal fraction. *Communications of the Association for Computing Machinery*, 2(7):27, July 1959. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Volder:1959:CTC

[193] Jack E. Volder. The CORDIC trigonometric computing technique. *IRE Transactions on Electronic Computers*, EC-8(5):330–334, September 1959. CODEN IRELAO. ISSN 0367-9950.

Wensley:1959:CNA

[194] J. H. Wensley. A class of non-analytical iterative processes. *The Computer Journal*, 1(4):163–167, January 1959. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/1/4/163.full.pdf+html; http://www3.oup.co.uk/computer_journal/hdb/Volume_01/Issue_04/010163.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_01/Issue_04/tiff/163.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_01/Issue_04/tiff/164.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_01/Issue_04/tiff/165.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_01/Issue_04/tiff/166.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_01/Issue_04/tiff/167.tif.

Wilkinson:1959:EZIa

[195] J. H. Wilkinson. The evaluation of the zeros of ill-conditioned polynomials. I. *Numerische Mathematik*, 1:150–166, December 1959. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Wilkinson:1959:EZIb

[196] J. H. Wilkinson. The evaluation of the zeros of ill-conditioned polynomials. II. *Numerische Mathematik*, 1:167–180, December 1959. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Young:1959:SSM

[197] John Mackay Young. A study of some methods of numerical integration using floating point arithmetic. Thesis (M.S. in Mathematics), Texas A.&M. College, College Station, TX, USA, 1959. 50 pp.

Bockstaele:1960:NFA

[198] P. Bockstaele. Notes on the first arithmetics printed in Dutch and English. *Isis*, 51(3):315–321, September 1960. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL `http://www.jstor.org/stable/226510`.

Brown:1960:EDC

[199] David T. Brown. Error detecting and correcting binary codes for arithmetic operations. *IRE Transactions on Electronic Computers*, EC-9(3):333–337, September 1960. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219855`.

Cohen:1960:EAF

[200] Eckford Cohen. The elementary arithmetical functions. *Scripta Mathematica*, 25(??):221–228, ???? 1960. ISSN 0036-9713.

Croy:1960:IAD

[201] John E. Croy. Improved arrangement of a decimal multiplier. *IRE Transactions on Electronic Computers*, EC-9(2):263, June 1960. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219830`.

Ercoli:1960:LEE

[202] Paolo Ercoli. Letter to the Editor: Errors due to overflow in arithmetic operations. *Communications of the Association for Computing Machinery*, 3(12):A9, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [138].

Gurzi:1960:HSM

[203] Fred Gurzi. A high-speed multiplication process for digital computers. *Communications of the Association for Computing Machinery*, 3(4):241–245, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Jensen:1960:CIF

[204] B. A. Jensen. Coding instructions for floating point trigonometric, inverse trigonometric hyperbolic and exponential functions. Group report 30G-0009, Massachusetts Institute of Technology, Lincoln Laboratory, Lexington, MA, USA, 1960. 7 pp.

Kanner:1960:NUA

[205] Herbert Kanner. A note on the use of the abacus in number conversion. *Communications of the Association for Computing Machinery*, 3(3):167, March 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Knuth:1960:INS

[206] Donald E. Knuth. An imaginary number system. *Communications of the Association for Computing Machinery*, 3(4):245–247, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Errata, *Communications of the ACM* **4** (August 1961), 355 [234]. See [239] for extension to division and square root.

Lowan:1960:PREa

[207] Arnold N. Lowan. On the propagation of round-off errors in the numerical integration of the heat equation. *Mathematics of Computation*, 14(70): 139–146, April 1960. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Lowan:1960:PREb

[208] Arnold N. Lowan. On the propagation of round-off errors in the numerical treatment of the wave equation. *Mathematics of Computation*, 14(71): 223–228, July 1960. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Pawlak:1960:ODC

[209] Z. Pawlak. The organization of a digital computer based on the '-2' system. *Bull. Acad. Pol. Sci., Ser. Tech. Sci.*, 8(??):253–258, ???? 1960.

Perlin:1960:HPC

[210] I. E. Perlin and J. R. Garrett. High precision calculation of Arcsin$x$, Arccos$x$, and Arctan$x$ (in Technical Notes and Short Papers). *Mathematics of Computation*, 14(71):270–274, July 1960. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Perry:1960:CBF

[211] C. Perry. Conversion between floating point representations. *Communications of the Association for Computing Machinery*, 3, 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Pope:1960:MPA

[212] D. A. Pope and M. L. Stein. Multiple precision arithmetic. *Communications of the Association for Computing Machinery*, 3(12): 652–654, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Reitwiesner:1960:BA

[213] G. W. Reitwiesner. Binary arithmetic. In Alt et al. [7663], pages 231–308. ISSN 0065-2458. LCCN QA76 .A3.

Sarafyan:1960:DCS

[214] Diran Sarafyan. Divisionless computation of square roots through continued squaring. *Communications of the Association for Computing Machinery*, 3(5):319–321, May 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Silver:1960:LER

[215] Roland Silver. Letter to the Editor: Rounding in floating-point arithmetic. *Communications of the Association for Computing Machinery*, 3(12):A9, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Sklansky:1960:CSA

[216] J. Sklansky. Conditional sum addition logic. *Transactions of the IRE*, EC-9(2):226–230, June 1960.

Traub:1960:CNM

[217] J. F. Traub. Comments on a recent paper ["A New Method of Computation of Square Roots Without Using Division"]. *Communications of the Association for Computing Machinery*, 3(2):86, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [189].

Wadey:1960:FA

[218] W. G. Wadey. Floating-point arithmetics. *Journal of the Association for Computing Machinery*, 7(2):129–139, April 1960. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Wilkinson:1960:EAF

[219] J. H. Wilkinson. Error analysis of floating-point computation. *Numerische Mathematik*, 2:319–340, December 1960. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Amble:1961:AFP

[220] O. Amble and Jan V. Garwick. On the accuracy of floating point computers [BIT **1**(2), 1961, pp. 87–88]. *Nordisk tidskrift for informationsbehandling*, 1(3):220–222, September 1961. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=1&issue=3&spage=220. See [230, 231].

Anonymous:1961:MCM

[221] Anonymous. Modern computing methods. Notes on Applied Science 16, National Physical Laboratory, Her Majesty's Stationery Office, London, 1961.

Avizienis:1961:SDN

[222] Algirdas Avižienis. Signed-digit number representations for fast parallel arithmetic. *IRE Transactions on Electronic Computers*, EC-10(3):389–400, September 1961. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219227.

Cheney:1961:DCB

[223] Philip Warren Cheney. A digital correlator based on the residue number system. *IRE Transactions on Electronic Computers*, EC-10(1):63–70, March 1961. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219154.

Cheney:1961:TNA

[224] E. W. Cheney and H. L. Loeb. Two new algorithms for rational approximation. *Numerische Mathematik*, 3(1):72–75, December 1961. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Clarkson:1961:DMI

[225] W. K. Clarkson. A divisionless method of integer conversion. *Communications of the Association for Computing Machinery*, 4(7):315–316, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cox:1961:NMP

[226] Albert G. Cox and H. A. Luther. A note on multiple precision arithmetic. *Communications of the Association for Computing Machinery*, 4(8):353, August 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Croy:1961:RTM

[227] John E. Croy. Rapid technique of manual or machine binary-to-decimal integer conversion using decimal radix arithmetic. *IRE Transactions on Electronic Computers*, EC-10(4):777, December 1961. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219286.

Freiman:1961:SAC

[228] C. V. Freiman. Statistical analysis of certain binary division algorithms. *IRE Proceedings*, 49(1):91–103, January 1961. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4066250.

Garner:1961:RNS

[229] H. L. Garner, R. F. Arnold, B. C. Benson, C. G. Brockus, R. J. Gonzalez, and D. P. Rozenberg. Residue number systems for computers. ASD Technical Report 61-483, Electronic Technology Laboratory, The University of Michigan, Ann Arbor, MI, USA, October 1961. URL http://deepblue.lib.umich.edu/bitstream/2027.42/5023/4/bac2784.0001.001.txt.

Garwick:1961:AFP

[230] Jan V. Garwick. The accuracy of floating point computers. *Nordisk tidskrift for informationsbehandling*, 1(2):87–88, June 1961. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=1&issue=2&spage=87. See also comment and reply [220, 231].

Garwick:1961:RAF

[231] J. V. Garwick. Reply to "On the Accuracy of Floating Point Computers" [BIT **1**(3), 1961, pp. 220–221]. *Nordisk tidskrift for informationsbehandling*, 1(3):222, 1961. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). See [230, 220].

Henderson:1961:RCE

[232] D. S. Henderson. Residue class error checking codes. In *Proceedings of the 1961 16th ACM national meeting*, pages 132.101–132.104. ACM Press, New York, NY 10036, USA, 1961.

Kettel:1961:AAM

[233] E. Kettel and W. Schneider. An accurate analog multiplier and divider. *IRE Transactions on Electronic Computers*, EC-10(2):269–272, June

1961. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219198.

Knuth:1961:EIN

[234] Donald E. Knuth. Errata: “An imaginary number system”. *Communications of the Association for Computing Machinery*, 4(8):355, August 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [206].

Kovatch:1961:HEA

[235] G. Kovatch and W. E. Meserve. The Hall-Effect analog multiplier. *IRE Transactions on Electronic Computers*, EC-10(3):512–515, September 1961. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219240.

Lehman:1961:STH

[236] M. Lehman and N. Burla. Skip techniques for high-speed carry-propagation in binary arithmetic units. *IRE Transactions on Electronic Computers*, EC-10(4):691–698, December 1961. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219274.

MacSorley:1961:HSA

[237] O. L. MacSorley. High-speed arithmetic in binary computers. *IRE Proceedings*, 49(1):67–91, January 1961. URL https://ieeexplore.ieee.org/document/4066249. Reprinted in [7703].

Morrison:1961:CBP

[238] Philip Morrison and Emily Morrison, editors. *Charles Babbage on the principles and development of the calculator: and other seminal writings*. Dover, New York, NY, USA, 1961. ISBN 0-486-24691-4 (paperback). xxxviii + 400 pp. LCCN QA75 .C52 1961. US$7.95.

Nadler:1961:DSR

[239] Morton Nadler. Division and square root in the quater-imaginary number system. *Communications of the Association for Computing Machinery*, 4(4):192–193, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [206].

Pinkham:1961:DFS

[240] Roger S. Pinkham. On the distribution of first significant digits. *Annals of Mathematical Statistics*, 32(4):1223–1230, December

1961. CODEN AASTAD. ISSN 0003-4851 (print), 2168-8990 (electronic). URL http://links.jstor.org/sici?sici=0003-4851%28196112%2932%3A4%3C1223%3AOTDOFS%3E2.0.CO%3B2-T.

Rabinowitz:1961:MPD

[241] Philip Rabinowitz. Multiple-precision division. *Communications of the Association for Computing Machinery*, 4(2):98, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Saltman:1961:RCT

[242] Roy G. Saltman. Reducing computing time for synchronous binary division. *IRE Transactions on Electronic Computers*, EC-10(2):169–174, June 1961. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219186.

Spielberg:1961:ECF

[243] Kurt Spielberg. Efficient continued fraction approximations to elementary functions. *Mathematics of Computation*, 15(76):409–417, October 1961. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Spielberg:1961:RPS

[244] K. Spielberg. Representation of power series in terms of polynomials, rational approximations and continued fractions. *Journal of the Association for Computing Machinery*, 8(4):613–627, October 1961. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Thacher:1961:ISR

[245] Henry C. Thacher, Jr. Iterated square root expansions for the inverse cosine and inverse hyperbolic cosine. *Mathematics of Computation*, 15(76):399–403, October 1961. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Weik:1961:TSD

[246] Martin H. Weik. A third survey of domestic electronic digital computing systems. Report 1115, Ballistic Research Laboratories, Aberdeen Proving Ground, MD, USA, March 1961. 1131 pp.

Wilson:1961:ARB

[247] J. B. Wilson and R. S. Ledley. An algorithm for rapid binary division. *IRE Transactions on Electronic Computers*, EC-10(4):662–670, December 1961. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219271.

Ashenhurst:1962:MIA

[248] R. L. Ashenhurst. The Maniac III arithmetic system. In AFIPS [7667], pages 192–202. LCCN ????

Buchholz:1962:PCS

[249] Werner Buchholz, editor. *Planning a Computer System: Project Stretch*. McGraw-Hill, New York, NY, USA, 1962. xvii + 322 pp. LCCN 1876. URL http://ed-thelen.org/comp-hist/IBM-7030-Planning-McJones.pdf. This important book is the primary description of the influential IBM 7030 Stretch computer, written by its architects. See also a detailed critical review [275].

Campbell:1962:FPO

[250] S. G. Campbell. Floating-point operation. In Werner Buchholz, editor, *Planning a Computer System: Project Stretch*, pages 92–121. McGraw-Hill, New York, NY, USA, 1962. LCCN QA76.8.I2 I5.

Cantor:1962:LEF

[251] D. Cantor, G. Estrin, and R. Turn. Logarithmic and exponential function evaluation in a variable structure digital computer. *IRE Transactions on Electronic Computers*, EC-11(2):155–164, April 1962. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219348.

Descloux:1962:REF

[252] J. Descloux. Remarks on errors in first order iterative processes with floating-point computers. Technical report, University of Illinois Graduate College, Digital Computer Laboratory, Urbana, IL, USA, 1962. 7 pp.

Fischler:1962:TRA

[253] M. A. Fischler and E. A. Poe. Threshold realization of arithmetic circuits. *IRE Transactions on Electronic Computers*, EC-11(2):287–288, April 1962. CODEN IRELAO. ISSN 0367-9950. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219366.

Fraser:1962:CRA

[254] W. Fraser and J. F. Hart. On the computation of rational approximations to continuous functions. *Communications of the Association for Computing Machinery*, 5(7):401–403, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Grau:1962:FNR

[255] A. A. Grau. On a floating-point number representation for use with algorithmic languages. *Communications of the Association for Computing Machinery*, 5(3):160–161, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Guffin:1962:CSL

[256] Ronald M. Guffin. A computer for solving linear simultaneous equations using the residue number system. *IRE Transactions on Electronic Computers*, EC-11(2):164–173, April 1962. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219349`.

Hamming:1962:NMS

[257] R. W. (Richard Wesley) Hamming. *Numerical methods for scientists and engineers*. International series in pure and applied mathematics. McGraw-Hill, New York, NY, USA, 1962. 411 pp. LCCN QA297 .H28.

Jones:1962:FPF

[258] F. B. Jones and A. W. Wymore. Floating point feature on the IBM Type 1620. *IBM Technical Disclosure Bulletin*, 05-62:43–46, May 1962. CODEN IBMTAA. ISSN 0018-8689.

Karatsuba:1962:MMN

[259] A. Karatsuba and Y. Ofman. Multiplication of multidigit numbers on automata. *Doklady Akademii nauk SSSR*, 145(??):293–294, ???? 1962. CODEN DANKAS. ISSN 0002-3264.

Keir:1962:DOD

[260] Y. A. Keir, P. W. Cheney, and M. Tannenbaum. Division and overflow detection in residue number systems. *IRE Transactions on Electronic Computers*, EC-11(4):501–507, August 1962. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219389`.

Kesner:1962:FPA

[261] O. Kesner. Floating-point arithmetic in COBOL. *Communications of the Association for Computing Machinery*, 5(5):269–271, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Knuth:1962:EPC

[262] Donald E. Knuth. Evaluation of polynomials by computer. *Communications of the Association for Computing Machinery*, 5(12):

595–599, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See letter [288].

Lake:1962:LEH

[263] G. T. Lake. Letter to the editor: Hardware conversion of decimal and binary numbers. *Communications of the Association for Computing Machinery*, 5(9):468–469, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Lynch:1962:WBD

[264] W. C. Lynch. On a wired-in binary-to-decimal conversion scheme. *Communications of the Association for Computing Machinery*, 5(3):159, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

MacSorley:1962:RBA

[265] O. L. MacSorley. Review: *An Algorithm for Rapid Binary Division*, by J. B. Wilson and R. S. Ledley. *IRE Transactions on Electronic Computers*, EC-11(3):420, June 1962. CODEN IRELAO. ISSN 0367-9950.

McGee:1962:BM

[266] W. C. McGee. A binary multiplication. *SIAM Review*, 4(3):256, ???? 1962. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Meggitt:1962:PDP

[267] J. E. Meggitt. Pseudo division and pseudo multiplication processes. *IBM Journal of Research and Development*, 6(2):210–226, April 1962. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5392356`.

Metze:1962:CBD

[268] Gernot Metze. A class of binary divisions yielding minimally represented quotients. *IRE Transactions on Electronic Computers*, EC-11(6):761–764, December 1962. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219460`.

Mitchell:1962:CMD

[269] John N. Mitchell. Computer multiplication and division using binary logarithms. *IRE Transactions on Electronic Computers*, EC-11(4):512–517, August 1962. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219391`.

Rozier:1962:DBC

[270] Charles P. Rozier. Decimal-to-binary conversion using octal radix arithmetic. *IRE Transactions on Electronic Computers*, EC-11(5):708–709, October 1962. CODEN IRELAO. ISSN 0367-9950. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5219436`.

Shanks:1962:CD

[271] Daniel Shanks and John W. Wrench, Jr. Calculation of π to 100,000 decimals. *Mathematics of Computation*, 16(77):76–99, January 1962. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Sierra:1962:FDP

[272] Huberto M. Sierra. Floating decimal point arithmetic control means for calculator. US Patent 3,037,701, June 5, 1962. URL `https://patents.google.com/patent/US3037701A`.

Smith:1962:ACDa

[273] Robert L. Smith. Algorithm 116: Complex division. *Communications of the Association for Computing Machinery*, 5(8):435, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Spielberg:1962:PCF

[274] Kurt Spielberg. Polynomial and continued-fraction approximations for logarithmic functions. *Mathematics of Computation*, 16(78):205–217, April 1962. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Strachey:1962:BRP

[275] Christopher Strachey. Book reviews: *Planning a Computer System: Project Stretch*. Edited by Werner Buchholz. 322 pp.(London: McGraw-Hill). *The Computer Journal*, 5(2):152–153, August 1962. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). See [249].

Wynn:1962:AAP

[276] P. Wynn. An arsenal of ALGOL procedures for complex arithmetic. *Nordisk tidskrift for informationsbehandling*, 2(4):232–255, December 1962. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=2&issue=4&spage=232`.

Zuse:1962:ERE

[277] K. Zuse. Entwicklungslinien einer Rechengeräte-Entwicklung von der Mechanik zur Elektronik. (German) [lines of development of computing equipment development from mechanics to electronics]. In W. Hoffman, editor, *Digitale Informationswandler*, pages 508–532. Vieweg & Sohn, GmbH, Braunschweig, West Germany, 1962. Reprinted in [7729, §4.3]. Translated by Mr. and Mrs. P. Jones.

Bemer:1963:NRT

[278] R. W. Bemer. A note on range transformations for square root and logarithm. *Communications of the Association for Computing Machinery*, 6(6):306–307, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Clenshaw:1963:ASF

[279] C. W. Clenshaw, G. F. Miller, and M. Woodger. Algorithms for special functions I. *Numerische Mathematik*, 4:403–419, 1963. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Daly:1963:HSA

[280] W. G. Daly and J. F. Kruy. A high-speed arithmetic unit using tunnel diodes. *IEEE Transactions on Electronic Computers*, EC-12(5):503–511, October 1963. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4037964`.

Descloux:1963:NRE

[281] J. Descloux. Note on the round-off errors in iterative processes. *Mathematics of Computation*, 17(81):18–27, January 1963. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Dietmeyer:1963:CPN

[282] Donald L. Dietmeyer. Conversion from positive to negative and imaginary radix. *IEEE Transactions on Electronic Computers*, EC-12(1): 20–22, February 1963. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4037765`.

Eisman:1963:PER

[283] S. H. Eisman. Polynomial evaluation revisited. *Communications of the Association for Computing Machinery*, 6(7):384–385, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Eve:1963:SAI

[284] J. Eve. Starting approximations for the iterative calculation of square roots. *The Computer Journal*, 6(3):274–276, November 1963. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic).

Flores:1963:LCA

[285] I. Flores. *The Logic of Computer Arithmetic*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1963. xii + 493 pp. LCCN QA76.5 .F46.

Geier:1963:ACD

[286] A. Geier and I. Sturz. The approximate calculation of a definite integral with automatic choice of integration steps (intervals). the program for the computer MECIPTI in a floating point regime. (Romanian). *An. Univ. Timişoara Ser. Şti. Mat.-Fiz.*, 1:133–139, 1963.

Goldstein:1963:SAD

[287] Max Goldstein. Significance arithmetic on a digital computer. *Communications of the Association for Computing Machinery*, 6(3):111–117, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Knuth:1963:LEE

[288] Donald E. Knuth. Letter to the Editor: Evaluation of polynomials by computer. *Communications of the Association for Computing Machinery*, 6(2):51, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [262].

Krishnamurthy:1963:CMD

[289] E. V. Krishnamurthy. On computer multiplication and division using binary logarithms. *IEEE Transactions on Electronic Computers*, EC-12 (3):319–320, June 1963. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4037874`.

Lehman:1963:MAB

[290] M. Lehman. The minimization of assimilations in binary carry-storage arithmetic units. *IEEE Transactions on Electronic Computers*, EC-12(4): 409–410, August 1963. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4037921`.

Lehmer:1963:RDO

[291] D. H. Lehmer. R63–17 division and overflow detection in residue number systems. *IEEE Transactions on Electronic Computers*,

EC-12(1):36–37, February 1963. CODEN IEECA8. ISSN 0367-7508. URL http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=4037753; http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4037754; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4037786.

Lindamood:1963:MCO

[292] George E. Lindamood and George Shapiro. Magnitude comparison and overflow detection in modular arithmetic computers. *SIAM Review*, 5 (4):342–350, ???? 1963. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Metropolis:1963:BOU

[293] N. Metropolis and R. L. Ashenhurst. Basic operations in an unnormalized arithmetic system. *IEEE Transactions on Electronic Computers*, EC-12(6):896–904, December 1963. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038037.

Mood:1963:ITS

[294] Alexander McFarlane Mood and Franklin A. Graybill. *Introduction to the theory of statistics*. McGraw-Hill series in probability and statistics. McGraw-Hill, New York, NY, USA, second edition, 1963. 443 pp. LCCN HA29 .M75 1963.

Stern:1963:CSR

[295] T. E. Stern and R. M. Lerner. A circuit for the square root of the sum of the squares. *Proceedings of the IEEE*, 51(4):593–596, April 1963. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic).

Stroud:1963:MPF

[296] A. H. Stroud and D. Secrest. A multiple-precision floating-point interpretive program for the Control Data 1604. *The Computer Journal*, 6(1):62–66, April 1963. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_06/Issue_01/060062.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_06/Issue_01/tiff/62.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_06/Issue_01/tiff/63.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_06/Issue_01/tiff/64.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_06/Issue_01/tiff/65.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_06/Issue_01/tiff/66.tif.

Svoboda:1963:AD

[297] A. Svoboda. An algorithm for division. *Information processing machines*, 9(??):25–33, ???? 1963. CODEN IPRMDD. ISSN 0373-885X.

Wilkinson:1963:PSA

[298] J. H. Wilkinson. Plane rotations in floating-point arithmetic. In Metropolis et al. [7669], pages 185–198. LCCN QA297 .S987 1962.

Aiken:1964:PAC

[299] H. H. Aiken, A. G. Oettinger, and T. C. Bartee. Proposed automatic calculating machine. *IEEE Spectrum*, 1(8):62–69, August 1964. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic). Previously unpublished memorandum written by Aiken and dated by an unknown recipient as 4 November 1937. Reprinted in [7729, §5.1].

Anonymous:1964:PPF

[300] Anonymous. *PINT: Purdue floating point interpretive system: for the RPC 4000 General Precision electronic computer*. General Precision, Inc., West Lafayette, IN, USA, 1964. 45 pp.

Ashenhurst:1964:FEU

[301] R. L. Ashenhurst. Function evaluation in unnormalized arithmetic. *Journal of the Association for Computing Machinery*, 11(2):168–187, April 1964. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Baer:1964:MPA

[302] Robert M. Baer and Martin G. Redlich. Multiple-precision arithmetic and the exact calculation of the $3-j$, $6-j$ and $9-j$ symbols. *Communications of the Association for Computing Machinery*, 7(11): 657–659, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Bookhart:1964:SFP

[303] Thomas Woodward Bookhart. A study of floating point arithmetic. Thesis (M.S. in Math.), Georgia Institute of Technology, Atlanta, GA, USA, 1964. 51 pp.

Brooker:1964:PPS

[304] R. A. Brooker. A programming package for some general modes of arithmetic. *Communications of the Association for Computing*

Machinery, 7(2):119–127, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Burroughs:1964:BBI

[305] Burroughs Corporation. *Burroughs B5500 Information Processing Systems Reference Manual*. Burroughs Corporation, Detroit, MI, USA, 1964.

Cody:1964:DPS

[306] W. J. Cody, Jr. Double-precision square root for the CDC-3600. *Communications of the Association for Computing Machinery*, 7(12): 715–718, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cowgill:1964:LEB

[307] D. Cowgill. Logic equations for a built-in square root method. *IEEE Transactions on Electronic Computers*, EC-13(2):156–157, April 1964. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038119.

Eve:1964:EP

[308] J. Eve. The evaluation of polynomials. *Numerische Mathematik*, 6: 17–21, 1964. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Goldschmidt:1964:ADC

[309] Robert E. Goldschmidt. Applications of division by convergence. Thesis (M.S.), Department of Electrical Engineering, Massachusetts Institute of Technology, Cambridge, MA, USA, June 1964. 44 pp. URL https://dspace.mit.edu/handle/1721.1/11113.

Gram:1964:RZF

[310] Christian Gram. On the representation of zero in floating-point arithmetic. *Nordisk tidskrift for informationsbehandling*, 4(3):156–161, September 1964. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=4&issue=3&spage=156.

Gregory:1964:FAN

[311] Robert T. Gregory and James L. Raney. Floating-point arithmetic with 84-bit numbers. *Communications of the Association for Computing Machinery*, 7:10–13, 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Henrici:1964:ENA

[312] Peter Henrici. *Elements of numerical analysis.* Wiley, New York, NY, USA, 1964. xv + 328 pp. LCCN QA297 .H4.

Jacobsohn:1964:SFM

[313] D. Jacobsohn. A suggestion for a fast multiplier. *IEEE Transactions on Electronic Computers*, EC-13(6):754, December 1964. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038318.

Khinchin:1964:CF

[314] Aleksandr Iakovlevich Khinchin. *Continued fractions.* P. Noordhoff, Groningen, The Netherlands, 1964. 101 pp. LCCN QA295 .K513 1964a. URL http://www.loc.gov/catdir/description/dover032/97008056.html; http://www.loc.gov/catdir/toc/dover031/97008056.html. Translated by Peter Wynn.

Klokacev:1964:RNF

[315] I. V. Klokačev. A refinement of the normalized floating point number notation on digital computers. (Russian). *Ž. Vyčisl. Mat. i Mat. Fiz.*, 4: 192–194, 1964.

Kundu:1964:TMD

[316] P. Kundu and S. Banerji. Transistorized multiplier and divider and its applications. *IEEE Transactions on Electronic Computers*, EC-13(3): 288–295, June 1964. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038157.

Lamson:1964:DAD

[317] Roger C. Lamson. A division algorithm for a digital differential analyzer. *IEEE Transactions on Electronic Computers*, EC-13(1):54–55, February 1964. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038079.

Lynn:1964:REM

[318] M. Stuart Lynn. On the round-off error in the method of successive over-relaxation. *Mathematics of Computation*, 18(85):36–49, January 1964. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Maley:1964:MDC

[319] Gerald A. Maley and Edward J. Skiko. *Modern digital computers*. Prentice-Hall electrical engineering series. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1964. xiv + 216 pp. LCCN QA76.5 .M192.

McCracken:1964:NMF

[320] Daniel D. McCracken and William S. Dorn. *Numerical methods and FORTRAN programming, with applications in engineering and science*. Wiley, New York, NY, USA, 1964. xii + 457 pp.

Merrill:1964:IDC

[321] Roy D. Merrill. Improving digital computer performance using residue number theory. *IEEE Transactions on Electronic Computers*, EC-13(2):93–101, April 1964. CODEN IEECA8. ISSN 0367-7508. URL `http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=4037753; http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4038099; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038105`.

Miller:1964:ESD

[322] R. H. Miller. An example in "significant-digit" arithmetic. *Communications of the Association for Computing Machinery*, 7(1):21, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Moss:1964:RDC

[323] George Joseph Moss, Jr. Recording digital counter with floating point output format. Thesis (M.S.), University of Maryland, College Park, MD, USA, 1964. 155 pp.

Rice:1964:AFV

[324] John R. Rice. *The Approximation of Functions*, volume 1. Addison-Wesley, Reading, MA, USA, 1964. various pp. LCCN QA221 .R5 V.1-2.

Santos:1964:BVB

[325] J. Santos and H. Arango. Base 3 vs base 2 synchronous arithmetic units. *IEEE Transactions on Electronic Computers*, EC-13(5):608–609, October 1964. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038256`.

Stein:1964:DCM

[326] M. L. Stein. Divide-and-correct methods for multiple precision division. *Communications of the Association for Computing Machinery*, 7(8):472–

474, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Sweo:1964:SFP

[327] David Ernest Sweo. A study of floating point arithmetic with the residue number system. Thesis (M.S.), UCLA - Engineering, Los Angeles, CA, USA, 1964. 89 pp.

Wallace:1964:SFM

[328] C. S. Wallace. A suggestion for a fast multiplier. *IEEE Transactions on Electronic Computers*, EC-13(1):14–17, February 1964. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038071`.

Wolfe:1964:RTE

[329] Jack M. Wolfe. Reducing truncation errors by programming. *Communications of the Association for Computing Machinery*, 7(6):355–356, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ashenhurst:1965:EEC

[330] R. L. Ashenhurst and N. Metropolis. Error estimation in computer calculation. *American Mathematical Monthly*, 72(2 (Part 2)):47–58, 1965. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). Reprinted in Department of Economics, Graduate School of Business, University of Chicago, Center for Mathematical Studies in Business and Economics, number 45.

Ashenhurst:1965:EIU

[331] R. L. Ashenhurst. Experimental investigation of unnormalized arithmetic. In L. B. Rall, editor, *Error in digital computation*, pages 3–37. Wiley, New York, NY, USA, 1965.

Ashenhurst:1965:TAE

[332] R. L. Ashenhurst. Techniques for automatic error monitoring and control. In L. B. Rall, editor, *Error in digital computation*, pages 43–59. Wiley, New York, NY, USA, 1965.

Atrubin:1965:ODR

[333] A. J. Atrubin. A one-dimensional real-time iterative multiplier. *IEEE Transactions on Electronic Computers*, EC-14(3):394–399, June 1965. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038457`.

Blum:1965:EAP

[334] B. I. Blum. An extended arithmetic package. *Communications of the Association for Computing Machinery*, 8(5):318–320, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Combet:1965:CBT

[335] M. Combet, H. Van Zonneveld, and L. Verbeek. Computation of the base two logarithm of binary numbers. *IEEE Transactions on Electronic Computers*, EC-14(6):863–867, December 1965. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038605.

Dadda:1965:SSP

[336] Luigi Dadda. Some schemes for parallel multipliers. *Alta frequenza*, 34(??):349–356, March 1965. CODEN ALFRAJ. ISSN 0002-6557. URL http://en.wikipedia.org/wiki/Dadda_multiplier; http://en.wikipedia.org/wiki/luigi_dadda. Reprinted in [7820, pages 118–225].

Deiters:1965:ODD

[337] Robert M. Deiters. Optimum design of a diode squarer by applying the criterion of square root of the integral of per cent error squared. *IEEE Transactions on Electronic Computers*, EC-14(3):456–463, June 1965. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038465.

Dodd:1965:RSB

[338] George G. Dodd. Remarks on simulation of Boolean functions. *Communications of the Association for Computing Machinery*, 8(8):517, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Earle:1965:LCS

[339] J. G. Earle. Latched carry-save adder. *IBM Technical Disclosure Bulletin*, 7(??):909–910, March 1965. CODEN IBMTAA. ISSN 0018-8689.

Garner:1965:NSA

[340] H. L. Garner. Number systems and arithmetic. In Alt et al. [7674], pages 131–194. ISSN 0065-2458. LCCN QA76 .A3.

Garner:1965:RID

[341] H. L. Garner. R65-22 improving digital computer performance using residue number theory. *IEEE Transactions on Electronic Computers*, EC-14(2):277, April 1965. CODEN IEECA8. ISSN 0367-7508. URL http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=4037753; http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4038385; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038430.

Hammel:1965:RLC

[342] D. Hammel. R65-54 the logic of computer arithmetic. *IEEE Transactions on Electronic Computers*, EC-14(4):670, August 1965. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038535.

Hammer:1965:BRBa

[343] Preston C. Hammer. Book review: *Experimental Arithmetic, High Speed Computing and Mathematics* by N. C. Metropolis; A. H. Taub; John Todd; C. B. Tompkins. *Technometrics*, 7(1):82, February 1965. CODEN TCMTA2. ISSN 0040-1706 (print), 1537-2723 (electronic). URL http://www.jstor.org/stable/1266139.

Hammer:1965:BRBb

[344] Preston C. Hammer. Book review: *Experimental Arithmetic, High Speed Computing and Mathematics* by N. C. Metropolis, A. H. Taub, John Todd, and C. B. Tompkins. *Technometrics*, 7(1):82, February 1965. CODEN TCMTA2. ISSN 0040-1706 (print), 1537-2723 (electronic). URL http://links.jstor.org/sici?sici=0040-1706%28196502%297%3A1%3C82%3AEAHSCA%3E2.0.CO%3B2-9.

Hamming:1965:NLB

[345] R. W. Hamming and W. L. Mammel. A note on the location of the binary point in a computing machine. *IEEE Transactions on Electronic Computers*, EC-14(2):260–261, April 1965. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038414.

Ikebe:1965:NTP

[346] Yasuhiko Ikebe. Note on triple-precision floating-point arithmetic with 132-bit numbers. *Communications of the Association for Computing Machinery*, 8(3):175–177, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

James:1965:GSR

[347] Wendy James and P. Jarratt. The generation of square roots on a computer with rapid multiplication compared with division (in Technical Notes and Short Papers). *Mathematics of Computation*, 19(91):497–500, July 1965. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Kahan:1965:FPO

[348] W. Kahan. The floating-point over/underflow trap routine `FPTRP`. In *Programmer's Reference Manual*. Institute of Computer Science, University of Toronto, Toronto, Ontario, Canada, 1965. LCCN ???? Section 4.1.

Kahan:1965:PFR

[349] W. Kahan. Pracniques: Further remarks on reducing truncation errors. *Communications of the Association for Computing Machinery*, 8(1):40, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kanner:1965:NBC

[350] Herbert Kanner. Number base conversion in significant digit arithmetic. *Journal of the Association for Computing Machinery*, 12(2):242–246, April 1965. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

King:1965:LED

[351] R. King. Letter to the Editor: On the double-precision square root routine. *Communications of the Association for Computing Machinery*, 8(4):202, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Krishnamurthy:1965:DCM

[352] E. V. Krishnamurthy. On a divide-and-correct method for variable precision division. *Communications of the Association for Computing Machinery*, 8(3):179–181, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Lederer:1965:FPP

[353] E. Lederer. Floating-point-pegasus, FLPPEG. ISD-Bericht 12, ISD, Inst. für Statik u. Dynamik d. Luft- u. Raumfahrtkonstruktionen, Universität Stuttgart, Stuttgart, Germany, 1965. 5 pp.

Lehman:1965:SAT

[354] M. Lehman. Serial arithmetic techniques. In AFIPS FJCC '65 [7673], pages 715–725. LCCN ????

Liddiard:1965:DPF

[355] Lawrence Anthony Liddiard. Double precision floating point arithmetic. Thesis (M.S.), University of Minnesota, ????, 1965. various pp.

Lyusternik:1965:HCE

[356] L. A. Lyusternik, O. A. Chervonenkis, and A. R. Yanpolski. *Handbook for Computing Elementary Functions*. Pergamon Press, New York, NY, USA, 1965. xiii + 251 pp. LCCN QA221.L513. Translated from the Russian by G. J. Tee. Translation edited by K. L. Stewart.

Mano:1965:PSB

[357] M. Morris Mano. Pracniques: Simulation of Boolean functions in a decimal computer. *Communications of the Association for Computing Machinery*, 8(1):39–40, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remarks [338].

Martin:1965:SHS

[358] A. R. Martin and A. B. Rosenstein. A shiftrix for high-speed multiplication. *IEEE Transactions on Electronic Computers*, EC-14(4):639–643, August 1965. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038521`.

Metropolis:1965:AIE

[359] N. Metropolis. Analysis of inherent errors in matrix decomposition using unnormalized arithmetic. In Kalenich [7675], pages 441–442. LCCN ???? Two volumes.

Metropolis:1965:AUA

[360] N. Metropolis. Algorithms in unnormalized arithmetic. I. Recurrence relations. *Numerische Mathematik*, 7(2):104–112, April 1965. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). See erratum [361].

Metropolis:1965:BAU

[361] N. Metropolis. Berichtigung: Algorithms in unnormalized arithmetic. I. Recurrence relations. *Numerische Mathematik*, 7(4):354, August 1965. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Metropolis:1965:RCU

[362] N. Metropolis and R. L. Ashenhurst. Radix conversion in an unnormalized arithmetic system. *Mathematics of Computation*, 19(91): 435–441, July 1965. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://links.jstor.org/sici?sici=0025-5718%28196507%2919%3A91%3C435%3ARCIAUA%3E2.0.CO%3B2-D.

Metze:1965:MSR

[363] Gernot Metze. Minimal square rooting. *IEEE Transactions on Electronic Computers*, EC-14(2):181–185, April 1965. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038397.

Miller:1965:ASF

[364] G. F. Miller. Algorithms for special functions II. *Numerische Mathematik*, 7:194–196, 1965. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Moller:1965:NQD

[365] Ole Møller. Note on quasi double-precision. *Nordisk tidskrift for informationsbehandling*, 5(4):251–255, December 1965. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=5&issue=4&spage=251. See [366].

Moller:1965:QDP

[366] Ole Møller. Quasi double-precision in floating point addition. *Nordisk tidskrift for informationsbehandling*, 5(1):37–50, March 1965. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=5&issue=1&spage=37. See also [365].

Moore:1965:AACa

[367] Ramon E. Moore. The automatic analysis and control of error in digital computing based on the use of interval numbers. In Rall [7676], chapter 2, pages 61–130. URL http://interval.louisiana.edu/Moores_early_papers/Moore_in_Rall_V1.pdf. Proceedings of an advanced seminar conducted by the Mathematics Research Center, United States Army, at the University of Wisconsin, Madison, October 5–7, 1964.

Moore:1965:AACb

[368] Ramon E. Moore. Automatic local coordinate transformations to reduce the growth of error bounds in interval computation of solutions of ordinary differential equations. In Rall [7677], chapter 2, pages 103–140. URL http://interval.louisiana.edu/Moores_early_papers/Moore_in_Rall_V2.pdf. Proceedings of an advanced seminar conducted by the Mathematics Research Center, United States Army, at the University of Wisconsin, Madison, October 5–7, 1964.

Moore:1965:CMC

[369] Gordon E. Moore. Cramming more components onto integrated circuits. *Electronics*, 38(8):114–117, 1965. URL http://www.intel.com/technology/mooreslaw/index.htm; https://hasler.ece.gatech.edu/Published_papers/Technology_overview/gordon_moore_1965_article.pdf; https://www.cs.utexas.edu/~fussell/courses/cs352h/papers/moore.pdf.

Morrison:1965:MCC

[370] D. R. Morrison. A method for computing certain inverse functions. *Mathematical Tables and Other Aids to Computation*, 10(??):202–208, ???? 1965. CODEN MTTCAS. ISSN 0891-6837.

Nathan:1965:CM

[371] Amos Nathan. The cascade multiplier. *IEEE Transactions on Electronic Computers*, EC-14(2):243–247, April 1965. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038406.

Penney:1965:BSC

[372] Walter Penney. A "Binary" system for complex numbers. *Journal of the Association for Computing Machinery*, 12(2):247–248, April 1965. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Ralston:1965:FCN

[373] Anthony Ralston. *A first course in numerical analysis*. International series in pure and applied mathematics. McGraw-Hill, New York, NY, USA, 1965. xix + 578 pp. LCCN QA297 .R3.

Riordan:1965:UAT

[374] R. H. S. Riordan and R. R. A. Morton. The use of analog techniques in binary arithmetic units. *IEEE Transactions on Electronic Computers*,

EC-14(1):29–35, February 1965. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038346.

Ross:1965:RTE

[375] D. R. Ross. Reducing truncation errors using cascading accumulators. *Communications of the Association for Computing Machinery*, 8(1):32–33, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Schreiber:1965:BRB

[376] Alvin L. Schreiber. Book review: *A Binary Multiplication* (W. C. McGee). *SIAM Review*, 7(1):134–136, ???? 1965. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Smith:1965:ASO

[377] Francis J. Smith. An algorithm for summing orthogonal polynomial series and their derivatives with applications to curve-fitting and interpolation. *Mathematics of Computation*, 19(89):33–36, April 1965. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Specker:1965:CAL

[378] W. H. Specker. A class of algorithms for $\ln x$, $\exp x$, $\sin x$, $\cos x$, $\tan^{-1} x$, and $\cot^{-1} x$. *IEEE Transactions on Electronic Computers*, EC-14(1):85–86, February 1965. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038361.

Swarztrauber:1965:LED

[379] P. N. Swarztrauber. Letter to the Editor: On the double-precision square root routine. *Communications of the Association for Computing Machinery*, 8(4):202, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Sweeney:1965:AFP

[380] D. W. Sweeney. An analysis of floating-point addition. *IBM Systems Journal*, 4(1):31–42, 1965. CODEN IBMSA7. ISSN 0018-8670. URL http://www.research.ibm.com/journal/sj/041/ibmsjIVRID.pdf. Reprinted in [7820, pp. 317–328].

Winograd:1965:TRP

[381] Shmuel Winograd. On the time required to perform addition. *Journal of the Association for Computing Machinery*, 12(2):277–285, April 1965. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Arango:1966:FCP

[382] H. Arango and J. Santos. A fast carry-propagation circuit for base 3 signed non redundant arithmetic. *IEEE Transactions on Electronic Computers*, EC-15(2):254–255, April 1966. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038725.

Brooker:1966:MFA

[383] R. A. Brooker, J. S. Rohl, and S. R. Clark. The main features of Atlas Autocode. *The Computer Journal*, 8(4):303–310, January 1966. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_08/Issue_04/080303.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_08/Issue_04/tiff/303.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_08/Issue_04/tiff/304.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_08/Issue_04/tiff/305.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_08/Issue_04/tiff/306.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_08/Issue_04/tiff/307.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_08/Issue_04/tiff/308.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_08/Issue_04/tiff/309.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_08/Issue_04/tiff/310.tif. See comment [386].

Chang:1966:DHR

[384] Henry Kwan cheung Chang. Design of a high rate floating point digital accumulator. Thesis (M.S. in Engineering), University of California, Davis, Davis, CA, USA, 1966. 60 pp.

Chartres:1966:ACP

[385] Bruce A. Chartres. Automatic controlled precision calculations. *Journal of the Association for Computing Machinery*, 13(3):386–403, July 1966. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Clark:1966:CMP

[386] S. R. Clark and W. F. Lunnon. Correspondence: Multiple precision arithmetic (real and complex). *The Computer Journal*, 9(2):174, August 1966. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_09/Issue_02/tiff/174.tif. See [383].

Clark:1966:MPA

[387] S. R. Clark and W. F. Lunnon. Multiple precision arithmetic in Atlas Autocode. *The Computer Journal*, 9(2):174, August 1966. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://comjnl.oxfordjournals.org/content/9/2/174.full.pdf+html`.

Fike:1966:SAS

[388] C. T. Fike. Starting approximations for square root calculation on IBM System/360. *Communications of the Association for Computing Machinery*, 9(4):297–299, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See letter [430].

Filippi:1966:BEE

[389] S. Filippi. Die Berechnung einiger elementarer transzendenter Funktionen mit Hilfe des Richardson-Algorithmus [*English:* The Computation of Some Elementary Transcendental Functions by Means of the Richardson Algorithm]. *Computing: Archiv fur informatik und numerik*, 1(??):127–132, ???? 1966. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Flehinger:1966:PRI

[390] B. J. Flehinger. On the probability that a random integer has initial digit 'A'. *American Mathematical Monthly*, 73(??):1056–1061, 1966. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Flynn:1966:VHS

[391] M. J. Flynn. Very high-speed computing systems. *Proceedings of the IEEE*, 54(12):1901–1909, 1966. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic).

Garner:1966:ECA

[392] Harvey L. Garner. Error codes for arithmetic operations. *IEEE Transactions on Electronic Computers*, EC-15(5):763–770, October 1966. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038884`.

Grau:1966:BRB

[393] A. A. Grau. Book review: *Rounding Errors in Algebraic Processes* (J. H. Wilkinson). *SIAM Review*, 8(3):397–398, ???? 1966. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Gregory:1966:DAU

[394] Robert T. Gregory. On the design of the arithmetic unit of a fixed-word-length computer from the standpoint of computational accuracy. *IEEE Transactions on Electronic Computers*, EC-15(2):255–257, April 1966. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4038726`.

Greve:1966:HLR

[395] J. Greve, H. Gumin, and E. Hochsteller. *Herrn von Leibniz' Rechnung mit Null und Ein. (German) [Mister von Leibniz' calculation with zero and one]*. Siemens AG, Berlin and München, West Germany, 1966. 59 pp.

Harding:1966:ISF

[396] L. J. Harding, Jr. Idiosyncracies of System/360 floating-point. In ????, editor, *SHARE XXVII, Toronto, Canada, August 1966*, page ?? ????, ????, 1966. LCCN ????

Harding:1966:MSF

[397] L. J. Harding, Jr. Modifications of System/360 floating-point. SHARE Secretarial Distribution, ???? 1966.

Henrici:1966:TPM

[398] Peter Henrici. Test of probabilistic models for the propagation of roundoff errors. *Communications of the Association for Computing Machinery*, 9 (6):409–410, June 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Hull:1966:TPM

[399] T. E. Hull and J. R. Swenson. Tests of probabilistic models for propagation of roundoff errors. *Communications of the Association for Computing Machinery*, 9(2):108–113, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

IBM:1966:ISM

[400] *IBM System/360 Model 91: Functional Characteristics*. San Jose, CA, USA, 1966. File No. S360-01, Form A22-6907-2.

Isaacson:1966:ANM

[401] Eugene Isaacson and Herbert Bishop Keller. *Analysis of numerical methods*. Wiley, New York, NY, USA, 1966. xv + 541 pp. LCCN QA297 .I8.

Kahan:1966:ISS

[402] W. Kahan. 7094 II system support for numerical analysis. SHARE Secretary Distribution 159, C4537, August 1966. URL `https://www.arithmazium.org/classroom/lib/Kahan_7094_II_System_Support.pdf`.

Kogbetliantz:1966:GEF

[403] E. G. Kogbetliantz. Generation of elementary functions. In Ralston and Wilf [7679], pages 7–35. LCCN QA76.5 .R3. Three volumes.

Kuki:1966:EGS

[404] H. Kuki, E. Hanson, J. J. Ortega, J. C. Butcher, and P. G. Anderson. Evaluation guidelines SHARE Numerical Analysis Project (N.A.P.). *SHARE Secretary Distribution*, SSD 150, part II(C4304):1–42, 1966.

Lam:1966:COG

[405] Lay yong Lam. On the Chinese origin of the Galley method of arithmetical division. *British Journal for the History of Science*, 3(part 1, 9):66–69, 1966. CODEN BJHSAT. ISSN 0007-0874 (print), 1474-001X (electronic).

Mancino:1966:MPF

[406] O. G. Mancino. Multiple precision floating-point conversion from decimal-to-binary and vice versa. *Communications of the Association for Computing Machinery*, 9(5):347–348, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Mazor:1966:FSI

[407] Stan Mazor. Fairchild Symbol II decimal floating point unit. Cited in [4772, p. 106]., 1966.

Moore:1966:IA

[408] Ramon E. Moore. *Interval analysis*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1966. xi + 145 pp. LCCN QA297 .M63.

Nickel:1966:NFA

[409] K. Nickel. Über die Notwendigkeit einer Fehlerschranken- Arithmetik für Rechenautomaten. *Numerische Mathematik*, 9:69–79, 1966. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Parker:1966:SNS

[410] Francis D. Parker. *The structure of number systems*. Teachers' mathematics reference series. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1966. xi + 137 pp. LCCN QA241 .P3; QA241 .P239.

Richards:1966:EDS

[411] R. K. (Richard Kohler) Richards. *Electronic Digital Systems*. Wiley, New York, NY, USA, 1966. ix + 637 pp. LCCN TK7888.3 .R52.

Saidan:1966:EEA

[412] A. S. Saidan. The earliest extant Arabic arithmetic: *Kitab al-Fusul fi al Hisab al-Hindi* of Abu al-Hasan, Ahmad ibn Ibrahim al-Uqlidisi. *Isis*, 57(4):475–490, Winter 1966. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL `http://www.jstor.org/stable/228518`.

Smith:1966:CP

[413] John Smith. The challenge of Pi. *IEEE Spectrum*, 3(10):5, October 1966. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Spielberg:1966:CEU

[414] K. Spielberg. Computation of e^x with the use of large tables. *IBM Systems Journal*, 5(2):102–114, 1966. CODEN IBMSA7. ISSN 0018-8670.

Tienari:1966:SPM

[415] M. Tienari and V. Suokonautio. A set of procedures making real arithmetic of unlimited accuracy possible within Algol 60. *Nordisk tidskrift for informationsbehandling*, 6(4):332–338, July 1966. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=6&issue=4&spage=332`.

vanWijngaarden:1966:NAI

[416] Adriaan van Wijngaarden. Numerical analysis as an independent science. *Nordisk tidskrift for informationsbehandling*, 6(1):66–81, March 1966. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=6&issue=1&spage=66`.

Watson:1966:SCC

[417] R. W. Watson and C. W. Hastings. Self-checked computation using residue arithmetic. *Proceedings of the IEEE*, 54(12):1920–1931,

December 1966. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic).

Whitney:1966:PCR

[418] D. E. Whitney. Propagation and control of roundoff error in the matrix exponential method. *Proceedings of the IEEE*, 54(10):1483–1484, October 1966. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic).

Wiegel:1966:MBA

[419] R. E. Wiegel. Methods of binary addition. Technical report 195, Department of Computer Science, University of Illinois, Urbana, IL, USA, February 1966.

Adams:1967:SCP

[420] Duane A. Adams. A stopping criterion for polynomial root finding. *Communications of the Association for Computing Machinery*, 10(10): 655–658, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Anderson:1967:ISMb

[421] S. F. Anderson, J. G. Earle, R. E. Goldschmidt, and D. M. Powers. The IBM System/360 Model 91: Floating-point execution unit. *IBM Journal of Research and Development*, 11(1):34–53, January 1967. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5392016`.

Clark:1967:PSF

[422] N. A. Clark, W. J. Cody, K. E. Hillstrom, and E. A. Thieleker. Performance statistics of the FORTRAN IV (H) library for the IBM System/360. Technical Report ANL-7231, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439-4801, USA, 1967. Reprinted in SHARE Secretary Distribution, SDD 169, C4473, pp. 12 46.

Cody:1967:CFI

[423] W. J. Cody. Critique of the FORTRAN IV (H) library for the IBM System/360. *SHARE Secretary Distribution*, SSD 169(C4473):4–11, 1967.

Cody:1967:IMD

[424] W. J. Cody. The influence of machine design on numerical algorithms. In AFIPS SJCC '67 [7680], pages 305–309. LCCN TK7885.A1 J6 1967.

Cody:1967:LEA

[425] William J. Cody, Jr. Letter to the Editor: Another aspect of economical polynomials. *Communications of the Association for Computing Machinery*, 10(9):531, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [431].

Crisansan-Zverca:1967:PED

[426] Mariana Crişan-Zverca. Pseudo-operations of an electronic digital machine with floating point. (Romanian). *Studii şi cercetări Matematice*, 19:1413–1424, 1967. ISSN 0039-4068, 0567-6401.

Curry:1967:ART

[427] E. Curry. The analysis of round-off and truncation errors in a hybrid control system. *IEEE Transactions on Automatic Control*, 12(5):601–604, October 1967. CODEN IETAA9. ISSN 0018-9286 (print), 1558-2523 (electronic).

DeRegt:1967:NRA

[428] M. P. DeRegt. Negative radix arithmetic. *Computer Design*, 6(??):52–63, May 1967. CODEN CMPDAM. ISSN 0010-4566.

Ferrari:1967:DMU

[429] Domenico Ferrari. A division method using a parallel multiplier. *IEEE Transactions on Electronic Computers*, EC-16(2):224–226, April 1967. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4039036`. See correction [517].

Fike:1967:LER

[430] C. T. Fike. Letter to the Editor: A rational approximation optimal by Moursund's criterion. *Communications of the Association for Computing Machinery*, 10(11):683–684, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [456, 388].

Fike:1967:MEP

[431] C. T. Fike. Methods of evaluating polynomial approximations in function evaluation routines. *Communications of the Association for Computing Machinery*, 10(3):175–178, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark on efficiency [425].

Fike:1967:RAO

[432] C. T. Fike. A rational approximation optimal by Moursund's criterion (letter to the editor). *Communications of the Association for Computing*

Machinery, 10(11):683–684, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Filho:1967:AGF

[433] A. M. S. Filho and G. Schwachheim. Algorithm 309: Gamma function with arbitrary precision. *Communications of the Association for Computing Machinery*, 10(8):511–512, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Forsythe:1967:CSL

[434] George E. Forsythe and Cleve B. Moler. *Computer Solution of Linear Algebraic Systems*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1967. xi + 148 pp. LCCN QA297 .F57 1967.

Freeman:1967:CMS

[435] Herbert Freeman. Calculation of mean shift for a binary multiplier using 2, 3, or 4 bits at a time. *IEEE Transactions on Electronic Computers*, EC-16(6):864–866, December 1967. CODEN IEECA8. ISSN 0367-7508. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4039205.

Freiman:1967:CDU

[436] C. V. Freiman et al. Composite division unit. *IBM Technical Disclosure Bulletin*, 9(8):994–995, January 1967. CODEN IBMTAA. ISSN 0018-8689.

Friedland:1967:AAV

[437] Paul Friedland. Algorithm 312: Absolute value and square root of a complex number. *Communications of the Association for Computing Machinery*, 10(10):665, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Goldberg:1967:BED

[438] I. Bennett Goldberg. 27 bits are not enough for 8-digit accuracy. *Communications of the Association for Computing Machinery*, 10(2):105–106, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Gschwind:1967:DDC

[439] H. W. Gschwind. *Design of Digital Computers: An Introduction*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1967. viii + 530 pp. LCCN TK7888.3 .G72.

Hertz:1967:CHF

[440] Theodore M. Hertz. Computer having floating point multiplication. US Patent 3,304,417., February 14, 1967. URL https://patentimages.storage.googleapis.com/47/86/c8/897ec6540ff584/US3304417.pdf; https://patents.google.com/patent/US3304417. Filed 1 October 1962.

Howell:1967:MPA

[441] K. M. Howell. Multiple precision arithmetic techniques. *The Computer Journal*, 9(4):383–387, February 1967. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_09/Issue_04/090383.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_09/Issue_04/tiff/383.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_09/Issue_04/tiff/384.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_09/Issue_04/tiff/385.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_09/Issue_04/tiff/386.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_09/Issue_04/tiff/387.tif.

Jarden:1967:EAL

[442] Dov Jarden. Existence of arbitrarily long sequences of consecutive members in arithmetic progressions divisible by arbitrarily many different primes. *Fibonacci Quarterly*, 5(3):280–??, October 1967. CODEN FIBQAU. ISSN 0015-0517. URL http://www.fq.math.ca/Scanned/5-3/jarden1.pdf.

Krishnamurthy:1967:NRD

[443] E. V. Krishnamurthy and S. K. Nandi. On the normalization requirement of divisor in divide-and-correct methods. *Communications of the Association for Computing Machinery*, 10(12):809–813, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kuki:1967:CAE

[444] H. Kuki. Comments on the ANL evaluation of the OS/360 FORTRAN math function library. *SHARE Secretary Distribution*, SSD 169(C4773):47–53, 1967.

Lewis:1967:CFP

[445] H. R. Lewis, Jr. and E. J. Stovall, Jr. Comments on a floating-point version of Nordsieck's scheme for the numerical integration of differential equations. *Mathematics of Computation*, 21(98):157–161, April 1967. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Long:1967:LAS

[446] C. T. Long and J. H. Jordan. A limited arithmetic on simple continued fractions. *Fibonacci Quarterly*, 5(2):113–128, April 1967. CODEN FIBQAU. ISSN 0015-0517. URL `http://www.fq.math.ca/Scanned/5-2/long.pdf`.

Mandelbaum:1967:CLS

[447] David Mandelbaum. A comparison of linear sequential circuits and arithmetic sequences. *IEEE Transactions on Electronic Computers*, EC-16(2):151–157, April 1967. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4039022`.

Massell:1967:RAP

[448] E. Massell. R67-41 an analog photoresistive multiplier. *IEEE Transactions on Electronic Computers*, EC-16(3):380, June 1967. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4039094`. See comment [471].

Matula:1967:BCM

[449] David W. Matula. Base conversion mappings. In *Proceedings of the AFIPS 1967 Spring Joint Computer Conference*, volume 30, pages 311–318. AFIPS Press, Montvale, NJ, USA, 1967.

McCalla:1967:INM

[450] Thomas Richard McCalla. *Introduction to Numerical Methods and Fortran Programming*. Wiley, New York, NY, USA, January 1967. ISBN 0-471-58125-9. xiii + 359 pp. LCCN QA297 .M25. US$27.95. URL `http://www.cbooks.com/sqlnut/SP/search/gtsumt?source=&isbn=0471581259`.

McKeeman:1967:RER

[451] W. M. McKeeman. Representation error for real numbers in binary computer arithmetic. *IEEE Transactions on Electronic Computers*, EC-16(5):682–683, October 1967. CODEN IEECA8. ISSN 0367-7508. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4039164`.

Menzel:1967:AUA

[452] M. Menzel and N. Metropolis. Algorithms in unnormalized arithmetic. II. Unrestricted polynomial evaluation. *Numerische Mathematik*, 10(5):451–462, November 1967. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Minsky:1967:CFI

[453] Marvin Lee Minsky. *Computation: Finite and Infinite Machines*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1967. xvii + 317 pp. LCCN QA267 .M55.

Moler:1967:IRF

[454] C. B. Moler. Iterative refinement in floating point. *Journal of the Association for Computing Machinery*, 14(2):316–321, April 1967. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Mosteller:1967:DSR

[455] Frederick Mosteller, Cleo Youtz, and Douglas Zahn. The distribution of sums of rounded percentages. *Demography*, 4(2):850–858, June 1967. CODEN ???? ISSN 0070-3370 (print), 1533-7790 (electronic). URL `http://muse.jhu.edu/journals/dem/; http://www.biomedsearch.com/nih/Distribution-Sums-Rounded-Percentages/21318695.html; http://www.jstor.org/stable/2060324`. See [1220] for further work.

Moursund:1967:OSV

[456] David G. Moursund. Optimal starting values for Newton–Raphson calculation of $\sqrt{x}$. *Communications of the Association for Computing Machinery*, 10(7):430–432, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See letter [430].

Nandi:1967:STD

[457] Salil K. Nandi and E. V. Krishnamurthy. A simple technique for digital division. *Communications of the Association for Computing Machinery*, 10(5):299–301, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Noble:1967:REI

[458] Ben Noble. Rounding error, ill-conditioning, and instability. In Anonymous [7681], pages 209–228. URL `https://apps.dtic.mil/sti/tr/pdf/AD0825963.pdf`.

Sandberg:1967:FPR

[459] I. W. Sandberg. Floating-point-roundoff accumulation in digital-filter realizations. *The Bell System Technical Journal*, 46(8):1775–1791, October 1967. CODEN BSTJAN. ISSN 0005-8580. URL `http://bstj.bell-labs.com/BSTJ/images/Vol46/bstj46-8-1775.pdf`.

Sasaki:1967:ASR

[460] Akio Sasaki. Addition and subtraction in the residue number system. *IEEE Transactions on Electronic Computers*, EC-16 (2):157–164, April 1967. CODEN IEECA8. ISSN 0367-7508. URL http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=4037753; http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4039015; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4039023.

Schoenfeld:1967:FPE

[461] L. Schoenfeld. Floating point error estimates. Technical Summary Report 721, Mathematics Research Center, University of Wisconsin, Madison, Madison, WI, USA, August 1967.

Smith:1967:ZFA

[462] Brian Thomas Smith. A zero-finding algorithm using Laguerre's method. Master's thesis, Department of Computer Science, University of Toronto, Toronto, ON, Canada, 1967. URL https://en.wikipedia.org/wiki/Laguerre%27s_method.

Smith:1967:ZZF

[463] Brian Thomas Smith. ZERPOL, a zero finding algorithm for polynomials using Laguerre's method. In Anonymous [7681], pages 153–174. URL https://apps.dtic.mil/sti/tr/pdf/AD0825963.pdf.

Szabo:1967:RAA

[464] Nicholas S. Szabó and Richard I. Tanaka. *Residue arithmetic and its applications to computer technology*. McGraw-Hill series in information processing and computers. McGraw-Hill, New York, NY, USA, 1967. xvi + 236 pp. LCCN QA247.35 .S95.

Tomasulo:1967:EAE

[465] R. M. Tomasulo. An efficient algorithm for exploiting multiple arithmetic units. *IBM Journal of Research and Development*, 11(1):25–33, January 1967. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Wilkinson:1967:BZW

[466] J. H. Wilkinson. *Bledy Zaokragleń w Procesach Algebraicznych. (Polish) [Rounding errors in algebraic Processes]*. PWW, Warszawa, Poland, 1967. ???? pp. Polish translation of [7672].

Winograd:1967:TRP

[467] Shmuel Winograd. On the time required to perform multiplication. *Journal of the Association for Computing Machinery*, 14(4):793–802, October 1967. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Yarbrough:1967:PCC

[468] Lynn Yarbrough. Precision calculations of e and π constants. *Communications of the Association for Computing Machinery*, 10(9):537, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Atkins:1968:HRD

[469] D. E. Atkins. Higher-radix division using estimates of the divisor and partial remainders. *IEEE Transactions on Computers*, C-17(10):925–934, October 1968. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Azen:1968:DMS

[470] S. Azen and S. Derr. On the distribution of the most significant hexadecimal digit. Technical Report RM 5496 PR, Rand Report, Santa Monica, CA, USA, 1968.

Azgapetian:1968:CAP

[471] V. Azgapetian. Comment on "An Analog Photoresistive Multiplier". *IEEE Transactions on Computers*, C-17(2):188, February 1968. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1687312`. See [448].

Brennan:1968:FTA

[472] J. F. Brennan. The fastest time of addition and multiplication. *IBM Research Reports*, 4(1):??, ???? 1968.

Dean:1968:GRB

[473] K. J. Dean. Generator for the reciprocals of binary numbers. *Proceedings of the Institution of Electrical Engineers*, 115(6):787, June 1968. CODEN PIEEAH. ISSN 0020-3270 (print), 2053-7891 (electronic).

Dietmeyer:1968:GPI

[474] D. L. Dietmeyer and J. R. Duley. Generating prime implicants via ternary encoding and decimal arithmetic. *Communications of the Association for*

Computing Machinery, 11(7):520–523, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Elliott:1968:EAA

[475] David Elliott. Error analysis of an algorithm for summing certain finite series. *Journal of the Australian Mathematical Society*, 8(2):213–221, May 1968. CODEN JAUMAX. ISSN 0004-9735 (print), 2059-9234 (electronic).

Fike:1968:CEM

[476] C. T. Fike. *Computer Evaluation of Mathematical Functions*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1968. xii + 227 pp. LCCN QA297 .F5.

Fraser:1968:AUA

[477] M. Fraser and N. Metropolis. Algorithms in unnormalized arithmetic. III. Matrix inversion. *Numerische Mathematik*, 12(5):416–428, December 1968. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Harman:1968:ADI

[478] M. G. Harman. An attempt to design an improved multiplication system. *IEEE Transactions on Computers*, C-17(11):1090, November 1968. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1687268`.

Hart:1968:CAa

[479] John F. Hart, E. W. Cheney, Charles L. Lawson, Hans J. Maehly, Charles K. Mesztenyi, John R. Rice, Henry G. Thatcher, Jr., and Christoph Witzgall. *Computer Approximations*. Robert E. Krieger Publishing Company, Huntington, NY, USA, 1968. ISBN 0-88275-642-7. x + 343 pp. LCCN QA 297 C64 1978. Reprinted 1978 with corrections.

Hart:1968:CAb

[480] John F. Hart, E. W. Cheney, Charles L. Lawson, Hans J. Maehly, Charles K. Mesztenyi, John R. Rice, Henry G. Thatcher, Jr., and Christoph Witzgall. *Computer Approximations*. The SIAM series in applied mathematics. Wiley, New York, NY, USA, 1968. ISBN 0-471-35630-1. x + 343 pp. LCCN QA297 .C64.

IBM:1968:ISP

[481] IBM Corporation. *IBM System/360 Principles of Operation.* IBM Corporation, San Jose, CA, USA, eighth edition, 1968. 175 pp. LCCN QA76.8.I12 I59 1968.

Kahan:1968:ISS

[482] W. Kahan. 7094-II system support for numerical analysis. SHARE Secretarial Distribution SSD-159., 1968.

Kaneko:1968:PSA

[483] T. Kaneko and B. Liu. Round-off error of floating-point digital filters. In Anonymous [7682], pages 219–227. ISBN ???? ISSN 0569-0552. LCCN ????

Matula:1968:BCT

[484] David W. Matula. The base conversion theorem. *Proceedings of the American Mathematical Society*, 19(3):716–723, June 1968. CODEN PAMYAR. ISSN 0002-9939 (print), 1088-6826 (electronic).

Matula:1968:C

[485] David W. Matula. In-and-out conversions. *Communications of the Association for Computing Machinery*, 11(1):47–50, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [438, 484].

Metropolis:1968:ANA

[486] N. Metropolis. Algorithms in un-normalized arithmetic: Polynomial evaluation and matrix decomposition. *Colloques internationaux, Centre National de la Recherche Scientifique, Paris*, 165:293–303, 1968.

Nathan:1968:IVS

[487] A. Nathan and J. Molcho. Improved voltage selector and cascade multiplier circuits. *IEEE Transactions on Computers*, C-17(4):380–382, April 1968. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1687350`.

Nickel:1968:EBC

[488] K. Nickel. Error bounds and computer arithmetic. In *Proceedings of the IFIP Congress*, pages 54–60. North-Holland, Amsterdam, The Netherlands, 1968. LCCN ????

Nievergelt:1968:CCP

[489] J. Nievergelt. Computers and computing — past present future. *IEEE Spectrum*, 5(1):57–61, January 1968. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Padegs:1968:SAS

[490] A. Padegs. Structural aspects of the SYSTEM/360 Model 85, part III: Extensions to floating-point architecture. *IBM Systems Journal*, 7(1): 22–29, 1968. CODEN IBMSA7. ISSN 0018-8670.

Phillips:1968:EME

[491] G. M. Phillips. Estimate of the maximum error in best polynomial approximations. *The Computer Journal*, 11:110–111, 1968. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic).

Rao:1968:ECL

[492] T. R. N. Rao. Error-checking logic for arithmetic-type operations of a processor. *IEEE Transactions on Computers*, C-17(9):845–849, September 1968. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1687471`.

Ross:1968:UMF

[493] Richard D. Ross. University of Mississippi floating point subroutines (UMFS). Technical report, Computer Center, University of Mississippi, University, 1968. 31 pp.

Sasaki:1968:BIA

[494] A. Sasaki. The basis for implementation of additive operations in the residue number system. *IEEE Transactions on Computers*, C-17 (11):1066–1073, November 1968. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35582`; `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1687264`.

Schmookler:1968:HSB

[495] M. S. Schmookler. High speed binary to decimal conversion. *IEEE Transactions on Computers*, C-17:506–508, 1968. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Scott:1968:OET

[496] Théodore G. Scott. *Ordinateurs électroniques, techniques de programmation: Computer programming techniques.* Tournai, Ed. Gamma, Paris, France, 1968. 662 pp. Cinq volumes. Version française de Juliette Charbonneau-Kohiyama.

Smith:1968:CC

[497] Robert E. (Robert Elijah) Smith. *Competence course.* Control Data Corp., Minneapolis, MN, USA, 1968. vi + 296 pp.

Stuart:1968:FP

[498] Fredric Stuart. *Fortran programming.* Wiley, New York, NY, USA, 1968. ISBN 0-471-83477-7. xix + 353 pp. LCCN QA76.5 .S8.

Tung:1968:DAS

[499] Chin Tung. A division algorithm for signed-digit arithmetic. *IEEE Transactions on Computers*, C-17(9):887–889, September 1968. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1687477`.

Urabe:1968:RED

[500] Minoru Urabe. Roundoff error distribution in fixed-point multiplication and a remark about the rounding rule. *SIAM Journal on Numerical Analysis*, 5(2):202–210, June 1968. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Veltkamp:1968:APV

[501] G. W. Veltkamp. ALGOL procedures voor het berekenen van een inwendig product in dubbele precisie. (Dutch) [ALGOL procedures for calculating an inner product in double precision]. Technical report 22, RC-Informatie, Technische Hogeschool Eindhoven, Eindhoven, The Netherlands, 1968.

Vitenko:1968:OAA

[502] Ī. V. Vīten'ko. Optimal algorithms for addition and multiplication on machines with floating point. (Russian). *Ž. Vyčisl. Mat. i Mat. Fiz*, 8: 1076–1084, 1968.

Yohe:1968:CPA

[503] J. Michael Yohe. Computer programming for accuracy. MRC Technical Summary Report 866, Mathematics Research Center, University of

Wisconsin, Madison, Madison, WI, USA, April 1968. URL https://apps.dtic.mil/sti/citations/AD0674459.

Anonymous:1969:VPD

[504] Anonymous. Video probability distributions. *IEEE Spectrum*, 6(4):5, April 1969. CODEN IEESAM. ISSN 1939-9340.

Babuska:1969:NSM

[505] Ivo Babuška. Numerical stability in mathematical analysis. In Morrell [7686], pages 11–23. ISBN 0-7204-2032-6. LCCN QA76 .I578.

Banerji:1969:SDR

[506] D. K. Banerji and J. A. Brzozowski. Sign detection in residue number systems. *IEEE Transactions on Computers*, C-18(4):313–320, April 1969. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35034; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671251.

BrinchHansen:1969:RCR

[507] Per Brinch Hansen. *RC-4000 Computer Reference Manual*. A/S Regnecentralen, Copenhagen, Denmark, June 1969. 85 pp. URL http://bitsavers.org/pdf/regnecentralen/RC_4000_Reference_Manual_Jun69.pdf; https://www.math.utah.edu/~beebe/RC-4000.

Brown:1969:CB

[508] W. S. Brown and P. L. Richman. The choice of base. *Communications of the Association for Computing Machinery*, 12(10):560–561, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Clark:1969:SCE

[509] N. W. Clark and W. J. Cody. Self-contained exponentiation. In AFIPS FJCC '69 [7684], pages 701–706. LCCN ????

Cody:1969:PTF

[510] W. J. Cody. Performance testing of function subroutines. In AFIPS SJCC '69 [7683], pages 759–763. LCCN TK7885.A1 J6 1969.

Duke:1969:DFP

[511] K. A. Duke. Decimal floating point processor. *IBM Technical Disclosure Bulletin*, 11-69:862, November 1969. CODEN IBMTAA. ISSN 0018-8689.

Duncan:1969:FFA

[512] Daniel D. A. Duncan. FLOP: a floating-point arithmetic package. Thesis (M.S.), University of Southwestern Louisiana, Lafayette, LA, USA, 1969. 108 pp.

Dunworth:1969:ECB

[513] A. Dunworth and J. I. Roche. The error characteristics of the binary rate multiplier. *IEEE Transactions on Computers*, C-18(8):741–745, August 1969. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671350.

Ehrman:1969:SFP

[514] J. R. Ehrman. A study of floating-point conversions in some OS/360 components. Technical Report SDD 196, C5207, SHARE Secretary Distribution, ????, 1969. 1–6 pp.

Fenstad:1969:NSM

[515] Jens Erik Fenstad. Non-standard models for arithmetic and analysis. *Lecture Notes in Mathematics*, 118:30–47, 1969. CODEN LNMAA2. ISBN 3-540-04907-X (print), 3-540-36246-0 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL http://link.springer.com/chapter/10.1007/BFb0060250/.

Fenwick:1969:BMO

[516] P. M. Fenwick. Binary multiplication with overlapped addition cycles. *IEEE Transactions on Computers*, C-18(1):71–74, January 1969. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671120.

Ferrari:1969:CDM

[517] D. Ferrari. Correction to “A Division Method Using a Parallel Multiplier”. *IEEE Transactions on Computers*, C-18(10):960, October 1969. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671148. See [429].

Field:1969:OFP

[518] J. A. Field. Optimizing floating-point arithmetic via post addition shift probabilities. In AFIPS SJCC ’69 [7683], pages 597–?? LCCN TK7885.A1 J6 1969.

Flores:1969:BRB

[519] Ivan Flores. Book review: *Residue Arithmetic and Its Application to Computer Technology* (Nicholas S. Szabo and Richard I. Tanaka). *SIAM Review*, 11(1):103–104, ???? 1969. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Froberg:1969:INA

[520] Carl Erik Fröberg. *Introduction to numerical analysis*. Addison-Wesley, Reading, MA, USA, second edition, 1969. xii + 433 pp. LCCN QA297 .F6813 1969.

Glaser:1969:HMN

[521] Anton Glaser. *History of Modern Numeration Systems*. Educat.D. thesis, Temple University, Philadelphia, PA, USA, 1969. 261 pp. URL https://www.proquest.com/pqdtglobal/docview/302503306/A48758ED17C34A1APQ/1. See subsequent books [634, 1428].

Hammersley:1969:NAP

[522] P. Hammersley. Note on Algorithm 34: Procedures for the basic arithmetical
operations in multi-length working. *The Computer Journal*, 12(1):102–103, February 1969. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_12/Issue_01/tiff/102.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_12/Issue_01/tiff/103.tif.

Holzwarth:1969:VBB

[523] A. Holzwarth. Ein Verfahren zur Bestimmung bester Tschebyscheff-Approximationen der Quadratwurzelfunktion [*English:* A Method for Determination of Best Chebyshev Approximations to the Square Root Function]. *Computing: Archiv fur informatik und numerik*, 4(2):168–177, 1969. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Howell:1969:ASLa

[524] Jo Ann Howell and Robert T. Gregory. An algorithm for solving linear algebraic equations using residue arithmetic. I. *BIT (Nordisk tidskrift for informationsbehandling)*, 9:200–224, 1969. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Howell:1969:ASLb

[525] Jo Ann Howell and Robert T. Gregory. An algorithm for solving linear algebraic equations using residue arithmetic. II. *BIT (Nordisk tidskrift*

for informationsbehandling), 9:324–337, 1969. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Huey:1969:DFP

[526] Ben Milton Huey. Design of a floating point processor for the PDP-9 computer. Thesis (M.S. - Electrical Engineering), University of Arizona, Tucson, AZ, USA, 1969. 175 pp.

Huttenhoff:1969:AUC

[527] J. H. Huttenhoff and R. R. Shively. Arithmetic unit of a computing element in a global, highly parallel computer. *IEEE Transactions on Computers*, C-18(8):695–698, August 1969. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671344`.

King:1969:LEN

[528] Richard F. King and David L. Phillips. The logarithmic error and Newton's method for the square root. *Communications of the Association for Computing Machinery*, 12(2):87–88, February 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kirsch:1969:ACA

[529] Arnold Kirsch. An analysis of commercial arithmetic. *Educational Studies in Mathematics*, 1(3):300–311, January 1969. CODEN EDSMAN. ISSN 0013-1954 (print), 1573-0816 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/BF00558315`.

Knight:1969:FPS

[530] Douglas Wayne Knight. A floating point software package in BCD format for small, fixed word length, digital computers. Thesis (M.S.), Arizona State University, Electrical Engineering, Tempe, AZ, USA, 1969. 151 pp.

Knuth:1969:SA

[531] Donald E. Knuth. *Seminumerical Algorithms*, volume 2 of *The Art of Computer Programming*. Addison-Wesley, Reading, MA, USA, 1969. ISBN 0-201-03802-1. xi + 624 pp. LCCN QA76.5 .K57. US$19.75.

Knuth:ACP69-2

[532] Donald E. Knuth. *Seminumerical Algorithms*, volume 2 of *The Art of Computer Programming*. Addison-Wesley, Reading, MA, USA, 1969. ISBN 0-201-03802-1. xi + 624 pp. LCCN QA76.5 .K57. US$19.75.

Kulisch:1969:AAR

[533] Ulrich W. Kulisch. An axiomatic approach to rounded computations. Technical Summary Report 1020, Mathematics Research Center, University of Wisconsin, Madison, Madison, WI, USA, November 1969.

Linhardt:1969:DDT

[534] R. J. Linhardt and H. S. Miller. Digit-by-digit transcendental-function computation. *RCA Review*, 30(2):209–247, June 1969. CODEN RCARCI. ISSN 0033-6831. URL `https://www.worldradiohistory.com/ARCHIVE-RCA/RCA-Review/RCA-Review-1969-06.pdf`.

Liu:1969:EAD

[535] B. Liu and T. Kaneko. Error analysis of digital filters realized with floating-point arithmetic. *Proceedings of the IEEE*, 57(10):1735–1747, October 1969. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic). See correction [583].

Matula:1969:TAM

[536] David W. Matula. Towards an abstract mathematical theory of floating-point arithmetic. In AFIPS SJCC '69 [7683], pages 765–772. LCCN TK7885.A1 J6 1969.

Posnov:1969:FPR

[537] N. N. Posnov, M. K. Buza, and V. K. Kravcov. The floating point in a residue class number system. (Russian). *Vestnik Beloruss. Gos. Univ. Ser. I*, 3:21–27, 1969.

Rice:1969:AFV

[538] John R. Rice. *The Approximation of Functions*, volume 2. Addison-Wesley, Reading, MA, USA, 1969. various pp. LCCN QA221 .R5 V.1-2.

Rigby:1969:DFP

[539] G. W. Rigby. To draw a floating point number on the graph plotter(PRP 2). Group research report, British Steel Corporation, London, UK, 1969.

Rosen:1969:ECH

[540] Saul Rosen. Electronic computers: a historical survey. *ACM Computing Surveys*, 1(1):7–36, March 1969. CODEN CMSVAN. ISSN 0010-4892.

S:1969:BRQ

[541] D. S. Book review: *Square Roots of Integers* 2 *to* 15 *in Various Bases* 2 *to* 10*:* 88062 *Binary Digits or Equivalent* by W. A. Beyer, N.

Metropolis, and J. R. Neergaard. *Mathematics of Computation*, 23(107): 679, July 1969. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://links.jstor.org/sici?sici=0025-5718%28196907%2923%3A107%3C679%3ASROI2T%3E2.0.CO%3B2-C.

Shea:1969:NDN

[542] Dale D. Shea. On the number of divisions needed in finding the greatest common divisor. *Fibonacci Quarterly*, 7(4):337–340, November 1969. CODEN FIBQAU. ISSN 0015-0517. URL http://www.fq.math.ca/Scanned/7-4/shea.pdf.

Smith:1969:EBB

[543] Brian Thomas Smith. *Error Bounds, Based Upon Gerschgorin's Theorem, for the Zeros of a Polynomial*. Ph.D., Department of Computer Science, University of Toronto, Toronto, ON, Canada, June 13, 1969. URL https://www.proquest.com/pqdtglobal/docview/302455669.

Sterbenz:1969:OSA

[544] P. H. Sterbenz and C. T. Fike. Optimal starting approximations for Newton's method. *Mathematics of Computation*, 23(106):313–318, April 1969. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Svoboda:1969:DAS

[545] A. Svoboda. Decimal adder with signed digit arithmetic. *IEEE Transactions on Computers*, C-18(3):212–215, March 1969. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Troelstra:1969:EA

[546] A. S. Troelstra. Elementary arithmetic. *Lecture Notes in Mathematics*, 95:12–13, 1969. CODEN LNMAA2. ISBN 3-540-04614-3 (print), 3-540-36130-8 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL http://link.springer.com/chapter/10.1007/BFb0080646.

Turner:1969:CSI

[547] L. Richard Turner. Comment on some IBM software. *SHARE Secretary Distribution*, SSD 199(C5279):40–43, 1969.

Turner:1969:DSC

[548] L. Richard Turner. Difficulty in sin/cos routine. *ACM SIGNUM Newsletter*, 4(3):13, October 1969. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Turner:1969:IOC

[549] L. R. Turner. Input-output conversion in System/360. Technical Report SSD 194, C5173, SHARE Secretary Distribution, ????, 1969. 1–8 pp.

Usow:1969:SSC

[550] Karl H. Usow. SIGNUM subroutine certification committee. *ACM SIGNUM Newsletter*, 4(3):15–18, October 1969. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Veltkamp:1969:APV

[551] G. W. Veltkamp. ALGOL procedures voor het rekenen in dubbele lengte. (Dutch) [ALGOL procedures for double-length arithmetic]. Technical report 21, RC-Informatie, Technische Hogeschool Eindhoven, Eindhoven, The Netherlands, 1969.

Weinstein:1969:CCR

[552] C. Weinstein and A. V. Oppenheim. Correction to "A comparison of roundoff noise in floating point and fixed point digital filter realizations". *Proceedings of the IEEE*, 57(8):1466, August 1969. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic). See [553].

Weinstein:1969:CRN

[553] C. Weinstein and A. V. Oppenheim. A comparison of roundoff noise in floating point and fixed point digital filter realizations. *Proceedings of the IEEE*, 57(6):1181–1183, June 1969. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic). See correction [552].

Weinstein:1969:RNF

[554] C. Weinstein. Roundoff noise in floating point fast Fourier transform computation. *IEEE Transactions on Audio and Electroacoustics*, 17(3): 209–215, September 1969. CODEN ITADAS. ISSN 0018-9278 (print), 1558-2582 (electronic).

Whipple:1969:CHR

[555] W. L. Whipple. Comments on "Higher-Radix Division Using Estimates of the Divisor and Partial Remainders". *IEEE Transactions on Computers*, C-18(2):183, February 1969. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671216`. See [469].

Young:1969:SCN

[556] David M. Young and Alvis E. McDonald. On the surveillance and control of number range and accuracy in numerical computation (with discussion). In Morrell [7687], pages 145–152. ISBN 0-7204-2032-6. LCCN QA 75.5 I57 1968.

Atkins:1970:DAU

[557] D. E. Atkins. Design of the arithmetic units of ILLIAC III: Use of redundancy and higher radix methods. *IEEE Transactions on Computers*, C-19(8):720–723, August 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_Atkins.pdf.

Avizienis:1970:UAB

[558] Algirdas Avižienis and Chin Tung. A universal arithmetic building element (ABE) and design methods for arithmetic processors. *IEEE Transactions on Computers*, C-19(8):733–745, August 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_Avizienis.pdf.

Behringer:1970:BFI

[559] F. A. Behringer. Eine bedingte Form der Integral-Ungleichun von Gronwal, leichte Verallgemeinerung eins Stabilitätsatzes von Perron und überlauffreie Skalierung von Analogrechenschaltungen. (German) [A conditional version of the integral inequality of Gronwall, a slight generalization of a stability theorem of Perron, and overflow-free scaling of analogue computer set-ups]. *Computing: Archiv fur informatik und numerik*, 5(4):333–348, 1970. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Beyer:1970:GST

[560] W. A. Beyer, N. Metropolis, and J. R. Neergaard. The generalized serial test applied to expansions of some irrational square roots in various bases. *Mathematics of Computation*, 24(111):745–747, July 1970. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://links.jstor.org/sici?sici=0025-5718%28197007%2924%3A111%3C745%3ATGSTAT%3E2.0.CO%3B2-2.

Beyer:1970:SSD

[561] W. A. Beyer, N. Metropolis, and J. R. Neergaard. Statistical study of digits of some square roots of integers in various

bases. *Mathematics of Computation*, 24(110):455–473, April 1970. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://links.jstor.org/sici?sici=0025-5718%28197004%2924%3A110%3C455%3ASSODOS%3E2.0.CO%3B2-I.

Brent:1970:ABN

[562] R. Brent. On the addition of binary numbers. *IEEE Transactions on Computers*, C-19(8):758–759, August 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_Brent.pdf.

deLugish:1970:CAA

[563] B. G. de Lugish. A class of algorithms for automatic evaluation of certain elementary function in a binary computer. Report 399, Department of Computer Science, University of Illinois, June 1970. ?? pp.

Flynn:1970:DFI

[564] M. J. Flynn. On division by functional iteration. *IEEE Transactions on Computers*, C-19(8):702–706, August 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_Flynn.pdf. Reprinted in [7820].

Forsythe:1970:PCW

[565] George E. Forsythe. Pitfalls in computation, or why a math book isn't enough. *American Mathematical Monthly*, 77(9):931–956, November 1970. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Gardiner:1970:SDA

[566] V. Gardiner and N. Metropolis. Significant digit arithmetic on a CDC 6600. Technical Report LA–4470, Los Alamos Scientific Laboratory, Los Alamos, NM, USA, January 1, 1970. 4 pp. URL http://www.osti.gov/energycitations/product.biblio.jsp?osti_id=4093265&query_id=0.

Good:1970:CIA

[567] Donald I. Good and Ralph L. London. Computer interval arithmetic: Definition and proof of correct implementation. *Journal of the Association for Computing Machinery*, 17(4):603–612, October 1970. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Habibi:1970:FM

[568] A. Habibi and P. A. Wintz. Fast multipliers. *IEEE Transactions on Computers*, C-19(2):153–157, February 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671474.

Hall:1970:GPQ

[569] E. L. Hall, D. D. Lynch, and S. J. Dwyer. Generation of products and quotients using approximate binary logarithms for digital filtering applications. *IEEE Transactions on Computers*, C-19(2):97–105, February 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671467.

Hamming:1970:DN

[570] R. W. Hamming. On the distribution of numbers. *The Bell System Technical Journal*, 49(8):1609–1625, October 1970. CODEN BSTJAN. ISSN 0005-8580 (print), 2376-7154 (electronic). URL http://bstj.bell-labs.com/BSTJ/images/Vol49/bstj49-8-1609.pdf; http://www.alcatel-lucent.com/bstj/vol49-1970/articles/bstj49-8-1609.pdf.

Hansen:1970:APN

[571] Rodney T. Hansen. Arithmetic of pentagonal numbers. *Fibonacci Quarterly*, 8(1):83–86, February 1970. CODEN FIBQAU. ISSN 0015-0517. URL http://www.fq.math.ca/Scanned/8-1/hansen.pdf.

Harris:1970:NND

[572] V. C. Harris. Note on the number of divisions required in finding the greatest common divisor. *Fibonacci Quarterly*, 8(1):104–??, February 1970. CODEN FIBQAU. ISSN 0015-0517. URL http://www.fq.math.ca/Scanned/8-1/harris2.pdf.

Harvey:1970:SSP

[573] Michael P. Harvey. A system study and problem solution in polynomial evaluation. Thesis (M.S.), California State College, Long Beach, CA, USA, 1970. vi + 119 pp.

Hillstrom:1970:PSF

[574] K. E. Hillstrom. Performance statistics for the FORTRAN IV (H) and PL/I (version 5) libraries in the IBM OS/360 Release 18. Report ANL-7666, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439-4801, USA, 1970.

Hornbuckle:1970:LMA

[575] G. D. Hornbuckle and E. I. Ancona. The LX-1 microprocessor and its application to real-time signal processing. *IEEE Transactions on Computers*, C-19(8):710–720, August 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_Hornbuckle.pdf.

Howell:1970:SLE

[576] Jo Ann Howell and Robert T. Gregory. Solving linear equations using residue arithmetic — Algorithm II. *BIT (Nordisk tidskrift for informationsbehandling)*, 10:23–37, 1970. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Kailas:1970:AMC

[577] M. V. Kailas. Another method of converting from hexadecimal to decimal. *Communications of the Association for Computing Machinery*, 13(3):193, March 1970. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Knuth:1970:VNF

[578] Donald E. Knuth. Von Neumann's first computer program. *ACM Computing Surveys*, 2(4):247–260, December 1970. CODEN CMSVAN. ISSN 0010-4892. Reprinted in [7770].

Krishnamurthy:1970:OIS

[579] E. V. Krishnamurthy. On optimal iterative schemes for high-speed division. *IEEE Transactions on Computers*, C-19(3):227–231, March 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Krishnamurthy:1970:RTT

[580] E. V. Krishnamurthy. On range-transformation techniques for division. *IEEE Transactions on Computers*, C-19(2):157–160, February 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671475.

Ling:1970:HSC

[581] H. Ling. High-speed computer multiplication using a multiple-bit decoding algorithm. *IEEE Transactions on Computers*, C-19(8):706–709, August 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_Ling.pdf.

Linz:1970:AFP

[582] Peter Linz. Accurate floating-point summation. *Communications of the Association for Computing Machinery*, 13(6):361–362, June 1970. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Liu:1970:CEA

[583] B. Liu and T. Kaneko. Correction to "Error analysis of digital filters realized with floating-point arithmetic". *Proceedings of the IEEE*, 58(3): 376, March 1970. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic). See [535].

Long:1970:LAS

[584] C. T. Long and J. H. Jordan. A limited arithmetic on simple continued fractions — II. *Fibonacci Quarterly*, 8(2):135–157, March 1970. CODEN FIBQAU. ISSN 0015-0517. URL `http://www.fq.math.ca/Scanned/8-2/long.pdf`.

Malcolm:1970:AFA

[585] Michael Malcolm. An algorithm for floating-point accumulation of sums with small relative error. Technical Report STAN-CS-70-163, Computer Science Department, Stanford University, Stanford, CA, USA, 1970. 21 pp.

Marasa:1970:AAE

[586] John D. Marasa. Accumulated arithmetic error in floating-point and alternative logarithmic number systems. Thesis (M.S.), Washington University, Sever Institute of Technology, Department of Applied Mathematics and Computer Science, St. Louis, MO, USA, 1970. vii + 88 pp.

Matula:1970:ECA

[587] David W. Matula. The emergence of computational arithmetic as a component of the computer science curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 2(3):41–44, November 1970. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

Matula:1970:FFP

[588] D. W. Matula. A formalization of floating-point numeric base conversion. *IEEE Transactions on Computers*, C-19(8):681–692, August 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956

(electronic). URL http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_Matula.pdf; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671610.

Mifsud:1970:MDA

[589] C. J. Mifsud. A multiple-precision division algorithm. *Communications of the Association for Computing Machinery*, 13(11):666–668, November 1970. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See addendum [774].

Nickel:1970:KBS

[590] K. Nickel. Das Kahan–Babuškasche Summierungsverfahren in Triplex-ALGOL 60. (German) [The Kahan–Babuška summation method in Triplex-ALGOL 60]. *Zeitschrift für Angewandte Mathematik und Mechanik*, 50:369–373, 1970. CODEN ZAMMAX. ISSN 0044-2267 (print), 1521-4001 (electronic).

Ninomiya:1970:BRS

[591] Ichizo Ninomiya. Best rational starting approximations and improved Newton iteration for the square root. *Mathematics of Computation*, 24 (110):391–404, April 1970. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Oppenheim:1970:RDF

[592] A. Oppenheim. Realization of digital filters using block-floating-point arithmetic. *IEEE Transactions on Audio and Electroacoustics*, 18(2): 130–136, June 1970. CODEN ITADAS. ISSN 0018-9278 (print), 1558-2582 (electronic).

Phillips:1970:GLE

[593] David L. Phillips. Generalized logarithmic error and Newton's method for the m th root. *Mathematics of Computation*, 24(110):383–389, April 1970. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Rao:1970:BEC

[594] T. R. N. Rao. Biresidue error-correcting codes for computer arithmetic. *IEEE Transactions on Computers*, C-19(5):398–402, May 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671530.

Rao:1970:BLR

[595] T. R. N. Rao and A. K. Trehan. Binary logic for residue arithmetic using magnitude index. *IEEE Transactions on Computers*, C-19(8):752–757, August 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_Rao.pdf.

Robertson:1970:CBM

[596] J. E. Robertson. The correspondence between methods of digital division and multiplier recoding procedures. *IEEE Transactions on Computers*, C-19(8):692–701, August 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_Robertson.pdf.

Rothmaier:1970:BQN

[597] B. Rothmaier. Die Berechnung der Quadratwurzel nebst Schranken auf Dualmaschinen [*English:* The Computation of the Square Root together with [Interval] Bounds on Binary Machines]. Interner Bericht Nr. 70/17, Institut für Informatik, Universität Karlsruhe, 1970. ?? pp.

Rothmaier:1970:DSB

[598] B. Rothmaier. Dokumentation der Standardfunktionen des Betriebssystems Hydra X8 [*English:* Documentation of the elementary functions of the operating system Hydra X8]. Interner Bericht Nr. 70/8, Institut für Informatik, Universität Karlsruhe, 1970. ?? pp.

Shively:1970:PFI

[599] Richard R. Shively. Preface: First IEEE Conference on Computer Arithmetic, Minneapolis, Minnesota, June 16, 1969. *IEEE Transactions on Computers*, C-19(8): 679–680, August 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_contents.pdf; http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_Shively.pdf; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671609.

Sikdar:1970:DMM

[600] K. Sikdar. Determination of multipliers mapping an arbitrary integer into a range of certain type. *IEEE Transactions on Computers*, C-19 (12):1221–1222, December 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671456.

Svoboda:1970:ADC

[601] A. Svoboda. Adder with distributed control. *IEEE Transactions on Computers*, C-19(8):749–751, August 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_Svoboda.pdf.

Taub:1970:ECS

[602] D. M. Taub, C. E. Owen, and B. P. Day. Experimental computer for schools. *Proceedings of the IEE*, 117(2):303–312, February 1970.

Thornton:1970:DCC

[603] James E. Thornton. *Design of a Computer: the Control Data 6600*. Scott, Foresman and Company, Glenview, IL, USA, 1970. ISBN 0-07-057302-6, 0-07-057303-4. v + 181 pp. LCCN TK7889.C6 T5 1970. URL https://archive.computerhistory.org/resources/text/CDC/cdc.6600.thornton.design_of_a_computer_the_control_data_6600.1970.102630394.pdf.

Tienari:1970:SMR

[604] Martti Tienari. A statistical model of roundoff error for varying length floating-point arithmetic. *BIT (Nordisk tidskrift for informationsbehandling)*, 10(3):355–365, September 1970. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=10&issue=3&spage=355.

Tung:1970:SDD

[605] Chin Tung. Signed-digit division using combinational arithmetic nets. *IEEE Transactions on Computers*, C-19(8):746–748, August 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith1/papers/ARITH1_Tung.pdf.

Usow:1970:CB

[606] K. H. Usow. Certification bibliography. *ACM SIGNUM Newsletter*, 5 (2):14–15, March 1970. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Waksman:1970:WAI

[607] A. Waksman. On Winograd's algorithm for inner products. *IEEE Transactions on Computers*, C-19(4):360–361, April 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Wilson:1970:OSA

[608] M. Wayne Wilson. Optimal starting approximations for generating square root for slow or no divide. *Communications of the Association for Computing Machinery*, 13(9):559–560, September 1970. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Yohe:1970:ACB

[609] J. Michael Yohe. Accurate conversion between number bases. MRC Technical Summary Report 1109, Mathematics Research Center, University of Wisconsin, Madison, Madison, WI, USA, October 1970. URL `https://apps.dtic.mil/sti/html/tr/AD0725091/`.

Yohe:1970:BPF

[610] J. Michael Yohe. Best possible floating point arithmetic. MRC Technical Summary Report 1054, Mathematics Research Center, University of Wisconsin, Madison, Madison, WI, USA, March 1970. ii + 27 pp. URL `https://apps.dtic.mil/sti/html/tr/AD0713699`.

Yohe:1970:RBC

[611] J. Michael Yohe. Rigorous bounds on computed approximations to square roots and cube roots. MRC Technical Summary Report 1088, Mathematics Research Center, University of Wisconsin, Madison, Madison, WI, USA, 1970.

Yong:1970:GBA

[612] Lam Lay Yong. The geometrical basis of the Ancient Chinese square-root method. *Isis*, 61(1):92–102, Spring 1970. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL `http://www.jstor.org/stable/229151`.

Zohar:1970:NRC

[613] S. Zohar. Negative radix conversion. *IEEE Transactions on Computers*, C-19(3):222–226, March 1970. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671493`. See comments [658, 669].

Zuse:1970:CML

[614] Konrad Zuse. *Der Computer, mein Lebenswerk*. Verlag moderne Industrie, München, Germany, 1970. 221 pp. LCCN QA76.2.Z8 A3.

Abdelmalek:1971:REA

[615] Nabih N. Abdelmalek. Round-off error analysis for Gram–Schmidt method and solution of linear least squares problems. *BIT*

(Nordisk tidskrift for informationsbehandling), 11(4):345–367, December 1971. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=11&issue=4&spage=345.

Alway:1971:GFA

[616] G. G. Alway. A general factorising algorithm. *The Computer Journal*, 14(2):166–168, May 1971. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_14/Issue_02/140166.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_14/Issue_02/tiff/166.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_14/Issue_02/tiff/167.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_14/Issue_02/tiff/168.tif.

Banerji:1971:RAC

[617] D. K. Banerji. Residue arithmetic in computer design. Technical report, University of Waterloo, Waterloo, ON, Canada, 1971. URL http://books.google.com/books?id=YNVcPgAACAAJ.

Bataille:1971:GCW

[618] M. Bataille. The Gamma 60: The computer that was ahead of its time. *Honeywell Computer Journal*, 5(3):99–105, ???? 1971. CODEN HNCJA3. ISSN 0046-7847.

Berg:1971:SAO

[619] R. O. Berg and L. L. Kinney. Serial adders with overflow correction. *IEEE Transactions on Computers*, C-20(6):668–671, June 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671914.

Caprani:1971:ILR

[620] Ole Caprani. Implementation of a low round-off summation method. *BIT (Nordisk tidskrift for informationsbehandling)*, 11(3):271–275, September 1971. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=11&issue=3&spage=271.

Chen:1971:BAU

[621] Tien Chi Chen. Binary arithmetic unit implementing a multiplicative iteration for the exponential, logarithm, quotient and square root functions. United States Patent 3,631,230, December 28, 1971. URL http://www.freepatentsonline.com/3631230.html.

Chen:1971:BMS

[622] Tien Chi Chen. A binary multiplication scheme based on squaring. *IEEE Transactions on Computers*, C-20(6):678–680, June 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671918.

Chen:1971:DNC

[623] Tien Chi Chen. Decimal number compression. Internal IBM memo to Dr. Irving T. Ho., March 29, 1971.

Chen:1971:EAA

[624] Tien Chi Chen. Efficient arithmetic apparatus and method. *IBM Technical Disclosure Bulletin*, 14(1):328–330, June 1971. CODEN IBMTAA. ISSN 0018-8689.

Clark:1971:SCP

[625] N. W. Clark, W. J. Cody, and H. Kuki. Self-contained power routines. In Rice [7692], pages 399–415. ISBN 0-12-587250-X. LCCN QA1 .M26. Based on the proceedings of the Mathematical Software Symposium held at Purdue University, Lafayette, Indiana, USA, April 1–3, 1970.

Cody:1971:DHC

[626] W. J. Cody. Desirable hardware characteristics for scientific computation. *ACM SIGNUM Newsletter*, 6(1):16–31, January 1971. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Cody:1971:SEF

[627] W. J. Cody. Software for the elementary functions. In Rice [7692], pages 171–186. ISBN 0-12-587250-X. LCCN QA1 .M26. Based on the proceedings of the Mathematical Software Symposium held at Purdue University, Lafayette, Indiana, USA, April 1–3, 1970.

Dekker:1971:FPT

[628] Theodorus J. Dekker. A floating-point technique for extending the available precision. *Numerische Mathematik*, 18(3):224–242, June 1971. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www-gdz.sub.uni-goettingen.de/cgi-bin/digbib.cgi?PPN362160546_0018.

DeLong:1971:UPA

[629] Howard DeLong. Unsolved problems in arithmetic. *Scientific American*, 224(3):50–60, March 1971. CODEN SCAMAC. ISSN 0036-8733 (print),

1946-7087
(electronic). URL http://www.nature.com/scientificamerican/journal/v224/n3/pdf/scientificamerican0371-50.pdf.

Dutka:1971:SRD

[630] Jacques Dutka. The square root of 2 to 1,000,000 decimals. *Mathematics of Computation*, 25(116):927–930, October 1971. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Gentleman:1971:OMC

[631] W. Morven Gentleman. Optimal multiplication chains for computing a power of a symbolic polynomial. *SIGSAM Bulletin (ACM Special Interest Group on Symbolic and Algebraic Manipulation)*, ??(18):23–30, April 1971. CODEN SIGSBZ. ISSN 0163-5824 (print), 1557-9492 (electronic).

Ghest:1971:TCD

[632] R. C. Ghest. A two's complement digital multiplier, the Am25S05. Technical report, Advanced Micro Devices, Sunnyvale, CA, USA, 1971. ???? pp.

Ginsberg:1971:NID

[633] Myron Ginsberg. Numerical influences on the design of floating-point arithmetic for microcomputers. In *Proceedings of the First Annual Rocky Mountain Symposium on Microprocessors*, pages 24–72. ????, ????, 1971.

Glaser:1971:HBO

[634] Anton Glaser. *History of Binary and Other Nondecimal Numeration*. Anton Glaser, Southampton, PA, USA, 1971. ISBN 0-9600324-1-X. ix + 196 pp. LCCN QA141.2 .G55. See also revised edition [1428].

Golub:1971:CAC

[635] G. H. Golub and L. B. Smith. Chebyshev approximation of continuous functions by a Chebyshev system of functions. *Communications of the Association for Computing Machinery*, 14(11):737–746, November 1971. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). ACM Algorithm 414.

Haavie:1971:SMA

[636] T. Håvie. Some methods for automatic integration and their implementation on the CERN CDC 65/6600 computers. Report CERN 71-26, CERN, Geneva, Switzerland, December 1, 1971. URL https://cds.cern.ch/record/190218/files/CERN-71-26.pdf.

Honey:1971:CCD

[637] D. W. Honey. Correspondence: Calculation of a double-length square root from a double length number using single precision techniques. *The Computer Journal*, 14(4):443, November 1971. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://www3.oup.co.uk/computer_journal/hdb/Volume_14/Issue_04/140443.sgm.abs.html`; `http://www3.oup.co.uk/computer_journal/hdb/Volume_14/Issue_04/tiff/443.tif`.

Kagan:1971:FPS

[638] Claude A. R. Kagan. Floating point sub-language of a string language. *ACM SIGPLAN Notices*, 6(10):20–22, November 1971. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL `https://dl.acm.org/citation.cfm?id=1317449`.

Kahan:1971:SEA

[639] W. M. Kahan. A survey of error analysis. In Freiman et al. [7690], pages 1214–1239. ISBN 0-7204-2063-6. LCCN ???? URL `http://dblp.uni-trier.de/db/conf/ifip/ifip71-2.html#Kahan71`. Eight booklets in two volumes.

Kan:1971:EAD

[640] E. Kan and J. Aggarwal. Error analysis of digital filter employing floating-point arithmetic. *IEEE Transactions on Circuits and Systems*, 18(6):678–686, November 1971. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). See correction [754].

Kingsbury:1971:DFU

[641] N. G. Kingsbury and P. J. W. Rayner. Digital filtering using logarithmic arithmetic. *Electronics Letters*, 7(2):56–58, January 28, 1971. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Krishnamurthy:1971:CTW

[642] E. V. Krishnamurthy. Complementary two-way algorithms for negative radix conversions. *IEEE Transactions on Computers*, C-20(5):543–550, May 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671881`.

Krishnamurthy:1971:EIR

[643] E. V. Krishnamurthy. Economical iterative and range-transformation schemes for division. *IEEE Transactions on Computers*, C-20(4):470–472, April 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956

(electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671863.

Kuki:1971:FEP

[644] H. Kuki and J. Ascoly. FORTRAN extended-precision library. *IBM Systems Journal*, 10(1):39–61, 1971. CODEN IBMSA7. ISSN 0018-8670.

Kuki:1971:MFS

[645] H. Kuki. Mathematical function subprograms for basic system libraries —objectives, constraints, and trade-off. In Rice [7692], pages 187–199. ISBN 0-12-587250-X. LCCN QA1 .M26. Based on the proceedings of the Mathematical Software Symposium held at Purdue University, Lafayette, Indiana, USA, April 1–3, 1970.

Kulisch:1971:AAR

[646] Ulrich W. Kulisch. An axiomatic approach to rounded computations. *Numerische Mathematik*, 18(1):1–17, February 1971. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). See also [533].

Kupka:1971:SRA

[647] I. Kupka. Simulation of real arithmetic and real functions in finite sets. *Numerische Mathematik*, 17(2):143–152, 1971. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Lindsay:1971:RAF

[648] D. S. Lindsay. A rounded arithmetic FORTRAN compiler for CDC 6000 machines. Report ????, Department of Computer Science, University of California, Berkeley, CA, USA, December 1971. ???? pp.

Majithia:1971:CAN

[649] J. C. Majithia and R. Kitai. A cellular array for the nonrestoring extraction of square roots. *IEEE Transactions on Computers*, C-20(12): 1617–1618, December 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671784.

Majithia:1971:IAM

[650] J. C. Majithia and R. Kitai. An iterative array for multiplication of signed binary numbers. *IEEE Transactions on Computers*, C-20(2):214–216, February 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671809.

Malcolm:1971:AFP

[651] Michael A. Malcolm. On accurate floating-point summation. *Communications of the Association for Computing Machinery*, 14(11): 731–736, November 1971. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Malcolm:1971:ARP

[652] Michael A. Malcolm. Algorithm to reveal properties of floating-point arithmetic. Technical report, Stanford University, Stanford, Ca., 1971. 8 pp.

Morris:1971:TFP

[653] R. Morris. Tapered floating point: a new floating-point representation. *IEEE Transactions on Computers*, C-20(12):1578–1579, December 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671767.

Mullet:1971:NME

[654] Gary M. Mullet and Tracy W. Murray. A new method for examining rounding error in least-squares regression computer programs. *Journal of the American Statistical Association*, 66(335):496–498, September 1971. CODEN JSTNAL. ISSN 0162-1459 (print), 1537-274X (electronic). URL http://www.jstor.org/stable/2283514.

Nicoud:1971:IAR

[655] Jean-Daniel Nicoud. Iterative arrays for radix conversion. *IEEE Transactions on Computers*, C-20(12):1479–1489, December 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Paker:1971:BFP

[656] Y. Paker. A binary floating-point resistor. *IEEE Transactions on Computers*, C-20(1):7–11, January 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671667.

Paus:1971:FPA

[657] Dag Paus. Floating point arithmetikk til Nord-2B. Hovedoppgave i fysikk, Universitetet i Oslo, Oslo, Norway, 1971. 156 pp.

Pawlak:1971:ACN

[658] Z. Pawlak. Another comment on “Negative Radix Conversion”. *IEEE Transactions on Computers*, C-20(5):587, May 1971. CODEN

ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671894`. See [669, 613].

Pezaris:1971:BBA

[659] S. D. Pezaris. A 40ns 17-bit by 17-bit array multiplier. *IEEE Transactions on Computers*, C-20(4):442–447 (??), April 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Pezaris:1971:NBB

[660] S. D. Pezaris. A 40-ns 17-bit by 17-bit array multiplier. *IEEE Transactions on Computers*, C-20(4):442–447, April 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671854`.

Rhyne:1971:SPN

[661] V. T. Rhyne. A simple postcorrection for nonrestoring division. *IEEE Transactions on Computers*, C-20(2):213–214, February 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671808`.

Rothmaier:1971:BEF

[662] B. Rothmaier. *Die Berechnung der elementaren Funktionen mit beliebiger Genauigkeit [*English: *The Computation of Elementary Functions with Arbitrary Accuracy]*. Dissertation, Universität Karlsruhe, Karlsruhe, Germany, 1971. ?? pp.

Sarkar:1971:EPP

[663] B. P. Sarkar and E. V. Krishnamurthy. Economic pseudodivision processes for obtaining square root, logarithm, and arctan. *IEEE Transactions on Computers*, C-20(12):1589–1593, December 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671771`.

Schmookler:1971:HSD

[664] Martin S. Schmookler and Arnold Weinberger. High speed decimal addition. *IEEE Transactions on Computers*, C-20(8):862–867, August 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Schonhage:1971:SMG

[665] A. Schönhage and V. Strassen. Schnelle Multiplikation großer Zahlen. (German) [Fast multiplication of large numbers]. *Computing: Archiv fur*

informatik und numerik, 7(3–4):281–292, 1971. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). Check pages??

Shepherd:1971:RSL

[666] B. J. Shepherd. Right shift for low-cost multiply and divide. *IEEE Transactions on Computers*, C-20(12):1586–1589, December 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671770.

Stein:1971:IMA

[667] Marvin L. Stein and William D. Munro. *Introduction to machine arithmetic*. Addison-Wesley, Reading, MA, USA, 1971. viii + 295 pp. LCCN QA76.5 .S752.

Stein:1971:SMA

[668] M. L. Stein and W. D. Munro. Scaling machine arithmetic. *IEEE Transactions on Computers*, C-20(6):675–678, June 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671917.

Wadel:1971:CNR

[669] L. B. Wadel. Comment on "Negative Radix Conversion". *IEEE Transactions on Computers*, C-20(5):587, May 1971. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1671893. See [658, 613].

Walker:1971:BS

[670] R. J. Walker. Binary summation. *Communications of the Association for Computing Machinery*, 14(6):417, June 1971. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Walther:1971:UAE

[671] J. S. Walther. A unified algorithm for elementary functions. In AFIPS SJCC '71 [7688], pages 379–385. LCCN ????

Wlodarski:1971:FLN

[672] J. Wlodarski. Fibonacci and Lucas numbers tend to obey Benford's Law. *Fibonacci Quarterly*, 9(1):87–88, February 1971. CODEN FIBQAU. ISSN 0015-0517. URL http://www.fq.math.ca/Scanned/9-1/wlodarski2.pdf.

Yohe:1971:R

[673] J. Michael Yohe. Rounding. In *Proceedings of the 1971 Army Numerical Analysis and Computers Conference*, pages 213–223. US Army Research Office, Durham, NC, USA, 1971. LCCN ???? ARO-D Report 71-4.

Abdelmagid:1972:DFP

[674] Mohamed Nabil Fouad Abdelmagid. Design of a floating point arithmetic unit. Thesis (M.S.), Illinois Institute of Technology, Chicago, IL., 1972. v + 60 pp.

Ahmad:1972:ISH

[675] M. Ahmad. Iterative schemes for high speed division. *The Computer Journal*, 15(4):333–336, November 1972. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_15/Issue_04/150333.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_15/Issue_04/tiff/333.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_15/Issue_04/tiff/334.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_15/Issue_04/tiff/335.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_15/Issue_04/tiff/336.tif.

Bandyopadhyay:1972:IAM

[676] S. Bandyopadhyay, S. Basu, and A. K. Choudhury. An iterative array for multiplication of signed binary numbers. *IEEE Transactions on Computers*, C-21(8):921–922, August 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009055.

Banerji:1972:TAR

[677] D. K. Banerji and J. A. Brzozowski. On translation algorithms in residue number systems. *IEEE Transactions on Computers*, C-21(12):1281–1285, December 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35066; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672092.

Brakefield:1972:OFP

[678] James C. Brakefield. An optimal floating point format. *ACM SIGARCH Computer Architecture News*, 1(4):16–17, October 1972. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Chen:1972:ACE

[679] Tien Chi Chen. Automatic computation of exponentials, logarithms, ratios and square roots. *IBM Journal of Research and Development*, 16(4):380–388, July 1972. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/164/chen.pdf.

Chiang:1972:NAB

[680] A. C. L. Chiang and I. S. Reed. Notes on the arithmetic BN modulo A codes. *IEEE Transactions on Computers*, C-21(8):891–894, August 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009046.

Chien:1972:ECH

[681] R. T. Chien and Se June Hong. Error correction in high-speed arithmetic. *IEEE Transactions on Computers*, C-21(5):433–438, May 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672131.

Chinal:1972:SCP

[682] J. P. Chinal. Some comments on postcorrections for nonrestoring division. *IEEE Transactions on Computers*, C-21(12):1385–1394, December 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672104.

DeMori:1972:PSS

[683] R. De Mori and A. Serra. A parallel structure for signed-number multiplication and addition. *IEEE Transactions on Computers*, C-21(12):1453–1454, December 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672118.

Fenwick:1972:BRD

[684] Peter M. Fenwick. A binary representation for decimal numbers. *Australian Computer Journal*, 4(4):146–149, November 1972. CODEN ACMJB2. ISSN 0004-8917.

Fettweis:1972:CBM

[685] A. Fettweis. On the connection between multiplier word length limitation and roundoff noise in digital filters. *IEEE Transactions on Circuits and*

Systems, 19(5):486–491, September 1972. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Franklin:1972:ZDA

[686] J. W. Franklin. Zoned decimal arithmetic. *IBM Technical Disclosure Bulletin*, 15(7):2123–2124, December 1972. CODEN IBMTAA. ISSN 0018-8689.

Goldstine:1972:CPN

[687] Herman H. Goldstine. *The Computer: From Pascal to von Neumann*. Princeton University Press, Princeton, NJ, USA, 1972. ISBN 0-691-02367-0; 0-691-08104-2. xii + 378 pp. Second printing, 1973. Paperback edition 1980. Fifth printing, 1993 with new preface. Reprint 2000 by Books on Demand, Ann Arbor, MI, USA.

Gosper:1972:HCF

[688] R. W. Gosper. HAKMEM 101: Continued fractions. Memo AIM 239, MIT AI Laboratory, Cambridge, MA, USA, 1972. 37–44 pp. URL `http://www.inwap.com/pdp10/hbaker/hakmem/cf.html#item101a`.

Gregory:1972:CFP

[689] James Gregory. A comparison of floating point summation methods. *Communications of the Association for Computing Machinery*, 15(9):838, September 1972. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Gregory:1972:URA

[690] Robert Todd Gregory. The use of residue arithmetic with automatic digital computers. *Delta (Waukesha)*, 3(2):1–27, 1972/1973.

Hallin:1972:PAF

[691] T. G. Hallin and M. J. Flynn. Pipelining of arithmetic functions. *IEEE Transactions on Computers*, C-21(8):880–886, August 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Heising:1972:MM

[692] W. Heising, M. O. Rabin, and Shmuel Winograd. Multiplication method. *IBM Technical Disclosure Bulletin*, 15(4):1147–1148, September 1972. CODEN IBMTAA. ISSN 0018-8689.

IBM:1972:ISR

[693] International Business Machines Corporation. *IBM System/360 reference data: direct evaluation of floating point numbers in hexadecimal:*

debugging aid. IBM Corporation, White Plains, NY, USA, 1972. 18 pp.

Kamal:1972:HSM

[694] A. A. Kamal and M. A. N. Ghannam. High-speed multiplication systems. *IEEE Transactions on Computers*, C-21(9):1017–1021, September 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009082`.

Liu:1972:REF

[695] B. Liu and M. Van Valkenburg. On roundoff error of fixed-point digital filters using sign-magnitude truncation. *IEEE Transactions on Circuits and Systems*, 19:536–537, September 1972. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Loevenbruck:1972:CNR

[696] A. P. Loevenbruck. Conversion of number representations. *IBM Technical Disclosure Bulletin*, 15(7):2148–2151, December 1972. CODEN IBMTAA. ISSN 0018-8689.

Majithia:1972:CAE

[697] J. C. Majithia. Cellular array for extraction of squares and square roots of binary numbers. *IEEE Transactions on Computers*, C-21(9):1023–1024, September 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009084`.

Malcolm:1972:ARP

[698] Michael A. Malcolm. Algorithms to reveal properties of floating-point arithmetic. *Communications of the Association for Computing Machinery*, 15(11):949–951, November 1972. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [836].

Mandelbaum:1972:ECR

[699] David Mandelbaum. Error correction in residue arithmetic. *IEEE Transactions on Computers*, C-21:538–545, 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Manos:1972:CCA

[700] Paul Manos and L. Richard Turner. Constrained Chebyshev approximations to some elementary functions suitable for evaluation

with floating-point arithmetic. NASA Technical Note TN D-6698, NASA, Washington, DC, USA, March 1972. iii + 68 pp. URL http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19720010958_1972010958.pdf.

Maple:1972:FPA

[701] Christopher Marion Maple. A floating point analog to digital and digital to analog converter. Thesis (B.S.), Massachusetts Institute of Technology. Dept. of Electrical Engineering, Cambridge, MA, USA, 1972. 18 pp.

Marino:1972:NAA

[702] D. Marino. New algorithms for the approximate evaluation in hardware of binary logarithms and elementary functions. *IEEE Transactions on Computers*, 21(12):1416–1421, December 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Matula:1972:NTF

[703] David W. Matula. Number theoretic foundations of finite precision arithmetic. In Zaremba [7697], pages 479–489. ISBN 0-12-775950-6. LCCN QA297 .A67.

Metropolis:1972:ABCa

[704] N. Metropolis. Analyzed binary computing. Technical Report LA-DC–72-783; CONF-720916–2, Los Alamos Scientific Laboratory, Los Alamos, NM, USA, September 12, 1972. 4 pp. URL http://www.osti.gov/energycitations/product.biblio.jsp?osti_id=4647144&query_id=0.

Metropolis:1972:ABCb

[705] N. Metropolis. Analyzed binary computing. In IEEE [7695], pages 81–84. LCCN TK7885.A1 C53 1972. IEEE order number 72CH0659-3C.

Metropolis:1972:ABCc

[706] Nicholas C. Metropolis. Analyzed binary computing. In IEEE [7696], pages 1–14. ISBN ???? LCCN ???? URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6153912.

Miller:1972:DFD

[707] Peter Edwin Miller. The design of a floating-point, double-precision arithmetic unit for the Digital Equipment Corporation's PDP-9 computer. Thesis (M.S.), Ohio State University, Columbus, OH, USA, 1972. 83 pp.

Neely:1972:CSN

[708] Peter M. Neely. On conventions for systems of numerical representation. In ACM [7693], pages 644–561. LCCN QA76; TK7885. Two volumes.

Oberman:1972:FRM

[709] R. M. M. Oberman. A flexible rate multiplier circuit with uniform pulse distribution outputs. *IEEE Transactions on Computers*, C-21(8):896–899, August 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009048`.

Paris:1972:MA

[710] J. B. Paris. On models of arithmetic. *Lecture Notes in Mathematics*, 255: 251–280, 1972. CODEN LNMAA2. ISBN 3-540-05744-7 (print), 3-540-37162-1 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.springer.com/chapter/10.1007/BFb0059548/`.

Pettus:1972:IDC

[711] C. Pettus. Indeterminate $0 \div 0$ check in APL. *ACM SIGPLAN Notices*, 7 (4):40–41, April 1972. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Phillips:1972:ICF

[712] C. Phillips. Instabilities caused by floating-point arithmetic quantization. *IEEE Transactions on Automatic Control*, 17(2):242–243, April 1972. CODEN IETAA9. ISSN 0018-9286 (print), 1558-2523 (electronic).

Pichat:1972:CSA

[713] M. Pichat. Correction d'une somme en arithmétique à virgule flottante. (French) [Correction of a Sum in Floating-Point Arithmetic]. *Numerische Mathematik*, 19(5):400–406, 1972. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). From Douglas Priest: (`Douglas.Priest@eng.sun.com`) writing in Usenet newsgroup sci.math.num-analysis on 13 Sep 1994 16:04:56 GMT: "... An iterative algorithm for computing a protracted sum to working precision by repeatedly applying the sum-and-roundoff method.".

Ramamoorthy:1972:SPI

[714] C. V. Ramamoorthy, James R. Goodman, and K. H. Kim. Some properties of iterative square-rooting methods using high-speed multiplication. *IEEE Transactions on Computers*, C-21(8):837–847, August 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956

(electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009039.

Randell:1972:ATO

[715] Brian Randell. On Alan Turing and the origins of digital computers. Technical report 33, University of Newcastle upon Tyne, Computing Laboratory, Newcastle upon Tyne, UK, 1972. 36 pp.

Randell:1972:ODC

[716] Brian Randell. The origins of digital computers: a bibliography. Technical report 38, Computing Laboratory, University of Newcastle upon Tyne, Newcastle upon Tyne, UK, 1972. iii + 59 pp.

Richman:1972:AEA

[717] Paul L. Richman. Automatic error analysis for determining precision. *Communications of the Association for Computing Machinery*, 15(9): 813–817, September 1972. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Ripley:1972:PFP

[718] Jerald Lester Ripley. *On proofs of floating-point program correctness and a measure of their relative efficiency*. Thesis (Ph.D.), University of Oklahoma, ????, 1972. vi + 105 pp.

Rohl:1972:NCA

[719] J. S. Rohl and J. A. Linn. A note on compiling arithmetic expressions. *The Computer Journal*, 15(1):13–14, February 1972. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/15/1/13.full.pdf+html; http://www3.oup.co.uk/computer_journal/hdb/Volume_15/Issue_01/150013.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_15/Issue_01/tiff/13.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_15/Issue_01/tiff/14.tif.

Samet:1972:CDL

[720] P. A. Samet and D. W. Honey. Calculation of a double-length square root from double-length number using single precision techniques. *The Computer Journal*, 15(2):116, May 1972. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/15/2/116.full.pdf+html; http://www3.oup.co.uk/computer_journal/hdb/Volume_15/Issue_02/tiff/116.tif.

Schulenberg:1972:RSS

[721] Craig Schulenberg and James E. Kernan. Results of space shuttle computer floating-point precision study. Report E-2637, M.I.T. Charles Stark Draper Laboratory, Cambridge, 1972. various pp.

Schurmann:1972:MEA

[722] A. Schurmann. On the minimum error in addition processes of positive floating-point numbers. *Zastosowania Matematyki*, 13:351–366, 1972–1973. CODEN ZAMTAK.

Shaham:1972:NDA

[723] Z. Shaham and Z. Riesel. A note on division algorithms based on multiplication. *IEEE Transactions on Computers*, C-21(5):513–514, May 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672150`.

Stallings:1972:CPM

[724] W. T. Stallings and T. L. Boullion. Computation of pseudoinverse matrices using residue arithmetic. *SIAM Review*, 14(1):152–163, ???? 1972. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Stefanelli:1972:SHS

[725] R. Stefanelli. A suggestion for a high-speed parallel binary divider. *IEEE Transactions on Computers*, C-21(1):42–55, January 1972. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Tung:1972:A

[726] C. Tung. Arithmetic. In Cardenas et al. [7694], page ?? ISBN 0-471-13468-6. LCCN QA76.5 .C365; TK7885 .C178c.

Urabae:1972:CEA

[727] Minoru Urabae. Component-wise error analysis of iterative methods practiced on a floating-point system. MRC Technical Summary Report 1268, Mathematics Research Center, University of Wisconsin, Madison, Madison, WI, USA, 1972. 57 pp.

Varian:1972:LEB

[728] Hal R. Varian. Letter to the Editor: Benford's Law. *The American Statistician*, 26(3):65–66, June 1972. CODEN ASTAAJ. ISSN 0003-1305 (print), 1537-2731 (electronic). URL `http://links.jstor.org/sici?sici=0003-1305%28197206%2926%3A3%3C62%3ALTTE%3E2.0.CO%3B2-Q`.

Wirth:1972:PCG

[729] Niklaus Wirth. On “Pascal”, code generation, and the CDC 6000 computer. Report STAN-CS-72-257, Stanford University, Department of Computer Science, Stanford, CA, USA, February 1972. i + 38 pp.

Young:1972:SNM

[730] David M. Young and Robert Todd Gregory. *A Survey of Numerical Mathematics*. Addison-Wesley, Reading, MA, USA, 1972. ISBN 0-201-08773-1, 0-486-65691-8 (Dover paperback). x + 492 (A1–A18 and B1–B14 and I1–I19) pp. LCCN QA297 .Y63 1972.

Aird:1973:SUM

[731] T. Aird, D. Dodson, E. Houstis, and J. Rice. Statistics on the use of mathematical subroutines from a computer center library. *ACM SIGNUM Newsletter*, 8(4):8–9, October 1973. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Anjoorian:1973:EME

[732] Harry Anjoorian. An example of microprogrammed extended-precision floating-point arithmetic. Thesis (M.A.), California State University, Chico, Chico, CA, USA, 1973. ix + 94 pp.

Atkins:1973:PCA

[733] David E. Atkins, III and Harvey L. Garner. Preface: Computer arithmetic: An introduction and overview [Second IEEE Symposium on Computer Arithmetic, May 15–16, 1972, University of Maryland]. *IEEE Transactions on Computers*, C-22(6):549–551, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Atkins.pdf; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009104`.

Avizienis:1973:AAE

[734] Algirdas Avižienis. Arithmetic algorithms for error-coded operands. *IEEE Transactions on Computers*, C-22(6):567–572, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Avizienis.pdf`.

Barna:1973:ICD

[735] Arpad Barna and Dan I. Porat. *Integrated Circuits in Digital Electronics*. Wiley, New York, NY, USA, 1973. ISBN 0-471-05050-4. xi + 483 pp. LCCN TK7868.D5 B43.

Barsi:1973:ECP

[736] F. Barsi and P. Maestrini. Error correcting properties of redundant residue number systems. *IEEE Transactions on Computers*, C-22(3):307–315, March 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35074; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672304.

Baugh:1973:TCP

[737] C. R. Baugh and B. A. Wooley. A two's complement parallel array multiplication algorithm. *IEEE Transactions on Computers*, C-22(12):1045–1047, December 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672241. See comments [820, 843].

Besslich:1973:MDS

[738] P. W. Besslich and S. Raman. Multiplication, division and square root extraction methods for electronic desk calculators. *Journal of the Institution of Telecommunication Engineers (India)*, 19(4), April 1973.

Brent:1973:PAV

[739] Richard P. Brent. On the precision attainable with various floating-point number systems. *IEEE Transactions on Computers*, C-22(6):601–607, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Brent.pdf.

Brent:1973:PEA

[740] R. Brent, D. Kuck, and K. Maruyama. The parallel evaluation of arithmetic expressions without division. *IEEE Transactions on Computers*, C-22(5):532–534, May 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672350.

Cappa:1973:AIA

[741] M. Cappa and V. C. Hamacher. An augmented iterative array for high-speed binary division. *IEEE Transactions on Computers*, C-22(2):172–175, February 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672273. See comments [835].

Cody:1973:SDN

[742] William J. Cody, Jr. Static and dynamic numerical characteristics of floating-point arithmetic. *IEEE Transactions on Computers*, C-22 (6):598–601, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Cody.pdf.

Dorr:1973:REC

[743] Fred W. Dorr and Cleve B. Moler. Roundoff error on the CDC 6600/7600 computers. *ACM SIGNUM Newsletter*, 8(2):24–26, April 1973. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Du:1973:CSS

[744] Min-Wen Du and C. Dennis Weiss. Circuit structure and switching function verification. *IEEE Transactions on Computers*, C-22(6):618–625, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Du.pdf.

Ercegovac:1973:REC

[745] Miloš D. Ercegovac. Radix-16 evaluation of certain elementary functions. *IEEE Transactions on Computers*, C-22(6):561–566, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Ercegovac.pdf; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009107.

Erkio:1973:EAV

[746] Hannu Erkio. An extension of ALGOL with variable precision floating-point arithmetic. Series A. Report 1973/2, University of Helsinki, Department of Computer Science, Helsinki, 1973. ii + 20 pp.

Fettweis:1973:RNA

[747] A. Fettweis. Roundoff noise and attenuation sensitivity in digital filters with fixed-point arithmetic. *IEEE Transactions on Circuits and Systems*, 20(2):174–175, March 1973. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Gelenbe:1973:UAE

[748] Erol Gelenbe. A unified approach to the evaluation of a class of replacement algorithms. *IEEE Transactions on Computers*, C-22(6):611–618, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956

(electronic). URL http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Gelenbe.pdf.

Green:1973:NTF

[749] D. H. Green and R. G. Kelsch. Nonlinear ternary feedback shift registers. *The Computer Journal*, 16(4):360–367, November 1973. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_16/Issue_04/160360.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_16/Issue_04/tiff/360.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_16/Issue_04/tiff/361.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_16/Issue_04/tiff/362.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_16/Issue_04/tiff/363.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_16/Issue_04/tiff/364.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_16/Issue_04/tiff/365.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_16/Issue_04/tiff/366.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_16/Issue_04/tiff/367.tif.

Hamming:1973:NMS

[750] R. W. (Richard Wesley) Hamming. *Numerical methods for scientists and engineers*. International series in pure and applied mathematics. McGraw-Hill, New York, NY, USA, second edition, 1973. ISBN 0-07-025887-2. ix + 721 pp. LCCN QA297 .H28 1973.

Hwang:1973:RRS

[751] W. G. Hwang and John Todd. A recurrence relation for the square root. *Journal of Approximation Theory*, 9:299–306, 1973. CODEN JAXTAZ. ISSN 0021-9045,1096-0430.

Jacobsohn:1973:CDA

[752] David H. Jacobsohn. A combinatoric division algorithm for fixed-integer divisors. *IEEE Transactions on Computers*, C-22(6):608–610, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Jacobsohn.pdf.

Kahan:1973:IAL

[753] W. Kahan. Implementation of algorithms (lecture notes by W. S. Haugeland and D. Hough). Technical report 20, Department of Computer Science, Berkeley, CA, USA, 1973.

Kan:1973:CEA

[754] E. Kan and J. Aggarwal. Correction to "Error Analysis of Digital Filters Employing Floating-Point Arithmetic". *IEEE Transactions on Circuits and Systems*, 20(5):617–618, September 1973. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). See [640].

Kanani:1973:NCS

[755] Dhirubhai V. Kanani and Kenneth H. O'Keefe. A note on conditional-sum addition for base −2 systems. *IEEE Transactions on Computers*, C-22(6):626, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Kanani.pdf; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009117.

Kaneko:1973:LCO

[756] T. Kaneko. Limit-cycle oscillations in floating-point digital filters. *IEEE Transactions on Audio and Electroacoustics*, 21(2):100–106, April 1973. CODEN ITADAS. ISSN 0018-9278 (print), 1558-2582 (electronic).

Kaneko:1973:LRE

[757] Toyohisa Kaneko and Bede Liu. On local roundoff errors in floating-point arithmetic. *Journal of the Association for Computing Machinery*, 20(3):391–398, July 1973. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Kent:1973:PDS

[758] Jan G. Kent. Procedures for the description and simulation of floating point instructions. Report 426, Norwegian Computing Center, Oslo, Norway, September 1973.

Kent:1973:TDA

[759] Jan G. Kent. Theoretical definition, analysis and comparison of floating point instructions. Report 425, Norwegian Computing Center, Oslo, Norway, September 1973.

Kielbasinski:1973:SAC

[760] Andrzej Kiełbasiński. Summation algorithm with corrections and some of its applications. *Math. Stos.*, 1:22–41, 1973. In Polish.

Kinoshita:1973:GDS

[761] E. Kinoshita, H. Kosako, and Y. Kojima. General division in the symmetric residue number system. *IEEE Transactions on Computers*,

C-22(2):134–142, February 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35073; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672267.

Kreifelts:1973:OBF

[762] T. Kreifelts. Optimale Basiswahl für eine Gleitkomma-Arithmetik [*English:* Optimal Choice of Basis for a Floating-Point Arithmetic]. *Computing: Archiv fur informatik und numerik*, 11(??):353–363, ???? 1973. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Kreifelts:1973:OBG

[763] Thomas Kreifelts. Optimale Basiswahl für eine Gleitkomma-Arithmetik. (German) [Optimal choice of basis for a floating-point arithmetic]. *Computing: Archiv fur informatik und numerik*, 11(4):353–363, December 1973. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). See correction [909].

Kuki:1973:SSA

[764] H. Kuki and W. J. Cody. A statistical study of the accuracy of floating point number systems. *Communications of the Association for Computing Machinery*, 16(4):223–230, April 1973. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Larson:1973:HSM

[765] R. H. Larson. High speed multiply using four input carry save adder. *IBM Technical Disclosure Bulletin*, ??(??):2053–2054, December 1973. CODEN IBMTAA. ISSN 0018-8689.

Larson:1973:MSM

[766] R. H. Larson. Medium speed multiply. *IBM Technical Disclosure Bulletin*, ??(??):2055, December 1973. CODEN IBMTAA. ISSN 0018-8689.

Lee:1973:SFP

[767] Keng Ho Lee. *Survey of floating-point software arithmetics and basic library mathematical functions*. Thesis (Ph.D.), Glasgow University, Glasgow, Scotland, 1973.

Majithia:1973:NBL

[768] J. C. Majithia and D. Levan. A note on base-2 logarithm computations. *Proceedings of the IEEE*, 61(10):1519–1520, October 1973. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic).

Malcolm:1973:MAP

[769] Michael A. Malcolm. A machine-independent ALGOL procedure for accurate floating-point summation. Technical report STAN-CS-73-374, Stanford University, Computer Science Department, Stanford, CA, USA, 1973. 6 pp.

Malcolm:1973:PAF

[770] Michael A. Malcolm. *Part I: On accurate floating-point summation; Part II: Computation of nonlinear spline functions*. Thesis (Ph.D.), Department of Computer Science, Stanford University, Stanford, CA, USA, 1973. ix + 129 pp.

Marasa:1973:SSC

[771] John D. Marasa and David W. Matula. A simulated study of correlated error propagation in various finite-precision arithmetics. *IEEE Transactions on Computers*, C-22(6):587–597, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Marasa.pdf`.

Metropolis:1973:ABC

[772] Nicholas C. Metropolis. Analyzed binary computing. *IEEE Transactions on Computers*, C-22(6):573–576, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Metropolis:1973:SAC

[773] N. Metropolis, Gian-Carlo Rota, and S. Tanny. Significance arithmetic: the carrying algorithm. *Journal of Combinatorial Theory (Series A)*, 14: 386–421, May 1973. CODEN JCBTA7. ISSN 0097-3165 (print), 1096-0899 (electronic).

Mifsud:1973:AMP

[774] Charles J. Mifsud and Michael J. Bohlen. Addendum to a multiple-precision division algorithm. *Communications of the Association for Computing Machinery*, 16(10):628–??, 1973. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [589].

Newbery:1973:EAF

[775] A. C. R. Newbery. Error analysis for Fourier series evaluation. *Mathematics of Computation*, 27(123):639–644, July 1973. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

OKeefe:1973:RBE

[776] Kenneth H. O'Keefe and John L. Wright. Remarks on base extension for modular arithmetic. *IEEE Transactions on Computers*, C-22(9):833–835, September 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009173`.

Parker:1973:DHF

[777] Tony Edwin Parker. Design of a hardware floating point processor for the PDP-8s. Thesis (B.S.), Massachusetts Institute of Technology. Dept. of Electrical Engineering, Cambridge, MA, USA, 1973. 19 pp.

Paterson:1973:NNM

[778] Michael S. Paterson and Larry J. Stockmeyer. On the number of nonscalar multiplications necessary to evaluate polynomials. *SIAM Journal on Computing*, 2(1):60–66, March 1973. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic).

Pittnauer:1973:AA

[779] E. Pittnauer. Eine Aussage über Alternanten [*English:* ??]. *Numerische Mathematik*, 23(??):427–432, ???? 1973. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Pittnauer:1973:NPK

[780] E. Pittnauer. Numerische Polynomapproximation mit Knotenpolynomen [*English:* Numerical Polynomial Approximations with Knot Polynomials]. *Numerische Mathematik*, 21(3):256–263, 1973. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Randell:1973:ODC

[781] Brian Randell, editor. *The origins of digital computers: selected papers*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1973. ISBN 0-387-06169-X, 3-540-06169-X. xvi + 464 pp. LCCN TK7888.3 .R36.

Richman:1973:VPE

[782] Paul L. Richman. Variable-precision exponentiation. *Communications of the Association for Computing Machinery*, 16(1):38–40, January 1973. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Robertson:1973:SIC

[783] James E. Robertson and Kishor S. Trivedi. The status of investigations into computer hardware design based on the use of continued

fractions. *IEEE Transactions on Computers*, C-22(6):555–560, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Robertson.pdf.

Roy:1973:ARC

[784] P. K. Sinha Roy and C. L. Sheng. Author's reply to comments on "Decomposition Method of Determining Maximum Compatibles". *IEEE Transactions on Computers*, C-22(6):627, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Sureshchander.pdf. See [803].

Rubinfield:1973:FM

[785] Louis P. Rubinfield. A floating-point macromodule. Thesis (M.S.), Washington University, Department of Electrical Engineering, St. Louis, MO, USA, 1973. vii + 111 pp.

Sankar:1973:AAN

[786] P. V. Sankar, S. Chakrabarti, and E. V. Krishnamurthy. Arithmetic algorithms in a negative base. *IEEE Transactions on Computers*, C-22 (2):120–125, February 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672264.

Sankar:1973:DDA

[787] P. V. Sankar, S. Chakrabarti, and E. V. Krishnamurthy. Deterministic division algorithm in a negative base. *IEEE Transactions on Computers*, C-22(2):125–128, February 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672265.

Schatte:1973:VMG

[788] Peter Schatte. Zur Verteilung der Mantisse in der Gleitkommadarstellung einer Zufallsgröße. (German) [distribution of the mantissa in the floating-point representation of a random variable]. *Zeitschrift für Angewandte Mathematik und Mechanik*, 53(??):553–565, ???? 1973. CODEN ZAMMAX. ISSN 0044-2267 (print), 1521-4001 (electronic).

Schmid:1973:BLIa

[789] H. Schmid. BCD logic I: BCD – logic of many uses. *Electronic Design*, 21(13):90–95, June 1973. CODEN ELODAW. ISSN 0013-4872 (print), 1944-9550 (electronic).

Schmid:1973:BLIb

[790] H. Schmid. BCD logic II: BCD multiplication. *Electronic Design*, 21 (14):62–69, July 1973. CODEN ELODAW. ISSN 0013-4872 (print), 1944-9550 (electronic).

Schmid:1973:BLIc

[791] H. Schmid. BCD logic III: BCD division. *Electronic Design*, 21(15):86–92, July 1973. CODEN ELODAW. ISSN 0013-4872 (print), 1944-9550 (electronic).

Schmid:1973:BLId

[792] H. Schmid. BCD logic IV: BCD decimal-point location. *Electronic Design*, 21(16):80–84, August 1973. CODEN ELODAW. ISSN 0013-4872 (print), 1944-9550 (electronic).

Schmid:1973:BLVa

[793] H. Schmid. BCD logic V: BCD square root. *Electronic Design*, 21(17): 62–69, August 1973. CODEN ELODAW. ISSN 0013-4872 (print), 1944-9550 (electronic).

Schmid:1973:BLVb

[794] H. Schmid. BCD logic VI: BCD logarithms and exponentials. *Electronic Design*, 21(18):118–123, September 1973. CODEN ELODAW. ISSN 0013-4872 (print), 1944-9550 (electronic).

Schmid:1973:BLVc

[795] H. Schmid. BCD logic VII: BCD trig and hyperbolic functions. *Electronic Design*, 21(19):68–73, September 1973. CODEN ELODAW. ISSN 0013-4872 (print), 1944-9550 (electronic).

Sentance:1973:FAB

[796] W. A. Sentance. A further analysis of Benford's Law. *Fibonacci Quarterly*, 11(5):490–494, December 1973. CODEN FIBQAU. ISSN 0015-0517. URL `http://www.fq.math.ca/Scanned/11-5/sentance.pdf`.

Shea:1973:NDN

[797] Dale D. Shea. On the number of divisions needed in finding the greatest common divisor. *Fibonacci Quarterly*, 11(5):508–510, December 1973. CODEN FIBQAU. ISSN 0015-0517. URL `http://www.fq.math.ca/Scanned/11-5/shea.pdf`.

Singh:1973:MOA

[798] S. Singh and R. Waxman. Multiple operand addition and multiplication. *IEEE Transactions on Computers*, C-22(2):113–120, February 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672263.

Sites:1973:FPS

[799] Richard L. Sites. Floating point significance interrupt proposal. *ACM SIGARCH Computer Architecture News*, 2(1):10–12, January 1973. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Sjoding:1973:NVR

[800] T. Sjoding. Noise variance for rounded two's complement product quantization. *IEEE Transactions on Audio and Electroacoustics*, 21(4): 378–380, August 1973. CODEN ITADAS. ISSN 0018-9278 (print), 1558-2582 (electronic).

Spira:1973:CTA

[801] Philip M. Spira. Computation times of arithmetic and Boolean functions in (d, r) circuits. *IEEE Transactions on Computers*, C-22(6):552–555, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Spira.pdf.

Stone:1973:DMS

[802] Harold S. Stone. *Discrete mathematical structures and their applications*. The SRA computer science series. Science Research Associates, Chicago, IL, USA, 1973. 401 pp. LCCN QA162 .S877d; QA162 .S77.

Sureshchander:1973:CDM

[803] Sureshchander. Comments on "Decomposition Method of Determining Maximum Compatibles". *IEEE Transactions on Computers*, C-22(6): 627, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Sureshchander.pdf. See [784].

Swartzlander:1973:QSM

[804] E. E. Swartzlander, Jr. The quasi-serial multiplier. *IEEE Transactions on Computers*, C-22(4):317–321, April 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672310.

Tanny:1973:SSA

[805] Stephen Michael Tanny. *Studies in Significance Arithmetic*. Ph.D. thesis, Massachusetts Institute of Technology, Cambridge, MA, USA, 1973. 195 pp. URL https://search.proquest.com/pqdtglobal/docview/302720894.

Urabe:1973:CEA

[806] Minoru Urabe. Component-wise error analysis of iterative methods practiced on a floating-point system. *Memoirs of the Faculty of Science, Kyushu Imperial University. Series A, Mathematics = Kyushu Teikoku Daigaku Rigakubu kiyo*, 27:23–64, 1973. CODEN MFKAAF. ISSN 0373-6385 (print), 1883-2172 (electronic).

Walther:1973:EFP

[807] J. S. Walther. Elementary floating point CORDIC function processor and shifter. US Patent 3,766,370., October 16, 1973. URL https://patentimages.storage.googleapis.com/30/7f/a0/1201036cf71cea/US3766370.pdf. Filed 14 May 1971.

Wiatrowski:1973:DFP

[808] Claude A. Wiatrowski. *Design of a floating-point processor for digital simulation*. Thesis (Ph.D. - electrical engineering), University of Arizona, Tucson, AZ, USA, 1973. 107 pp.

Yau:1973:ECR

[809] S. S.-S. Yau and Yu-Cheng Liu. Error correction in redundant residue number systems. *IEEE Transactions on Computers*, C-22(1):5–11, January 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35069; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672187.

Yohe:1973:FFPa

[810] J. Michael Yohe. Foundations of floating point computer arithmetic. MRC Technical Summary Report 1302, Mathematics Research Center, University of Wisconsin, Madison, Madison, WI, USA, January 1973. 25 pp.

Yohe:1973:IBS

[811] J. Michael Yohe. Interval bounds for square roots and cube roots. *Computing: Archiv fur informatik und numerik*, 11(1):51–57, March 1973. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Yohe:1973:RFP

[812] J. Michael Yohe. Roundings in floating-point arithmetic. *IEEE Transactions on Computers*, C-22(6):577–586, June 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.acsel-lab.com/arithmetic/arith2/papers/ARITH2_Yohe.pdf; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009110.

Zacher:1973:HDG

[813] H. J. Zacher. *Die Hauptschriften zur Dyadik von G. W. Leibniz: Ein Beitr. zur Geschichte des binären Zahlen-systems. (German) [The main writings on the dyadic by G. W. Leibniz: a contribution to the history of the binary number system]*. Veröffentlichungen des Leibniz-Archivs. V. Klostermann, Frankfurt am Main, West Germany, 1973. viii + 384 pp. LCCN QA141.4.Z3; QA141.4.Z3 1973.

Zohar:1973:DCR

[814] Shalhav Zohar. A/D conversion for radix (−2). *IEEE Transactions on Computers*, C-22(7):698–701, July 1973. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009137.

Agrawal:1974:NCL

[815] D. P. Agrawal. Negabinary carry-look-ahead adder and fast multiplier. *Electronics Letters*, 10(??):312–313, July 1974. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Banerji:1974:NIM

[816] D. K. Banerji. A novel implementation method for addition and subtraction in residue number systems. *IEEE Transactions on Computers*, C-23(1):106–109, January 1974. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35077; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672383.

Banerji:1974:URA

[817] D. K. Banerji. On the use of residue arithmetic for computation. *IEEE Transactions on Computers*, C-23(12):1315–1317, December 1974. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672448.

Barsi:1974:EDC

[818] F. Barsi and P. Maestrini. Error detection and correction by product codes in residue number systems. *IEEE Transactions on Computers*, C-23(9):915–924, September 1974. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35088; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672648`.

Bauer:1974:CGR

[819] F. L. Bauer. Computational graphs and rounding error. *SIAM Journal on Numerical Analysis*, 11(1):87–96, March 1974. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL `https://www.jstor.org/stable/2156433`. In memoriam George Forsythe.

Blankenship:1974:CTC

[820] P. E. Blankenship. Comments on "A Two's Complement Parallel Array Multiplication Algorithm". *IEEE Transactions on Computers*, C-23(12):1327, December 1974. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672455`. See [737, 843].

Boyes:1974:BNS

[821] J. D. Boyes. Binary noise sources incorporating modulo-N dividers. *IEEE Transactions on Computers*, C-23(5):550–552, May 1974. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672573`.

Brent:1974:FEP

[822] Barry Brent. Functional equations with prime roots from arithmetic expressions for G_α. *Fibonacci Quarterly*, 12(2):199–207, April 1974. CODEN FIBQAU. ISSN 0015-0517. URL `http://www.fq.math.ca/Scanned/12-2/brent1.pdf`.

Brown:1974:BDE

[823] D. A. H. Brown. Biquinary decimal error detection codes with one, two and three check digits. *The Computer Journal*, 17(3):201–204, August 1974. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://www3.oup.co.uk/computer_journal/hdb/Volume_17/Issue_03/tiff/201.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_17/Issue_03/tiff/202.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_17/Issue_03/tiff/203.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_17/Issue_03/tiff/204.tif`.

Brown:1974:SEC

[824] D. A. H. Brown. Some error correcting codes for certain transposition and transcription errors in decimal integers. *The Computer Journal*, 17(1): 9–12, February 1974. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_17/Issue_01/tiff/10.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_17/Issue_01/tiff/11.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_17/Issue_01/tiff/12.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_17/Issue_01/tiff/9.tif.

Carta:1974:HLR

[825] David G. Carta. Help!!: The lost reference: (A modified Newton method for square roots). *ACM SIGNUM Newsletter*, 9(4):9, October 1974. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Catlin:1974:MR

[826] Paul A. Catlin. On the multiplication of recurrences. *Fibonacci Quarterly*, 12(4):365–367, December 1974. CODEN FIBQAU. ISSN 0015-0517. URL http://www.fq.math.ca/Scanned/12-4/catlin2.pdf.

Chakrabarti:1974:DCA

[827] S. Chakrabarti. Divide-and-correct algorithm for division in a negative base. *IEEE Transactions on Computers*, C-23(9):981–983, September 1974. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672659.

Chan:1974:REM

[828] O. Chan and E. Jury. Roundoff error in multidimensional generalized discrete transforms. *IEEE Transactions on Circuits and Systems*, 21 (1):100–108, January 1974. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Dahlquist:1974:NM

[829] Germund Dahlquist, Åke Björck, and Ned Anderson. *Numerical Methods*. Prentice-Hall Series in Automatic Computation. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1974. ISBN 0-13-627315-7. xviii + 573 pp. LCCN QA297 .D131 1969. Translated by Ned Anderson.

Davis:1974:USN

[830] R. L. Davis. Uniform shift networks. *IEEE Transactions on Computers*, C-24(3):317–322, March 1974. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Fateman:1974:PMP

[831] Richard J. Fateman. Polynomial multiplication, powers, and asymptotic analysis: Some comments. *SIAM Journal on Computing*, 3(3):196–213, ???? 1974. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic).

Fettweis:1974:PFP

[832] A. Fettweis. On properties of floating-point roundoff noise. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 22(2):149–151, April 1974. CODEN IETABA. ISSN 0096-3518.

Fischer:1974:FLI

[833] Michael J. Fischer and Larry J. Stockmeyer. Fast on-line integer multiplication. *Journal of Computer and System Sciences*, 9(3):317–331, December 1974. CODEN JCSSBM. ISSN 0022-0000 (print), 1090-2724 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0022000074800474`.

Fischer:1974:FPP

[834] David Michael Fischer. Floating point processor for teleoperator studies. Thesis (M.S.), Massachusetts Institute of Technology. Dept. of Mechanical Engineering, Cambridge, MA, USA, 1974. 35 + 14 pp.

Gardiner:1974:CAI

[835] A. B. Gardiner. Comments on "An Augmented Iterative Array for High Speed Division". *IEEE Transactions on Computers*, C-23(3):326–327, March 1974. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672524`. See [741].

Gentleman:1974:MAR

[836] W. Morven Gentleman and Scott B. Marovich. More on algorithms that reveal properties of floating point arithmetic units. *Communications of the Association for Computing Machinery*, 17(5):276–277, May 1974. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [698].

Hildebrand:1974:INA

[837] Francis Begnaud Hildebrand. *Introduction to numerical analysis*. International series in pure and applied mathematics. McGraw-Hill, New York, NY, USA, second edition, 1974. ISBN 0-07-028761-9. xiii + 669 pp. LCCN QA297 .H54 1974.

Hill:1974:RFF

[838] Bruce M. Hill. The rank-frequency form of Zipf's law. *Journal of the American Statistical Association*, 69(348):1017–1026, December 1974. CODEN JSTNAL. ISSN 0162-1459 (print), 1537-274X (electronic).

Hitotumatu:1974:CAT

[839] Sin Hitotumatu. Complex arithmetic through CORDIC. *Kōdai Math. Semin Rep.*, 26:176–186, 1974/75. ISSN 0023-2599. URL `http://projecteuclid.org/euclid.kmj/1138846999`.

Hitotumatu:1974:NMC

[840] Sin Hitotumatu. A new method for the computation of square root, exponential, and logarithmic functions through hyperbolic CORDIC. *Revue d'Analyse Numérique et de la Théorie de l'Approximation*, 3(2): 173–180, ???? 1974.

Hull:1974:LFM

[841] T. E. Hull and J. J. Hofbauer. Language facilities for multiple precision floating point computation, with examples, and the description of a preprocessor. Technical report 63, University of Toronto, Department of Computer Science, Toronto, ON, Canada, 1974. vi + 84 pp.

Kinoshita:1974:FPA

[842] Eisuke Kinoshita, Hideo Kosako, and Yoshiaki Kojima. Floating-point arithmetic algorithms in the symmetric residue number system. *IEEE Transactions on Computers*, C-23(1):9–20, January 1974. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35077; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672365`.

Kroft:1974:CTC

[843] D. Kroft. Comments on "A Two's Complement Parallel Array Multiplication Algorithm". *IEEE Transactions on Computers*, C-23(12): 1327–1328, December 1974. CODEN ITCOB4. ISSN 0018-9340 (print),

1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672456. See [737, 820].

Kulisch:1974:PCC

[844] U. Kulisch. Formalization and implementation of floating-point arithmetics. In Panagiotopoulos [7699], pages 328–369. ISBN ???? LCCN ????

Ling:1974:CSA

[845] Robert F. Ling. Comparison of several algorithms for computing sample means and variances. *Journal of the American Statistical Association*, 69(348):859–866, December 1974. CODEN JSTNAL. ISSN 0162-1459 (print), 1537-274X (electronic). URL http://www.jstor.org/stable/2286154; https://www.tandfonline.com/doi/abs/10.1080/01621459.1974.10480219; https://www.tandfonline.com/doi/pdf/10.1080/01621459.1974.10480219.

Linnainmaa:1974:ASK

[846] Seppo Linnainmaa. Analysis of some known methods of improving the accuracy of floating-point sums. *BIT (Nordisk tidskrift for informationsbehandling)*, 14(2):167–202, June 1974. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=14&issue=2&spage=167.

Metropolis:1974:SAA

[847] N. Metropolis and Gian-Carlo Rota. Significance arithmetic—on the algebra of binary strings. In *Studies in numerical analysis (papers in honour of Cornelius Lanczos on the occasion of his 80th birthday)*, pages 241–251. Academic Press, New York, NY, USA, 1974.

Miller:1974:CCN

[848] Webb Miller. Computational complexity and numerical stability. In ACM [7698], pages 317–322. LCCN QA76.6 .A13 1974.

Moon:1974:MRM

[849] David A. Moon. *MacLISP Reference Manual*. MIT Project MAC, Cambridge, MA, USA, April 1974.

Neumaier:1974:REV

[850] A. Neumaier. Rundungsfehleranalyse Einiger Verfahren Zur Summation Endlicher Summen. (German) [Rounding error analysis of a method for summation of finite sums]. *Zeitschrift für Angewandte Mathematik und*

Mechanik, 54:39–51, 1974. CODEN ZAMMAX. ISSN 0044-2267 (print), 1521-4001 (electronic).

Newbery:1974:EAP

[851] A. C. R. Newbery. Error analysis for polynomial evaluation. *Mathematics of Computation*, 28(127):789–793, July 1974. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Prezas:1974:FPA

[852] Pericles Panos Prezas. Floating point arithmetic unit. Thesis (M.S.), Illinois Institute of Technology, Chicago, IL., 1974. ix + 77 pp.

Rauscher:1974:MUX

[853] Tomlinson G. Rauscher. Microprogramming the AN/UYK-17(XB-1)(V) signal processing element signal processing arithmetic unit. *ACM SIG Micro Newsletter*, 5(2):29–63, April 1974. CODEN SIGMDJ. ISSN 0163-5751, 1050-916X. URL `https://dl.acm.org/doi/10.1145/1217157.1217160`.

Renner:1974:RRN

[854] K. Renner and S. Gupta. Reduction of roundoff noise in wave digital filters. *IEEE Transactions on Circuits and Systems*, 21(2):305–310, March 1974. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Scaife:1974:SNA

[855] B. K. P. Scaife, editor. *Studies in numerical analysis*. The Royal Irish Academy, Dublin, Ireland, 1974. xxii + 333 pp. Papers in honour of Cornelius Lanczos on the occasion of his 80th birthday.

Schmid:1974:DC

[856] Hermann Schmid. *Decimal Computation*. Wiley, New York, NY, USA, 1974. ISBN 0-471-76180-X. xi + 266 pp. LCCN QA75 .S34. Reprinted [1716].

Sites:1974:SBD

[857] R. L. Sites. Serial binary division by ten. *IEEE Transactions on Computers*, 23(12):1299–1301, December 1974. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Sterbenz:1974:FPC

[858] Pat H. Sterbenz. *Floating Point Computation*. Prentice-Hall Series in Automatic Computation. Prentice-Hall, Upper Saddle River, NJ 07458,

USA, 1974. ISBN 0-13-322495-3. xiv + 316 pp. LCCN QA76.8.I12 S771 1974.

Suter:1974:MAA

[859] B. W. Suter. The modular arithmetic of arbitrarily long sequences of digits. *IEEE Transactions on Computers*, C-23(12):1301–1303, December 1974. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672443.

Syslo:1974:RAP

[860] M. M. Syslo. Remarks on addition processes of positive floating-point numbers. *Zastosowania Matematyki*, 14:415–417, 1974. CODEN ZAMTAK.

Thompson:1974:IUF

[861] Jackie Lloyd Thompson. *An implementation of user-oriented floating point arithmetic*. Dissertation (Ph.D. in Computing Science), Texas A&M University, College Station, TX, USA, 1974. 150 pp.

Tsao:1974:DSD

[862] Nai Kuan Tsao. On the distributions of significant digits and roundoff errors. *Communications of the Association for Computing Machinery*, 17(5):269–271, May 1974. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Tsao:1974:SPE

[863] Nai-Kuan Tsao. Some a posteriori error bounds in floating-point computations. *Journal of the Association for Computing Machinery*, 21(1):6–17, January 1974. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Walker:1974:FGU

[864] A. J. Walker. Fast generation of uniformly distributed pseudorandom numbers with floating-point representation. *Electronics Letters*, 10(25–26):533–534, December 12, 1974. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4245313.

Agrawal:1975:AAN

[865] D. P. Agrawal. Arithmetic algorithms in a negative base. *IEEE Transactions on Computers*, C-24(10):998–1000, October 1975. CODEN

ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672702.

Agrawal:1975:OAL

[866] Dharma P. Agrawal. Optimum array-like structures for high-speed arithmetic. In IEEE SCA '75 [7700], pages 208–219. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Agrawal.pdf. IEEE order number CH1017-3C.

Atkins:1975:HRN

[867] Daniel E. Atkins. Higher radix, non-restoring division: History and recent developments. In IEEE SCA '75 [7700], pages 158–167. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Atkins.pdf. IEEE order number CH1017-3C.

Atkins:1975:IRR

[868] D. E. Atkins. Introduction to the role of redundancy in computer arithmetic. *Computer*, 8(6):74–77, June 1975. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Avizienis:1975:RNR

[869] Algirdas Avižienis. Redundancy in number representations as an aspect of computational complexity of arithmetic functions. In IEEE SCA '75 [7700], pages 87–89. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Avizienis.pdf. IEEE order number CH1017-3C.

Baker:1975:MER

[870] P. W. Baker. More efficient radix-2 algorithms for some elementary functions. *IEEE Transactions on Computers*, C-24(11):1049–1054, November 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Banerji:1975:CLS

[871] D. K. Banerji. On combinational logic for sign detection in residue number systems. In IEEE SCA '75 [7700], pages 113–116. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Banerji.pdf. IEEE order number CH1017-3C.

Basu:1975:SPN

[872] D. Basu and T. Jayashree. On a simple postcorrection for nonrestoring division. *IEEE Transactions on Computers*, C-24(10):1019–1020, October 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956

(electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672709.

Benedek:1975:DLB

[873] M. Benedek. Developing large binary to BCD conversion structures. In IEEE SCA '75 [7700], pages 188–196. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Benedek.pdf. IEEE order number CH1017-3C.

Bivins:1975:SAA

[874] R. L. Bivins and N. Metropolis. Significance arithmetic: Application to a partial differential equation. In IEEE SCA '75 [7700], pages 64–66. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Bivins.pdf. Also available as Los Alamos Technical Report LA-UR-75-1763 CONF-751103-1.

Bohlender:1975:FPC

[875] G. Bohlender. Floating-point computation of functions with maximum accuracy. In IEEE SCA '75 [7700], pages 14–23. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Bohlender.pdf. IEEE order number CH1017-3C.

Brent:1975:FMP

[876] R. P. Brent. A Fortran multiple-precision arithmetic package. Technical report, Department of Computer Science, Australian National University, Canberra, Australia, 1975.

Brent:1975:MZM

[877] R. P. (Richard P.) Brent. Multiple-precision zero-finding methods and the complexity of elementary function evaluation. Technical report, Department of Computer Science, Carnegie-Mellon University, Pittsburgh, PA, USA, 1975. 26 pp.

Brubaker:1975:MUL

[878] T. A. Brubaker and J. C. Becker. Multiplication using logarithms implemented with read-only memory. *IEEE Transactions on Computers*, C-24(8):761–765, August 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672900.

Caprani:1975:REF

[879] Ole Caprani. Round-off errors in floating-point summation. *BIT (Nordisk tidskrift for informationsbehandling)*, 15(1):5–9, March 1975. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Chen:1975:SER

[880] Tien Chi Chen and Irving T. Ho. Storage-efficient representation of decimal data. *Communications of the Association for Computing Machinery*, 18(1):49–52, January 1975. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Collection of articles honoring Alston S. Householder. See comment [945].

Chinal:1975:LMA

[881] Jean P. Chinal. The logic of modulo $2^k + 1$ adders. In IEEE SCA '75 [7700], pages 126–136. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Chinal_2.pdf`. IEEE order number CH1017-3C.

Chinal:1975:MA

[882] Jean P. Chinal. Mirror arithmetic. In IEEE SCA '75 [7700], pages 98–107. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Chinal_1.pdf`. IEEE order number CH1017-3C.

Cobb:1975:IPS

[883] Gary W. Cobb. The impact of parallelism on software. In IEEE SCA '75 [7700], pages 220–222. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Cobb.pdf`. IEEE order number CH1017-3C.

DeMori:1975:MMM

[884] Renato De Mori, Michele Elia, and Angelo Serra. Minimization methods for macrocellular arithmetic networks. In IEEE SCA '75 [7700], pages 232–240. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_DeMori.pdf`. IEEE order number CH1017-3C.

Deverell:1975:PIA

[885] J. Deverell. Pipeline iterative arithmetic arrays. *IEEE Transactions on Computers*, C-24(3):317–322, March 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Elias:1975:UCS

[886] P. Elias. Universal codeword sets and representations of the integers. *IEEE Transactions on Information Theory*, 21(2):194–203, March 1975. CODEN IETTAW. ISSN 0018-9448 (print), 1557-9654 (electronic).

Ercegovac:1975:GMEa

[887] Miloš Dragutin Ercegovac. *A General Method for Evaluation of Functions and Computations in a Digital Computer*. Ph.D. thesis, Department of Computer Science, University of Illinois at Urbana-Champaign, Urbana-Champaign, IL, USA, July 1975. viii + 109 pp. URL `https://search.proquest.com/pqdtglobal/docview/302756306`.

Ercegovac:1975:GMEb

[888] Miloš D. Ercegovac. A general method for evaluation of functions in a digital computer. In IEEE SCA '75 [7700], pages 147–157. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Ercegovac.pdf`. IEEE order number CH1017-3C.

Fawcett:1975:MCR

[889] B. K. Fawcett. Maximal clocking rates for pipelined digital systems. M.S. thesis, Department of Electrical Engineering, University of Illinois at Urbana-Champaign, Urbana-Champaign, IL, USA, 1975.

Foster:1975:CNM

[890] Caxton Foster, Edward Riseman, Fred Stockton, and Conrad Wogrin. CHARGOGGAGGOGGMANCHAUGAGOGGCHAUBUNAGUNGAMAUG: a novel multiply-by-three circuit. In IEEE SCA '75 [7700], pages 185–187. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Foster.pdf`. IEEE order number CH1017-3C.

Gabrielian:1975:FSN

[891] Armen Gabrielian. Formal systems of numerals. In IEEE SCA '75 [7700], pages 76–81. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Gabrielian.pdf`. IEEE order number CH1017-3C.

George:1975:ARR

[892] James E. George. Algorithms to reveal the representation of characters, integers, and floating-point numbers. *ACM Transactions on Mathematical Software*, 1(3):210–216, September 1975. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Gibson:1975:SCT

[893] J. A. Gibson and R. W. Gibbard. Synthesis and comparison of two's complement parallel multipliers. *IEEE Transactions on Computers*, C-24(10):1020–1027, October 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672710.

Ginsberg:1975:DUFa

[894] Myron Ginsberg and Dennis J. Frailey. The design and use of a floating-point (software) simulator for testing the arithmetic behavior of mathematical software. Technical report CP 74028, Department of Computer Science, Institute of Technology, Southern Methodist University, Dallas, 1975. 26 pp. Revised October 1975.

Ginsberg:1975:DUFb

[895] Myron Ginsberg and Dennis J. Frailey. The design and use of a floating-point (software) simulator for testing the arithmetic behavior of mathematical software. In IEEE SCA '75 [7700], pages 56–63. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Ginsberg.pdf. IEEE order number CH1017-3C.

Goodman:1975:REP

[896] R. Goodman and A. Feldstein. Round-off error in products. *Computing: Archiv fur informatik und numerik*, 15(3):263–273, September 1975. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Goyal:1975:DAE

[897] Lakshmi N. Goyal. Design of an arithmetic element for serial processing in an iterative structure. In IEEE SCA '75 [7700], pages 223–231. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Goyal.pdf. IEEE order number CH1017-3C.

Grant:1975:TAS

[898] J. A. Grant and G. D. Hitchins. Two algorithms for the solution of polynomial equations to limiting machine precision. *The Computer Journal*, 18(3):258–264, August 1975. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/18/3/258.full.pdf+html; http://www3.oup.co.uk/computer_journal/hdb/Volume_18/Issue_03/tiff/258.tif;

http://www3.oup.co.uk/computer_journal/hdb/Volume_18/Issue_03/tiff/259.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_18/Issue_03/tiff/260.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_18/Issue_03/tiff/261.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_18/Issue_03/tiff/262.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_18/Issue_03/tiff/263.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_18/Issue_03/tiff/264.tif.

Gregory:1975:BCR

[899] Robert Todd Gregory and David W. Matula. Base conversion in residue number systems. In IEEE SCA '75 [7700], pages 117–125. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Gregory.pdf. IEEE order number CH1017-3C.

Hitotumatu:1975:CAT

[900] Sin Hitotumatu. Complex arithmetic through CORDIC. *Kōdai Math. Semin. Rep.*, 26:176–186, 1975. ISSN 0023-2599.

Hunter:1975:QMP

[901] G. Hunter. A quantitative measure of precision. *The Computer Journal*, 18(3):231–233, August 1975. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_18/Issue_03/tiff/231.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_18/Issue_03/tiff/232.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_18/Issue_03/tiff/233.tif.

Kehl:1975:MMA

[902] T. H. Kehl and Kenneth Burkhardt. A minicomputer microprogrammable, arithmetic processor. In IEEE SCA '75 [7700], pages 174–178. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Kehl.pdf. IEEE order number CH1017-3C.

Keir:1975:CNR

[903] Roy A. Keir. Compatible number representations. In IEEE SCA '75 [7700], pages 82–87. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Keir_2.pdf. IEEE order number CH1017-3C.

Keir:1975:PCR

[904] Roy A. Keir. Programmer-controlled roundoff and the selection of a stable roundoff rule. In IEEE SCA '75 [7700], pages 73–76. LCCN

QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Keir_1.pdf. IEEE order number CH1017-3C.

Keir:1975:SSR

[905] R. A. Keir. Should the stable rounding rule be radix-dependent? *Information Processing Letters*, 3(6):188–189, July ??, 1975. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Kent:1975:CSU

[906] Jan G. Kent. Comparison sets: a useful partitioning of the space of floating-point operand pairs. In IEEE SCA '75 [7700], pages 36–39. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Kent.pdf. IEEE order number CH1017-3C.

Klatte:1975:CPI

[907] R. Klatte and Ch. Ullrich. Consequences of a properly implemented computer arithmetic for periodicities of iterative methods. In IEEE SCA '75 [7700], pages 24–32. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Klatte.pdf. IEEE order number CH1017-3C.

Kornerup:1975:UND

[908] Peter Kornerup. A unified numeric data type in Pascal. In IEEE SCA '75 [7700], pages 40–47. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Kornerup.pdf. IEEE order number CH1017-3C.

Kreifelts:1975:OBF

[909] T. Kreifelts. Optimale Basiswahl für eine Gleitkomma-Arithmetik (Berichtigung) [*English:* Optimal Basis Choice for a Floating-Point Arithmetic (Correction)]. *Computing: Archiv fur informatik und numerik*, 14(??):313–314, ???? 1975. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Krishnamurthy:1975:MPU

[910] E. V. Krishnamurthy. Matrix processors using p-ADIC arithmetic for exact linear computations. In IEEE SCA '75 [7700], pages 92–97. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Krishnamurthy.pdf. IEEE order number CH1017-3C.

Ku:1975:FPC

[911] W. Ku and Siu-Ming Ng. Floating-point coefficient sensitivity and roundoff noise of recursive digital filters realized in ladder structures. *IEEE Transactions on Circuits and Systems*, 22(12):927–936, December 1975. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Kuck:1975:RRN

[912] D. J. Kuck, D. S. Parker, and A. H. Sameh. ROM-rounding: a new rounding scheme. In IEEE SCA '75 [7700], pages 67–72. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Kuck.pdf`. IEEE order number CH1017-3C.

Kulisch:1975:FIF

[913] U. Kulisch. Formalization and implementation of floating-point arithmetics. *Computing: Archiv fur informatik und numerik*, 14(4): 323–348, 1975. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Kulisch:1975:MFC

[914] U. Kulisch. Mathematical foundation of computer arithmetic. In IEEE SCA '75 [7700], pages 1–13. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Kulisch.pdf`. IEEE order number CH1017-3C.

Lacroix:1975:PEM

[915] Arild Lacroix. Limit cycles in floating point digital filters. In Swamy [7702], pages 475–479. ISBN ???? LCCN ????

Landauro:1975:ODC

[916] A. Landauro and J. Lienard. On overflow detection and correction in digital filters. *IEEE Transactions on Computers*, C-24(12):1226–1228, December 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672761`.

Lang:1975:DPA

[917] Allan L. Lang and Bruce D. Shriver. The design of a polymorphic arithmetic unit. In IEEE SCA '75 [7700], pages 48–55. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Lang.pdf`. IEEE order number CH1017-3C.

Laurie:1975:PIR

[918] D. P. Laurie. Propagation of initial rounding error in Romberg-like quadrature. *BIT (Nordisk tidskrift for informationsbehandling)*, 15(3): 277–282, September 1975. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=15&issue=3&spage=277.

Lemeire:1975:CEI

[919] Frans Lemeire. Computation of equivalent inherent rounding errors in the solution of a set of linear equations. *BIT (Nordisk tidskrift for informationsbehandling)*, 15(1):65–71, March 1975. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=15&issue=1&spage=65.

Linnainmaa:1975:TAS

[920] Seppo Linnainmaa. Towards accurate statistical estimation of rounding errors in floating-point computations. *BIT (Nordisk tidskrift for informationsbehandling)*, 15(2):165–173, June 1975. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=15&issue=2&spage=165.

Lipovski:1975:RND

[921] G. J. Lipovski. On residue number A/D and D/A converters. In IEEE SCA '75 [7700], pages 197–199. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Lipovski.pdf. IEEE order number CH1017-3C.

Liu:1975:REF

[922] B. Liu and T. Kaneko. Roundoff error in fast Fourier transforms. *Proceedings of the IEEE*, 63(6):991–992, June 1975. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic).

Lorez:1975:BGB

[923] H. Lorez, F. J. Urbanek, H. Will, R. Weiss, W. Baron, et al. Buchbesprechungen (German) Book Reviews. *Computing: Archiv fur informatik und numerik*, 14(3):315–322, September 1975. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). See [763].

Luke:1975:MFT

[924] Yudell L. Luke. *Mathematical Functions and Their Approximations*. Academic Press, New York, NY, USA, 1975. ISBN 0-12-459950-8, 1-4832-6245-6 (e-book). xvii + 568 pp. LCCN QA55 .L96 1975. URL `https://shop.elsevier.com/books/mathematical-functions-and-their-approximations/luke/978-0-12-459950-5`.

Martinson:1975:DMF

[925] L. Martinson and R. Smith. Digital matched filtering with pipelined floating point fast Fourier transforms (FFT's). *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 23(2):222–234, April 1975. CODEN IETABA. ISSN 0096-3518.

Matula:1975:FSF

[926] D. W. Matula. Fixed-slash and floating-slash arithmetic. In IEEE SCA '75 [7700], pages 90–91. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Matula.pdf`. IEEE order number CH1017-3C.

McDonald:1975:TCQ

[927] T. G. McDonald and R. K. Guha. The two's complement quasi-serial multiplier. *IEEE Transactions on Computers*, C-24(12):1233–1235, December 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672763`.

Meo:1975:ANT

[928] A. R. Meo. Arithmetic networks and their minimization using a new line of elementary units. *IEEE Transactions on Computers*, C-24(3):258–280, March 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672800`.

Miller:1975:SRA

[929] Webb Miller. Software for roundoff analysis. *ACM Transactions on Mathematical Software*, 1(2):108–128, June 1975. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Nance:1975:IFR

[930] Richard E. Nance and Claude Overstreet, Jr. Implementation of Fortran random number generators on computers with one's complement

arithmetic. *Journal of Statistical Computation and Simulation*, 4(3):235–243, ???? 1975. CODEN JSCSAJ. ISSN 0094-9655 (print), 1026-7778 (electronic), 1563-5163. URL `http://www.tandfonline.com/doi/abs/10.1080/00949657508810126`.

Nelson:1975:PPF

[931] James M. Nelson and Charles E. Cohn. Parallel processing in FORTRAN with floating-point hardware. *Software—Practice and Experience*, 5(1): 65–68, January/March 1975. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Newbery:1975:PES

[932] A. C. R. Newbery. Polynomial evaluation schemes. *Mathematics of Computation*, 29(132):1046–1050, October 1975. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

NSC:1975:IFP

[933] National Semiconductor Corporation. *IMP-16F/400 floating point firmware technical description*. National Semiconductor Corporation, Santa Clara, CA, USA, 1975. 16 pp.

OKeefe:1975:NFB

[934] K. H. O'Keefe. A note on fast base extension for residue number systems with three moduli. *IEEE Transactions on Computers*, C-24 (11):1132–1133, November 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35091; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672740`.

Phillips:1975:BC

[935] E. William Phillips. Binary calculation. In Randell [7701], pages 293–304. ISBN 0-387-07114-8, 3-540-07114-8, 3-642-96244-0, 3-642-96242-4 (e-book). LCCN ?TK7888.3 .R36 1975.

Rao:1975:TIS

[936] T. R. N. Rao and D. W. Matula. The Third IEEE Symposium on Computer Arithmetic: Foreword. In IEEE SCA '75 [7700], page v. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_contents.pdf; http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_foreword.pdf; http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_preface.pdf`. IEEE order number CH1017-3C.

Reiser:1975:EDF

[937] John F. Reiser and Donald E. Knuth. Evading the drift in floating-point addition. *Information Processing Letters*, 3(3):84–87, January 1975. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic). See erratum [938].

Reiser:1975:EED

[938] John F. Reiser and Donald E. Knuth. Erratum: "Evading the Drift in Floating-Point Addition". *Information Processing Letters*, 3(5):164, May 1975. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic). See [937].

Rokne:1975:ACI

[939] J. Rokne and P. Lancaster. Algorithm 86. complex interval arithmetic. *The Computer Journal*, 18(1):83–85, February 1975. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic).

Rubinfield:1975:PMB

[940] L. P. Rubinfield. A proof of the modified Booth's algorithm for multiplication. *IEEE Transactions on Computers*, C-24(10):1014–1015, October 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672707`.

Senzig:1975:CA

[941] Don Senzig. Calculator algorithms. *IEEE Compcon Reader Digest*, pages 139–141, 1975. IEEE catalog number 75CH0920-9C.

Shimizu:1975:REF

[942] Tatsujiro Shimizu and Tsunemichi Oohashi. Rounding errors in floating point addition. *TRU Math.*, 11:41–50, 1975.

Shriver:1975:BCA

[943] B. D. Shriver and E. K. Reuter. A bibliography on computer arithmetic. In IEEE SCA '75 [7700], pages 241–249. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Biography.pdf`. IEEE order number CH1017-3C.

Shriver:1975:UUN

[944] Bruce D. Shriver and Peter Kornerup. The UNRAU — a Unified Numeric Representation Arithmetic Unit. In IEEE SCA '75 [7700], pages

179–184. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Shriver.pdf. IEEE order number CH1017-3C.

Smith:1975:CPC

[945] Alan Jay Smith. Comments on a paper by T. C. Chen and I. T. Ho. *Communications of the Association for Computing Machinery*, 18(8): 463, August 1975. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [880].

Smith:1975:SAP

[946] Jon M. Smith. *Scientific Analysis on the Pocket Calculator*. Wiley, New York, NY, USA, 1975. ISBN 0-471-79997-1. xii + 380 pp. LCCN QA75 .S555.

Smith:1975:SCO

[947] Cyril Stanley Smith. A Seventeenth-Century octonary arithmetic. *Isis*, 66(3):390–394, September 1975. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL http://www.jstor.org/stable/228846.

Soule:1975:AAB

[948] Stephen Soule. Addition in an arbitrary base without radix conversion. *Communications of the Association for Computing Machinery*, 18(6): 344–346, June 1975. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Stephenson:1975:CSP

[949] Charles Stephenson. Case study of the pipelined arithmetic unit for the TI Advanced Scientific Computer. In IEEE SCA '75 [7700], pages 168–173. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Stephenson.pdf. IEEE order number CH1017-3C.

Sterbenz:1975:UA

[950] Pat H. Sterbenz. Understandable arithmetic. In IEEE SCA '75 [7700], pages 33–35. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Sterbenz.pdf. IEEE order number CH1017-3C.

Stone:1975:ICA

[951] Harold S. Stone, Tien Chi Chen, Michael J. Flynn, Samuel H. Fuller, et al., editors. *Introduction to computer architecture*. SRA computer science series. Science Research Associates, Chicago, IL, USA, 1975.

ISBN 0-574-18405-8. x + 565 pp. LCCN QA76.5 .I7; QA76.9.A73 I57; QA76.5 .I63; QA76.9.A73 I57 1975.

Svoboda:1975:SCA

[952] Antonin Svoboda. Self-checking adder for large scale integration. In IEEE SCA '75 [7700], pages 108–112. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Svoboda.pdf`. IEEE order number CH1017-3C.

Swartzlander:1975:SLN

[953] E. E. Swartzlander, Jr. and A. G. Alexopoulos. The sign/logarithm number system. *IEEE Transactions on Computers*, C-24(12):1238–1242, December 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672765`. See [2019].

Toma:1975:CLA

[954] C. I. Toma. Cellular logic array for high-speed signed binary number multiplication. *IEEE Transactions on Computers*, C-24(9):932–935, September 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672933`.

Trivedi:1975:LAD

[955] Kishor S. Trivedi and Miloš D. Ercegovac. On-line algorithms for division and multiplication. In IEEE SCA '75 [7700], pages 161–177. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Trivedi_2.pdf`. IEEE order number CH1017-3C.

Trivedi:1975:UCF

[956] Kishor S. Trivedi. On the use of continued fractions for digital computer arithmetic. In IEEE SCA '75 [7700], pages 137–146. LCCN QA76.6.S919 1975. URL `http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Trivedi_1.pdf`. IEEE order number CH1017-3C.

Tzaferos:1975:EBD

[957] Konstantina Tzaferos. Error bounds due to index of significance specifications in floating-point operations with encoded mantissa lengths. Thesis (M.S.), California State University, Chico, Chico, CA, USA, 1975. vi + 43 pp.

Wadsworth:1975:MLP

[958] Nat Wadsworth. *Machine Language Programming for the 8008 (and Similar Microcomputers)*. Scelbi Computer Consulting. Inc., 1322 Rear — Boston Post Road, Milford, CT 0646, USA, 1975. 172 (chapter numbering) pp. URL http://www.scelbi.com/files/docs/books/Machine%20Language%20Programming%20For%20The%208008.pdf.

Wakerly:1975:DUM

[959] J. F. Wakerly. Detection of unidirectional multiple errors using low-cost arithmetic codes. *IEEE Transactions on Computers*, C-24(2):210–212, February 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672780.

Weinberger:1975:HSZ

[960] Arnold Weinberger. High-speed zero-sum detection. In IEEE SCA '75 [7700],
pages 200–207. LCCN QA76.6.S919 1975. URL http://www.acsel-lab.com/arithmetic/arith3/papers/ARITH3_Weinberger.pdf. IEEE order number CH1017-3C.

Wilkinson:1975:PAA

[961] J. H. Wilkinson. The Pilot ACE at the NPL. *The Radio and Electronic Engineer*, 45(7):336–340, July 1975. CODEN RDEEA4. ISSN 0033-7722.

Wozniakowski:1975:NSI

[962] H. Wozniakowski. Numerical stability of iterations for solution of nonlinear equations and large linear systems. Technical report, Department of Computer Science, Carnegie-Mellon University, Pittsburgh, PA, USA, 1975. 16 pp.

Yamashita:1975:EEF

[963] Shin ichiro Yamashita. On the error estimation in floating-point arithmetic. *Information Processing in Japan*, 15:64–69, 1975.

Yuen:1975:FPR

[964] C. K. Yuen. On the floating point representation of complex numbers. *IEEE Transactions on Computers*, C-24(8):846–848, August 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672914. See comments [1029].

Yuen:1975:NBA

[965] C. K. Yuen. A note on base −2 arithmetic logic. *IEEE Transactions on Computers*, C-24(3):325–329, March 1975. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672809. See comments [1022].

Andrews:1976:ESR

[966] M. Andrews, S. F. McCormick, and G. D. Taylor. Evaluation of the square root function on microprocessors. In John Gosden, editor, *ACM '76: Proceedings of the 1976 annual conference, Houston Texas USA October 20–22, 1976*, ACM 76. ACM Press, New York, NY 10036, USA, 1976. ISBN 1-4503-7489-1. LCCN ????

Asai:1976:RRC

[967] H. Asai. A recursive radix conversion formula and its application to multiplication and division. *Computers and Mathematics with Applications*, 2(3–4):255–265, ???? 1976. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/0898122176900183.

Assmus:1976:NFS

[968] E. F. Assmus, Jr., H. F. Mattson, Jr., and Howard E. Sachar. A new form of the square root bound. *SIAM Journal on Applied Mathematics*, 30(2):352–354, March 1976. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Baker:1976:SFB

[969] P. W. Baker. Suggestion for a fast binary sine/cosine generator. *IEEE Transactions on Computers*, C-25(??):1134–1137, November 1976. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Brent:1976:FMP

[970] Richard P. Brent. Fast multiple-precision evaluation of elementary functions. *Journal of the Association for Computing Machinery*, 23(2):242–251, April 1976. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Brent:1976:MPZ

[971] Richard P. Brent. Multiple-precision zero-finding methods and the complexity of elementary function evaluation. In Traub [7704], pages 151–176. ISBN 0-12-697560-4. LCCN QA297.S9151 1975.

Carter:1976:ANT

[972] Allison Birchard Carter. Applications of number theory to the avoidance of round-off in digital computer systems. Thesis (M.S.), University of Florida, Gainesville, FL, USA, 1976. v + 74 pp.

Cohen:1976:EFD

[973] Daniel I. A. Cohen. An explanation of the first digit phenomenon. *Journal of Combinatorial Theory (Series A)*, 20(3):367–370, May 1976. CODEN JCBTA7. ISSN 0097-3165 (print), 1096-0899 (electronic).

Davies:1976:IPS

[974] M. Davies and B. Dawson. The incrementation parameter in square root iteration. *Journal of the Institute of Mathematics and its Applications*, 17(2):219–223, 1976. CODEN JMTAA8. ISSN 0020-2932.

DEC:1976:DHM

[975] Digital Equipment Corporation. *DECsystem-10/20 Hardware Manual*. Digital Press, 12 Crosby Drive, Bedford, MA 01730, USA, fourth edition, March 1976. various pp. Also published as Stanford Artificial Intelligence Laboratory Operating Note 75, November 1976.

DeSandre:1976:FPF

[976] Giovanni De Sandre, Angelo Subrizi, and Franco Bretti. Fixed point to floating point conversion in an electronic computer. US Patent US3961170., June 1, 1976. URL `https://patents.google.com/patent/US3961170A; https://tinyurl.com/ybz9rrqy`. Patent filed 17 April 1974.

Detlefsen:1976:CRN

[977] Michael Detlefsen, Douglas K. Erlandson, J. Clark Heston, and Charles M. Young. Computation with Roman numerals. *Archive for History of Exact Sciences*, 15(2):141–148, June 1976. CODEN AHESAN. ISSN 0003-9519 (print), 1432-0657 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0003-9519&volume=15&issue=2&spage=141`.

Dickinson:1976:PAA

[978] Fred Kenneth Dickinson. Pseudo-round: an alternative approach for floating-point representation. Thesis (M.S.), Southwest Texas State University, San Marcos, TX, USA, 1976. vi + 53 pp.

Fateman:1976:MAP

[979] R. J. Fateman. Macsyma arbitrary precision floating point arithmetic package — philosophy and an overview of its implementation. *SIAM Review*, 18(4):802, ???? 1976. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Feldstein:1976:CED

[980] Alan Feldstein and Richard Goodman. Convergence estimates for the distribution of trailing digits. *Journal of the Association for Computing Machinery*, 23(2):287–297, April 1976. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Garner:1976:SSR

[981] H. L. Garner. A survey of some recent contributions to computer arithmetic. *IEEE Transactions on Computers*, C-25(12):1277–1282, December 1976. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Goldstein:1976:FCF

[982] M. J. Goldstein. Further comparison of floating point summation methods. *SIAM Review*, 18(4):805, ???? 1976. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Goodman:1976:EGD

[983] R. Goodman and A. Feldstein. Effect of guard digits and normalization options on floating point multiplication. *SIAM Review*, 18(4):806, ???? 1976. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Goodman:1976:REF

[984] Richard Goodman. On round-off error in fixed-point multiplication. *BIT (Nordisk tidskrift for informationsbehandling)*, 16(1):41–51, March 1976. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=16&issue=1&spage=41`.

Goyal:1976:NAR

[985] L. N. Goyal. A note on Atrubin's real-time iterative multiplier. *IEEE Transactions on Computers*, C-25(5):546–548, May 1976. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674646`.

Hannington:1976:FPM

[986] G. Hannington and D. G. Whitehead. A floating-point multiplexed DDA system. *IEEE Transactions on Computers*, C-25(11):1074–1077, November 1976. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674557`. See comments [1167].

Higbie:1976:VFP

[987] L. C. Higbie. Vector floating-point data format. *IEEE Transactions on Computers*, C-25(1):25–32, January 1976. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009201`.

IBM:1976:ISP

[988] IBM Corporation. *IBM System/370: Principles of Operation: Systems*. IBM Corporation, San Jose, CA, USA, 1976. 326 pp. LCCN QA76.8.I122 I57 1976.

Jayashree:1976:BMU

[989] T. Jayashree and D. Basu. On binary multiplication using the quarter square algorithm. *IEEE Transactions on Computers*, C-25(9):957–960, September 1976. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674723`.

Kulisch:1976:FIF

[990] U. Kulisch and G. Bohlender. Formalization and implementation of floating-point matrix operations. *Computing: Archiv fur informatik und numerik*, 16(3):239–261, 1976. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Kulisch:1976:GNR

[991] Ulrich W. Kulisch. *Grundlagen des numerischen Rechnens: mathematische Begründung der Rechnerarithmetik* [English: *Fundamental Principles of Numerical Computation: Mathematical Foundations of Computer Arithmetic*], volume 19 of *Reihe Informatik*. Bibliographisches Institut, Mannheim, Germany, 1976. ISBN 3-411-01517-9. 467 pp. LCCN QA162 .K85.

Lacroix:1976:LCF

[992] Arild Lacroix. Limit cycles in floating point digital filters. *AEÜ—Arch. Elektron. Übertragungstech.*, 30(7/8):277–284, 1976.

Linnainmaa:1976:TEA

[993] Seppo Linnainmaa. Taylor expansion of the accumulated rounding error. *BIT (Nordisk tidskrift for informationsbehandling)*, 16(2):146–160, June 1976. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=16&issue=2&spage=146.

Lipschutz:1976:OPS

[994] David Lipschutz. Optimization of a practical system for high fidelity digital audio. Thesis (M.S.), Massachusetts Institute of Technology. Dept. of Electrical Engineering and Computer Science, Cambridge, MA, USA, 1976. 53 pp. Supervised by Francis F. Lee.

Majithia:1976:SCC

[995] J. C. Majithia. Some comments concerning design of pipeline arithmetic arrays. *IEEE Transactions on Computers*, C-25(11):1132–1134, November 1976. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Maples:1976:FPI

[996] Michael D. Maples. Floating-point package for INTEL 8008 and 8080 microprocessors. Technical report, Lawrence Livermore Laboratory, University of California/Livermore; National Technical Information Service [distributor], Livermore, CA, USA, 1976. 8 + A-33 pp.

Martinez:1976:SSS

[997] Ralph Martinez. *A semi-portable simulation system using both fixed and floating point derivative blocks*. Thesis (Ph.D. - electrical engineering), University of Arizona, Tucson, AZ, USA, 1976. xii + 169 pp.

Metropolis:1976:MSA

[998] N. Metropolis. Methods of significance arithmetic. Technical report LA-UR-76-661;CONF-760428-1, Los Alamos Scientific Laboratory, Los Alamos, NM, USA, January 1, 1976. URL http://www.osti.gov/energycitations/product.biblio.jsp?osti_id=7189580&query_id=0. Presented at the Conference on the state of the art in numerical analysis, 12 April 1976, University of York, England, UK.

Miller:1976:AGF

[999] Webb Miller and David L. Spooner. Automatic generation of floating-point test data. *IEEE Transactions on Software Engineering*, SE-2(3):

223–226, September 1976. CODEN IESEDJ. ISSN 0098-5589 (print), 1939-3520 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1702369`.

Mohn:1976:IPA

[1000] K. Mohn and R. V. Roman. An interactive polynomial approximation algorithm. *The Computer Journal*, 19(1):74–78, February 1976. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic).

Ni:1976:EAT

[1001] Ming Duenn Ni and J. K. Aggarwal. Error analysis of two-dimensional recursive digital filters employing floating-point arithmetic. *IEEE Transactions on Computers*, C-25(7):755–759, 1976. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Paoni:1976:PFI

[1002] C. Paoni and M. Maples. A PLM floating-point interface program. Technical report, Lawrence Livermore Laboratory; National Technical Information Service, Livermore, CA, USA, 1976. iii + 39 pp.

Parker:1976:STR

[1003] Douglass Stott Parker. The statistical theory of relative errors in floating-point computation. Thesis (M.S.), Department of Computer Science, University of Illinois at Urbana-Champaign, Urbana, IL, USA, 1976. 62 pp.

Patel:1976:ASB

[1004] M. R. Patel and K. H. Bennett. Analysis of speed of a binary multiplier using a variable number of shifts per cycle. *The Computer Journal*, 19 (3):254–257, August 1976. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://comjnl.oxfordjournals.org/content/19/3/254.full.pdf+html`; `http://www3.oup.co.uk/computer_journal/hdb/Volume_19/Issue_03/tiff/254.tif`; `http://www3.oup.co.uk/computer_journal/hdb/Volume_19/Issue_03/tiff/255.tif`; `http://www3.oup.co.uk/computer_journal/hdb/Volume_19/Issue_03/tiff/256.tif`; `http://www3.oup.co.uk/computer_journal/hdb/Volume_19/Issue_03/tiff/257.tif`.

Paul:1976:SEF

[1005] George Paul and M. Wayne Wilson. Should the elementary function library be incorporated into computer instruction sets? *ACM Transactions on Mathematical Software*, 2(2):132–142, June 1976. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Pichat:1976:CEE

[1006] Michèle Pichat. *Contributions à l'ètude des erreurs d'arrondi en arithmètique à virgule flottante. (French) [Contributions to the error analysis of rounding errors in floating-point arithmetic]*. Thèse, Université de Grenoble 1, Grenoble, France, 1976. URL `https://tel.archives-ouvertes.fr/tel-00287209/`.

Randell:1976:ODC

[1007] Brian Randell. The origins of digital computers: supplementary bibliography to "Origins of digital computers: selected papers". Technical report 91, Computing Laboratory, University of Newcastle upon Tyne, Newcastle upon Tyne, UK, 1976. 3 + 37 pp.

Rankin:1976:FPR

[1008] Roy Rankin and Steve Wozniak. Floating point routines for the 6502. *Dr. Dobb's Journal of Software Tools*, 1(??):17–19, August 1976. CODEN DDJOEB. ISSN 1044-789X. URL `http://www.6502.org/source/floats/wozfp1.txt`.

Riesel:1976:FPU

[1009] Zvi H. Riesel. The floating point unit of the Golem B computer. *The Radio and Electronic Engineer*, 46(7):355–359, July 1976. CODEN RDEEA4. ISSN 0033-7722.

Ris:1976:UDF

[1010] Frederic N. Ris. A unified decimal floating-point architecture for the support of high-level languages. *ACM SIGNUM Newsletter*, 11(3):18–23, October 1976. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Rosser:1976:CRE

[1011] J. Barkley Rosser and J. Michael Yohe. Cancellation and rounding errors. Technical Summary Report 1588, Mathematics Research Center, University of Wisconsin, Madison, Madison, WI, USA, April 1976.

Rowland:1976:BRB

[1012] John H. Rowland. Book review: *Floating-Point Computation* (Pat H. Sterbenz). *SIAM Review*, 18(1):138–139, ???? 1976. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Rudeanu:1976:SRF

[1013] S. Rudeanu. Square roots and functional decompositions of Boolean functions. *IEEE Transactions on Computers*, C-25(5):528–532, May

1976. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674641`.

Sanderson:1976:PCT

[1014] James George Sanderson. *A proof of convergence for the tridiagonal QL algorithm in floating-point arithmetic*. Thesis (Ph.D.), University of New Mexico, Albuquerque, NM, USA, 1976. vi + 69 pp.

Shi:1976:SLC

[1015] S.-Y. Shi. Shortcut to logarithms combines table lookup and computation. *Computer Design*, 15(5):184–186, May 1976. CODEN CMPDAM. ISSN 0010-4566.

Slekys:1976:DCN

[1016] Arunas George Slekys. *Design of complex number digital arithmetic units based on a modified bi-imaginary number system*. Ph.D. thesis, University of California, Los Angeles, Los Angeles, CA, USA, 1976. 223 pp.

Spaniol:1976:AR

[1017] Otto Spaniol. *Arithmetik in Rechenanlagen: Logik und Entwurf [*English: *Computer Arithmetic: Logic and Design]*. B. G. Teubner, Stuttgart, Germany, 1976. ISBN 3-519-02332-6. 208 pp. LCCN QA76.6 .S66. DM24.80. For an English translation, see [1487].

Warren:1976:MDT

[1018] H. S. Warren, Jr., A. S. Fox, and P. W. Markstein. Modulus division on a two's complement machine. Research Report RC7712, IBM, Yorktown Heights, NY, USA, June 1976.

Wyatt:1976:PEP

[1019] W. T. Wyatt Jr., D. W. Lozier, and D. J. Orser. A portable extended precision arithmetic package and library with Fortran precompiler. *ACM Transactions on Mathematical Software*, 2(3):209–231, September 1976. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org/pubs/citations/journals/toms/1976-2-3/p209-lozier/`.

Yau:1976:DMA

[1020] S. S. Yau and J. Chung. On the design of modulo arithmetic units based on cyclic groups. *IEEE Transactions on Computers*, C-25(11):1057–1067, November 1976. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956

(electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674555.

Zohar:1976:RTR

[1021] S. Zohar. Rounding and truncation in radix (-2) systems. *IEEE Transactions on Computers*, C-25(5):464–469, May 1976. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674634.

Agrawal:1977:CNB

[1022] D. P. Agrawal. Comments on "A Note on Base-2 Arithmetic Logic". *IEEE Transactions on Computers*, C-26(5):511, May 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674869. See [965].

Albrecht:1977:GC

[1023] Rudolf Albrecht and Ulrich Kulisch. *Grundlagen der Computer-Arithmetik*. Computing: Supplementum; 1 Computing (Springer-Verlag). Supplementum; 1. Springer-Verlag, Wien, Austria, 1977. ISBN 0-387-81410-8. viii + 150 pp. LCCN ????

Albrecht:1977:GCA

[1024] R. Albrecht and U. Kulisch, editors. *Grundlagen der Computer-Arithmetik [*English: *Foundations of Computer Arithmetic]*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1977. ISBN 0-387-81410-8. viii + 150 pp. LCCN QA162 .G78. Diese Artikel stellen eine Auswahl von Vortragen dar, die auf einer vom 4. bis 8. August 1975 im 'Mathematischen Forschungsinstitut Oberwolfach' stattgefundenen Tagung gehalten wurden.

Alexander:1977:SRR

[1025] V. L. Alexander. Square root routine. *IBM Technical Disclosure Bulletin*, 20(3):1222, August 1977. CODEN IBMTAA. ISSN 0018-8689.

Anonymous:1977:CAF

[1026] Anonymous. Computer arithmetic: Foreword and survey. *IEEE Transactions on Computers*, C-26(7):609, July 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674892.

AppleComputer:1977:ARM

[1027] Apple Computer, Inc. *APPLESOFT reference manual: extended precision floating point BASIC language*. Apple Computer, Inc., Cupertino, CA, USA, 1977. 75 pp.

Barak:1977:MAT

[1028] A. B. Barak. Multiplicative algorithms for ternary arithmetic using binary logic. *IEEE Transactions on Computers*, C-26(8):823–826, August 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674922`.

Bauer:1977:CFP

[1029] Henry R. Bauer. Comments on “On the Floating Point Representation of Complex Numbers”. *IEEE Transactions on Computers*, C-26(2):191, February 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009301`. See [964].

Bivins:1977:SAA

[1030] Robert L. Bivins and Nicholas C. Metropolis. Significance arithmetic: Application to a partial differential equation. *IEEE Transactions on Computers*, C-26(7):639–642, July 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/iel5/12/35159/01674896.pdf?tp=&isnumber=35159&arnumber=1674896&punumber=12`.

Bohlender:1977:FPC

[1031] Gerd Bohlender. Floating-point computation of functions with maximum accuracy. *IEEE Transactions on Computers*, C-26(7):621–632, July 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Brinkmann:1977:FPT

[1032] Hubert Eldie Brinkmann. A floating-point processor for the Texas Instruments model 980A computer. Electrical engineering thesis (M.S.), Texas A&M University, College Station, TX, USA, 1977. x + 68 pp.

Brown:1977:MSI

[1033] W. S. Brown. A realistic model of floating-point computation. In Rice [7708], pages 343–360. ISBN 0-12-587260-7. LCCN QA3 .U45 no. 39; QA297 .M36 1977. URL `https://www.sciencedirect.com/science/article/abs/pii/B9780125872607500170`.

Collins:1977:APS

[1034] George E. Collins and David R. Musser. Analysis of the Pope–Stein division algorithm. *Information Processing Letters*, 6(5):151–155, October ??, 1977. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Colquhoun:1977:FAS

[1035] D. G. Colquhoun. A fast approximation to the sine function. *Software —Practice and Experience*, 7(2):227–229, March–April 1977. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

DEC:1977:VAH

[1036] Digital Equipment Corporation. *VAX-11/780 Architecture Handbook*. Digital Press, 12 Crosby Drive, Bedford, MA 01730, USA, 1977. 328 pp. LCCN QA76.8 .V12D5 B 2 829 348.

Dekker:1977:MRR

[1037] T. J. Dekker. Machine requirements for reliable portable software. In Cowell [7705], pages 22–36. ISBN 0-387-08446-0. LCCN QA297 .W65 1976.

Derenzo:1977:AHC

[1038] Stephen E. Derenzo. Approximations for hand calculators using small integer coefficients. *Mathematics of Computation*, 31(137):214–222, January 1977. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Egbert:1977:PCAa

[1039] W. E. Egbert. Personal calculator algorithms I: Square roots. *Hewlett–Packard Journal*, 28(9):22–24, May 1977. CODEN HPJOAX. ISSN 0018-1153.

Egbert:1977:PCAb

[1040] W. E. Egbert. Personal calculator algorithms II: Trigonometric functions. *Hewlett–Packard Journal*, 28(10):17–20, June 1977. CODEN HPJOAX. ISSN 0018-1153.

Egbert:1977:PCAc

[1041] W. E. Egbert. Personal calculator algorithms III: Inverse trigonometric functions. *Hewlett–Packard Journal*, 29(3):22–23, November 1977. CODEN HPJOAX. ISSN 0018-1153.

Ercegovac:1977:GHO

[1042] Miloš D. Ercegovac. A general hardware-oriented method for evaluation of functions and computations in a digital computer. *IEEE Transactions on Computers*, C-26(7):667–680, July 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674900.

Evans:1977:AAT

[1043] Gillian R. Evans. From abacus to algorism: Theory and practice in medieval arithmetic. *British Journal for the History of Science*, 10(2): 114–131, July 1977. CODEN BJHSAT. ISSN 0007-0874 (print), 1474-001X (electronic). URL http://www.jstor.org/stable/4025865.

Feldman:1977:EEA

[1044] Michael B. Feldman. Embedding extended arithmetic in SNOBOL4. *ACM SIGPLAN Notices*, 12(1):67–72, January 1977. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Forsythe:1977:CMM

[1045] George E. (George Elmer) Forsythe, Michael A. Malcolm, and Cleve B. Moler. *Computer Methods for Mathematical Computations*. Prentice-Hall series in automatic computation. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1977. ISBN 0-13-165332-6. xi + 259 pp. LCCN QA297 .F5681. US$16.95. Cited in Åke Björck's bibliography on least squares, which is available by anonymous ftp from math.liu.se in pub/references.

Frenckner:1977:MFP

[1046] K. Frenckner, M. Persson, S. Romberger, and Y. Sundblad. Microprogrammed floating-point arithmetic for the Varian-73 computer. Technical report TRITA-NA-7702, Kungl. Tekniska Högskolan, Stockholm, Sweden, June 1977. 37 pp. URL http://weblib.cern.ch/format/showfull?uid=1451323_18194&base=CERCER&sysnb=0028467.

Ginsberg:1977:NID

[1047] Myron Ginsberg. Numerical influences on the design of floating-point arithmetic for microcomputers. Technical report CS 7708, Department of Computer Science, Southern Methodist University, Dallas, TX, USA, 1977. 72 pp.

Goldsmith:1977:ICF

[1048] Theodore C. Goldsmith. An integrated circuit floating point accumulator. NASA technical note NASA TN D-8509 NASA, National

Aeronautics and Space Administration; for sale by the National Technical Information Service, Washington, DC, USA, 1977. 26 pp.

Goodman:1977:EGD

[1049] R. Goodman and A. Feldstein. Effect of guard digits and normalization options on floating point multiplication. *Computing: Archiv fur informatik und numerik*, 18(2):93–106, ???? 1977. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Goodwin:1977:CUO

[1050] D. T. Goodwin. Conditions for underflow and overflow of an arithmetic stack. *The Computer Journal*, 20(1):56–62, February 1977. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/20/1/56.full.pdf+html; http://www3.oup.co.uk/computer_journal/hdb/Volume_20/Issue_01/tiff/56.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_20/Issue_01/tiff/57.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_20/Issue_01/tiff/58.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_20/Issue_01/tiff/59.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_20/Issue_01/tiff/60.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_20/Issue_01/tiff/61.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_20/Issue_01/tiff/62.tif.

Gregory:1977:BCR

[1051] Robert Todd Gregory and David W. Matula. Base conversion in residue number systems. *BIT (Nordisk tidskrift for informationsbehandling)*, 17(3):286–302, September 1977. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=17&issue=3&spage=286.

Hashizume:1977:FPA

[1052] B. Hashizume. Floating point arithmetic. *Byte Magazine*, 2(11):76–78, 180–188, November 1977. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Hastings:1977:FPH

[1053] Jordan Towner Hastings. Floating point half-word packing for Control Data Corporation 6000/7000 series hardware. *Software—Practice and Experience*, 7(1):146–147, January 1977. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Hough:1977:EAI

[1054] David Granville Hough. *Explaining and ameliorating the ill-condition of zeros of polynomials*. Ph.D. thesis, Electronics Research Lab., University of California, Berkeley, Berkeley, CA, USA, February 1977. 303 pp. URL `http://wwwlib.umi.com/dissertations/fullcit/7731401`.

Jenkins:1977:URN

[1055] W. Jenkins and B. Leon. The use of residue number systems in the design of finite impulse response digital filters. *IEEE Transactions on Circuits and Systems*, 24(4):191–201, April 1977. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23467`.

Jullien:1977:HRD

[1056] G. Jullien, W. Miller, J. Soltis, A. Baraniecka, and B. Tseng. Hardware realization of digital signal processing elements using the residue number system. In *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '77*, pages 506–510. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1977. CODEN ???? ISSN ????

Kahan:1977:CYC

[1057] W. M. Kahan and B. N. Parlett. Can you count on your calculator? Memorandum UCB/ERL M77/21, Electronics Research Laboratory, College of Engineering, University of California, Berkeley, Berkeley, CA, USA, April 6, 1977. ii + 28 pp. URL `https://www.math.utah.edu/pub/bibnet/authors/k/kahan-william-m.bib; https://www.math.utah.edu/pub/bibnet/subjects/acc-stab-num-alg.bib`. German Transl. Published In: Jahrbuch Überblicke Mathematik 1978, Ed. by B. Fuchssteiner and others, Bibliographisches Institut, Mannheim-Wien-Zürich, 199–216, 1978.

Kahan:1977:ISS

[1058] William Kahan. Implementation of software systems and modules, part 1, First West Coast Computer Faire. Audio tapes archived at the Computer History Museum, Mountain View, CA, USA., April 1977. URL `https://www.computerhistory.org/collections/catalog/102706817`. Kahan's talk begins at 26m50s on side A, and continues to side B.

Kent:1977:HSF

[1059] Jan G. Kent. Highlights of a study of floating-point instructions. *IEEE Transactions on Computers*, C-26(7):660–666, July 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kent:1977:HST

[1060] S. A. Kent. A high-speed threshold gate multiplier. *IEEE Transactions on Computers*, C-26(12):1279–1283, December 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674790`.

Kornerup:1977:UNR

[1061] P. Kornerup and B. D. Shriver. A unified numeric representation arithmetic unit and its language support. *IEEE Transactions on Computers*, C-26(7):651–659, July 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674898`.

Krishnamurthy:1977:MPU

[1062] E. V. Krishnamurthy. Matrix processors using p-adic arithmetic for exact linear computations. *IEEE Transactions on Computers*, C-26(7):633–639, July 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674895`.

Kuck:1977:ARM

[1063] David J. Kuck, Douglass S. Parker Jr., and Ahmed H. Sameh. Analysis of rounding methods in floating-point arithmetic. *IEEE Transactions on Computers*, C-26(7):643–650, July 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kulisch:1977:MFC

[1064] Ulrich Kulisch. Mathematical foundations of computer arithmetic. *IEEE Transactions on Computers*, C-26(7):610–620, July 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Lee:1977:FNS

[1065] S. C. Lee and A. D. Edgar. The Focus number system. *IEEE Transactions on Computers*, C-26(11):1167–1170, November 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674770`. See comments [1250, 1270].

Ligomenides:1977:SSF

[1066] P. A. Ligomenides. The skip-and-set fast-division algorithm. *IEEE Transactions on Computers*, C-26(10):1030–1032, October 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674740`.

Luke:1977:ACM

[1067] Yudell L. Luke. *Algorithms for the Computation of Mathematical Functions*. Academic Press, New York, NY, USA, 1977. ISBN 0-12-459940-0. xiii + 284 pp. LCCN QA351 .L7961.

Maag:1977:SRE

[1068] Werner Maag and Rudolf Wehrli. Survey on rounding effects in floating-point arithmetic. Report, CM Schänis AG, Schänis, Switzerland, 1977. 73 pp.

Merzbach:1977:GSF

[1069] Uta C. Merzbach. *Georg Scheutz and the first printing calculator*, volume 36 of *Smithsonian studies in history and technology*. Smithsonian Institution Press, Washington, DC, USA, 1977. iii + 74 pp. LCCN QA75 .M46.

Metropolis:1977:MSA

[1070] N. Metropolis. Methods of significance arithmetic. In Jacobs [7707], pages 179–192. With a foreword by R. A. Scriven.

Metropolis:1977:SAP

[1071] N. Metropolis and Stephen M. Tanny. Significance arithmetic: the probability of carrying. *Computers and Mathematics with Applications*, 3(1):77–81, 1977. CODEN CMAPDK. ISSN 0886-9561.

Mitra:1977:CDI

[1072] Debasis Mitra. Criteria for determining if a high-order digital filter using saturation arithmetic is free of overflow oscillations. *The Bell System Technical Journal*, 56(9):1679–1699, November 1977. CODEN BSTJAN. ISSN 0005-8580. URL `http://bstj.bell-labs.com/BSTJ/images/Vol56/bstj56-9-1679.pdf`; `http://www.alcatel-lucent.com/bstj/vol56-1977/articles/bstj56-9-1679.pdf`.

Ninke:1977:SRB

[1073] W. H. Ninke and G. R. Ritchie. Shift register binary rate multipliers. *IEEE Transactions on Computers*, C-26(3):276–278, March 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674819.

Oliver:1977:EAM

[1074] J. Oliver. An error analysis of the modified Clenshaw method for evaluating Chebyshev and Fourier series. *Journal of the Institute of Mathematics and its Applications*, 20(3):379–391, 1977. CODEN JMTAA8. ISSN 0020-2932.

Oliver:1977:SRE

[1075] J. Oliver. On the sensitivity to rounding errors of Chebyshev series approximations. *Journal of Computational and Applied Mathematics*, 3 (2):89–98, June 1977. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/0771050X77900031.

Palmer:1977:ISF

[1076] John Palmer. The Intel standard for floating point arithmetic. In IEEE [7706], pages 107–112. ISBN ???? LCCN QA76.6 .I51 1977. IEEE catalog no. 77CH1291-4C.

Papantoni-Kazakos:1977:CRE

[1077] P. Papantoni-Kazakos. Consideration of round off errors in the design of mean square estimators. *IEEE Transactions on Automatic Control*, 22(2):276–279, April 1977. CODEN IETAA9. ISSN 0018-9286 (print), 1558-2523 (electronic).

Randell:1977:CGC

[1078] B. Randell. Colossus: Godfather of the computer. *New Scientist*, 73 (1038):346–348, February 10, 1977. CODEN NWSCAL. ISSN 0262-4079, 0028-6664. Reprinted in [7729, §7.5].

Reimer:1977:AFO

[1079] M. Reimer. Auswertungsalgorithmen fast-optimaler numerischer Stabilität für Polynome [*English:* Algorithms of Near-optimal Numerical Stability for the Evaluation of Polynomials]. *Computing: Archiv fur informatik und numerik*, 17(4):289–296, ???? 1977. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Ris:1977:UDF

[1080] Frederic N. Ris. A unified decimal floating-point architecture for the support of high-level languages. *ACM SIGPLAN Notices*, 12(9):60–70, September 1977. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Rjabko:1977:AHM

[1081] B. Ja. Rjabko. An analogue of Haffmen's method for the optimal summation of floating point numbers. (Russian). *Diskret. Analiz*, 30: 38–45, 77, 1977.

Sanyal:1977:AND

[1082] S. Sanyal. An algorithm for nonrestoring division. *Computer Design*, 16 (5):124–127, May 1977. CODEN CMPDAM. ISSN 0010-4566.

Simmons:1977:SRA

[1083] David Michael Simmons. Signal-to-noise ration analysis of block floating point FFTS. Electrical engineering thesis (M.S.), University of Missouri–Rolla, Rolla, MO, USA, 1977. 114 pp.

Soderstrand:1977:HSL

[1084] M. A. Soderstrand. A high-speed low-cost recursive digital filter using residue number arithmetic. *Proceedings of the IEEE*, 65(7):1065–1067, July 1977. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=31255`.

Soderstrand:1977:MRN

[1085] M. A. Soderstrand and E. L. Fields. Multipliers for residue-number-arithmetic digital filters. *Electronics Letters*, 13(6):164–166, March 17, 1977. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4249252`.

Steer:1977:DHS

[1086] D. G. Steer and S. R. Penstone. Digital hardware for sine-cosine functions. *IEEE Transactions on Computers*, C-26(12):1283–1286, December 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Stenzel:1977:CHS

[1087] W. J. Stenzel. A compact high-spped multiplication scheme. *IEEE Transactions on Computers*, C-26(10):948–957, October 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Stoutemyer:1977:AEA

[1088] David R. Stoutemyer. Automatic error analysis using computer algebraic manipulation. *ACM Transactions on Mathematical Software*, 3(1):26–43, March 1977. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Thong:1977:ARE

[1089] Tran Thong and Bede Liu. Accumulation of roundoff errors in floating point FFT. *IEEE Transactions on Circuits and Systems*, 24(3):132–143, March 1977. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Tran-Thong:1977:FPF

[1090] Trần-Thống and Bede Liu. Floating point fast Fourier transform computation using double precision floating point accumulators. *ACM Transactions on Mathematical Software*, 3(1):54–59, March 1977. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Trivedi:1977:LAD

[1091] Kishor S. Trivedi and Miloš D. Ercegovac. On-line algorithms for division and multiplication. *IEEE Transactions on Computers*, C-26(7):681–687, July 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Trivedi:1977:UCF

[1092] K. S. Trivedi. On the use of continued fractions for digital computer arithmetic. *IEEE Transactions on Computers*, C-26(7):700–704, July 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674903. See corrections [1193].

Ushijima:1977:SEP

[1093] Kazuo Ushijima. Step to an efficient program for floating-point summation. *Software—Practice and Experience*, 7(6):759–769, November/December 1977. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Williams:1977:SIA

[1094] R. P. Williams. Serial integer arithmetic with magnetic bubbles. *IEEE Transactions on Computers*, C-26(3):260–264, March 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1674814.

Wozniakowski:1977:NSC

[1095] H. Woźniakowski. Numerical stability of the Chebyshev method for the solution of large linear systems. *Numerische Mathematik*, 28(2):191–209, 1977. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Yuen:1977:NRD

[1096] C. K. Yuen. A new representation for decimal numbers. *IEEE Transactions on Computers*, C-26(12):1286–1288, December 1977. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Abu-El-Haija:1978:AER

[1097] A. Abu-El-Haija and A. Peterson. An approach to eliminate roundoff errors in digital filters. In *IEEE International Conference on Acoustics, Speech, and Signal Processing: ICASSP '78*, pages 75–78. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1978. CODEN ???? ISSN ????

Agrawal:1978:AIR

[1098] Dharma P. Agrawal. On arithmetic inter-relationships and hardware interchangeability of negabinary and binary systems. In IEEE SCA '78 [7710], pages 88–96. ISSN 1063-6889. URL `http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Agrawal.pdf`. IEEE catalog no. 78CH1412-6C.

Agrawal:1978:MAL

[1099] Dharma P. Agrawal and T. R. N. Rao. On modular $(2^n + 1)$ arithmetic logic. In IEEE SCA '78 [7710], pages 104–108. ISSN 1063-6889. URL `http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Agrawal_Rao.pdf`. IEEE catalog no. 78CH1412-6C.

Andrews:1978:EFM

[1100] M. Andrews, S. F. McCormick, and G. D. Taylor. Evaluation of functions on microcomputers: Square root. *Computers and Mathematics with Applications*, 4(4):359–367, 1978. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

Andrews:1978:IAN

[1101] M. Andrews. Influence of architecture on numerical algorithms. *Microprocessors and Microsystems*, 2(3):130–137, June 1978. CODEN MIMID5. ISSN 0141-9331 (print), 1872-9436 (electronic).

Andrews:1978:PCA

[1102] Michael Andrews and Daniel E. Eggerding. A pipelined computer architecture for unified elementary function evaluation. *Computers and Electrical Engineering*, 5(2):189–202, June 1978. CODEN CPEEBQ. ISSN 0045-7906 (print), 1879-0755 (electronic). URL https://www.sciencedirect.com/science/article/abs/pii/0045790678900307.

Andrews:1978:UEF

[1103] M. Andrews and T. Mraz. Unified elementary function generator. *Microprocessors and Microsystems*, 2(5):270–273, October 1978. CODEN MIMID5. ISSN 0141-9331 (print), 1872-9436 (electronic).

Apple:1978:AIR

[1104] Apple Computer, Inc., Cupertino, CA, USA. *Applesoft II reference manual: extended floating-point BASIC*, 1978. 63 pp.

Atkins:1978:CTA

[1105] D. E. Atkins and S. C. Ong. A comparison of two approaches to multi-operand binary addition. In IEEE SCA '78 [7710], pages 125–139. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Atkins.pdf. IEEE catalog no. 78CH1412-6C.

Banerji:1978:HSD

[1106] Dilip K. Banerji, To-Yat Cheung, and V. Ganesan. A high speed division method in residue arithmetic. Technical report, Department of Computer Science, University of Ottawa, Ottawa, ON, Canada K1N 6N5, 1978. 7 pp. URL http://books.google.com/books?id=q8fBIwAACAAJ.

Baraniecka:1978:DTR

[1107] A. Baraniecka and G. Jullien. On decoding techniques for residue number system realizations of digital signal processing hardware. *IEEE Transactions on Circuits and Systems*, 25(11):935–936, November 1978. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23475.

Bareiss:1978:PEA

[1108] Erwin H. Bareiss and Jesse L. Barlow. *Probabilistic error analysis of computer arithmetics*. Department of Electrical Engineering and Computer Science, Northwestern University, Evanston, IL, USA, 1978. ISBN ???? 97 pp. LCCN ????

Barsi:1978:ACR

[1109] F. Barsi and P. Maestrini. Arithmetic codes in residue number systems with magnitude index. *IEEE Transactions on Computers*, C-27(12): 1185–1188, December 1978. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=12; http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35165; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675023.

BellHowellCo:1978:BHF

[1110] Bell and Howell Co and Apple Computer, Inc. *[Bell and Howell floating point Basic programming reference manual]*. Bell and Howell, Audio-Visual Products Division, Chicago, IL, USA, 1978. xiii + 168 pp.

Blue:1978:PFP

[1111] James L. Blue. A portable Fortran program to find the Euclidean norm of a vector. *ACM Transactions on Mathematical Software*, 4(1):15–23, March 1978. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Boehmer:1978:TAF

[1112] K. Boehmer and J. Michael Yohe. Triplex arithmetic for Fortran. MRC Technical Summary 1901, Mathematics Research Center, University of Wisconsin, Madison, Madison, WI, USA, December 1978. 38 pp.

Bohlender:1978:GBM

[1113] G. Bohlender. *Genaue Berechnung mehrfacher Summen, Produkte und Wurzeln von Gleitkommazahlen und allgemeine Arithmetik in höheren Programmiersprachen [*English: *Accurate Computation of Multiple Sums, Products and Roots of Floating-Point Numbers and General Arithmetic in High-Level Programming Languages]*. Dissertation, Universität Karlsruhe, Karlsruhe, Germany, 1978. ?? pp.

Boney:1978:MRW

[1114] J. Boney. Math in the real world. *Byte Magazine*, 3(9):114–119, September 1978. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Brady:1978:MBL

[1115] W. G. Brady. More on Benford's law. *Fibonacci Quarterly*, 16(1):51–52, February 1978. CODEN FIBQAU. ISSN 0015-0517. URL http://www.fq.math.ca/Scanned/16-1/brady.pdf.

Brent:1978:AIB

[1116] R. P. Brent, J. A. Hooper, and J. Michael Yohe. An Augment interface for Brent's Multiple Precision Arithmetic Package. MRC Technical Summary 1868, Mathematics Research Center, University of Wisconsin, Madison, Madison, WI, USA, 1978. Published In: ACM Trans. Math. Software 6, 146–149, 1980.

Brent:1978:AMF

[1117] Richard P. Brent. Algorithm 524: MP, A Fortran multiple-precision arithmetic package [A1]. *ACM Transactions on Mathematical Software*, 4(1):71–81, March 1978. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See also [1212, 1288].

Brent:1978:FMP

[1118] Richard P. Brent. A Fortran multiple-precision arithmetic package. *ACM Transactions on Mathematical Software*, 4(1):57–70, March 1978. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Case:1978:AIS

[1119] Richard P. Case and Andris Padegs. Architecture of the IBM System/370. *Communications of the Association for Computing Machinery*, 21 (1):73–96, January 1978. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cherry:1978:BAP

[1120] Lorinda L. Cherry and Robert Morris. BC — an arbitrary precision desk calculator language. Technical Memorandum 1053, AT&T Bell Laboratories, Murray Hill, NJ, USA, November 12, 1978. 2 + 14 pp.

Chow:1978:LDR

[1121] Catherine Y. Chow and James E. Robertson. Logical design of a redundant binary adder. In IEEE SCA '78 [7710], pages 109–115. ISSN 1063-6889. URL `http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Chow.pdf`. IEEE catalog no. 78CH1412-6C.

Cohen:1978:MAI

[1122] Danny Cohen. Mathematical approach to iterative computation networks. In IEEE SCA '78 [7710], pages 226–237. ISSN 1063-6889. URL `http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Cohen.pdf`. IEEE catalog no. 78CH1412-6C.

Coonen:1978:SPS

[1123] Jerome T. Coonen. Specification for a proposed standard for floating point arithmetic. Memorandum ERL M78/72, University of California, Berkeley, Berkeley, CA, USA, 1978.

Corsini:1978:USM

[1124] P. Corsini and G. Frosini. Uniform shift multiplication algorithms without overflow. *IEEE Transactions on Computers*, C-27(3):256–258, March 1978. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675081.

Crary:1978:APT

[1125] F. D. Crary and J. Michael Yohe. The Augment precompiler as a tool for the development of special purpose arithmetic packages. MRC Technical Summary 1892, Mathematics Research Center, University of Wisconsin, Madison, Madison, WI, USA, 1978.

Dadda:1978:MAB

[1126] Luigi Dadda. Multiple addition of binary serial numbers. In IEEE SCA '78 [7710], pages 140–148. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Dadda.pdf. IEEE catalog no. 78CH1412-6C.

Debnath:1978:EMO

[1127] R. C. Debnath and D. A. Pucknell. Erratum: On multiplicative overflow detection in residue number system. *Electronics Letters*, 14(12):385, June 8, 1978. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4241130. See [1128].

Debnath:1978:MOD

[1128] R. C. Debnath and D. A. Pucknell. On multiplicative overflow detection in residue number system. *Electronics Letters*, 14(5):129–130, ???? 1978. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4240881. See erratum [1127].

DEC-ES:1978:VIS

[1129] Digital Equipment Corporation.Educational Services. VAX-11 instruction set, 1978. 13 videocassettes (ca. 585 min.).

Diamond:1978:SRI

[1130] Harold G. Diamond. Stability of rounded off inverses under iteration. *Mathematics of Computation*, 32(141):227–232, January 1978. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Egbert:1978:PCA

[1131] W. E. Egbert. Personal calculator algorithms IV: Logarithmic functions. *Hewlett–Packard Journal*, 29(8):29–32, April 1978. CODEN HPJOAX. ISSN 0018-1153.

Ercegovac:1978:AME

[1132] M. D. Ercegovac and M. M. Takata. An arithmetic module for efficient evaluation of functions. In IEEE SCA '78 [7710], pages 190–199. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Ercegovac_Takata.pdf. IEEE catalog no. 78CH1412-6C.

Ercegovac:1978:FIS

[1133] Miloš D. Ercegovac and Algirdas Avizienis. The Fourth IEEE Symposium on Computer Arithmetic: Foreword. In IEEE SCA '78 [7710], page v. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_contents.pdf; http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_foreword.pdf; http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_preface.pdf. IEEE catalog no. 78CH1412-6C.

Ercegovac:1978:LSR

[1134] Miloš D. Ercegovac. An on-line square rooting algorithm. In IEEE SCA '78 [7710], pages 183–189. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Ercegovac.pdf. IEEE catalog no. 78CH1412-6C.

Espelid:1978:FPS

[1135] Terje O. Espelid. On floating-point summation. Report 67, Department of Applied Mathematics, University of Bergen, Bergen, Norway, 1978. 24 pp.

FloatingPointSystems:1978:P

[1136] *To the point*, 1978. Floating Point Systems, Portland, OR, USA.

Fox:1978:AFP

[1137] P. A. Fox, A. D. Hall, and N. L. Schryer. Algorithm 528: Framework for a portable library [Z]. *ACM Transactions on Mathematical Software*, 4(2):177–188, June 1978. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See remarks [1225, 4106].

Fox:1978:PMS

[1138] P. A. Fox, A. D. Hall, and N. L. Schryer. The PORT mathematical subroutine library. *ACM Transactions on Mathematical Software*, 4(2): 104–126, June 1978. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

FPS:1978:AAP

[1139] Floating Point Systems, Inc., Portland, OR, USA. *AP-120B Array Processor handbook*, 1978. ???? pp.

Fraley:1978:ZIR

[1140] B. Fraley. Zeros and infinities revisited and gradual underflow. Technical report, HP Laboratories, 3500 Deer Creek Road, Palo Alto, CA 94304, USA, December 28, 1978. ???? pp.

Frankowski:1978:RME

[1141] Krzysztof S. Frankowski. A realistic model for error estimates in the evaluation of elementary functions. In IEEE SCA '78 [7710], pages 70–74. ISSN 1063-6889. URL `http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Frankowski.pdf`. IEEE catalog no. 78CH1412-6C.

Gajski:1978:DAE

[1142] Daniel D. Gajski and L. P. Rubinfield. Design of arithmetic elements for Burroughs Scientific Processor. In IEEE SCA '78 [7710], pages 245–256. ISSN 1063-6889. URL `http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Gajski.pdf`. IEEE catalog no. 78CH1412-6C.

Garcia:1978:AES

[1143] Oscar N. Garcia, Harvey Glass, and Stanley C. Haines. An approximate and empirical study of the distribution of adder inputs and maximum carry length propagation. In IEEE SCA '78 [7710], pages 97–103. ISSN 1063-6889. URL `http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Garcia.pdf`. IEEE catalog no. 78CH1412-6C.

Garner:1978:TCA

[1144] H. L. Garner. Theory of computer addition and overflows. *IEEE Transactions on Computers*, C-27(4):297–301, April 1978. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675101.

Gautschi:1978:QNC

[1145] Walter Gautschi. Questions of numerical conditions related to polynomials. In *Recent advances in numerical analysis (Proc. Sympos., Math. Res. Center, University of Wisconsin, Madison, Wis., 1978)*, volume 41 of *Publ. Math. Res. Center University of Wisconsin*, pages 45–72. Academic Press, New York, NY, USA, 1978.

Good:1978:CMA

[1146] I. J. Good. C 24. A method for avoiding overflows and underflows. *Journal of Statistical Computation and Simulation*, 8(2):162–163, 1978. CODEN JSCSAJ. ISSN 0094-9655 (print), 1026-7778 (electronic), 1563-5163.

Goodman:1978:ITD

[1147] R. Goodman, J. Bustoz, and A. Feldstein. Improved trailing digits estimates applied to optimal computer arithmetic. *SIAM Review*, 20(3): 625, ???? 1978. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Hamacher:1978:CO

[1148] V. Carl Hamacher, Zvonko G. Vranesic, and Safwat G. Zaky. *Computer Organization*. McGraw-Hill series in computer organization and architecture. McGraw-Hill, New York, NY, USA, 1978. ISBN 0-07-025681-0. xiv + 465 pp. LCCN QA76.9.A73 H35.

Horspool:1978:EAU

[1149] R. Nigel Horspool and Eric C. R. Hehner. Exact arithmetic using a variable-length p-adic representation. In IEEE SCA '78 [7710], pages 10–14. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Horspool.pdf. IEEE catalog no. 78CH1412-6C.

Hull:1978:DFP

[1150] T. E. Hull. Desirable floating-point arithmetic and elementary functions for numerical computation. In IEEE SCA '78 [7710], pages 63–69. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Hull.pdf. IEEE catalog no. 78CH1412-6C.

Hwang:1978:IRR

[1151] Kai Hwang and T. P. Chang. An interleaved rational/radix arithmetic system for high-precision computations. In IEEE SCA '78 [7710], pages 15–24. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Hwang.pdf. IEEE catalog no. 78CH1412-6C.

Intel:1978:FAL

[1152] Intel Corporation. *8080/8085 floating-point arithmetic library: user's manual*. Intel Corporation, Santa Clara, CA, USA, 1978. various pp.

Jullien:1978:ARN

[1153] G. A. Jullien and W. C. Miller. Application of the residue number system to computer processing of digital signals. In IEEE SCA '78 [7710], pages 220–225. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Jullien.pdf. IEEE catalog no. 78CH1412-6C.

Jullien:1978:RNS

[1154] G. A. Jullien. Residue number scaling and other operations using ROM arrays. *IEEE Transactions on Computers*, C-27(4):325–336, April 1978. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=12; http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35168; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675105.

Kahan:1978:KSI

[1155] W. Kahan and B. N. Parlett. Können Sie sich auf Ihren Rechner verlassen? (German) [can you count on your calculator?]. *Jahrbuch Überblicke Mathematik*, ??:199–216, 1978.

Koren:1978:UAC

[1156] Israel Koren and Yoram Maliniak. A unified approach to a class of number systems. In IEEE SCA '78 [7710], pages 25–28. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Koren.pdf. IEEE catalog no. 78CH1412-6C.

Kornerup:1978:FAF

[1157] Peter Kornerup and David W. Matula. A feasibility analysis of fixed-slash and floating-slash arithmetic. In IEEE SCA '78 [7710], pages 39–47. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/

arith4/papers/ARITH4_Kornerup.pdf. IEEE catalog no. 78CH1412-6C.

Krishnamurthy:1978:MPP

[1158] E. V. Krishnamurthy and H. Venkateswaran. Multivariable polynomial processing — applications to interpolation. In IEEE SCA '78 [7710], pages 81–87. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Krishnamurthy.pdf. IEEE catalog no. 78CH1412-6C.

Kuck:1978:SCC

[1159] David J. Kuck. *The structure of computers and computations*. Wiley, New York, NY, USA, 1978. ISBN 0-471-02716-2 (vol. 1), 0-471-08138-8. xxii + 611 pp. LCCN QA76.9.A73 K83. See Chapter 3 for floating-point arithmetic discussion.

Liddiard:1978:RSF

[1160] L. A. Liddiard. Required scientific floating point arithmetic. In IEEE SCA '78 [7710], pages 56–62. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Liddiard.pdf. IEEE catalog no. 78CH1412-6C.

Lillevik:1978:CDA

[1161] Sigurd L. Lillevik and P. David Fisher. Computational design alternatives with microprocessor-based systems. In IEEE SCA '78 [7710], pages 267–272. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Lillevik.pdf. IEEE catalog no. 78CH1412-6C.

Lim:1978:HSM

[1162] Raymond S. Lim. High-speed multiplication and multiple summand addition. In IEEE SCA '78 [7710], pages 149–153. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Lim.pdf. IEEE catalog no. 78CH1412-6C.

Liu:1978:ECC

[1163] Chao-Kai Liu and Tse Lin Wang. Error-correcting codes in binary-coded-decimal arithmetic. *IEEE Transactions on Computers*, C-27(11): 977–984, November 1978. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Logan:1978:FDP

[1164] Jonothan L. Logan and Samuel A. Goudsmit. The first digit phenomenon. *Proceedings of the American Philosophical Society*, 122

(4):193–197, August 18, 1978. CODEN PAPCAA. ISSN 0003-049X (print), 2326-9243 (electronic). URL http://links.jstor.org/sici?sici=0003-049X(19780818)122%3A4%3C193%3ATFDP%3E2.0.CO%3B2-C; http://www.jstor.org/stable/986530. This paper contains derivations of both Stigler's Law and Benford's Law, and receives strong criticism in [1949]. This paper contains an important historical note that is recorded in entry [39].

Matula:1978:BDS

[1165] David W. Matula. Basic digit sets for radix representation of the integers. In IEEE SCA '78 [7710], pages 1–9. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Matula.pdf. IEEE catalog no. 78CH1412-6C.

Matula:1978:FAF

[1166] David W. Matula and Peter Kornerup. A feasibility analysis of fixed-slash and floating-slash number systems. In IEEE SCA '78 [7710], pages 29–38. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Matula_Kornerup.pdf. IEEE catalog no. 78CH1412-6C.

McCrea:1978:CFP

[1167] P. G. McCrea, P. C. Maxwell, and P. W. Baker. Comments on "A Floating-Point Multiplexed DDA System". *IEEE Transactions on Computers*, C-27(12):1226, December 1978. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675033. See [986].

Mitra:1978:ITD

[1168] S. K. Mitra and G. K. Sorknes. On the implementation of a two-dimensional FIR filter using a single multiplier. *IEEE Transactions on Computers*, C-27(8):762–764, August 1978. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675186.

Morris:1978:DID

[1169] Robert Morris and Lorinda Cherry. DC — an interactive desk calculator. Technical Memorandum 1056, AT&T Bell Laboratories, Murray Hill, NJ, USA, November 15, 1978. 8 pp.

Murphy:1978:SRP

[1170] T. R. Murphy and P. L. Rickard. Square-root procedure for floating-point numbers. *IBM Technical Disclosure Bulletin*, 21(2):785, July 1978. CODEN IBMTAA. ISSN 0018-8689.

Nussabaumer:1978:FMN

[1171] H. J. Nussabaumer. Fast multipliers for number theoretic transforms. *IEEE Transactions on Computers*, C-27(8):764–765, August 1978. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675187.

OLeary:1978:DHS

[1172] G. P. O'Leary. The design of a high-speed arithmetic processor. In COMPSAC '78 [7709], pages 175–176. LCCN ????

Olver:1978:NAE

[1173] F. W. J. Olver. New approach to error arithmetic. *SIAM Review*, 20(3):632, ???? 1978. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Patel:1978:ASB

[1174] M. R. Patel and K. H. Bennett. Analysis of speed of a binary divider using a variable number of shifts per cycle. *The Computer Journal*, 21(3):246–252, August 1978. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/21/3/246.full.pdf+html; http://www3.oup.co.uk/computer_journal/hdb/Volume_21/Issue_03/tiff/246.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_21/Issue_03/tiff/247.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_21/Issue_03/tiff/248.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_21/Issue_03/tiff/249.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_21/Issue_03/tiff/250.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_21/Issue_03/tiff/251.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_21/Issue_03/tiff/252.tif.

Payne:1978:DPF

[1175] M. Payne and W. Strecker. Draft proposal for floating point standard. Technical report, Digital Equipment Corporation, Maynard, MA, USA, December 11, 1978.

Preston:1978:NAT

[1176] F. S. Preston. A new algorithm for the tangent. *IEEE Transactions on Computers*, C-27(2):167, February 1978. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Ralston:1978:FCN

[1177] Anthony Ralston and Philip Rabinowitz. *A first course in numerical analysis*. International series in pure and applied mathematics. McGraw-Hill, New York, NY, USA, second edition, 1978. ISBN 0-07-051158-6. xix + 556 pp. LCCN QA297 .R3 1978. US$19.50.

Rashed:1978:LRI

[1178] Roshdī Rāshed. L'extraction de la racine $n^{\text{ième}}$ et l'Invention des fractions décimales (XI^{e}–XII^{e} siècles). (French) [The extraction of the n$^{\text{th}}$ root and the invention of decimal fractions (11$^{\text{th}}$–12$^{\text{th}}$ centuries)]. *Archive for History of Exact Sciences*, 18(3):191–243, September 1978. CODEN AHESAN. ISSN 0003-9519 (print), 1432-0657 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0003-9519&volume=18&issue=3&spage=191.

Reuter:1978:SEU

[1179] Eric K. Reuter, John P. Jeter, J. Wayne Anderson, and Bruce D. Shriver. Some experiments using interval arithmetic. In IEEE SCA '78 [7710], pages 75–80. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Reuter.pdf. IEEE catalog no. 78CH1412-6C.

Richardson:1978:ATB

[1180] Caryl Richardson and Jef Raskin. *The Apple tutorial: based on the Apple II Basic programming manual*. Bell and Howell, Audio-Visual Products Division, Chicago, IL, USA, 1978. vii + 157 pp.

Ruckdeschel:1978:FA

[1181] F. Ruckdeschel. Functional approximations. *Byte Magazine*, 3(11):34–46, November 1978. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Russell:1978:CCS

[1182] Richard M. Russell. The Cray-1 computer system. *Communications of the Association for Computing Machinery*, 21(1):63–72, January 1978. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Schmid:1978:EDS

[1183] Hermann Schmid. *Elektronische Dezimalrechner, Schaltungen und Verfahren [*English: *Electronic Decimal Computers, Wiring and Methods]*. R. Oldenbourg Verlag, Munich, Germany and Vienna, Austria, 1978. ISBN 3-486-20211-1. 275 pp. LCCN ????

Schreiber:1978:TMF

[1184] F. A. Schreiber and R. Stefanelli. Two methods for fast binary-BCD conversion. In IEEE SCA '78 [7710], pages 200–207. ISSN 1063-6889. URL `http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Schreiber.pdf`. IEEE catalog no. 78CH1412-6C.

Seck:1978:WSA

[1185] Friedrich Seck, editor. *Wilhelm Schickard, 1592–1635: Astronom, Geograph, Orientalist, Erfinder der Rechenmaschine. (German) [Wilhelm Schickard, 1592–1635: Astronomer, Geographer, Orientalist, Inventor of the calculator]*, volume 25 of *Contubernium*. Mohr, Tübingen, West Germany, 1978. ISBN 3-16-939772-9. 422 pp. LCCN QB36.S312 W54.

Shen:1978:CSA

[1186] D. T. Shen and A. Weinberger. 4-2 carry-save adder implementation using send circuits. *IBM Technical Disclosure Bulletin*, 20(9):??, February 1978. CODEN IBMTAA. ISSN 0018-8689.

Slekys:1978:MBI

[1187] Arunas G. Slekys and Algirdas Avižienis. A modified bi-imaginary number systems. In IEEE SCA '78 [7710], pages 48–55. ISSN 1063-6889. URL `http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Slekys.pdf`. IEEE catalog no. 78CH1412-6C.

Sripad:1978:QEF

[1188] A. Sripad and D. Snyder. Quantization errors in floating-point arithmetic. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 26(5):456–463, October 1978. CODEN IETABA. ISSN 0096-3518.

Stone:1978:DMF

[1189] Harold Stone, William Kahan, and Jerome Coonen. Draft of material on a floating-point standard. First draft of what came to be known as the KCS proposal to the IEEE 754 subcommittee, with details connected to the early 8087 design., April 24, 1978.

URL https://ieeemilestones.ethw.org/w/images/9/96/Wk_hs_jc_draft_of_material_on_a_floating_point_standard_apr78.pdf.

Svoboda:1978:ACF

[1190] Antonin Svoboda. Arithmetic circuit fault detection by modular encoding. In IEEE SCA '78 [7710], pages 208–219. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Svoboda.pdf. IEEE catalog no. 78CH1412-6C.

Swartzlander:1978:MAS

[1191] E. E. Swartzlander, Jr. Merged arithmetic for signal processing. In IEEE SCA '78 [7710], pages 239–244. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Swartzlander.pdf. IEEE catalog no. 78CH1412-6C.

Tan:1978:TIH

[1192] Kwang G. Tan. The theory and implementation of high-radix division. In IEEE SCA '78 [7710], pages 154–163. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Tan.pdf. IEEE catalog no. 78CH1412-6C.

Trivedi:1978:CUC

[1193] K. S. Trivedi. Corrections to "On the Use of Continued Fractions for Digital Computer Arithmetic". *IEEE Transactions on Computers*, C-27 (3):288, March 1978. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675093. See [1092].

Trivedi:1978:HRL

[1194] Kishor S. Trivedi and Joseph G. Rusnak. Higher radix on-line division. In IEEE SCA '78 [7710], pages 164–174. ISSN 1063-6889. URL http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Trivedi.pdf. IEEE catalog no. 78CH1412-6C.

Tseng:1978:EAF

[1195] B. Tseng, W. Miller, G. Jullien, J. Soltis, and A. Baraniecka. An error analysis of a FFT implementation using the residue number system. In *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '78*, pages 800–803. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1978. CODEN ???? ISSN ????

Wang:1978:EPF

[1196] J. Y. Wang. The evaluation of periodic functions with large input arguments. *ACM SIGNUM Newsletter*, 13(4):7–9, December 1978. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Waser:1978:HMM

[1197] Shlomo Waser. High-speed monolithic multipliers for real-time digital signal processing. *Computer*, 11(10):19–29, October 1978. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Waser:1978:SAH

[1198] S. Waser. State of the art in high-spped arithmetic ICs. *Computer Design*, ??(??):??, July 1978. CODEN CMPDAM. ISSN 0010-4566.

Waser:1978:SAI

[1199] Shlomo Waser. Survey of arithmetic integrated circuits. In IEEE SCA '78 [7710], pages 257–266. ISSN 1063-6889. URL `http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Waser.pdf`. IEEE catalog no. 78CH1412-6C.

Weinberger:1978:PAU

[1200] Arnold Weinberger. Parallel adders using standard PLAs. In IEEE SCA '78 [7710], pages 116–124. ISSN 1063-6889. URL `http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Weinberger.pdf`. IEEE catalog no. 78CH1412-6C.

Wittmayer:1978:APP

[1201] W. R. Wittmayer. Array processor provides high throughput rate. *Computer Design*, ??(??):93–100, March 1978. CODEN CMPDAM. ISSN 0010-4566.

Wozniakowski:1978:REA

[1202] H. Woźniakowski. Round-off error analysis of iterations for large linear systems. *Numerische Mathematik*, 30(3):301–314, 1978. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Wrathall:1978:CGI

[1203] Celia Wrathall and Tien Chi Chen. Convergence guarantee and improvements for a fast hardware exponential and logarithm evaluation scheme. In IEEE SCA '78 [7710], pages 175–182. ISSN 1063-6889. URL `http://www.acsel-lab.com/arithmetic/arith4/papers/ARITH4_Wrathall.pdf`. IEEE catalog no. 78CH1412-6C.

Abu-El-Haija:1979:AER

[1204] A. Abu-El-Haija and A. Peterson. An approach to eliminate roundoff errors in digital filters. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 27(2):195–198, April 1979. CODEN IETABA. ISSN 0096-3518.

Aggarwal:1979:REM

[1205] Vijay B. Aggarwal and James W. Burgmeier. A round-off error model with applications to arithmetic expressions. *SIAM Journal on Computing*, 8(1):60–72, ???? 1979. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic).

Agrawal:1979:HSA

[1206] D. P. Agrawal. High-speed arithmetic arrays. *IEEE Transactions on Computers*, C-28(3):215–224, March 1979. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675322`.

Alt:1979:SRD

[1207] H. Alt. Square rooting is as difficult as multiplication. *Computing: Archiv fur informatik und numerik*, 21(3):221–232, 1979. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Atkins:1979:FSC

[1208] D. E. Atkins. Fourth Symposium on Computer Arithmetic: crunching with quality and LSI. *Computer*, 12(4):94–97, April 1979. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Barlow:1979:PEA

[1209] Jesse Louis Barlow. Probabilistic error analysis of computer arithmetics. M.S. (Computer Science), Northwestern University, Evanston, IL, USA, 1979. ???? pp.

Biddulph:1979:MFC

[1210] Thomas P. Biddulph. A modified FORTRAN/77 compiler that will implement the proposed IEEE/KCS floating point standard via calls to emulation routines. Master of Science, Plan II, Department of Electrical Engineering and Computer Sciences, Berkeley, CA, USA, 1979. ???? pp.

Brent:1979:RLP

[1211] R. P. Brent and H. T. Kung. A regular layout for parallel adders. Technical report, Computer Science Department, Carnegie-Mellon

University, Pittsburgh, PA, USA, 1979. 20 pp. URL http://books.google.com/books?id=mutgGwAACAAJ.

Brent:1979:RMF

[1212] R. P. Brent. Remark on “Algorithm 524: MP, A Fortran multiple-precision arithmetic package [A1]”. *ACM Transactions on Mathematical Software*, 5(4):518–519, December 1979. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See [1117, 1288].

Brown:1979:EPB

[1213] W. S. Brown and S. I. Feldman. Environment parameters and basic functions for floating-point computation. In ACM [7711], pages 42–45.

Bustoz:1979:ITD

[1214] Joaquín Bustoz, Alan Feldstein, Richard Goodman, and Seppo Linnainmaa. Improved trailing digits estimates applied to optimal computer arithmetic. *Journal of the Association for Computing Machinery*, 26(4):716–730, October 1979. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Chen:1979:PMB

[1215] I-Ngo Chen and R. Willoner. An $O(n)$ parallel multiplier with bit-sequential input and output. *IEEE Transactions on Computers*, C-28 (10):721–727, October 1979. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675239.

Cody:1979:IPI

[1216] W. J. Cody. Impact of the proposed IEEE floating point standard on numerical software. *ACM SIGNUM Newsletter*, 14(3S (Special issue)): 29–30, October 1979. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Coonen:1979:PSB

[1217] Jerome Coonen, William Kahan, John Palmer, Tom Pittman, and David Stevenson. A proposed standard for binary floating point arithmetic: Draft 5.11. *ACM SIGNUM Newsletter*, 14(3S (Special issue)):4–12, October 1979. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Coonen:1979:SPS

[1218] Jerome T. Coonen. Specifications for a proposed standard for floating-point arithmetic. Memorandum UCB/ERL M78/72, University of California, Berkeley, Berkeley, CA, USA, January 25, 1979.

Cybenko:1979:REP

[1219] G. Cybenko. Round-off error propagation in Durbin's, Levinson's, and Trench's algorithms. In *IEEE International Conference on Acoustics, Speech, and Signal Processing: ICASSP '79*, pages 498–501. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1979. CODEN ???? ISSN ????

Diaconis:1979:RP

[1220] Persi Diaconis and David Freedman. On rounding percentages. *Journal of the American Statistical Association*, 74(366):359–364, June 1979. CODEN JSTNAL. ISSN 0162-1459 (print), 1537-274X (electronic). URL `http://www.jstor.org/stable/2284288`. The authors extend prior work on correctness of sums of rounded percentages [455], and criticize biased rounding practices in [39].

Edgar:1979:FMN

[1221] Albert D. Edgar and Samuel C. Lee. FOCUS microcomputer number system. *Communications of the Association for Computing Machinery*, 22(3):166–177, March 1979. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Eggers:1979:HFP

[1222] Thomas W. Eggers, Judson S. Leonard, and Mary H. Payne. Handling of floating point exceptions. In ACM [7711], pages 100–108.

Feldman:1979:IPS

[1223] Stuart I. Feldman. The impact of the proposed standard for floating point arithmetic on languages and systems. *ACM SIGNUM Newsletter*, 14(3S (Special issue)):31–32, October 1979. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Fogler:1979:BFP

[1224] Robert Joseph Fogler. On a block floating point implementation of an intrusion-detection algorithm. Thesis (M.S.), Kansas State University, Manhattan, KS, USA, 1979. 71 pp.

Fox:1979:RFP

[1225] Phyllis Fox. Remark on “Algorithm 528: Framework for a portable library [Z]”. *ACM Transactions on Mathematical Software*, 5(4):524, December 1979. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See [1137].

Fraley:1979:PED

[1226] Bob Fraley and Steve Walther. Proposal to eliminate denormalized numbers. *ACM SIGNUM Newsletter*, 14(3S (Special issue)):22–23, October 1979. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Gargantini:1979:NSS

[1227] Irene Gargantini. The numerical stability of simultaneous iterations via square-rooting. *Computers and Mathematics with Applications*, 5(1): 25–31, ???? 1979. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/089812218190136X`.

Ginsberg:1979:MFE

[1228] Myron Ginsberg. Monitoring floating-point error propagation in scientific computation. Technical report CSE 7910, Department of Computer Science and Engineering, Southern Methodist University, Dallas, TX, USA, 1979. 32 pp.

Gregory:1979:EFC

[1229] Robert Todd Gregory. Error-free computation with finite number systems. *ACM SIGNUM Newsletter*, 14(3):9–16, September 1979. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Gruener:1979:ARD

[1230] K. Grüner. *Allgemeine Rechnerarithmetik und deren Implementierung mit optimaler Genauigkeit [*English: *General Computer Arithmetic and its Implementation with Optimal Accuracy]*. Dissertation, Universität Karlsruhe, Karlsruhe, Germany, 1979. ?? pp.

Hardy:1979:ITN

[1231] G. H. (Godfrey Harold) Hardy and E. M. (Edward Maitland) Wright. *An Introduction to the Theory of Numbers*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, fifth edition, 1979. ISBN 0-19-853170-2, 0-19-853171-0 (paperback). xvi + 426 pp. LCCN A241 .H28 1979.

Hastings:1979:SMM

[1232] C. Hastings. Shift matrices: The missing teeth in the number cruncher. In Anonymous [7712], page ?? CODEN WCREDI. ISSN 1044-6036, 0083-8837. LCCN TK7800. Paper number 18/3.

Heath:1979:RDF

[1233] J. Heath, H. Nagle, Jr., and S. Shiva. Realization of digital filters using input-scaled floating-point arithmetic. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 27(5):469–477, October 1979. CODEN IETABA. ISSN 0096-3518. See note [2015].

Hehner:1979:NRR

[1234] E. C. R. Hehner and R. N. S. Horspool. A new representation of the rational numbers for fast easy arithmetic. *SIAM Journal on Computing*, 8(2):124–134, ???? 1979. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic). See corrigendum [1321].

Hull:1979:DFP

[1235] T. E. Hull. Desirable floating-point arithmetic and elementary functions for numerical computation. In ACM [7711], pages 96–99.

Hwang:1979:CAP

[1236] Kai Hwang. *Computer Arithmetic: Principles, Architecture, and Design*. Wiley, New York, NY, USA, 1979. ISBN 0-471-03496-7. xiii + 423 pp. LCCN TK7888.3 .H9.

Hwang:1979:GMT

[1237] Kai Hwang. Global and modular two's complement cellular array multipliers. *IEEE Transactions on Computers*, C-28(4):300–306, April 1979. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675350`.

IEEE:1979:PIF

[1238] Anonymous. The proposed IEEE floating-point standard. *ACM SIGNUM Newsletter*, page 32, October 1979. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

IntelCorporation:1979:FAL

[1239] Intel Corporation. *8080/8085 floating-point arithmetic library user's manual*. The Corporation, Santa Clara, CA, USA, 1979. v + 20 pp.

Jenkins:1979:RAR

[1240] W. Jenkins. Recent advances in residue number techniques for recursive digital filtering. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 27(1):19–30, February 1979. CODEN IETABA. ISSN 0096-3518. URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=26137.

Johnson:1979:RAF

[1241] Donald B. Johnson, Webb Miller, Brian Minnihan, and Celia Wrathall. Reducibility among floating-point graphs. *Journal of the Association for Computing Machinery*, 26(4):739–760, October 1979. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Kahan:1979:PCK

[1242] William M. Kahan. Personal calculator has key to solve any equation $f(x) = 0$. *Hewlett–Packard Journal*, 30(12):20–26, December 1979. CODEN HPJOAX. ISSN 0018-1153. URL http://www.cs.berkeley.edu/~wkahan/Math128/SOLVEkey.pdf. Lecture notes for Math 128.

Kahan:1979:PFP

[1243] W. Kahan and J. Palmer. On a proposed floating-point standard. *ACM SIGNUM Newsletter*, 14(3S (Special issue)):13–21, October 1979. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Kent:1979:TPS

[1244] Jan Kent. *The theoretical and practical study of floating point instructions: Consisting of Theoretical definition, analysis and comparison of floating point instruction, and procedures for the description and simulation of floating point instructions.* Dr. Avhandling, Universitetet i Oslo, Oslo, Norway, 1979.

Kolze:1979:BFP

[1245] Thomas Joseph Kolze. Block floating point FFT statistical noise analysis program. Technical report CSR-79-2, Department of Electrical Engineering, University of Missouri–Rolla, Rolla, MO, USA, 1979. vii + 180 pp.

Kolze:1979:SNA

[1246] Thomas Joseph Kolze. Statistical noise analysis of a block floating point FFT and an example application. Electrical engineering thesis (M.S.), University of Missouri–Rolla, Rolla, MO, USA, 1979. viii + 88 pp.

Kornerup:1979:NRA

[1247] Peter Kornerup. A note on rational arithmetic. *ACM SIG Micro Newsletter*, 10(2):28, June 1979. CODEN SIGMDJ. ISSN 0163-5751, 1050-916X. URL `https://dl.acm.org/doi/10.1145/1218003.1218004`. See [1271, 1272].

Kusterer:1979:SEP

[1248] Roland Kusterer and Manfred Reimer. Stable evaluation of polynomials in time $\log n$. *Mathematics of Computation*, 33(147):1019–1031, July 1979. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Lautz:1979:JLD

[1249] Günter Lautz. 300 Jahre leibnizsches dualzahlensystem. (German) [300 years of the Leibniz binary number system]. *Biological Cybernetics*, 35 (3):175–181, December 1979. CODEN BICYAF. ISSN 0340-1200 (print), 1432-0770 (electronic).

Lee:1979:AFN

[1250] S. C. Lee and A. D. Edgar. Addendum to "The Focus Number System". *IEEE Transactions on Computers*, C-28(9):693, September 1979. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675442`. See [1065, 1270].

McDonnell:1979:FR

[1251] Eugene McDonnell. Fuzzy residue. *ACM SIGAPL APL Quote Quad*, 9 (4):42–46, 1979. CODEN APLQD9. ISSN 0163-6006 (print), 1558-3392 (electronic).

Oberman:1979:DCB

[1252] R. M. M. (Roelof Maarten Marie) Oberman. *Digital circuits for binary arithmetic*. Wiley, New York, NY, USA, 1979. ISBN 0-470-26373-3. xii + 340 pp. LCCN TK7868.L6 O23 1979.

Oliver:1979:REP

[1253] J. Oliver. Rounding error propagation in polynomial evaluation schemes. *Journal of Computational and Applied Mathematics*, 5(2): 85–97, June 1979. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0771050X79900020`.

Palmer:1979:MMM

[1254] John F. Palmer. Making mainframe mathematics accessible to microcomputers. *Electronics*, ??(??):??, May 8, 1979.

Payne:1979:DPB

[1255] Mary Payne and William Strecker. Draft proposal for a binary normalized floating point standard. *ACM SIGNUM Newsletter*, 14(3S (Special issue)):24–28, October 1979. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Payne:1979:FPS

[1256] Mary Payne. Floating point standardization. In IEEE, editor, *COMPCON Proceedings (Fall 1979)*, pages 166–169. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1979.

Randell:1979:ABO

[1257] Brian Randell. An annotated bibliography on the origins of digital computers. Technical report 140, Computing Laboratory, University of Newcastle upon Tyne, Newcastle upon Tyne, UK, 1979. 146 pp.

Rauch:1979:EAA

[1258] E. Rauch. Einige Aspekte der Auswahl und Realisierung numerischer Verfahren in anwendungsorientierten Systemen [*English:* Several Aspects of the Choice and Realisation of Numerical Procedures in Application-Oriented Systems]. In Meinardus [7715], page ?? ISBN 3-411-01567-5. LCCN QA297.5 .A66. Contributions in English or German from a meeting held Jan. 31–Feb. 2, 1979, at the Gesamthochschule Siegen, Forschungsinstitut fur Geistes- und Sozialwissenschaften.

Redinbo:1979:FFA

[1259] G. R. Redinbo. Finite field arithmetic on an array processor. *IEEE Transactions on Computers*, C-28(7):461–471, July 1979. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675390`.

Reid:1979:FMF

[1260] John Reid. Functions for manipulating floating-point numbers. *ACM SIGNUM Newsletter*, 14(4):11–13, December 1979. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Reinsch:1979:BRN

[1261] Christian Reinsch. Die Behandlung von Rundungsfehlern in der numerischen Analysis. (German) [Treatment of rounding errors in numerical analysis]. In *Jahrbuch Überblicke Mathematik, 1979*, pages 43–62. Bibliographisches Institut, Mannheim, Germany, 1979. ISBN 3-411-01559-4.

Reinsch:1979:PPC

[1262] Christian H. Reinsch. Principles and preferences for computer arithmetic. *ACM SIGNUM Newsletter*, 14(1):12–27, March 1979. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Rink:1979:CEF

[1263] R. Rink and H. Chong. Covariance equation for a floating-point regulator system. *IEEE Transactions on Automatic Control*, 24(6):980–982, December 1979. CODEN IETAA9. ISSN 0018-9286 (print), 1558-2523 (electronic).

Rink:1979:PSR

[1264] R. Rink and Hoi Chong. Performance of state regulator systems with floating-point computation. *IEEE Transactions on Automatic Control*, 24(3):411–421, June 1979. CODEN IETAA9. ISSN 0018-9286 (print), 1558-2523 (electronic). See correction [1361].

Robertson:1979:VPA

[1265] D. A. Robertson. Variable precision arithmetic on CDC 6000/7000 machines. *Software—Practice and Experience*, 9(3):247–248, March 1979. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Scharf:1979:HRW

[1266] Stuart Lee Scharf. A hardware realization of the Winograd Fourier transform algorithm. Thesis (M.S.), Massachusetts Institute of Technology. Dept. of Electrical and Engineering and Computer Science, Cambridge, MA, USA, 1979. 109 pp. Supervised by James H. McClellan.

Shapiro:1979:ELM

[1267] G. Shapiro. Exploit LSI memory components today, instead of waiting for arithmetic devices. In Anonymous [7712], page ?? CODEN WCREDI. ISSN 1044-6036, 0083-8837. LCCN TK7800. Paper 18/5.

Shauman:1979:OMA

[1268] Aleksandr Mikhailovich Shauman. *Osnovy mashinnoi arifmetiki [English: Principles of Machine Arithmetic]*. Izd-vo LGU (Leningrad

State University Publishers), Leningrad, USSR, 1979. 311 pp. LCCN QA76.6 .S516.

Sheue:1979:TCM

[1269] A. E. Sheue. Two's-complement multiplication. *ACM SIG Micro Newsletter*, 10(1):21–23, March 1979. CODEN SIGMDJ. ISSN 0163-5751, 1050-916X.

Swartzlander:1979:CFN

[1270] E. E. Swartzlander, Jr. Comment on "The Focus Number System". *IEEE Transactions on Computers*, C-28(9):693, September 1979. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675441. See [1065, 1250].

Thacker:1979:MPR

[1271] William I. Thacker and G. W. Gorsline. Micro programming rational arithmetic operations. *ACM SIG Micro Newsletter*, 10(1):10–13, March 1979. CODEN SIGMDJ. ISSN 0163-5751, 1050-916X. URL https://dl.acm.org/doi/10.1145/1217236.1217238. See critical comments [1247] and response [1272].

Thacker:1979:R

[1272] W. I. Thacker and G. W. Gorsline. Response. *ACM SIG Micro Newsletter*, 10(2):29, June 1979. CODEN SIGMDJ. ISSN 0163-5751, 1050-916X. URL https://dl.acm.org/doi/10.1145/1218003.1218005. See [1271, 1247].

Tseng:1979:IFS

[1273] Ben-Dau Tseng, G. A. Jullien, and W. C. Miller. Implementation of FFT structures using the residue number system. *IEEE Transactions on Computers*, C-28(11):831–845, November 1979. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=12; http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35176; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675263.

Ukkonen:1979:AER

[1274] Esko Ukkonen. An analysis of the effect of rounding errors on the flow of control in numerical processes. *BIT (Nordisk tidskrift for informationsbehandling)*, 19(1):116–133, March 1979. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=19&issue=1&spage=116.

vanHulzen:1979:NMS

[1275] J. A. van Hulzen. A note on methods for solving systems of polynomial equations with floating point coefficients. In Ng [7716], pages 346–357. ISBN 0-387-09519-5. LCCN QA155.7.E4I57 1979.

Wichmann:1979:ID

[1276] B. A. Wichmann. Integer division. *Software—Practice and Experience*, 9(6):507–508, June 1979. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Wichmann:1979:PCG

[1277] B. A. Wichmann and J. Du Croz. A program to calculate the GAMM measure. *The Computer Journal*, 22(4):317–322, November 1979. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic).

Wilbanks:1979:MFI

[1278] Thomas D. Wilbanks. Microcoding floating-point instructions for a bit-slice processor. Thesis (M.S.), University of South Carolina, Columbia, SC, USA, 1979. vi + 131 pp.

Winnigstad:1979:ULC

[1279] C. N. Winnigstad. Using LSI to crunch numbers at high speed: An overview. In Anonymous [7712], page ?? CODEN WCREDI. ISSN 1044-6036, 0083-8837. LCCN TK7800. 17 volumes.

Yohe:1979:INA

[1280] J. Michael Yohe. Implementing nonstandard arithmetics. *SIAM Review*, 21(1):34–56, ???? 1979. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Agrawal:1980:NBA

[1281] D. P. Agrawal. On negabinary-binary arithmetic relationships and their hardware reciprocity. *IEEE Transactions on Computers*, C-29(11):1032–1035, November 1980. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675502.

Albrecht:1980:RAO

[1282] R. Albrecht. Roundings and approximations in ordered sets. In Alefeld and Grigorieff [7718], pages 17–31. CODEN COSPDM. ISBN 0-387-

81566-X. ISSN 0344-8029. LCCN QA297 .F84. In cooperation with R. Albrecht, U. Kulisch, and F. Stummel.

Ambikairajah:1980:TPM

[1283] E. Ambikairajah and M. J. Carey. Technique for performing multiplication on a 16-bit microprocessor using an extension of Booth's algorithm. *Electronics Letters*, 16(2):53–54, January 1980. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Anonymous:1980:BRCg

[1284] Anonymous. Book review: *Computer arithmetic: IEEE C: Proceedings of the 4th Symposium on Computer Arithmetic, Santa Monica, 25–27 October 1978*. IEEE Service Center, 78CH1412-6, 1979. 274 pages, US$22.00. *Mathematics and Computers in Simulation*, 22(2):155–156, July 1980. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic). URL https://www.sciencedirect.com/science/article/pii/0378475480900348.

Baraniecka:1980:RNS

[1285] A. Baraniecka and G. Jullien. Residue number system implementations of number theoretic transforms in complex residue rings. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 28(3):285–291, June 1980. CODEN IETABA. ISSN 0096-3518. URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=26146.

Bareiss:1980:RED

[1286] E. H. Bareiss and J. L. Barlow. Roundoff error distribution in fixed point multiplication. *BIT (Nordisk tidskrift for informationsbehandling)*, 20 (2):247–250,
June 1980. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=20&issue=2&spage=247.

Barsi:1980:ECC

[1287] Ferruccio Barsi and Piero Maestrini. Error codes constructed in residue number systems with non-pairwise-prime moduli. *Information and Control*, 46(1):16–25, July 1980. CODEN IFCNA4. ISSN 0019-9958 (print), 1878-2981 (electronic).

Brent:1980:AIB

[1288] Richard P. Brent, Judith A. Hooper, and J. Michael Yohe. An AUGMENT interface for Brent's multiple precision arithmetic package. *ACM Transactions on Mathematical Software*, 6(2):146–149, June 1980.

CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See [1117, 1212].

Brent:1980:UAE

[1289] R. P. Brent. Unrestricted algorithms for elementary and special functions. In Lavington [7724], pages 613–619. ISBN 0-444-86034-7. LCCN QA 75.5 I57 1980.

Brown:1980:EPB

[1290] W. S. Brown and S. I. Feldman. Environment parameters and basic functions for floating-point computation. *ACM Transactions on Mathematical Software*, 6(4):510–523, December 1980. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Brown:1980:SRM

[1291] W. S. Brown. A simple but realistic model of floating-point computation. Computer Science Technical Report 83, Bell Laboratories, Murray Hill, NJ, 07974, USA, May 1980. Revised November 1980.

Burmeister:1980:OIE

[1292] W. Burmeister. Optimal interval enclosing of certain sets of matrices, with application to monotone enclosing of square roots. *Computing: Archiv fur informatik und numerik*, 25(3):283–295, 1980. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Bursky:1980:CIF

[1293] Dave Bursky. Coprocessor implements floating-point math. *Electronic Design*, 28:35–37, May 10, 1980. CODEN ELODAW. ISSN 0013-4872 (print), 1944-9550 (electronic). URL `https://ieeemilestones.ethw.org/w/images/b/b6/Electronic_Design_8087_May80.pdf`. Summary of Intel 8087 features in an early trade press note.

Chang:1980:CAE

[1294] T. Chang. Comments on "An approach to eliminate roundoff errors in digital filters". *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 28(2):244, April 1980. CODEN IETABA. ISSN 0096-3518.

Cheng:1980:ASC

[1295] S. Cheng and K. Rallapalli. Am9512: Single chip floating-point processor. In Electro '80 [7720], pages 14/4/1–6. LCCN TK 7801 E375 1980.

Chow:1980:VPP

[1296] Catherine Yuk-Fun Chow. *A variable precision processor module*. Thesis (Ph.D.), Department of Computer Science, University of Illinois at Urbana-Champaign, Urbana, IL, USA, July 1980. vi + 183 pp.

Cluley:1980:DCB

[1297] J. C. Cluley. Digital circuits for binary arithmetic. *The Computer Journal*, 23(3):269, August 1980. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/23/3/269.full.pdf+html.

Cody:1980:SME

[1298] William J. Cody, Jr. and William Waite. *Software Manual for the Elementary Functions*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1980. ISBN 0-13-822064-6. x + 269 pp. LCCN QA331 .C635 1980.

Coonen:1980:IGP

[1299] Jerome T. Coonen. An implementation guide to a proposed standard for floating-point arithmetic. *Computer*, 13(1):68–79, January 1980. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). See errata in [1416]. See [1900, 1901].

Dao:1980:CNA

[1300] T. T. Dao, M. Davio, and C. Gossart. Complex number arithmetic with odd-valued logic. *IEEE Transactions on Computers*, C-29(7):604–611, July 1980. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675631.

DeVaal:1980:SZI

[1301] C. De Vaal and R. Nouta. On the suppression of zero-input parasitic oscillations in floating point wave digital filters. *IEEE Transactions on Circuits and Systems*, 27(2):144–145, February 1980. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Etzel:1980:RRN

[1302] M. Etzel and W. Jenkins. Redundant residue number systems for error detection and correction in digital filters. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 28(5):538–545, October 1980. CODEN IETABA. ISSN 0096-3518. URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=26148.

Farrell:1980:PFP

[1303] L. Farrell. 8232: a peripheral for floating-point arithmetic. In IEEE MICRO '80 [7722], pages 13–18. LCCN QA76.5 .P74.

Fraley:1980:PSB

[1304] R. A. Fraley and J. S. Walther. A proposed standard for binary floating-point arithmetic, alternative 3, draft 1. Cited in [1355]., January 4, 1980.

Fraley:1980:STO

[1305] R. A. Fraley and J. S. Walther. Safe treatment of overflow and underflow conditions. In Electro '80 [7720], pages 18/2/1–5. LCCN TK 7801 E375 1980.

Gajski:1980:PC

[1306] D. D. Gajski. Parallel compressors. *IEEE Transactions on Computers*, C-29(5):393–398, May 1980. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Gargantini:1980:PSR

[1307] Irene Gargantini. Parallel square-root iterations for multiple roots. *Computers and Mathematics with Applications*, 6(3):279–288, ???? 1980. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0898122180900358`.

Ginsberg:1980:MFE

[1308] Myron Ginsberg. Monitoring floating-point error propagation in scientific computation. *Computers and Mathematics with Applications*, 6(1):23–43, 1980. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

Ginsberg:1980:MFP

[1309] Myron Ginsberg. Monitoring floating-point error propagation in scientific computation. *Computers and Mathematics with Applications*, 6(1):23–43, ???? 1980. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0898122180900577`.

Goodwin:1980:PNU

[1310] D. T. Goodwin. Partial non-underflow and non-overflow of an arithmetic stack. *The Computer Journal*, 23(2):153–160, May 1980. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic).

URL http://comjnl.oxfordjournals.org/content/23/2/153.full.pdf+html; http://www3.oup.co.uk/computer_journal/hdb/Volume_23/Issue_02/tiff/153.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_23/Issue_02/tiff/154.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_23/Issue_02/tiff/155.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_23/Issue_02/tiff/156.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_23/Issue_02/tiff/157.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_23/Issue_02/tiff/158.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_23/Issue_02/tiff/159.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_23/Issue_02/tiff/160.tif.

Gosling:1980:DAU

[1311] John B. Gosling. *Design of Arithmetic Units for Digital Computers*. Macmillan Publishing Company, New York, NY, USA, 1980. ISBN 0-387-91171-5, 0-333-26397-9, 0-333-26398-7. x + 139 pp. LCCN QA76.6.G668, TK7888.3 .G64 1980.

Grappel:1980:IZP

[1312] R. Grappel and J. Hemenway. Increase Z8000 power with floating-point routines. *EDN*, 25(8):179–185, April 1980. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Gregory:1980:ECW

[1313] Robert Todd Gregory. *Error-Free Computation: Why it is Needed and Methods for Doing it*. Robert E. Krieger Publishing Company, Huntington, NY, USA, 1980. ISBN 0-89874-240-4. vi + 152 pp. LCCN QA297.5 .G73.

Gruner:1980:IUC

[1314] K. Grüner. Implementation of universal computer arithmetic with optimal accuracy. *Computing: Archiv fur informatik und numerik*, 24 (2–3):181–193, 1980. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Hamacher:1980:DCV

[1315] V. Carl Hamacher. Design of a CPU for variable precision, decimal arithmetic. Technical Report ABC, Department of Electrical Engineering, University of Toronto, Toronto, ON, Canada, ???? 1980.

Havender:1980:DBF

[1316] J. W. Havender. Decimal-to-binary floating point number conversion mechanism. *IBM Technical Disclosure Bulletin*, 23(2):706–708, July 1980. CODEN IBMTAA. ISSN 0018-8689.

Havender:1980:DBN

[1317] J. W. Havender. Decimal-to-binary number conversion. *IBM Technical Disclosure Bulletin*, 23(3):1126–1127, August 1980. CODEN IBMTAA. ISSN 0018-8689.

Haviland:1980:CAPa

[1318] G. L. Haviland and A. A. Tuszynski. A CORDIC arithmetic processor chip. *IEEE Transactions on Computers*, C-29(2):68–79, February 1980. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675529`.

Haviland:1980:CAPb

[1319] G. L. Haviland and A. A. Tuszynski. A CORDIC arithmetic processor chip. *IEEE Journal of Solid-State Circuits*, 15(1):4–15, 1980. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Head:1980:MM

[1320] A. K. Head. Multiplication modulo n. *BIT (Nordisk tidskrift for informationsbehandling)*, 20(1):115–116, March 1980. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=20&issue=1&spage=115`.

Hehner:1980:CNR

[1321] E. C. R. Hehner and R. N. S. Horspool. Corrigendum: "A new representation of the rational numbers for fast easy arithmetic" [SIAM J. Comput. **8** (1979), no. 2, 124–134, MR 80h:68027]. *SIAM Journal on Computing*, 9(1):217, ???? 1980. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic). See [1234].

Henrich:1980:FPA

[1322] C. J. Henrich. Floating-point arithmetic: can it be trusted? *Mini-Micro Systems*, 13(11):143–151, November 1980. CODEN XWJXEH. ISSN 1000-1220.

Henrici:1980:MPR

[1323] Peter Henrici. A model for the propagation of rounding error in floating arithmetic. In *Interval mathematics, 1980 (Freiburg, 1980)*, pages 49–73. Academic Press, New York, NY, USA, 1980. ISBN 0-12-518850-1. URL http://www.sciencedirect.com/science/article/pii/B9780125188500500093.

Holm:1980:FAP

[1324] John Erick Holm. *Floating-point arithmetic and program correctness proofs*. Thesis (Ph.D.), Cornell University, Ithaca, NY, USA, August 1980. vii + 133 pp.

Horna:1980:FAC

[1325] O. A. Horna. Fast algorithms for the computation of binary logarithms. *COMSAT Technical Review*, 10(1):91–101, Spring 1980.

Hough:1980:APS

[1326] D. Hough. Applications of a proposed standard for floating-point arithmetic. In Electro '80 [7720], pages 18/3/1–6. LCCN TK 7801 E375 1980.

Hull:1980:PPI

[1327] Thomas E. Hull, Christian H. Reinsch, and John R. Rice. Principles, preferences and ideals for computer arithmetic. Technical report TR-339, Department of Computer Science, Purdue University, West Lafayette, IN 47907-2107, USA, June 1, 1980. 13 pp. URL http://www.cs.purdue.edu/research/technical_reports/1980/TR%2080-339.pdf.

Intel:1980:FUM

[1328] Intel Corporation. *The 8086 Family User's Manual: Numerics Supplement*. Intel Corporation, Santa Clara, CA, USA, July 1980. xii + S-88 + A-5 + B-16 (132 total) pp. URL https://ieeemilestones.ethw.org/w/images/2/2f/Intel_8086_family_users_numeric_supp.pdf.

Jenkins:1980:CRN

[1329] W. K. Jenkins. Complex residue number arithmetic for high-speed signal processing. *Electronics Letters*, 16(17):660–661, August 14, 1980. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4244229.

Johannes:1980:DSE

[1330] J. D. Johannes, C. Dennis Pegden, and F. E. Petry. Decimal shifting for an exact floating point representation. *Computers and Electrical Engineering*, 7(3):149–155, September 1980. CODEN CPEEBQ. ISSN 0045-7906 (print), 1879-0755 (electronic).

Johnson:1980:DQS

[1331] E. L. Johnson. A digital quarter square multiplier. *IEEE Transactions on Computers*, C-29(3):258–261, March 1980. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675558`.

Jullien:1980:IMM

[1332] G. A. Jullien. Implementation of multiplication, modulo a prime number, with applications to number theoretic transforms. *IEEE Transactions on Computers*, C-29(10):899–905, October 1980. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675473`.

Kahan:1980:HCE

[1333] William M. Kahan. Handheld calculator evaluates integrals. *Hewlett–Packard Journal*, 31(8):23–32, August 1980. CODEN HPJOAX. ISSN 0018-1153. URL `http://www.cs.berkeley.edu/~wkahan/Math128/INTGTkey.pdf`. Lecture notes for Math 128.

Kahan:1980:SPI

[1334] W. Kahan. Software $\sqrt{x}$ for the proposed IEEE floating-point standard. Manuscript, August 25, 1980.

Kleinsteiber:1980:IHM

[1335] James R. Kleinsteiber. IBM 4341 hardware/microcode trade-off decisions. In Johnson and Kittinger [7723], pages 190–192. Published in SIGMICRO newsletter, 11(3–4) (Sept.–Dec. 1980). ACM Order no. 520800. IEEE Catalog no. 80CH1599-0.

Kulisch:1980:AOI

[1336] U. W. Kulisch and W. L. Miranker. Arithmetic operations in interval spaces. In Alefeld and Grigorieff [7718], pages 51–67. CODEN COSPDM. ISBN 0-387-81566-X. ISSN 0344-8029. LCCN QA297 .F84. In cooperation with R. Albrecht, U. Kulisch, and F. Stummel.

Ladner:1980:PPC

[1337] Richard E. Ladner and Michael J. Fischer. Parallel prefix computation. *Journal of the Association for Computing Machinery*, 27(4):831–838, October 1980. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Lemaire:1980:INR

[1338] C. A. Lemaire and J. C. Svercek. Improved non-restoring division. *IBM Technical Disclosure Bulletin*, 23(3):1149–1151, August 1980. CODEN IBMTAA. ISSN 0018-8689.

Levy:1980:CPA

[1339] Henry M. Levy and Richard H. Eckhouse, Jr. *Computer Programming and Architecture — the VAX-11*. Digital Press, 12 Crosby Drive, Bedford, MA 01730, USA, 1980. ISBN 0-932376-07-X. xxi + 407 pp. LCCN QA76.8 .V37 L48 1980.

Macke:1980:DMF

[1340] Edward T. Macke. Design of a modular floating point arithmetic unit. Thesis (M.S.), Washington University, Department of Electrical Engineering, St. Louis, MO, USA, 1980. ix + 174 pp.

Matula:1980:FFP

[1341] D. W. Matula. Foundations of finite precision rational arithmetic. In Alefeld and Grigorieff [7718], pages 85–111. CODEN COSPDM. ISBN 0-387-81566-X. ISSN 0344-8029. LCCN QA297 .F84. In cooperation with R. Albrecht, U. Kulisch, and F. Stummel.

McMinn:1980:IND

[1342] C. McMinn. The Intel 8087: a numeric data processor. In Electro '80 [7720], pages 14/5/1–8. LCCN TK 7801 E375 1980.

Mead:1980:IVS

[1343] Carver Mead and Lynn Conway. *Introduction to VLSI Systems*. Addison-Wesley, Reading, MA, USA, 1980. ISBN 0-201-04358-0. xvi + 396 pp. LCCN TK7874 .M371.

Meinardus:1980:OPN

[1344] Günter Meinardus and G. D. Taylor. Optimal partitioning of Newton's method for calculating roots. *Mathematics of Computation*, 35(152): 1221–1230, October 1980. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Metropolis:1980:SIN

[1345] N. Metropolis. Summation of imprecise numbers. *Computers and Mathematics with Applications*, 6(3):297–299, 1980. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

Moore:1980:MIA

[1346] R. E. Moore. Microprogrammed interval arithmetic. *ACM SIGNUM Newsletter*, 15(2):30, June 1980. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Nave:1980:NDP

[1347] Rafi Nave and John F. Palmer. A numeric data processor. In IEEE ISSCC '80 [7721], pages 108–109. ISBN ???? LCCN ???? URL `https://ieeexplore.ieee.org/document/1156144`. IEEE Catalog Number 80CH1490-2-SSC.

North:1980:BRS

[1348] J. D. North. Book review: a Sixteenth Century polymath, *Wilhelm Schickard, 1592–1635: Astronom, Geograph, Orientalist, Erfinder der Rechenmaschine*. *Journal for the History of Astronomy*, 11(2):138–140, June 1980. CODEN JHSAA2. ISSN 0021-8286 (print), 1753-8556 (electronic).

Oberaigner:1980:AMG

[1349] W. Oberaigner. Algorithms for multiplication with given precision. In Alefeld and Grigorieff [7718], pages 121–129. CODEN COSPDM. ISBN 0-387-81566-X. ISSN 0344-8029. LCCN QA297 .F84. In cooperation with R. Albrecht, U. Kulisch, and F. Stummel.

Palmer:1980:IND

[1350] J. Palmer. The Intel 8087 numeric data processor. In COMPARCH '80 [7719], pages 174–181. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Palmer:1980:LIN

[1351] J. Palmer. An LSI implementation of a new system for floating-point arithmetic. In Electro '80 [7720], pages 18/4/1–8. LCCN TK 7801 E375 1980.

Palmer:1980:MMM

[1352] J. Palmer, R. Rave, C. Wymore, R. Koehler, and C. McMinn. Making mainframe mathematics accessible to minicomputers. *Mini Computers, Electronics*, 23(??):??, May 8, 1980.

Palmer:1980:UND

[1353] John F. Palmer, Bruce W. Ravenel, and Rafi Nave. US4338675: Numeric data processor. U.S. Patent, February 13, 1980. Published July 6, 1982. This patent was reissued on July 2, 1991 as patent USRE33629.

Payne:1980:VFPa

[1354] M. Payne and D. Bhandarkar. VAX floating point: a solid foundation for numerical computation. In Electro '80 [7720], pages 18/1/1–12. LCCN TK 7801 E375 1980. URL `https://dl.acm.org/doi/pdf/10.1145/641845.641849`.

Payne:1980:VFPb

[1355] Mary Payne and Dileep Bhandarkar. VAX floating point: a solid foundation for numerical computation. *ACM SIGARCH Computer Architecture News*, 8(4):22–33, June 1980. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Pedersen:1980:HBM

[1356] P. W. Pedersen. Hvordan beregner man kvadratroden? [*English:* How do you calculate the square root?]. *Elektronik (Denmark)*, ??(4):18–21, April 1980.

Purtilo:1980:IAP

[1357] Jim Purtilo. On implementing arbitrary precision arithmetic in NIL: an exercise in data abstraction. *SIGSAM Bulletin (ACM Special Interest Group on Symbolic and Algebraic Manipulation)*, 14(1):14–18, February 1980. CODEN SIGSBZ. ISSN 0163-5824 (print), 1557-9492 (electronic).

Rallapalli:1980:CMF

[1358] K. Rallapalli and J. Kroeger. Chips make fast math a snap for microprocessors. *Electronics*, 53(10):153–157, April 1980. ISSN 0883-4989.

Reid:1980:CDP

[1359] John Reid. Complex double precision in association with Fortran 77. *ACM SIGNUM Newsletter*, 15(1):16–17, March 1980. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Reid:1980:FMF

[1360] J. K. Reid. Functions for manipulating floating-point numbers. *ACM SIGPLAN Notices*, 15(6):68–76, June 1980. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Rink:1980:CPS

[1361] R. Rink. Correction to “Performance of state regulator systems with floating-point computation”. *IEEE Transactions on Automatic Control*, 25(3):612, June 1980. CODEN IETAA9. ISSN 0018-9286 (print), 1558-2523 (electronic). See [1264].

Rump:1980:KFM

[1362] Siegfried M. Rump. *Kleine Fehlerschranken bei Matrixproblemen. (German) [Small error bounds for matrix problems]*. Ph.D. thesis, Institut für Angewandte Mathematik der Universität Karlsruhe, Karlsruhe, Germany, 1980. vi + 131 + 49 pp. URL `http://www.ti3.tuhh.de/rump/Research/topics.php#PhD`.

Scherer:1980:SNR

[1363] R. Scherer and K. Zeller. Shorthand notation for rounding errors. In Alefeld and Grigorieff [7718], pages 165–168. CODEN COSPDM. ISBN 0-387-81566-X. ISSN 0344-8029. LCCN QA297 .F84. In cooperation with R. Albrecht, U. Kulisch, and F. Stummel.

SOITA:1980:AIE

[1364] Southwestern Ohio Instructional Television Association, Oxford, OH, USA. *Applesoft II: extended floating-point BASIC: quick reference guide*, 1980. 1 pamphlet.

Speiser:1980:RCZ

[1365] A. P. Speiser. The relay calculator Z4. *Annals of the History of Computing*, 2 (3):242–245, July/September 1980. CODEN AHCOE5. ISSN 0164-1239. URL `http://dlib.computer.org/an/books/an1980/pdf/a3242.pdf`; `http://www.computer.org/annals/an1980/a3242abs.htm`.

Stevenson:1980:RPI

[1366] David Stevenson. A report on the proposed IEEE Floating Point Standard (IEEE task p754). *ACM SIGARCH Computer Architecture News*, 8(5):11–12, August 1980. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Stone:1980:ICA

[1367] Harold S. Stone, Tien Chi Chen, Michael J. Flynn, Samuel H. Fuller, et al., editors. *Introduction to Computer Architecture*. The SRA computer science series. Science Research Associates, Chicago, IL, USA, second edition, 1980. ISBN 0-574-21225-6. 673 pp. LCCN QA76.9.A73 I57 1980. US$16.95 (est.).

Stone:1980:TFP

[1368] H. S. Stone. Towards a floating-point standard. In Electro '80 [7720], pages 18/0/1–5. LCCN TK 7801 E375 1980.

Stummel:1980:REA

[1369] F. Stummel. Rounding error analysis of elementary numerical algorithms. In Alefeld and Grigorieff [7718], pages 169–195. CODEN COSPDM. ISBN 0-387-81566-X. ISSN 0344-8029. LCCN QA297 .F84. In cooperation with R. Albrecht, U. Kulisch, and F. Stummel.

Swartzlander:1980:AUH

[1370] E. E. Swartzlander, Jr. and B. K. Gilbert. Arithmetic for ultra-high-speed tomography. *IEEE Transactions on Computers*, C-29(5):341–353, May 1980. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675584`.

Swartzlander:1980:CA

[1371] Earl E. Swartzlander, Jr., editor. *Computer Arithmetic*. Benchmark papers in electrical engineering and computer science; 21. Dowden, Hutchinson and Ross, Stroudsburg, PA, USA, 1980. ISBN 0-87933-350-2. xiii + 378 pp. LCCN QA76.6 .C633.

Swartzlander:1980:MA

[1372] E. E. Swartzlander, Jr. Merged arithmetic. *IEEE Transactions on Computers*, C-29(10):946–950, October 1980. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675482`.

Thornton:1980:CP

[1373] James E. Thornton. The CDC 6600 project. *Annals of the History of Computing*, 2(4):338–348, October/December 1980. CODEN AHCOE5. ISSN 0164-1239. URL `http://dlib.computer.org/an/books/an1980/pdf/a4338.pdf; http://www.computer.org/annals/an1980/a4338abs.htm`.

Ting:1980:MCU

[1374] I chyng Ting. A microprocessor-based controller using floating-point arithmetic. Thesis (M.S.), Auburn University, Auburn, AL, USA, 1980. ix + 167 pp.

Tucker:1980:IAD

[1375] Richard Wesley Tucker. Implementation of arithmetic for the data flow machine processing unit. Thesis (B.S.), Massachusetts Institute of Technology. Dept. of Electrical and Engineering and Computer Science, Cambridge, MA, USA, 1980. i + 58 pp. Supervised by Jack B. Dennis.

Ulrich:1980:IMS

[1376] Ch. Ulrich. Iterative methods in the spaces of rounded computations. In Alefeld and Grigorieff [7718], pages 197–209. CODEN COSPDM. ISBN 0-387-81566-X. ISSN 0344-8029. LCCN QA297 .F84. In cooperation with R. Albrecht, U. Kulisch, and F. Stummel.

Undheim:1980:CFP

[1377] T. Undheim. Combinatorial floating point processor as an integral part of the computer. In Electro '80 [7720], pages 14/1/1–6. LCCN TK 7801 E375 1980.

Verma:1980:MPF

[1378] S. B. Verma and Maithili Sharan. Multiple precision floating-point computation in FORTRAN. *Software—Practice and Experience*, 10(3): 163–173, March 1980. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Virkkunen:1980:UAF

[1379] V.-E. Juhani Virkkunen. A unified approach to floating-point rounding with applications to multiple-precision summation. Diss. Helsingfors, Department of Computer Science, University of Helsinki, Helsinki, Finland, 1980. ISBN 951-45-1948-5. 66 pp.

vonGudenberg:1980:EAR

[1380] J. Wolff von Gudenberg. *Einbettung allgemeiner Rechnerarithmetik in Pascal mittels eines Operatorkonzepts und Implementierung der Standardfunktionen mit optimaler Genauigkeit [*English: *Embedding a General Computer Arithmetic in Pascal by Means of an Operator Concept and the Implementation of Elementary Functions with Optimal Accuracy]*. Dissertation, Universität Karlsruhe, Karlsruhe, Germany, 1980. ?? pp.

Waldecker:1980:NSR

[1381] D. E. Waldecker. Nonrestoring square root with simplified answer generation. *IBM Technical Disclosure Bulletin*, 22(11):4807–4808, April 1980. CODEN IBMTAA. ISSN 0018-8689.

Waser:1980:EGP

[1382] S. Waser. Entwicklung von Gleitkomma-Prozessoren [*English:* Development of Floating-Point Processors]. *Elektronik*, 29(9):50–54, April 1980. CODEN EKRKAR. ISSN 0013-5658.

Watkins:1980:MFU

[1383] Timothy Ervin Watkins. A microprogrammed FFT utilizing floating point hardware. Thesis (M.S.), UCLA, Los Angeles, CA, USA, 1980. v + 56 pp.

Wong:1980:IOF

[1384] Clement Sau-Fai Wong. Input/output and floating-point arithmetic package. Thesis (M.S.), University of Tennessee, Knoxville, Knoxville, TN, USA, 1980. vi + 61 pp.

Yohe:1980:FPE

[1385] J. Michael Yohe. Floating point exception handling for interval arithmetic. In Nickel [7725], pages 547–554. ISBN 0-12-518850-1. LCCN QA297.75 .I57 1980.

Yohe:1980:PSI

[1386] J. Michael Yohe. Portable software for interval arithmetic. In Alefeld and Grigorieff [7718], pages 211–229. CODEN COSPDM. ISBN 0-387-81566-X. ISSN 0344-8029. LCCN QA297 .F84. In cooperation with R. Albrecht, U. Kulisch, and F. Stummel.

Zeman:1980:HSM

[1387] J. Zeman and H. T. Nagle, Jr. A high-speed microprogrammable digital signal processor employing distributed arithmetic. *IEEE Transactions on Computers*, C-29(2):134–144, February 1980. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675537`.

Agrawal:1981:NAM

[1388] D. P. Agrawal and R. C. Joshi. Negabinary addition and multiplication using binary circuits. In IEEE CA5 '81 [7727], pages 270–273. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Agrawal_Joshi.pdf`. IEEE catalog number 81CH1630-C.

Ahmed:1981:VSA

[1389] H. M. Ahmed, M. Morf, D. T. L. Lee, and P. H. Ang. A VLSI speech analysis chip set based on square-root normalized ladder forms. In ????, editor, *Proceedings of 1981 ICASSP. Atlanta. GA, 1981*, pages 648–653. ????, ????, 1981.

Andrews:1981:EFM

[1390] M. Andrews, D. Jaeger, S. F. McCormick, and G. D. Taylor. Evaluation of functions on microcomputers: $\exp(x)$. *Computers and Mathematics with Applications*, 7(6):503–508, 1981. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0898122181900341`.

Arnold:1981:PFP

[1391] Jeffrey M. Arnold. PSI, a floating point processor for the NU computer. Thesis (B.S.), Massachusetts Institute of Technology. Dept. of Electrical and Engineering and Computer Science, Cambridge, MA, USA, 1981. 42 pp. Supervised by Stephen A. Ward.

Arora:1981:CSR

[1392] R. K. Arora and Saroj Kaushik. Conversion scheme in residue code. In IEEE CA5 '81 [7727], pages 152–156. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Arora_Kaushik.pdf`. IEEE catalog number 81CH1630-C.

Atkins:1981:FIS

[1393] D. E. Atkins and K. S. Trivedi. The Fifth IEEE Symposium on Computer Arithmetic: Foreword. In IEEE CA5 '81 [7727], page iv. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Trivedi_Atkins.pdf`. IEEE catalog number 81CH1630-C.

Avizienis:1981:LCR

[1394] Algirdas Avižienis. Low-cost residue and inverse residue error-detecting codes for signed-digit arithmetic. In IEEE CA5 '81 [7727], pages 165–168. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Avizienis.pdf`. IEEE catalog number 81CH1630-C.

Banerji:1981:HSD

[1395] Dilip K. Banerji, To-Yat Cheung, and V. Ganesan. A high-speed division method in residue arithmetic. In IEEE CA5 '81 [7727], pages 158–164. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Banerji_Cheung_Ganesan.pdf`. IEEE catalog number 81CH1630-C.

Barlow:1981:DAA

[1396] Jesse Barlow. On the distribution af accumulated roundoff error in floating point arithmetic. In IEEE CA5 '81 [7727], pages 100–105. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Barlow.pdf`. IEEE catalog number 81CH1630-C.

Barlow:1981:PEA

[1397] Jesse Louis Barlow. *Probabilistic error analysis of floating point and CRD arithmetics*. Ph.D. (electrical engineering and computer science), Northwestern University, Evanston, IL, USA, 1981. ???? pp.

Bashe:1981:AIE

[1398] C. J. Bashe, W. Buchholz, G. V. Hawkins, J. J. Ingram, and N. Rochester. The architecture of IBM's early computers. *IBM Journal of Research and Development*, 25(5):363–375, September 1981. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Benjamin:1981:FPF

[1399] Bruce P. Benjamin. Fixed point to floating point converter. Master of Science, Plan II, University of California, Berkeley. Dept. of Electrical Engineering and Computer Sciences, Berkeley, CA, USA, 1981. 60 pp.

Bhuyan:1981:MAP

[1400] L. Bhuyan and D. P. Agrawal. Multiple addition and parallel counter in generalized binary and negabinary systems. In IEEE CA5 '81 [7727], pages 264–269. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Bhuyan_Agrawal.pdf`. IEEE catalog number 81CH1630-C.

Bice:1981:AAS

[1401] P. K. Bice. Algorithm adds square root to micro's arithmetic capability. *Electronic Design*, 29(11):146, May 1981. CODEN ELODAW. ISSN 0013-4872 (print), 1944-9550 (electronic).

Blikle:1981:CTI

[1402] Andrzej Blikle. The clean termination of iterative programs. *Acta Informatica*, 16(2):199–217, October 1981. CODEN AINFA2. ISSN 0001-5903 (print), 1432-0525 (electronic).

Brent:1981:MUG

[1403] Richard P. Brent. MP user's guide. Technical Report TR-CS-81-08, Department of Computer Science, Australian National University, Canberra, ACT, Australia, June 1981. 73 pp.

Bridge:1981:AAA

[1404] Carol L. Bridge, P. David Fisher, and Robert G. Reynolds. Asynchronous arithmetic algorithms for data-driven machines. In IEEE CA5 '81 [7727], pages 56–62. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Bridge_Fisher_Reynolds.pdf`. IEEE catalog number 81CH1630-C.

Brown:1981:SRM

[1405] W. S. Brown. A simple but realistic model of floating-point computation. *ACM Transactions on Mathematical Software*, 7(4):445–480, December 1981. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Cariker:1981:RFM

[1406] Earnest Allan Cariker. A rapid-approximation floating-point mathematics package for the INTEL 8080 microprocessor. Computing science thesis (M.S.), Texas A&M University, College Station, TX, USA, 1981. viii + 152 pp.

Cary:1981:BFP

[1407] David A. Cary. The Berkeley floating point project. Master of Science, Plan II, University of California, Berkeley. Dept. of Electrical and Engineering and Computer Sciences, Berkeley, CA, USA, 1981. 107 pp.

Ceruzzi:1981:ECK

[1408] Paul E. Ceruzzi. The early computers of Konrad Zuse, 1935 to 1945. *Annals of the History of Computing*, 3(3):241–262, July/September 1981. CODEN AHCOE5. ISSN 0164-1239. URL `http://dlib.computer.org/an/books/an1981/pdf/a3241.pdf; http://www.computer.org/annals/an1981/a3241abs.htm`.

Cheng:1981:AAF

[1409] Steven Cheng. *Am9511A/Am9512 floating point processor manual*. Advanced Micro Devices, Sunnyvale, CA, USA, 1981. 55 pp.

Chow:1981:PDA

[1410] P. Chow, Z. G. Vranesic, and J. L. Yen. A pipelined distributed arithmetic PFFT processor. In IEEE CA5 '81 [7727], pages 198–206. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Chow_Vranesic_Yen.pdf. IEEE catalog number 81CH1630-C.

Chroust:1981:MAD

[1411] G. Chroust. Method of adding decimal numbers by means of binary arithmetic. *IBM Technical Disclosure Bulletin*, 23(10):4525–4526, March 1981. CODEN IBMTAA. ISSN 0018-8689.

Ciminiera:1981:AAF

[1412] L. Ciminiera and A. Serra. Arithmetic array for fast inner product evaluation. In IEEE CA5 '81 [7727], pages 207–214. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Ciminiera_Serra.pdf. IEEE catalog number 81CH1630-C.

Ciminiera:1981:FAM

[1413] L. Ciminiera, A. Serra, and A. Valenzano. Fast and Accurate Matrix Triangularization Using an Iterative Structure. In IEEE CA5 '81 [7727], pages 215–221. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Ciminiera_Serra_Valenzano.pdf. IEEE catalog number 81CH1630-C.

Cody:1981:APF

[1414] William J. Cody, Jr. Analysis of proposals for the floating-point standard. *Computer*, 14(3):63–68, March 1981. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). URL https://ethw.org/w/images/f/fb/Analysis_of_Proposals_Cody.pdf. See [1900, 1901].

Cohen:1981:CAU

[1415] M. Cohen, V. C. Hamacher, and T. E. Hull. CADAC: An arithmetic unit for clean decimal arithmetic and controlled precision. In IEEE CA5 '81 [7727], pages 106–112. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Cohen_Hamacher_Bull.pdf. IEEE catalog number 81CH1630-C.

Coonen:1981:EIG

[1416] Jerome T. Coonen. Errata: An Implementation Guide to a Proposed Standard for Floating Point Arithmetic. *Computer*, 14(3):62, March

1981. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). See [1299, 1900, 1901].

Coonen:1981:UDN

[1417] Jerome T. Coonen. Underflow and the denormalized numbers. *Computer*, 14(3):75–87, March 1981. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). See [1900, 1901].

Curley:1981:PPN

[1418] A. Curley. PNCL: a prototype numerical computation language. M.Sc. thesis, Department of Computer Science, University of Toronto, Toronto, ON, Canada, 1981.

Davis:1981:EFA

[1419] Diane F. Davis. Elementary functions on an array processor. In IEEE CA5 '81 [7727], pages 170–178. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Davis.pdf`. IEEE catalog number 81CH1630-C.

DECESD:1981:VIS

[1420] Digital Equipment Corporation.Educational Services Dept. *VAX-11 instruction set*. Digital Equipment Corporation, Maynard, MA, USA, revised edition, 1981. various pp.

Demmel:1981:EUS

[1421] James Demmel. Effects of underflow on solving linear systems. In IEEE CA5 '81 [7727], pages 113–119. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Demmel.pdf`. IEEE catalog number 81CH1630-C.

Efe:1981:MOA

[1422] Kemal Efe. Multi-operand addition with conditional sum logic. In IEEE CA5 '81 [7727], pages 251–255. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Efe.pdf`. IEEE catalog number 81CH1630-C.

Eide:1981:FPA

[1423] Vigleik Eide. Floating-point arithmetic on a micro-computer. Hovedoppgave i informatikk (cand. real), Universitetet i Oslo, Oslo, Norway, 1981. 71 pp.

Farmwald:1981:DHP

[1424] P. M. Farmwald. *On the Design of High Performance Digital Arithmetic Units*. Thesis (Ph.D.), Stanford University, Stanford, CA, USA, August 1981. ???? pp.

Farmwald:1981:HBE

[1425] P. Michael Farmwald. High bandwidth evaluation of certain elementary functions. In IEEE CA5 '81 [7727], pages 139–142. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Farmwald.pdf`. IEEE catalog number 81CH1630-C.

Fredette:1981:RES

[1426] G. Fredette. 68000 routine extracts square roots. *EDN*, 26(16):185–194, August 1981. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Ganesan:1981:GSC

[1427] K. Ganesan and A. Augustine. 8086 generates sines and cosines. *EDN*, 26(6):186–188, March 1981. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Glaser:1981:HBO

[1428] Anton Glaser. *History of Binary and Other Nondecimal Numeration*. Tomash Publishers, Los Angeles, CA, USA, revised edition, 1981. ISBN 0-938228-00-5. xiii + 218 pp. LCCN QA141.2 .G55 1981. See also original edition [634].

Gorin:1981:IDA

[1429] Ralph E. Gorin. *Introduction to DECSYSTEM-20 Assembly Language Programming*. Digital Press, 12 Crosby Drive, Bedford, MA 01730, USA, 1981. ISBN 0-932376-12-6. xxx + 545 pp. LCCN QA76.8.D17 .G67. US$40.00.

Gorji-Sinaki:1981:DDS

[1430] A. Gorji-Sinaki and M. D. Ercegovac. Design of a digit-slice on-line arithmetic unit. In IEEE CA5 '81 [7727], pages 72–80. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_GorjiSinaki_Ercegovac.pdf`. IEEE catalog number 81CH1630-C.

Gosling:1981:CSH

[1431] J. B. Gosling, J. H. P. Zurawski, and D. B. G. Edwards. A chip-set for a high-speed low-cost floating-point unit. In

IEEE CA5 '81 [7727], pages 50–55. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Gosling_Zurawski_Edwards.pdf. IEEE catalog number 81CH1630-C.

Grappel:1981:RDB

[1432] R. D. Grappel. 68000 routine divides 32-bit numbers. *EDN*, 26(5):161–162, March 1981. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Gregory:1981:RAR

[1433] R. T. Gregory. Residue arithmetic with rational operands. In IEEE CA5 '81 [7727], pages 144–145. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Gregory.pdf. IEEE catalog number 81CH1630-C.

Griffiths:1981:BDC

[1434] L. K. Griffiths. Binary-to-decimal conversion. *IBM Technical Disclosure Bulletin*, 24(1A):237–238, June 1981. CODEN IBMTAA. ISSN 0018-8689.

Grote:1981:CIS

[1435] H. Grote. Code improves on a square-root routine. *EDN*, 26(11):198–200, May 1981. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Hazlerig:1981:CES

[1436] Steven Jackson Hazlerig. Comparison and evaluation of several floating-point schemes for the Motorola 68000 microprocessor. Thesis (M.S.), Massachusetts Institute of Technology. Dept. of Electrical and Engineering and Computer Science, Cambridge, MA, USA, 1981. 103 pp. Supervised by Richard E. Zippel.

Hendra:1981:FPS

[1437] R. G. Hendra. A floating point software package for use on LSI-11 computers at SLAC. Technical note SLAC TN 81-3, SLAC, Stanford, CA, USA, June 1981. 8 pp. URL http://weblib.cern.ch/format/showfull?uid=1451323_18194&base=CERCER&sysnb=0046833.

Hough:1981:API

[1438] David Hough. Applications of the proposed IEEE-754 standard for floating point arithmetic. *Computer*, 14(3):70–74, March 1981. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). See [1900, 1901].

Huang:1981:IFD

[1439] Chao Huang, D. Peterson, H. Rauch, J. Teague, and D. Fraser. Implementation of a fast digital processor using the residue number system. *IEEE Transactions on Circuits and Systems*, 28(1):32–38, January 1981. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23509`.

Hwang:1981:CFF

[1440] Shu-Hwa Hwang. Computation in a finite field using rational operands. Thesis (M.S.), University of Tennessee, Knoxville, Knoxville, TN, USA, 1981. v + 80 pp.

Hwang:1981:PAV

[1441] Kai Hwang and Yen-Heng Cheng. Partitioned algorithms and VLSI structures for large-scale matrix computations. In IEEE CA5 '81 [7727], pages 222–232. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Hwang_Cheng.pdf`. IEEE catalog number 81CH1630-C.

Irwin:1981:RAP

[1442] Mary Jane Irwin and Dwight R. Smith. A rational arithmetic processor. In IEEE CA5 '81 [7727], pages 241–245. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Irwin_Smith.pdf`. IEEE catalog number 81CH1630-C.

Jenkins:1981:CSP

[1443] W. K. Jenkins and M. H. Etzel. Correction to "Special properties of complement codes for redundant residue number systems". *Proceedings of the IEEE*, 69(8):1086, August 1981. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=31304`. See [1444].

Jenkins:1981:SPC

[1444] W. K. Jenkins and M. H. Etzel. Special properties of complement codes for redundant residue number systems. *Proceedings of the IEEE*, 69(1):132–133, January 1981. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=31297`. See correction [1443].

Kahan:1981:WDW

[1445] W. Kahan. Why do we need a floating-point arithmetic standard? Technical report, University of California, Berkeley, CA, USA, February 12, 1981. 41 pp.

Karplus:1981:ASI

[1446] W. J. Karplus and D. Cohen. Architectural and software issues in the design of peripheral array processors. *Computer*, ??(??):??, September 1981. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Kaushik:1981:SDS

[1447] Saroj Kaushik and R. K. Arora. Sign detection in the symmetric residue number system. In IEEE CA5 '81 [7727], pages 146–150. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Kaushik_Arora.pdf. IEEE catalog number 81CH1630-C.

Kielbasinski:1981:IRL

[1448] Andrzej Kiełbasiński. Iterative refinement for linear systems in variable-precision arithmetic. *BIT (Nordisk tidskrift for informationsbehandling)*, 21(1):97–103, March 1981. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print),
1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=21&issue=1&spage=97.

Knuth:1981:SA

[1449] Donald E. Knuth. *Seminumerical Algorithms*, volume 2 of *The Art of Computer Programming*. Addison-Wesley, Reading, MA, USA, second edition, 1981. ISBN 0-201-03822-6. xi + 624 pp. LCCN QA76.6 .K64. US$19.75.

Kobayashi:1981:FMO

[1450] Hideaki Kobayashi. A fast multi-operand multiplication scheme. In IEEE CA5 '81 [7727], pages 246–250. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Kobayashi.pdf. IEEE catalog number 81CH1630-C.

Koehler:1981:AMC

[1451] Robert J. Koehler and John A. Bayliss. Apparatus and method for cooperative and concurrent coprocessing of digital information. US Patent 4,270,167., May 26, 1981. URL https://ieeemilestones.ethw.org/w/images/1/15/Patent_8087_coprocessor_mechanism.pdf. Filed 30 June 1978.

This patent discusses the mechanism enabling the 8087 coprocessor to operate alongside the 8086 and 8088 CPUs.

Kogge:1981:APC

[1452] Peter M. Kogge. *The Architecture of Pipelined Computers*. McGraw-Hill, New York, NY, USA, 1981. ISBN 0-07-035237-2. xii + 334 pp. LCCN QA76.5 .K587.

Koren:1981:CPN

[1453] I. Koren and Y. Maliniak. On classes of positive, negative, and imaginary radix number systems. *IEEE Transactions on Computers*, 30(5):212–317, May 1981. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kornerup:1981:IRA

[1454] Peter Kornerup and David W. Matula. An integrated rational arithmetic unit. In IEEE CA5 '81 [7727], pages 233–240. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Kornerup_Matula.pdf`. IEEE catalog number 81CH1630-C.

Kulisch:1981:CAT

[1455] Ulrich W. Kulisch and Willard L. Miranker. *Computer Arithmetic in Theory and Practice*. Computer science and applied mathematics. Academic Press, New York, NY, USA, 1981. ISBN 0-12-428650-X. xiii + 249 pp. LCCN QA162 .K84.

Kunz:1981:QZ

[1456] W. Kunz. Quadratwurzel mit dem μP Z80 [*English:* Square Roots with the Z80 Microprocessor]. *Elektronik*, 7:109–110, 1981. CODEN EKRKAR. ISSN 0013-5658.

Ligomenides:1981:CRF

[1457] P. Ligomenides and R. Newcomb. Complement representations in the Fibonacci computer. In IEEE CA5 '81 [7727], pages 6–9. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Ligomenides_Newcomb.pdf`. IEEE catalog number 81CH1630-C.

Ling:1981:HSB

[1458] Huey Ling. High-speed binary adder. *IBM Journal of Research and Development*, 25(2/3):156–166, May/June 1981. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Linnainmaa:1981:CEU

[1459] Seppo Linnainmaa. Combatting the effects of underflow and overflow in determining real roots of polynomials. *ACM SIGNUM Newsletter*, 16(2):11–16, June 1981. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Linnainmaa:1981:SDP

[1460] Seppo Linnainmaa. Software for doubled-precision floating-point computations. *ACM Transactions on Mathematical Software*, 7(3):272–283, September 1981. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://doi.acm.org/10.1145/355958.355960`.

Louie:1981:APS

[1461] T. Louie. Array processors: a selected bibliography. *Computer*, ??(??):??, September 1981. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Markov:1981:IAA

[1462] Svetoslav Markov. On an interval arithmetic and its applications. In IEEE CA5 '81 [7727], pages 274–278. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Markov.pdf`. IEEE catalog number 81CH1630-C.

Maron:1981:IAP

[1463] N. Maron and T. A. Brengle. Integrating an array processor into a scientific computing system. *Computer*, 14(9):41–44, September 1981. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Matsui:1981:OUF

[1464] S. Matsui and M. Iri. An overflow/underflow-free floating-point representation of numbers. *Journal of Information Processing*, 4(3):123–133, 1981. CODEN JIPRDE. ISSN 0387-6101.

Miller:1981:RGU

[1465] W. Miller. A remark on gradual underflow. *Computing: Archiv fur informatik und numerik*, 27(3):217–225, 1981. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Mitra:1981:CRA

[1466] D. Mitra and V. Lawrence. Controlled rounding arithmetics, for second-order direct-form digital filters, that eliminate all self-sustained oscillations. *IEEE Transactions on Circuits and Systems*, 28(9):894–905, September 1981. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Munson:1981:FPR

[1467] David C. Munson, Jr. and Bede Liu. Floating point roundoff error in the prime factor FFT. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 29(4):877–882, August 1981. CODEN IETABA. ISSN 0096-3518.

Nguyen:1981:SAD

[1468] Diem Dinh Nguyen. A systematic approach to the design of structures for addition and subtraction — case of radix $r = m^k$. In IEEE CA5 '81 [7727], pages 42–49. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Nguyen.pdf`. IEEE catalog number 81CH1630-C.

Ong:1981:TQC

[1469] S. Ong and D. E. Atkins. Towards quantitative comparison of computer number systems. In IEEE CA5 '81 [7727], pages 21–33. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Ong_Atkins.pdf`. IEEE catalog number 81CH1630-C.

Owens:1981:CAD

[1470] Robert Michael Owens. Compound algorithms for digit on-line arithmetic. In IEEE CA5 '81 [7727], pages 64–71. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Owens.pdf`. IEEE catalog number 81CH1630-C.

Padegs:1981:SB

[1471] A. Padegs. System/360 and beyond. *IBM Journal of Research and Development*, 25(5):377–390, September 1981. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Pan:1981:BCA

[1472] V. Pan. The bit-complexity of arithmetic algorithms. *Journal of Algorithms*, 2(2):144–163, June 1981. CODEN JOALDV. ISSN 0196-6774 (print), 1090-2678 (electronic). URL `http://www.sciencedirect.com/science/article/pii/019667748190016X`.

Papachristou:1981:APA

[1473] C. A. Papachristou. Algorithms for parallel addition and parallel polynomial evaluation. In IEEE CA5 '81 [7727], pages 256–263. LCCN

QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Papachristou.pdf. IEEE catalog number 81CH1630-C.

Peng:1981:AES

[1474] Hong Peng. Algorithms for extracting square roots and cube roots. In IEEE CA5 '81 [7727], pages 121–126. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Peng.pdf. IEEE catalog number 81CH1630-C.

Peters:1981:EFB

[1475] James V. Peters. An equivalent form of Benford's Law. *Fibonacci Quarterly*, 19(1):74–75, February 1981. CODEN FIBQAU. ISSN 0015-0517. URL http://www.fq.math.ca/Scanned/19-1/peters.pdf.

Raghavendra:1981:SLA

[1476] C. S. Raghavendra and M. D. Ercegovac. A simulator for on-line arithmetic. In IEEE CA5 '81 [7727], pages 92–98. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Raghavendra_Ercegovac.pdf. IEEE catalog number 81CH1630-C.

Rao:1981:AFF

[1477] T. R. N. Rao. Arithmetic of finite fields. In IEEE CA5 '81 [7727], pages 2–5. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Rao.pdf. IEEE catalog number 81CH1630-C.

Rao:1981:CHC

[1478] T. M. Rao and R. T. Gregory. The conversion of Hensel codes to rational numbers. In IEEE CA5 '81 [7727], pages 10–14. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Rao_Gregory.pdf. IEEE catalog number 81CH1630-C.

Redinbo:1981:SRN

[1479] G. Redinbo and W. Hunnebeck. On the simulation of residue number systems. In *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '81*, pages 339–342. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1981. CODEN ???? ISSN ????

Robertson:1981:SAD

[1480] J. E. Robertson. A systematic approach to the design of structures for arithmetic. In IEEE CA5 '81 [7727], pages 35–41. LCCN QA 76.6 S985t

1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Robertson.pdf. IEEE catalog number 81CH1630-C.

Rodrigues:1981:HEM

[1481] M. R. D. Rodrigues, J. H. P. Zurawski, and J. B. Gosling. Hardware evaluation of mathematical functions. *IEE proceedings, E: Computers and digital techniques*, 128(4):155–164, July 1981. CODEN IPETD3. ISSN 0143-7062.

Rutenbar:1981:CSV

[1482] R. A. Rutenbar and Y. E. Park. Case study of a VLSI design project: a simple inner product machine. In IEEE CA5 '81 [7727], pages 184–189. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Rutenbar_Park.pdf. IEEE catalog number 81CH1630-C.

Schonfelder:1981:ECP

[1483] J. L. Schonfelder and M. Razaz. Error control with polynomial approximations. *IMA Journal of Numerical Analysis*, 1(1):105–114, 1981. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).

Schryer:1981:TCF

[1484] N. L. Schryer. A test of a computer's floating-point arithmetic unit. Technical Report Computer Science Technical Report 89, AT&T Bell Laboratories, February 1981. 66 pp. URL http://plan9.bell-labs.com/cm/cs/cstr/89.ps.gz; http://www.bell-labs.com/topic/swdist/.

Schwarz:1981:EYC

[1485] H. R. Schwarz. The early years of computing in Switzerland. *Annals of the History of Computing*, 3(2):121–132, April/June 1981. CODEN AHCOE5. ISSN 0164-1239. URL http://dlib.computer.org/an/books/an1981/pdf/a2121.pdf; http://www.computer.org/annals/an1981/a2121abs.htm.

Smith:1981:ERA

[1486] J. M. Smith, F. W. J. Olver, and D. W. Lozier. Extended-range arithmetic and normalized Legendre polynomials. *ACM Transactions on Mathematical Software*, 7(1):93–105, March 1981. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://doi.acm.org/10.1145/355934.355940.

Spaniol:1981:CAL

[1487] Otto Spaniol. *Computer Arithmetic: Logic and Design*. Wiley, New York, NY, USA, 1981. ISBN 0-471-27926-9. 280 pp. LCCN QA76.6 .S6613, TK7888.3.S7. English translation of [1017].

Stark:1981:MBR

[1488] Moshe Stark. Multiple bit read-only memory cell and its sense amplifier. US Patent 4,287,570., September 1, 1981. URL `https://ieeemilestones.ethw.org/w/images/e/e1/Patent_Moshe_Stark_Intel_two_bit_ROM.pdf`. Filed 1 June 1979. See discussion [6647].

Stevenson:1981:ITP

[1489] David Stevenson. IEEE Task 754: a proposed standard for binary floating-point arithmetic: Draft 8.0. *Computer*, 14(3):51–62, March 1981. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Stevenson:1981:PSBa

[1490] David Stevenson. A proposed standard for binary floating-point arithmetic. *Computer*, 14(3):51–62, March 1981. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). See [1900, 1901].

Stevenson:1981:PSBb

[1491] David Stevenson. *A proposed standard for binary floating-point arithmetic: draft 8.0 of IEEE Task P754*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1981. 36 pp. See [1900, 1901].

Stummel:1981:PAM

[1492] F. Stummel. Optimal error estimates for Gaussian elimination in floating-point arithmetic. In GAMM'81 [7726], pages T355–T357. CODEN ZAMMAX. ISBN ???? ISSN 0044-2267 (print), 1521-4001 (electronic). LCCN ???? Part II (Würzburg, 1981).

Tan:1981:ADC

[1493] C.-I. Tan and B. C. McInnis. Adaptive digital control implemented using residue number systems. In *20th IEEE Conference on Decision and Control including the Symposium on Adaptive Processes*, pages 808–812. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1981. CODEN ???? ISSN ????

Taylor:1981:CHD

[1494] George S. Taylor. Compatible hardware for division and square root. In IEEE CA5 '81 [7727], pages 127–134. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Taylor.pdf. IEEE catalog number 81CH1630-C.

Taylor:1981:FPR

[1495] Fred J. Taylor and Chao H. Huang. A floating-point residue arithmetic unit. *Journal of the Franklin Institute*, 311(1):33–53, January 1981. CODEN JFINAB. ISSN 0016-0032 (print), 1879-2693 (electronic).

Taylor:1981:VHP

[1496] George S. Taylor and David A. Patterson. VAX hardware for the proposed IEEE floating-point standard. In IEEE CA5 '81 [7727], pages 190–196. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Taylor_Patterson.pdf. IEEE catalog number 81CH1630-C.

Todericiu:1981:AOBb

[1497] Doru Todericiu. Analyses d'ouvrages: *Whilhelm Schickard (1592–1635), Astronom, Geograph, Orientalist, Erfinder der Rechenmaschine* par Friedrich Seck. *Revue d'Histoire des Sciences*, 34(3–4):374, juillet–octobre 1981. CODEN RHSAAM. ISSN 0151-4105 (print), 1969-6582 (electronic). URL http://www.jstor.org/stable/23632469.

Tyner:1981:GDP

[1498] Paul Tyner. *iAPX 432 General Data Processor Architecture Reference Manual*. Intel Corporation, Santa Clara, CA, USA, 1981. various pp. LCCN TK7895.M5 T85 1981.

vonGudenberg:1981:GAP

[1499] J. Wolff von Gudenberg. *Gesamte Arithmetik des Pascal-SC Rechners. Benutzerhandbuch. (German) [Complete Arithmetic of the Pascal-SC Computer: User Handbook]*. Institute for Applied Mathematics, University of Karlsruhe, Karlsruhe, West Germany, 1981. ???? pp.

Walker:1981:EMA

[1500] Gregory Walker. Extension of the MC68000 architecture to include standard floating-point arithmetic. In IEEE CA5 '81 [7727], pages 179–182. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Walker.pdf. IEEE catalog number 81CH1630-C.

Washington:1981:BLF

[1501] Lawrence C. Washington. Benford's Law for Fibonacci and Lucas numbers. *Fibonacci Quarterly*, 19(2):175–176, April 1981. CODEN FIBQAU. ISSN 0015-0517. URL http://www.fq.math.ca/Scanned/19-2/washington.pdf.

Watanuki:1981:FOAa

[1502] Osaaki Watanuki. Floating-point on-line arithmetic for highly concurrent digit-serial computation: application to mesh problems. Technical report, Computer Science Dept. Research Laboratory, Los Angeles, CA, USA, 1981. xvi + 149 pp.

Watanuki:1981:FOAb

[1503] Osaaki Watanuki. *Floating-point on-line arithmetic for highly concurrent digit-serial computation: application to mesh problems.* Thesis (Ph.D.), UCLA, Los Angeles, CA, USA, 1981. xvi + 149 pp.

Watanuki:1981:FPLa

[1504] O. Watanuki and M. D. Ercegovac. Floating-point on-line arithmetic: Algorithms. In IEEE CA5 '81 [7727], pages 81–86. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Watanuki_Ercegovac_a.pdf. IEEE catalog number 81CH1630-C.

Watanuki:1981:FPLb

[1505] O. Watanuki and M. D. Ercegovac. Floating-point on-line arithmetic: Error analysis. In IEEE CA5 '81 [7727], pages 87–91. LCCN QA 76.6 S985t 1981. URL http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Watanuki_Ercegovac_b.pdf. IEEE catalog number 81CH1630-C.

Wehringer:1981:FSA

[1506] A. Wehringer. Fließkomma-Arithmetik [*English:* Floating-point Arithmetic]. *Elektronikschau*, 5:34–36, 1981.

Wehringer:1981:SBM

[1507] A. Wehringer. Schnelle 16-bit-Multiplikation und Division [*English:* Fast 16-bit Multiplication and Division]. *Elektronikschau*, 10:36–37, 1981.

Weinreb:1981:LMM

[1508] Daniel Weinreb and David Moon. *LISP Machine Manual.* MIT Artificial Intelligence Laboratory, Cambridge, MA, USA, third edition, March 1981.

Willoner:1981:AME

[1509] Robert Willoner and I-Ngo Chen. An algorithm for modular exponentiation. In IEEE CA5 '81 [7727], pages 135–138. LCCN QA 76.6 S985t 1981. URL `http://www.acsel-lab.com/arithmetic/arith5/papers/ARITH5_Willoner_Chen.pdf`. IEEE catalog number 81CH1630-C.

Zurawski:1981:DHS

[1510] J. H. P. Zurawski and J. B. Gosling. Design of high-speed digital divider units. *IEEE Transactions on Computers*, C-30(9):691–699, September 1981. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675869`.

Aiken:1982:ASC

[1511] Howard H. Aiken and Grace M. Hopper. The automatic sequence controlled calculator (1946). In Randell [7729], pages 203–222. ISBN 0-387-11319-3, 3-540-11319-3. LCCN TK7885.A5 O741 1982.

Andrews:1982:MMS

[1512] M. Andrews. Mathematical microprocessor software: a $\sqrt{x}$ comparison. *IEEE Micro*, 2(3):63–79, August 1982. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Andrews:1982:SRX

[1513] M. Andrews. Square-root-X comparison — new results discovered — reply. *IEEE Micro*, 2(4):5–6, October/December 1982. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Anonymous:1982:ARBf

[1514] Anonymous. Article review: *Ada model arithmetic: costs and benefits*: Wallis, P. J. L. *IEE Proc.-E Comput. Dig. Tech.* Vol 129 No 2 (March 1982) pp 75–80. *Microprocessors and Microsystems*, 6(9):497–498, November 1982. CODEN MIMID5. ISSN 0141-9331 (print), 1872-9436 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0141933182905154`.

Anonymous:1982:MKF

[1515] Anonymous. Materialiensammlung zum 5. Kolloquium (mit Floating Point Systems) Neue Rechnerarchitekturen: Anwendungsgebiete und Realisierungen: Hannover, (18.Mai 1982). Bericht 30, Regionales Rechenzentrum für Niedersachsen bei der Universität Hannover, Hannover, Germany, 1982. 58 pp.

Anonymous:1982:NPAa

[1516] Anonymous. New product applications: Array processor performs 5 million floating-point operations per second, has 200-ns operation time. *IEEE Spectrum*, 19(1):104–118, January 1982. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Arnold:1982:EPS

[1517] Mark Gordon Arnold. Extending the precision of the sign logarithm number system. M.S. thesis, University of Wyoming, Laramie, WY, USA, 1982.

Bairstow:1982:FPP

[1518] R. Bairstow, J. Barlow, M. Jires, and M. Waters. A floating point processor for Intel 8080A microprocessor systems. Technical report RL 82-020, Rutherford Appleton Lab., Harwell, Oxon, UK, March 1982. 44 pp. URL http://weblib.cern.ch/format/showfull?uid=1451323_18194&base=CERCER&sysnb=0050018.

Baraniecki:1982:QEL

[1519] A. Baraniecki and G. Jullien. Quantization error and limit cycles analysis in residue number system coded recursive filters. In *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '82*, pages 52–55. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1982. CODEN ???? ISSN ????

Barnes:1982:RNI

[1520] C. Barnes and T. Miyawaki. Roundoff noise invariants in normal digital filters. *IEEE Transactions on Circuits and Systems*, 29(4):251–256, April 1982. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Bernhard:1982:CCS

[1521] R. Bernhard. Computers: Computing at the speed limit: Computers 1000 times faster than today's supercomputers would benefit vital scientific applications. *IEEE Spectrum*, 19(7):26–31, July 1982. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Bernhard:1982:GSP

[1522] R. Bernhard. Giants in small packages [array processors]. *IEEE Spectrum*, 19(2):39–44, February 1982. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Bohannan:1982:MAP

[1523] J. W. Bohannan, D. J. Bradley, D. A. Kummer, and J. A. Saenz. Multiplication algorithm for packed BCD numbers. *IBM Technical Disclosure Bulletin*, 25(4):2225, September 1982. CODEN IBMTAA. ISSN 0018-8689.

Bohlender:1982:ROA

[1524] G. Bohlender, K. Grüner, and J. Wolff von Gudenberg. Realisierung einer optimalen Arithmetik [*English:* Realization of Optimal Arithmetic]. *Elektronische Rechenanlagen*, 24(2):68–72, April 1982. CODEN ELRAA4. ISSN 0013-5720.

Brent:1982:RLP

[1525] R. P. Brent and H. T. Kung. A regular layout for parallel adders. *IEEE Transactions on Computers*, C-31(??):260–264, 1982. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Brooks:1982:OCL

[1526] R. A. Brooks, R. P. Gabriel, and G. L. Steele Jr. An optimizing compiler for lexically scoped LISP. *ACM SIGPLAN Notices*, 17(6):261–275, June 1982. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Burr:1982:CCR

[1527] S. A. Burr. Computing cube roots when a fast square root is available. *Computers and Mathematics with Applications*, 8(3):181–183, ???? 1982. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0898122182900414`.

Cassola:1982:FPA

[1528] R. L. Cassola. Floating point algorithm design. *Computer Design*, 21 (6):107–114, June 1982. CODEN CMPDAM. ISSN 0010-4566.

Cassola:1982:FPM

[1529] R. L. Cassola. A floating point module for military computers. *Computer Design*, 21(2):67–76, February 1982. CODEN CMPDAM. ISSN 0010-4566.

Cavanagh:1982:DCA

[1530] Joseph J. F. Cavanagh. Digital computer arithmetic: design and implementation. Thesis (M.S.), University of Santa Clara, Santa Clara, CA, USA, 1982. vii + 503 pp.

Cody:1982:BCC

[1531] W. J. Cody. Basic concepts for computational software. In Messina and Murli [7728], pages 1–23. ISBN 0-387-11603-6 (New York), 3-540-11603-6 (Berlin). LCCN QA76.95 .P76 1982.

Cody:1982:FPM

[1532] W. J. Cody. Floating-point parameters, models, and standards. In Reid [7730], pages 51–69. ISBN 0-444-86377-X. LCCN QA297 .I34 1981.

Cody:1982:GPI

[1533] W. J. Cody. A generalization of the proposed IEEE standard for floating-point arithmetic. Technical Report ??, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439-4801, USA, 1982. 20 pp. Republished in [1622].

Cody:1982:ITF

[1534] W. J. Cody. Implementation and testing of function software. In Messina and Murli [7728], pages 24–47. ISBN 0-387-11603-6 (New York), 3-540-11603-6 (Berlin). LCCN QA76.95 .P76 1982.

Corbett:1982:EAF

[1535] R. P. Corbett. Enhanced arithmetic for Fortran. *ACM SIGPLAN Notices*, 17(12):41–48, December 1982. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Dao:1982:KCA

[1536] T. T. Dao. Knuth's complex arithmetic with quaternary hardware. In IEEE, editor, *Proceedings of the 12th International Symposium on Multiple-Valued Logic, May 1982*, pages 94–98. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, May 1982. ISBN ???? LCCN ????

Dekker:1982:PCM

[1537] T. J. Dekker. Program correctness and machine arithmetic. In Paul C. Messina and Almerico Murli, editors, *Problems and Methodologies in Mathematical Software Production*, volume 142 of *Lecture Notes in Computer Science*, pages 48–80. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1982.

DeSautels:1982:ALP

[1538] Edouard J. DeSautels. *Assembly language programming for PDP-11 and LSI-11 computers: an introduction to computer organization.* William

C. Brown Co. Publ., Dubuque, IA, 1982. ISBN 0-697-08164-8. xviii + 574 pp. US$21.95.

Dreyer:1982:ACI

[1539] H.-J. Dreyer and A. Walther. The automatic calculator IPM (1946). In Randell [7729], pages 155–161. ISBN 0-387-11319-3, 3-540-11319-3. LCCN TK7885.A5 O741 1982.

Epstein:1982:UAF

[1540] C. Epstein, W. L. Miranker, and T. J. Rivlin. Ultra-arithmetic I: function data types. *Mathematics and Computers in Simulation*, 24(1):1–18, February 1982. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic).

Epstein:1982:UAI

[1541] C. Epstein, W. L. Miranker, and T. J. Rivlin. Ultra-arithmetic II: intervals of polynomials. *Mathematics and Computers in Simulation*, 24(1):19–29, February 1982. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic).

Fateman:1982:HLL

[1542] Richard J. Fateman. High-level language implications of the proposed IEEE floating-point standard. *ACM Transactions on Programming Languages and Systems*, 4(2):239–257, April 1982. CODEN ATPSDT. ISSN 0164-0925 (print), 1558-4593 (electronic).

Feldstein:1982:EPI

[1543] A. Feldstein and R. Goodman. The evaluation of probability integrals for the loss of significance in floating point subtraction and addition. Technical report, Department of Mathematics, Arizona State University, Tempe, AZ, USA, 1982.

Feldstein:1982:LSF

[1544] A. Feldstein and R. Goodman. Loss of significance in floating point subtraction and addition. *IEEE Transactions on Computers*, C-31(4): 328–335, April 1982. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Fulton:1982:BJB

[1545] T. A. Fulton and L. N. Dunkleberger. B.S.T.J. briefs: a Josephson parallel multiplier. *The Bell System Technical Journal*, 61(5):931–933, May–June 1982. CODEN BSTJAN. ISSN 0005-8580. URL `http://bstj.bell-labs.com/BSTJ/images/Vol61/bstj61-5-931.pdf`.

Gerrity:1982:CRR

[1546] G. W. Gerrity. Computer representation of real numbers. *IEEE Transactions on Computers*, C-31(8):709–714, August 1982. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676076.

Goodrich:1982:VEP

[1547] J. L. Goodrich. Very efficient 8080 program multiplies and divides. *Electronics*, 55(4):144–145, February 1982. ISSN 0883-4989.

Gordon:1982:BFS

[1548] E. Gordon and C. Hastings. Big, fast and simple algorithms, architecture and components for high-end minis. In *Conference Record, SOUTHCON, 1982*, page ???? ????, ????, 1982. ISBN ???? LCCN ???? Paper 21/3.

Hantler:1982:ESS

[1549] S. L. Hantler and A. H. Karp. Exponential by sequential squaring. *IBM Technical Disclosure Bulletin*, 25(1):171–173, June 1982. CODEN IBMTAA. ISSN 0018-8689.

Hull:1982:PCE

[1550] T. E. Hull. Precision control, exception handling and a choice of numerical algorithms. In Watson [7735], pages 169–178. CODEN LNMAA2. ISBN 0-387-11199-9 (softcover), 3-540-11199-9 (softcover), 3-540-39009-X (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). LCCN QA3 .L28 no. 912; QA1 .L471; QA297 .D915n 1981. URL http://www.springerlink.com/content/978-3-540-39009-1.

Hull:1982:UCP

[1551] T. E. Hull. The uses of controlled precision. In Reid [7730], pages 71–82. ISBN 0-444-86377-X. LCCN QA297 .I34 1981.

Hwang:1982:PMA

[1552] Kai Hwang and Yeng-Heng Cheng. Partitioned matrix algorithms for VLSI arithmetic systems. *IEEE Transactions on Computers*, C-31(12):1215–1224, December 1982. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675945.

Jenkins:1982:FRD

[1553] W. Jenkins. Failure resistant digital filters based on residue number system product codes. In *IEEE International Conference on Acoustics,* *Speech, and Signal Processing, ICASSP '82*, pages 60–63. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1982. CODEN ???? ISSN ????

Jenkins:1982:RNS

[1554] W. K. Jenkins. Residue number system error checking using expanded projection. *Electronics Letters*, 18(21):927–928, October 14, 1982. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4246948.

Kahan:1982:NOS

[1555] W. Kahan and Jerome T. Coonen. The near orthogonality of syntax, semantics, and diagnostics in numerical programming environments. In Reid [7730], pages 103–115. ISBN 0-444-86377-X. LCCN QA297 .I34 1981.

Katzan:1982:IAA

[1556] Harry Katzan. *Invitation to Ada and Ada reference manual (July 1980)*. PBI, New York, NY, USA, 1982. ISBN 0-89433-132-9. xi + 429 pp. LCCN QA76.73.A35 K37 1982.

Kerkhoff:1982:LDM

[1557] H. G. Kerkhoff and H. A. J. Robroek. The logic design of multiple-valued logic functions using CCD's. In IEEE, editor, *Proceedings of the 12th International Symposium on Multiple-Valued Logic, May 1982*, pages 35–44. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1982. ISBN ???? LCCN ????

Korn:1982:EDF

[1558] G. A. Korn. EARLY DESIRE: a floating-point equation language simulation system for minicomputers and microcomputers. *Simulation*, 38(5):151–159, May 1982. CODEN SIMUA2. ISSN 0037-5497 (print), 1741-3133 (electronic).

Leuprecht:1982:PAR

[1559] H. Leuprecht and W. Oberaigner. Parallel algorithms for the rounding-exact summation of floating-point numbers. *Computing: Archiv fur informatik und numerik*, 28(2):89–104, ???? 1982. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

McCormick:1982:EFM

[1560] S. F. McCormick, G. D. Taylor, and D. V. Pryor. Evaluation of functions on microcomputers: $\ln(x)$. *Computers and Mathematics with*

Applications, 8(5):389–392, 1982. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

McPherson:1982:LSG

[1561] John C. McPherson, Frank E. Hamilton, and Robert R. Seeber, Jr. A large-scale, general-purpose electronic digital calculator: The SSEC. *Annals of the History of Computing*, 4(4):313–326, October/December 1982. CODEN AHCOE5. ISSN 0164-1239. URL http://dlib.computer.org/an/books/an1982/pdf/a4313.pdf; http://www.computer.org/annals/an1982/a4313abs.htm.

Monroe:1982:FFP

[1562] Alfred J. Monroe. Forth floating point package. *Dr. Dobb's Journal of Software Tools*, 7(9):16–??, September 1982. CODEN DDJOEB. ISSN 1044-789X.

Oklobdzija:1982:LSR

[1563] V. G. Oklobdzija and M. D. Ercegovac. An on-line square root algorithm. *IEEE Transactions on Computers*, C-31(1):70–75, January 1982. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1675887.

Palmer:1982:NDP

[1564] John Palmer, Bruce Ravenel, and Rafi Nave. Numeric data processor. US Patent 4,338,675., July 6, 1982. URL https://ieeemilestones.ethw.org/w/images/6/6c/Patent_8087_coprocessor.pdf. Filed 13 February, 1980. This general patent covers the breadth of 8087 features.

Palmer:1982:VRN

[1565] J. F. Palmer. VLSI and the revolution in numeric computation. In Ruschitzka et al. [7732], pages 339–341. ISBN 0-444-86608-6 (hardcover). LCCN QA76.5 .I414 1982.

Phillips:1982:BC

[1566] E. William Phillips. Binary calculation. In Randell [7729], pages 303–314. ISBN 0-387-11319-3, 3-540-11319-3. LCCN TK7885.A5 O741 1982.

Rall:1982:ACA

[1567] L. B. Rall. Accurate computer arithmetic for scientific computation. In Anonymous, editor, *Proceedings of the 1982 Army Numerical Analysis and Computers Conference*, volume 82–83, pages 343–356. US Army

Research Office, Research Triangle Park, NC, USA, August 1982. URL http://books.google.com/books?id=pFb-QQAACAAJ. Two volumes.

Ramnarayan:1982:AER

[1568] R. Ramnarayan and F. Taylor. Analysis of errors in residue number system (RNS) based IIR digital filters. In *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '82*, pages 56–59. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1982. CODEN ???? ISSN ????

Rix:1982:UQA

[1569] P. Rix. Universeller Quadratwurzel-Algorithmus [*English:* Universal Square Root Algorithms]. *Elektronik*, 23:81–82, 1982. CODEN EKRKAR. ISSN 0013-5658.

Rump:1982:CR

[1570] Siegfried M. Rump. Computer und Rechengenauigkeit [*English:* Computer and Computational Precision]. *Elektronische Rechenanlagen*, 24(6):268–277, December 1982. CODEN ELRAA4. ISSN 0013-5720.

Sacks-Davis:1982:ARN

[1571] R. Sacks-Davis. Applications of redundant number representations to decimal arithmetic. *The Computer Journal*, 25(4):471–477, November 1982. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_04/tiff/471.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_04/tiff/472.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_04/tiff/473.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_04/tiff/474.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_04/tiff/475.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_04/tiff/476.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_04/tiff/477.tif.

Samsen:1982:AFP

[1572] G. R. Samsen. An advanced floating point processor to enhance speed of mathematical processing. In Southcon '82 [7734], pages 16/1/1–3. LCCN TK 7801 S68 1982.

Sasaki:1982:EGE

[1573] T. Sasaki and H. Murao. Efficient Gaussian elimination method for symbolic determinants and linear systems. *ACM Transactions* *on Mathematical Software*, 8(3):277–289, September 1982. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Sasaki:1982:PFM

[1574] T. Sasaki and Y. Kanada. Practically fast multiple precision evaluation of LOG (X). *Journal of Information Processing (of Japan??)*, 5(4):247–250, ???? 1982.

Schatte:1982:FPF

[1575] P. Schatte. The frequency of postshifts in floating-point multiplication. *Elektronische Informationsverarbeitung und Kybernetik*, 18(9):523–526, ???? 1982.

Sewell:1982:RLT

[1576] B. T. Sewell. A rapid lookup table method for trigonometric functions. *Software—Practice and Experience*, 12(10):885–887, October 1982. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Sheldon:1982:ICP

[1577] John W. Sheldon and Liston Tatum. The IBM card-programmed electronic calculator (1951). In Randell [7729], pages 233–239. ISBN 0-387-11319-3, 3-540-11319-3. LCCN TK7885.A5 O741 1982.

Sippel:1982:FRI

[1578] Timothy N. Sippel. Floating RISCS: implementation and analysis of floating point on RISC I. Electrical engineering and computer sciences master of science report, University of California, Department of Electrical Engineering and Computer Sciences, Berkeley, CA, USA, 1982. various pp.

Sips:1982:CPM

[1579] H. J. Sips. Comments on “An $O(n)$ Parallel Multiplier with Bit-Sequential Input and Output”. *IEEE Transactions on Computers*, C-31(4):325–327, April 1982. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676000`.

Strader:1982:CBS

[1580] N. R. Strader and V. T. Rhyne. A canonical bit-sequential multiplier. *IEEE Transactions on Computers*, C-31(8):791–795, August 1982. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676085`.

Tan:1982:ADC

[1581] Chung-I Tan and B. McInnis. Adaptive digital control implemented using residue number systems. *IEEE Transactions on Automatic Control*, 27(2):499–502, April 1982. CODEN IETAA9. ISSN 0018-9286 (print), 1558-2523 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=24189. See comments [1807].

Taylor:1982:ARM

[1582] F. J. Taylor and C. H. Huang. An autoscale residue multiplier. *IEEE Transactions on Computers*, C-31(4):321–325, April 1982. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Taylor:1982:VRA

[1583] F. J. Taylor. A VLSI residue arithmetic multiplier. *IEEE Transactions on Computers*, C-31(6):540–546, June 1982. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676036.

Teachey:1982:SRX

[1584] R. D. Teachey. Square-root-X comparison — new results discovered. *IEEE Micro*, 2(4):5, October/December 1982. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

TorresyQuevedo:1982:EAD

[1585] Leonardo Torres y Quevedo. Essays on automatics — its definitions — theoretical extent of its applications (1914). In Randell [7729], pages 89–107. ISBN 0-387-11319-3, 3-540-11319-3. LCCN TK7885.A5 O741 1982.

Turner:1982:DLS

[1586] Peter R. Turner. The distribution of leading significant digits. *IMA Journal of Numerical Analysis*, 2(4):407–412, 1982. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).

Velasevic:1982:RLC

[1587] Dusan M. Velasević. Right-to-left code generation for arithmetic expressions. *The Computer Journal*, 25(3):316–326, August 1982. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/25/3/316.full.pdf+html; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_03/tiff/316.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_03/tiff/317.tif; http://www3.oup.co.uk/computer_ journal/hdb/Volume_25/Issue_03/tiff/318.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_03/tiff/319.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_03/tiff/320.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_03/tiff/321.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_03/tiff/322.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_03/tiff/323.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_03/tiff/324.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_03/tiff/325.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_25/Issue_03/tiff/326.tif.

Ware:1982:BMF

[1588] F. A. Ware, W. H. McAllister, J. R. Carlson, D. K. Sun, and R. J. Vlach. 64 bit monolithic floating point processors. *IEEE Journal of Solid-State Circuits*, SC-17(5):898–907, October 1982. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Waser:1982:IAD

[1589] Shlomo Waser and Michael J. Flynn. *Introduction to Arithmetic for Digital Systems Designers*. Holt, Reinhart, and Winston, New York, NY, USA, 1982. ISBN 0-03-060571-7. xvii + 308 pp. LCCN TK7895 A65 W37 1982. Master copy output on Alphatype CRS high-resolution phototypesetter. This book went to press while the IEEE 754 Floating-Point Standard was still in development; consequently, some of the material on that system was invalidated by the final Standard (1985) [1900].

Wilkes:1982:PPE

[1590] M. V. (Maurice Vincent) Wilkes, David J. Wheeler, and Stanley Gill. *The Preparation of Programs for an Electronic Digital Computer: with Special Reference to the EDSAC and the Use of a Library of Subroutines*, volume 1 of *Charles Babbage Institute reprint series for the history of computing*. Tomash Publishers, Los Angeles, CA, USA, 1982. ISBN 0-262-23118-2 (MIT Press 1984), 0-938228-03-X. xxxi + 167 pp. LCCN QA76.6 .W545 1982. With a new introduction by Martin Campbell-Kelly.

Wilson:1982:PC

[1591] Kenneth G. Wilson. Experiences with a floating point systems array processor. In Rodrigue [7731], pages 279–314. ISBN 0-12-592101-2. LCCN ????

Wu:1982:DFA

[1592] Market Wen-Han Wu. Design of a fast addressable hardware floating-point arithmetic package for small computer. Thesis (M.S.), Tufts University. Department of Engineering, Boston, MA, USA, 1982. iii + 102 pp.

Zuse:1982:MAE

[1593] Konrad Zuse. Method for automatic execution of calculations with the aid of computers (1936). In Randell [7729], pages 163–170. ISBN 0-387-11319-3, 3-540-11319-3. LCCN TK7885.A5 O741 1982.

Agrawal:1983:DPV

[1594] Dharma P. Agrawal, Girish C. Pathak, Nikunja K. Swain, and Shuwan K. Agrawal. On design and performance of VLSI based parallel multiplier. In IEEE SCA6 '83 [7740], pages 17–21. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Agrawal_Pathak_Swain_Agrawal.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Agrawal:1983:ICA

[1595] D. P. Agrawal and T. R. N. Rao. Introduction: Computer arithmetic. *IEEE Transactions on Computers*, C-32(4):329–330, April 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676232`.

Akamine:1983:SMQ

[1596] Masami Akamine and Tatsuo Higuchi. Synthesis of minimum quantization error digital filters using floating-point arithmetic. *Electronics and communications in Japan*, 66(10):29–38, 1983. CODEN ECOJAL. ISSN 0424-8368.

Annaratone:1983:MME

[1597] M. Annaratone and R. Stefanelli. A multiplier with multiple error correction capability. In IEEE SCA6 '83 [7740], pages 44–51. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Annaratone_Stefanelli.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Armer:1983:DCR

[1598] Paul Armer. 11. the Defense Calculator at the Rand Corporation. *Annals of the History of Computing*, 5(2):202, April/June 1983. CODEN AHCOE5. ISSN 0164-1239. URL `http://dlib.computer.org/an/books/an1983/pdf/a2202a.pdf; http://www.computer.org/annals/an1983/a2202aabs.htm`.

Asai:1983:CPI

[1599] H. Asai. A consideration of a practical implementation for a new convergence division. *Information Processing Letters*, 17(5):273–281, December 1983. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Asai:1983:SOM

[1600] Hitohisa Asai and C. K. Cheng. Speeding up an overrelaxation method of division in radix-2^n machine. *Communications of the Association for Computing Machinery*, 26(3):216–220, 1983. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Aspinwall:1983:IIF

[1601] David Brian Masters Aspinwall. An implementation of the IEEE floating point standard on a VAX-11/780. Thesis (M.S.), San Francisco State University, San Francisco, CA, USA, 1983. ix + 138 pp.

Aspinwall:1983:MVM

[1602] David B. Aspinwall and Yale N. Patt. Modifications to the VAX-11/780 microarchitecture to support IEEE floating point arithmetic. *ACM SIG Micro Newsletter*, 14(4):61–69, December 1983. CODEN SIGMDJ. ISSN 0163-5751, 1050-916X. URL `https://dl.acm.org/doi/10.1145/1096419.1096429`.

Avizienis:1983:AAE

[1603] Algirdas Avizienis and C. S. Raghavendra. Applications for arithmetic error codes in large, high-performance computers. In IEEE SCA6 '83 [7740], pages 169–173. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Avizienis_Raghavendra.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Bandeira:1983:TCA

[1604] N. Bandeira, K. Vaccaro, and J. A. Howard. A two's complement array multiplier using true values of the operands. *IEEE Transactions on Computers*, C-32(8):745–747, August 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676312.

Banerji:1983:RPF

[1605] D. K. Banerji and S. Kaushik. Representation and processing of fractions in a residue system. In IEEE SCA6 '83 [7740], pages 29–36. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Banerji_Kaushik.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Baxter:1983:CRS

[1606] I. Baxter. Code replication speeds multiplication. *EDN*, 28(4):261–262, February 1983. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Bayoumi:1983:MVI

[1607] M. A. Bayoumi, G. A. Jullien, and W. C. Miller. Models for VLSI implementation of residue number system arithmetic modules. In IEEE SCA6 '83 [7740], pages 174–183. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Bayoumi_Jullien_Miller.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Bhat:1983:HPF

[1608] J. Bhat. High performance floating point co-processor for protected multi-user systems. In Mini-Micro Northeast '83 [7742], pages 7/2/1–5. LCCN QA 76.5 M565 1983.

Blakley:1983:MAI

[1609] G. R. Blakley and I. Borosh. Modular arithmetic of iterated powers. *Computers and Mathematics with Applications*, 9(4):567–581, ???? 1983. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/0898122183901141.

Boney:1983:FPPa

[1610] J. Boney and V. Shahan. Floating-point power for the M68000 family. In Mini-Micro Northeast '83 [7742], pages 7/3/1–9. LCCN QA 76.5 M565 1983.

Boney:1983:FPPb

[1611] J. Boney and V. Shahan. Floating-point power for the M68000 family. In Mini-Micro West '83 [7743], pages 16/5/1–10. LCCN TK7885.A1 M56 1983.

Boney:1983:FPPc

[1612] J. Boney, V. Shahan, and P. Harvey. Floating-point power for the M68000 family. In ????, editor, *Proceedings of Maecon, September 1983*, pages 1–9. ????, ????, 1983.

Brown:1983:NEA

[1613] W. S. Brown and C. S. Wetherell. A numeric error algebra. In IEEE SCA6 '83 [7740], pages 86–93. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Brown_Wetherell.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Bushard:1983:MTS

[1614] L. B. Bushard. A minimum table size result for higher radix nonrestoring division. *IEEE Transactions on Computers*, C-32(6):521–526, June 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676273`.

Caraiscos:1983:REA

[1615] C. Caraiscos and Bede Liu. A round-off error analysis of the LMS adaptive algorithm. In *IEEE International Conference on Acoustics, Speech, and Signal Processing: ICASSP '83*, pages 29–32. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1983. CODEN ???? ISSN ????

Chamrad:1983:FFP

[1616] V. Chamrad. A fast floating-point square-rooting routine for the 8080/8085 microprocessors. *Kybernetika*, 19(4):335–344, ???? 1983. CODEN KYBNAI. ISSN 0023-5954.

Chan:1983:ACS

[1617] Tony F. Chan, Gene H. Golub, and Randall J. LeVeque. Algorithms for computing the sample variance: Analysis and recommendations. *The American Statistician*, 37(3):242–247, August 1983. CODEN ASTAAJ. ISSN 0003-1305 (print), 1537-2731 (electronic). URL `http://www.jstor.org/stable/2683386`.

Chang:1983:HSN

[1618] Tung-Liang Chang and P. Fisher. High-speed normalization and rounding circuits for pipelined floating-point processors. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 31(6):1403–1408, December 1983. CODEN IETABA. ISSN 0096-3518.

Chow:1983:PDA

[1619] P. Chow, Z. Vranesic, and Jui Lin Yen. A pipelined distributed arithmetic PFFT processor. *IEEE Transactions on Computers*, C-32(12):1128–1136, December 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676173`. See correction [1748].

Ciminiera:1983:FIM

[1620] L. Ciminiera and A. Serra. Fast iterative multiplying array. In IEEE SCA6 '83 [7740], pages 60–66. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Ciminiera_Serra.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Cloutier:1983:PAR

[1621] Mark J. Cloutier and Matthew J. Friedman. Precision averaging for real-time analysis. *Communications of the Association for Computing Machinery*, 26(7):525–529, 1983. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Cody:1983:GPI

[1622] W. J. Cody. A generalization of the proposed IEEE standard for floating-point arithmetic. In Gentle [7737], pages 133–139. ISBN 0-444-86688-4. LCCN QA276.4 .S95 1983. Republication of [1533].

Cohen:1983:CCP

[1623] Marty S. Cohen, T. E. Hull, and V. Carl Hamacher. CADAC: a controlled-precision decimal arithmetic unit. *IEEE Transactions on*

Computers, C-32(4):370–377, April 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676238`.

Collis:1983:MSZ

[1624] B. Collis. Macros speed 8080, Z80 multiplication. *EDN*, 28(24):225, November 1983. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Corbett:1983:EAF

[1625] Robert Paul Corbett. Enhanced arithmetic for Fortran. *ACM SIGNUM Newsletter*, 18(1):24–28, January 1983. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Coupe:1983:SPZ

[1626] B. Coupe. Superefficient programs for 8080 and Z80 multiply. *Electronics*, 56(6):142–143, March 1983. ISSN 0883-4989.

Dadda:1983:SSF

[1627] Luigi Dadda. Some schemes for fast serial input multipliers. In IEEE SCA6 '83 [7740], pages 52–59. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Dadda.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Dao:1983:QCA

[1628] T. T. Dao. A quaternary cellular array complex number multiplier. In IEEE, editor, *Proceedings of the 13th International Symposium on Multiple-valued Logic, May 1983*, pages 255–262. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1983. ISBN ???? LCCN ????

Davis:1983:HSD

[1629] George R. Davis and Thomas M. King. A high-speed digital divider. *IEEE Transactions on Instrumentation and Measurement*, IM-32(2):309–312, June 1983. CODEN IEIMAO. ISSN 0018-9456 (print), 1557-9662 (electronic).

Demsky:1983:MMC

[1630] J. Demsky, M. Schlesinger, and R. D. Kent. Micro/mini computer program for calculating the square root of rationals at arbitrary precision. *Computer Physics Communications*, 29(3):237–244, May 1983. CODEN

CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL http://www.sciencedirect.com/science/article/pii/0010465583900048.

Dietrich:1983:VQF

[1631] D. Dietrich. Verfahren zur Lösung von Quadratwurzeln für Mikrorechnerprozeduren [*English:* Methods for the Solution of Square Roots for Microprocessor Subroutines]. *Elektroniker (Switzerland)*, 8: EL–1–EL–6, 1983. CODEN ELKRBL. ISSN 0531-9218.

Donthi:1983:BSM

[1632] Ravindra V. Donthi, Mohammed Saleem, and Harpreet Singh. On bit sequential multipliers. In IEEE SCA6 '83 [7740], pages 104–108. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Donthi_Saleem_Singh.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Dubrulle:1983:CNM

[1633] Augustin A. Dubrulle. Class of numerical methods for the computation of Pythagorean sums. *IBM Journal of Research and Development*, 27(6): 582–589, November 1983. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). See [1684] and generalization [2444].

Dyer:1983:ZRP

[1634] D. C. Dyer. Z80 routine performs 16-bit multiply. *EDN*, 28(5):144, March 1983. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Ercegovac:1983:HRD

[1635] Miloš D. Ercegovac. A higher-radix division with simple selection of quotient digits. In IEEE SCA6 '83 [7740], pages 94–98. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Ercegovac.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Ferguson:1983:DTE

[1636] Joel Ferguson and John Paul Shen. The design of two easily-testable VLSI array multipliers. In IEEE SCA6 '83 [7740], pages 2–9. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95

1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Ferguson_Shen.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Fraenkel:1983:SN

[1637] A. S. Fraenkel. Systems of numeration. In IEEE SCA6 '83 [7740], pages 37–42. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Fraenkel.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Gaitanis:1983:NPC

[1638] N. Gaitanis and C. Halatsis. Near-perfect codes for binary-coded radix-r arithmetic units. *IEEE Transactions on Computers*, C-32(5):494–497, May 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676261`.

Galand:1983:FD

[1639] C. Galand. Fast division. *IBM Technical Disclosure Bulletin*, 26(3B): 1537–1539, August 1983. CODEN IBMTAA. ISSN 0018-8689.

Gavrielov:1983:CSF

[1640] M. Gavrielov, A. Kaminker, and Y.-T. Sidi. Coprocessors speed floating point calculations. *Computer Design*, 22(11):197–204, October 1983. CODEN CMPDAM. ISSN 0010-4566.

Gnanasekaran:1983:BSI

[1641] R. Gnanasekaran. On a bit-serial input and bit-serial output multiplier. *IEEE Transactions on Computers*, C-32(9):878–880, September 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676341`.

Gosling:1983:STF

[1642] J. B. Gosling. Some tricks of the (floating-point) trade. In IEEE SCA6 '83 [7740], pages 218–220. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Gosling.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Grappel:1983:FPP

[1643] R. D. Grappel. Floating-point-processing unit improves 16-bit-μP performance. *EDN*, 28(19):181–188, September 1983. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Grnarov:1983:LMN

[1644] A. L. Grnarov and M. D. Ercegovac. On-line multiplicative normalization. In IEEE SCA6 '83 [7740], pages 151–155. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Grnarov_Ercegovac.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Guibas:1983:FBA

[1645] L. Guibas and J. E. Vuillemin. On fast binary addition in MOS technologies. In IEEE SCA6 '83 [7740], pages 22–23. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Guibas_Vuillemin.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Halatsis:1983:ECC

[1646] C. Halatsis, N. Gaitanis, and M. Sigala. Error-correcting codes in binary-coded radix-r arithmetic. *IEEE Transactions on Computers*, C-32(3): 326–328, March 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676227`.

Hamada:1983:UUR

[1647] H. Hamada. URR: Universal representation of real numbers. *New Generation Computing*, 1(2):205–209, June 1983. CODEN NGCOE5. ISSN 0288-3635 (print), 1882-7055 (electronic).

Heninger:1983:ZZF

[1648] A. Heninger. Zilog's Z8070 floating point processor. In Mini-Micro Northeast '83 [7742], pages 16/2/1–7.

HP:1983:CDR

[1649] Hewlett Packard. Chapter 13: Data representations. In *Software Internal Design Specification for the HP-71, Vol. 1*, pages 13.1–13.17. Hewlett

Packard Company, Palo Alto, CA, USA, December 1983. URL http://www.hpmuseum.org/. Part #00071-90068. Manual available from *The Museum of HP Calculators*.

Huang:1983:FPM

[1650] C. H. Huang. A fully parallel mixed-radix conversion algorithm for residue number applications. *IEEE Transactions on Computers*, C-32(4):398–402, April 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=12; http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35226; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676242.

Huntsman:1983:MFP

[1651] Clayton Huntsman and Duane Cawthron. The MC68881 floating-point coprocessor. *IEEE Micro*, 3(6):44–54, November/December 1983. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Iffrig:1983:ULC

[1652] L. D. Iffrig. Use less code for fast 8080 multiply. *EDN*, 28(13):293, June 1983. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Ingram:1983:ACW

[1653] Windell F. Ingram, N. (Narayanswamy) Radhakrishnan, and Deborah F. Dent. Accuracy considerations when using some minicomputers for scientific and engineering problems. Technical report, U.S. Army Engineer Waterways Experiment Station; available from National Technical Information Service, Vicksburg, MS, USA, 1983. 76 + 6 + 3 pp.

Intel:1983:HRM

[1654] Intel. *The iAPX 286 Hardware Reference Manual*. Intel Corporation, Santa Clara, CA, USA, 1983. LCCN QA76.8.I264 I14 1983. The definitive statement of the 80286 and 80287 hardware at a strongly technical level. Not an instruction set reference, but does contain instruction timing tables. See also [1905].

Irwin:1983:NLD

[1655] Mary Jane Irwin and Robert Michael Owens. Numerical limitation on the design of digit on-line networks. In IEEE SCA6 '83 [7740], pages 156–161. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9

C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Owens_Irwin.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

James:1983:RDB

[1656] F. V. James. An 8085 routine divides 32-bit unsigned numbers. *Electronics*, 56(22):163–165, November 1983. ISSN 0883-4989.

Jankowski:1983:NFS

[1657] M. Jankowski, A. Smoktunowicz, and H. Woźniakowski. A note on floating-point summation of very many terms. *Elektron. Informationsverarb. Kybernet.*, 19(9):435–440, 1983.

Jenkins:1983:DEC

[1658] W. K. Jenkins. The design of error checkers for self-checking residue number arithmetic. *IEEE Transactions on Computers*, C-32(4):388–396, April 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=12`; `http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35226`; `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676240`.

Johnsen:1983:IFP

[1659] K. Johnsen. An IEEE floating point arithmetic implementation. In IEEE SCA6 '83 [7740], pages 130–135. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Johnsen.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Jung:1983:BRR

[1660] C. Jung. Berechnung der reellen und reellintervallwertigen Standardfunktionen mit maximaler Genauigkeit in einem hexadezimalen Gleitkommaformat [*English:* Computation of the Real and Real Interval Valued Standard Functions with Maximal Accuracy in a Hexadecimal Floating-Point Format]. Diplomarbeit, Institut für Angewandte Mathematik, Universität Karlsruhe, Karlsruhe, Germany, September 1983. ?? pp.

Kahan:1983:M

[1661] W. Kahan. Minimizing $q{*}m - n$. Technical report, Department of Mathematics and Department of Electrical Engineering and Computer

Science, University of California, Berkeley, Berkeley, CA, USA, March 1983. URL `http://www.cs.berkeley.edu/~wkahan/testpi/nearpi.c`.

Kahan:1983:MWS

[1662] W. Kahan. Mathematics written in sand — the HP-15C, Intel 8087, etc. In Anonymous [7736], pages 12–26. ISBN ???? ISSN 0149-9963. LCCN QA276.4 .A43a. URL `http://www.cs.berkeley.edu/~wkahan/MathSand.pdf`.

Kanada:1983:CDP

[1663] Y. Kanada, Y. Tamura, S. Yoshino, and Y. Ushiro. Calculation of π to 10,013,395 decimal places based on the Gauss–Legendre algorithm and Gauss arctangent relation. Technical report CCUT-TR-84-01, Computer Centre, University of Tokyo, Bunkyo-ky, Yayoi 2-11-16, Tokyo 113, Japan, December 1983.

Kaushik:1983:SDN

[1664] S. Kaushik. Sign detection in non-redundant residue number system with reduced information. In IEEE SCA6 '83 [7740], pages 24–28. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Kaushik.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Kirk:1983:MFP

[1665] Patrick Donald Kirk. Microcomputer and floating point firmware design. Thesis (M.S.), California State University, Long Beach, Long Beach, CA, USA, 1983. 2 + xi + 237 pp.

Kobayashi:1983:AHS

[1666] Hideaki Kobayashi and Ronald D. Bonnell. Arithmetic for a high-speed adaptive learning network element. In IEEE SCA6 '83 [7740], pages 164–168. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Kobayashi_Bonnel.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Kornerup:1983:FPR

[1667] Peter Kornerup and David W. Matula. Finite precision rational arithmetic: An arithmetic unit. *IEEE Transactions on Computers*, C-32(4):378–388, April 1983. CODEN ITCOB4. ISSN 0018-9340 (print),

1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676239.

Krishnamurthy:1983:FID

[1668] E. V. Krishnamurthy and V. K. Murthy. Fast iterative division of p-adic numbers. *IEEE Transactions on Computers*, C-32(4):396–398, April 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676241.

Lastman:1983:DFP

[1669] G. J. Lastman. Determination of floating point characteristics for a personal computer. In IEEE '83 [7738], pages 424–427. LCCN TK 5 I6514 1983. Two volumes.

Linnainmaa:1983:ELE

[1670] Seppo Linnainmaa. Error linearization as an effective tool for experimental analysis of the numerical stability of algorithms. *BIT (Nordisk tidskrift for informationsbehandling)*, 23(3):346–359, September 1983. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=23&issue=3&spage=346.

Lozier:1983:UFP

[1671] Daniel W. Lozier. The use of floating-point and interval arithmetic in the computation of error bounds. *IEEE Transactions on Computers*, C-32(4):411–417, April 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676245.

Majerski:1983:SRA

[1672] Stanislaw Majerski. Square-root algorithms for high-speed digital circuits. In IEEE SCA6 '83 [7740], pages 99–102. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Majerski.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Maric:1983:PBC

[1673] I. Maric and L. Cucancic. On the possibilities of the BCD code application in the floating-point arithmetic algorithms. *International*

Journal of Mini and Microcomputers, 5(2):19–22, ???? 1983. CODEN IJMMDE. ISSN 0702-0481.

Markov:1983:NAF

[1674] Svetoslav Markov. On the numerical algorithms formulated in computer arithmetic. In IEEE SCA6 '83 [7740], pages 82–85. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Markov.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Martin:1983:FPS

[1675] G. R. Martin. Floating point support for the NS16000 family – the NS16081. In Mini-Micro West '83 [7743], pages 16/3/1–3. LCCN TK7885.A1 M56 1983.

Matula:1983:OPF

[1676] David W. Matula and Peter Kornerup. An order preserving finite binary encoding of the rationals. In IEEE SCA6 '83 [7740], pages 201–209. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Matula_Kornerup.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

McCool:1983:NDC

[1677] Thomas E. McCool. 4. NSA's Defense Calculator, 1952–1953. *Annals of the History of Computing*, 5(2):186–187, April/June 1983. CODEN AHCOE5. ISSN 0164-1239. URL `http://dlib.computer.org/an/books/an1983/pdf/a2186.pdf`; `http://www.computer.org/annals/an1983/a2186abs.htm`.

McGuire:1983:PCB

[1678] D. W. McGuire. 8048 program computes 16-by-8-bit quotient. *Electronics*, 56(10):152–153, May 1983. ISSN 0883-4989.

Midttun:1983:FMP

[1679] G. Midttun. A fast micro-programmable floating point processor. Technical report CERN DD 83-16, CERT, Geneva, Switzerland, September 1983. 31 pp. URL `http://weblib.cern.ch/format/showfull?uid=1451323_18194&base=CERCER&sysnb=0058382`.

Mikov:1983:PAFa

[1680] A. I. Mikov. Probabilistic analysis of floating-point addition (Russian). *Kibernetika (Kiev)*, 3:87–93, 1983. English translation in [1681].

Mikov:1983:PAFb

[1681] A. I. Mikov. Probabilistic analysis of floating-point addition. *Cybernetics*, 19(3):401–410, May 1983. CODEN CYBNAW. ISSN 0011-4235 (print), 2375-0189 (electronic). URL http://link.springer.com/article/10.1007/BF01072156. Translated from [1680].

Miller:1983:RNS

[1682] D. D. Miller and J. N. Polky. A residue number system implementation of the LMS algorithm using optical waveguide circuits. *IEEE Transactions on Computers*, C-32(11):1013–1028, November 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=12; http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35222; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676152.

Miola:1983:UVA

[1683] A. Miola. A unified view of approximate rational arithmetic and rational interpolation. In IEEE SCA6 '83 [7740], pages 210–215. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Miola.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Moler:1983:RSR

[1684] Cleve B. Moler and Donald Morrison. Replacing square roots by Pythagorean sums. *IBM Journal of Research and Development*, 27(6):577–581, November 1983. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/276/ibmrd2706P.pdf. See [1633] and generalization [2444].

Moran:1983:BRB

[1685] Bruce T. Moran. Book review: *Wissenschaftsgeschichte um Wilhelm Schickard: Vorträge bei dem Symposion der Universitat Tübingen im 500 Jahr ihres Bestehens am 24. und 25. Juni 1977* by Friedrich Seck. *Isis*, 74(3):448–449, September 1983. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL http://www.jstor.org/stable/232640.

Morrison:1983:EHL

[1686] R. Morrison, A. J. Cole, P. J. Bailey, M. A. Wolfe, and M. Shearer. Experience with a high level language that supports interval arithmetic. In IEEE SCA6 '83 [7740], pages 74–78. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Morrison_Cole_Bailey_Wolfe_Shearer.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Murugesan:1983:ACF

[1687] S. Murugesan and V. K. Agrawal. Algorithm converts fractions to BCD. *EDN*, 28(19):245–246, September 1983. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Nagpal:1983:PAT

[1688] H. K. Nagpal, G. A. Jullien, and W. C. Miller. Processor architectures for two-dimensional convolvers using a single multiplexed computational element with finite field arithmetic. *IEEE Transactions on Computers*, C-32(11):989–1001, November 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676150.

Nave:1983:ITF

[1689] R. Nave. Implementation of transcendental functions on a numerics processor. *Microprocessing and Microprogramming*, 11(3–4):221–225, March–April 1983. CODEN MMICDT. ISSN 0165-6074 (print), 1878-7061 (electronic). URL https://ieeemilestones.ethw.org/w/images/8/8b/Nave_implenent_transcendental_algos_1983.pdf; https://www.sciencedirect.com/science/article/pii/0165607483901515.

Ni:1983:VRM

[1690] Lionel M. Ni and Kai Hwang. Vector reduction methods for arithmetic pipelines. In IEEE SCA6 '83 [7740], pages 144–150. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Ni_Hwang.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Ohlsson:1983:MML

[1691] Lennart Ohlsson and Bertil Svensson. Matrix multiplication on LUCAS. In IEEE SCA6 '83 [7740], pages 116–122. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Ohlsson_Svensson.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Ong:1983:CAS

[1692] Shauchi Ong and D. E. Atkins. A comparison of ALU structures for VLSI technology. In IEEE SCA6 '83 [7740], pages 10–16. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Ong_Atkins.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Owens:1983:TRI

[1693] R. M. Owens. Techniques to reduce the inherent limitations of fully digit on-line arithmetic. *IEEE Transactions on Computers*, C-32(4):406–411, April 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676244.

Ozawa:1983:AIK

[1694] K. Ozawa. Analysis and improvement of Kahan's summation algorithm. *Journal of Information Processing (of Japan??)*, 6(4):226–230, 1983.

Palmer:1983:VSN

[1695] J. F. Palmer. VLSI starts a numeric revolution. In IEEE CSO '83 [7739], pages 186–189. ISBN 0-8186-0010-1. LCCN QA 76.9 A73 I2 1983.

Pan:1983:ALC

[1696] V. Ya Pan. The additive and logical complexities of linear and bilinear arithmetic algorithms. *Journal of Algorithms*, 4(1):1–34, March 1983. CODEN JOALDV. ISSN 0196-6774 (print), 1090-2678 (electronic). URL http://www.sciencedirect.com/science/article/pii/0196677483900317.

Patel:1983:CED

[1697] J. H. Patel and L. Y. Fung. Concurrent error detection in multiply and divide arrays. *IEEE Transactions on Computers*, C-32(4):417–

422, April 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676246.

Payne:1983:DRT

[1698] M. H. Payne and R. N. Hanek. Degree reduction for trigonometric functions. *ACM SIGNUM Newsletter*, 18(2):18–19, April 1983. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Payne:1983:RRT

[1699] M. H. Payne and R. N. Hanek. Radian reduction for trigonometric functions. *ACM SIGNUM Newsletter*, 18(1):19–24, January 1983. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Preparata:1983:MCA

[1700] F. P. Preparata. A mesh-connected area-time optimal VLSI multiplier of large integers. *IEEE Transactions on Computers*, C-32(2):194–198, February 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676203.

Prosser:1983:NCS

[1701] C. J. Prosser. A note on computing the square root of an integer. *The Computer Journal*, 26(2):187–188, May 1983. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_26/Issue_02/tiff/187.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_26/Issue_02/tiff/188.tif.

Prosser:1983:SNN

[1702] C. J. Prosser. Short notes: a note on computing the square root of an integer. *The Computer Journal*, 26(2):187–188, May 1983. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/26/2/187.full.pdf+html; http://www3.oup.co.uk/computer_journal/hdb/Volume_26/Issue_02/tiff/187.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_26/Issue_02/tiff/188.tif.

Quinn:1983:EPR

[1703] Kevin Quinn. Ever had problems rounding off figures? This stock exchange has. *Wall Street Journal*, ??(??):37, November 8, 1983. CODEN WSJOAF. ISSN 0099-9660.

Rall:1983:BRB

[1704] L. B. Rall. Book review: *Computer Arithmetic in Theory and Practice* (Ulrich W. Kulisch and Willard L. Miranker). *SIAM Review*, 25(4):585–588, ???? 1983. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Rall:1983:CAT

[1705] L. B. Rall. Computer arithmetic in theory and practice — Kulisch, U. W., Miranker, W. L. *SIAM Review*, 25(4):585–588, ???? 1983. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Ramachandran:1983:SRE

[1706] V. Ramachandran. Single residue error correction in residue number systems. *IEEE Transactions on Computers*, C-32(5):504–507, May 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=12; http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35227; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676264`.

Rao:1983:ICS

[1707] T. R. N. Rao and P. Kornerup. IEEE Computer Society Sixth Symposium on Computer Arithmetic. In IEEE SCA6 '83 [7740], page 1. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Rao_Kornerup.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Robertson:1983:CDM

[1708] James E. Robertson. Conditions for the distributivity of multiplication with respect to set addition and their effect on the design of array multipliers. In IEEE SCA6 '83 [7740], pages 67–71. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Robertson.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Robison:1983:USF

[1709] A. D. Robison. Use squares for fast multiplication. *EDN*, 28(21):263, 267, October 1983. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Rosenblum:1983:IIS

[1710] David Samuel Rosenblum. An implementation of the IEEE standard for binary floating-point arithmetic for the Motorola 6809 microprocessor. Thesis (M.S.), North Texas State University, Denton, TX, USA, August 1983. vi + 83 pp.

Rump:1983:SAP

[1711] Siegfried M. Rump. Solving algebraic problems with high accuracy. In Kulisch et al. [7741], pages 51–120. ISBN 0-12-428660-7, 1-4832-7204-4. LCCN QA297 .N49 1983; QA297 .S847 1982.

Sand:1983:DIP

[1712] J. R. Sand and J. O. Bumgarner. Dysan IEEE P-754 binary floating point architecture. In Ranocchia [7744], pages 185–194. ISBN 0-914593-00-5. LCCN QA76.73.F24 R59 1983.

Sandesara:1983:ZZF

[1713] S. Sandesara. Zilog's Z8070 floating-point processor. In Mini-Micro Northeast '83 [7742], pages 7/4/1–3. LCCN QA 76.5 M565 1983.

Schelin:1983:CFA

[1714] Charles W. Schelin. Calculator function approximation. *American Mathematical Monthly*, 90(5):317–325, May 1983. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `https://www.jstor.org/stable/2975781`.

Scherson:1983:MOA

[1715] Isaac Scherson and Smil Ruhman. Multi-operand associative arithmetic. In IEEE SCA6 '83 [7740], pages 123–129. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Scherson_Ruhman.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Schmid:1983:DC

[1716] Hermann Schmid. *Decimal Computation*. Robert E. Krieger Publishing Company, Huntington, NY, USA, 1983. ISBN 0-89874-318-4. xi + 266 pp. LCCN QA75 .S34 1983. Reprint of [856].

Seidensticker:1983:CFH

[1717] R. B. Seidensticker. Continued fractions for high-speed and high-accuracy computer arithmetic. In IEEE SCA6 '83 [7740], pages 184–

193. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Seidensticker.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Shah:1983:FPP

[1718] Kamalesh Ramanlal Shah. Floating point processor for STOIC instrumentation. Thesis (M.S. in Engineering), University of Texas at Austin, Austin, TX, USA, 1983. xi + 188 pp.

Simington:1983:INP

[1719] R. B. Simington. The Intel 8087 numerics processor extension: this chip lets you perform mathematical operations with 18-decimal digits of accuracy. *Byte Magazine*, 8(4):154–175, April 1983. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic). URL https://ieeemilestones.ethw.org/w/images/8/85/Simington_The_Intel_8087_Numerics_Processor_Extension.pdf. Overview of the 8087 and its close ties to the host 8086 or 8088 CPU.

Smith:1983:FPA

[1720] Burks Smith. Floating point arithmetic and numeric representation in computers [letter] in DDC. *Dr. Dobb's Journal of Software Tools*, 8(2): 55–??, February 1983. CODEN DDJOEB. ISSN 1044-789X.

Soderstrand:1983:IRN

[1721] M. Soderstrand, C. Vernia, and Jui-Hua Chang. An improved residue number system digital-to-analog converter. *IEEE Transactions on Circuits and Systems*, 30(12):903–907, December 1983. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23540.

Spafford:1983:RAP

[1722] Eugene Howard Spafford. A report on the accuracy of PRIME computers' floating point software and hardware and the SWT math library user's guide. GIT-ICS 83/09, School of Information and Computer Science, Georgia Institute of Technology, Atlanta, GA, USA, 1983. v + 57 pp.

Speiser:1983:SFP

[1723] Jeffrey Speiser. Savage floating point benchmark in PASCAL in 16BST. *Dr. Dobb's Journal of Software Tools*, 8(11):112–??, November 1983. CODEN DDJOEB. ISSN 1044-789X.

Springer:1983:FP

[1724] Charles Towne Springer. Floating point. Technical report, Mountain View Pr., Mountain View, CA, USA, 1983. 22 pp.

Swartzlander:1983:SLA

[1725] E. E. Swartzlander, Jr., D. V. Satish Chandra, H. T. Nagle, Jr., and S. A. Starks. Sign/logarithm arithmetic for FFT implementation. *IEEE Transactions on Computers*, C-32(6):526–534, June 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676274. See comments [2019].

Takefuji:1983:FMS

[1726] Yoshiyasu Takefuji, Takakazu Kurokawa, and Hideo Aiso. Fast matrix solver in GF(2). In IEEE SCA6 '83 [7740], pages 138–143. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Takefuji_Kurokawa_Aiso.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Tamura:1983:CDB

[1727] Y. Tamura and Y. Kanada. Calculation of π to 4,194,293 decimals based on the Gauss–Legendre algorithm. Technical report CCUT-TR-83-01, Computer Centre, University of Tokyo, Tokyo, Japan, May 1983.

Taylor:1983:AE

[1728] George S. Taylor. Arithmetic on the ELXSI 6400. In IEEE SCA6 '83 [7740], pages 110–115. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Taylor.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Taylor:1983:OFR

[1729] F. J. Taylor. An overflow-free residue multiplier. *IEEE Transactions on Computers*, C-32(5):501–504, May 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676263.

Thomas:1983:HLM

[1730] James W. Thomas. High-level language management of the IEEE floating-point environment: research project. Thesis (M.S. in Electrical

Engineering), University of California, Berkeley. Dept. of Electrical Engineering and Computer Sciences, Berkeley, CA, USA, 1983. 27 pp.

Tseng:1983:FIP

[1731] Yeong-Jeng Tseng. A floating-point inner product step processor for use in a VLSI systolic array. Thesis (M.S.), Michigan State University, East Lansing, MI 48824, USA, 1983. ix + 63 pp.

Ulman:1983:SDI

[1732] Z. D. Ulman. Sign detection and implicit-explicit conversion of numbers in residue arithmetic. *IEEE Transactions on Computers*, C-32(6):590–594, June 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676282.

Vogt:1983:AFM

[1733] R. Vogt and R. Waser. Arithmetikroutinen für die Meßdatenverarbeitung [*English:* Arithmetic Routines for Measurement Applications]. *Elektronik*, 20:85–92, 1983. CODEN EKRKAR. ISSN 0013-5658.

Volz:1983:CAA

[1734] H. Völz. CORDIC und ähnliche Algorithmen der elementaren Funktionen mit besonderer Eignung für Mikrorechner. (German) [CORDIC and similar algorithms for elementary functions with particular aptitude for microcomputers]. *Nachrichtentechnik Elektronik*, 33(12):506–510, ???? 1983. CODEN NTELAP. ISSN 0323-4657.

Vuillemin:1983:VFM

[1735] Jean E. Vuillemin. A very fast multiplication algorithm VLSI implementation. *Integration, the VLSI journal*, 1(1):30–52, April 1983. CODEN IVJODL. ISSN 0167-9260 (print), 1872-7522 (electronic). URL https://www.sciencedirect.com/science/article/pii/0167926083900056.

Wallis:1983:AFP

[1736] Peter J. L. Wallis. Ada floating-point arithmetic as a basis for portable numerical software. In IEEE SCA6 '83 [7740], pages 79–81. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Wallis.pdf. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Walsh:1983:FGE

[1737] Edmund John Walsh. Floating gatefield effect transistor operating point changes: causes, characterization, and effect on electric field measurement by the device. Thesis (M.S.), Boston University, Boston, MA, USA, 1983. v + 121 pp.

Watanuki:1983:EAC

[1738] Osaaki Watanuki and Miloš D. Ercegovac. Error analysis of certain floating-point on-line algorithms. *IEEE Transactions on Computers*, C-32(4):352–358, April 1983. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676236`.

Williams:1983:BFP

[1739] Bertrand Jeffery Williams. A bit-serial floating point multiply/add architecture for signal processing applications. Electrical engineering thesis (M.S.), Texas A&M University, College Station, TX, USA, 1983. x + 97 pp.

Wingert:1983:ITA

[1740] J. A. Wingert. Improved table-assisted addition and multiplication methods. *IBM Technical Disclosure Bulletin*, 25(9):4742–4743, February 1983. CODEN IBMTAA. ISSN 0018-8689.

Yoshida:1983:FPR

[1741] Kaoru Yoshida. Floating-point recurring rational arithmetic system. In IEEE SCA6 '83 [7740], pages 194–200. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL `http://www.acsel-lab.com/arithmetic/arith6/papers/ARITH6_Yoshida.pdf`. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Ypma:1983:ERE

[1742] T. J. Ypma. The effect of rounding errors on Newtonlike methods. *IMA Journal of Numerical Analysis*, 3(1):109–118, 1983. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).

Abruzzo:1984:ACA

[1743] J. Abruzzo. Applicability of CORDIC algorithm to arithmetic processing. In Kirk [7754], pages 79–86. ISBN 0-8186-0673-8 (paperback), 0-8186-8673-1 (hard), 0-8186-4673-X (microfiche). LCCN TK 7801 A83 1984.

Abuzzo:1984:ACA

[1744] J. Abuzzo. Applicability of CORDIC algorithm to arithmetic processing. In ????, editor, *IEEE Eighteenth Asilomar Conf. on Circuits, Systems and Computers, Pacific Grove, CA, USA, November 5–7, 1984*, page ?? IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1984.

Agrawal:1984:ACB

[1745] V. K. Agrawal and S. Murugesan. Algorithm converts BCD fractions to binary. *EDN*, 29(13):278–280, June 1984. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Alia:1984:VAD

[1746] G. Alia and E. Martinelli. A VLSI algorithm for direct and reverse conversion from weighted binary number system to residue number system. *IEEE Transactions on Circuits and Systems*, 31(12):1033–1039, December 1984. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23552`.

Ancona:1984:PET

[1747] M. Ancona, G. Dodero, and F. Ricci. A portable environment for teaching mathematical software development. In Ford et al. [7749], pages 135–145. ISBN 0-444-87570-0. LCCN Q183.9 .I53 1983. See main entry CR, Rev. 8508–0689.

Anonymous:1984:CPD

[1748] Anonymous. Correction to “A Pipelined Distributed Arithmetic PFFT Processor”. *IEEE Transactions on Computers*, C-33(3):288, March 1984. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676429`. See [1619].

Bell:1984:RMR

[1749] M. Bell, Jr. and W. Jenkins. A residue to mixed radix converter and error checker for a five-moduli residue number system. In *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '84*, volume ??, pages 242–245. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1984. CODEN ???? ISSN ????

Black:1984:NIS

[1750] Cheryl M. Black, Robert P. Burton, and Thomas M. Miller. The need for an industry standard of accuracy for elementary-function programs. *ACM Transactions on Mathematical Software*, 10(4):361–366, December 1984. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Bollen:1984:NSD

[1751] J. A. M. Bollen. Numerical stability of descent methods for solving linear equations. *Numerische Mathematik*, 43(3):361–377, 1984. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Boney:1984:GTD

[1752] J. Boney. Goals and tradeoffs in the design of the MC68881 floating point coprocessor. In AFIPS NCC '84 [7756], pages 107–113. ISBN 0-88283-043-0. LCCN ????

Borwein:1984:AGM

[1753] J. M. Borwein and P. B. Borwein. The arithmetic-geometric mean and fast computation of elementary functions. *SIAM Review*, 26(3):351–366, July 1984. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Braddock:1984:ASP

[1754] M. Braddock and V. Shahan. Amplifying system performance in floating-point intensive applications with the MC68881. In Mini-Micro Southwest '84 [7755], pages 6/2/1–7. LCCN TK 7888.3 M566 1984.

Butterfield:1984:MT

[1755] J. Butterfield. Math and tables. *Compute*, 6(9):134–135, September 1984. CODEN COMPER. ISSN 0194-357X.

Caraiscos:1984:REA

[1756] C. Caraiscos and Bede Liu. A roundoff error analysis of the LMS adaptive algorithm. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 32(1):34–41, February 1984. CODEN IETABA. ISSN 0096-3518.

Cavanagh:1984:DCA

[1757] Joseph J. F. Cavanagh. *Digital Computer Arithmetic: Design and Implementation*. Wiley, New York, NY, USA, 1984. ISBN 0-07-010282-1. xi + 468 pp. LCCN QA76.9.C62 C38 1984. US$21.95.

Cheng:1984:FPC

[1758] Doreen Y. Cheng. A floating point coprocessor for the Butterfly multiprocessor system: research project. Thesis (M.S. in Electrical Engineering), University of California, Berkeley. Dept. of Electrical Engineering and Computer Sciences, Berkeley, CA, USA, May 1984. 51 + 38 pp.

Clarke:1984:AAR

[1759] M. R. Clarke. An analytical approach to rounding. *Journal of Applied Statistics*, 11(1):12–20, 1984. CODEN ???? ISSN 0266-4763 (print), 1360-0532 (electronic).

Clenshaw:1984:BFP

[1760] C. W. Clenshaw and F. W. J. Olver. Beyond floating point. *Journal of the Association for Computing Machinery*, 31(2):319–328, April 1984. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Cody:1984:PRW

[1761] William J. Cody, Jr., Jerome T. Coonen, David M. Gay, K. Hanson, David Hough, W. Kahan, R. Karpinski, John F. Palmer, F. N. Ris, and D. Stevenson. A proposed radix- and word-length-independent standard for floating-point arithmetic. *IEEE Micro*, 4(4):86–100, July/August 1984. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Coonen:1984:CPS

[1762] Jerome Toby Coonen. *Contributions to a Proposed Standard for Binary Floating-Point Arithmetic*. Thesis (Ph.D. in mathematics), Department of Mathematics, University of California at Berkeley, Berkeley, CA, USA, December 18, 1984. 320 pp. URL `https://www.proquest.com/pqdtglobal/docview/303300605`.

Corliss:1984:AGT

[1763] George F. Corliss and Louis B. Rall. Automatic generation of Taylor series in Pascal-SC: Basic operations and applications to differential equations. In Anonymous [7745], pages 177–209. ISBN ???? LCCN ????

Cowlishaw:1984:DRL

[1764] M. F. Cowlishaw. The design of the REXX language. *IBM Systems Journal*, 23(4):326–335, 1984. CODEN IBMSA7. ISSN 0018-8670. First published as IBM Hursley Technical Report TR12.223, October 1983.

Demmel:1984:URN

[1765] James Demmel. Underflow and the reliability of numerical software. *SIAM Journal on Scientific and Statistical Computing*, 5(4):887–919, December 1984. CODEN SIJCD4. ISSN 0196-5204.

Demsky:1984:MMC

[1766] J. Demsky, M. Schlesinger, and R. D. Kent. Micro/mini computer program for calculating the square root of rationals at arbitrary precision. *Computer Physics Communications*, 35(1–3):C–877, ???? 1984. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465584829811`.

Dietrich:1984:FPR

[1767] D. Dietrich and R. Fischer. Floating-Point-Routinen, entwickelt für Mikrorechner [*English:* Floating-point Routines Developed for Microcomputers]. *Elektroniker (Switzerland)*, 8:49–54, 1984. CODEN ELKRBL. ISSN 0531-9218.

Duncan:1984:FSF

[1768] Ray Duncan and Martin Tracy. The FVG standard floating-point extension. *Dr. Dobb's Journal of Software Tools*, 9(9):110–??, September 1984. CODEN DDJOEB. ISSN 1044-789X.

Dunford:1984:SFPa

[1769] Christopher J. Dunford. Savage floating-point benchmark in 8088/8087 assembly language in 16BST. *Dr. Dobb's Journal of Software Tools*, 9 (7):116–??, July 1984. CODEN DDJOEB. ISSN 1044-789X.

Dunford:1984:SFPb

[1770] Christopher J. Dunford. Savage floating-point benchmark in Modula-2 in 16BST. *Dr. Dobb's Journal of Software Tools*, 9(8):106–??, August 1984. CODEN DDJOEB. ISSN 1044-789X.

Ercegovac:1984:LAO

[1771] Miloš D. Ercegovac. On-line arithmetic: An overview. *SPIE Proceedings*, 495:86–93, 1984. Real Time Signal Processing VII.

Ferguson:1984:SFP

[1772] Kenneth M. Ferguson. Savage floating-point benchmark deficiencies of in 16BST. *Dr. Dobb's Journal of Software Tools*, 9(8):107–??, August 1984. CODEN DDJOEB. ISSN 1044-789X.

Fisher:1984:UAP

[1773] Gerry Fisher. Universal arithmetic packages. *ACM SIGADA Ada Letters*, 3(6):30–47, May/June 1984. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic). See erratum [6207].

Gautschi:1984:QNC

[1774] Walter Gautschi. Questions of numerical condition related to polynomials. In Golub [7750], pages 140–177. ISBN 0-88385-126-1 (v. 1), 0-88385-100-8 (set). LCCN QA297 .S83 1984.

Gleditsch:1984:FTR

[1775] Torstein Gleditsch. *Forslag til rask prosessor for flerformat floating-point aritmetikk. (Norwegian) [Proposal for a fast processor for multiformat floating-point arithmetic]*. Hovedoppgave i informatikk (cand.scient), Universitetet i Oslo, Oslo, Norway, 1984.

Goldberg:1984:LVS

[1776] Morton Goldberg. LISP version of the Savage floating point benchmark in 16BST. *Dr. Dobb's Journal of Software Tools*, 9(6):82–??, June 1984. CODEN DDJOEB. ISSN 1044-789X.

Gregory:1984:MAE

[1777] Robert Todd Gregory and E. V. Krishnamurthy. *Methods and Applications of Error-Free Computation*. Texts and monographs in computer science. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1984. ISBN 0-387-90967-2. xii + 194 pp. LCCN QA297.5 .G735 1984.

Guest:1984:RNS

[1778] C. C. Guest, M. M. Mirsalehi, and T. K. Gaylord. Residue number system truth-table look-up processing — moduli selection and logical minimization. *IEEE Transactions on Computers*, C-33(10):927–931, October 1984. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=12; http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35232; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676355`.

Hamacher:1984:CO

[1779] V. Carl Hamacher, Zvonko G. Vranesic, and Safwat G. Zaky. *Computer organization*. McGraw-Hill series in computer organization and architecture. McGraw-Hill, New York, NY, USA, second edition, 1984.

ISBN 0-07-025683-7. xvi + 590 pp. LCCN QA76.9.A73 H351 1984. US$34.95.

Honma:1984:IAE

[1780] Hitoshi Honma and Masahiko Sagawa. Improving the accuracy and error analysis in floating-point FFT computation. *Electronics and communications in Japan*, 67(11):9–18, 1984. CODEN ECOJAL. ISSN 0424-8368.

IBM:1984:ISR

[1781] IBM Corporation. IBM System/370 RPQ. high accuracy arithmetic. Technical report SA22-7093-0, IBM Corporation, San Jose, CA, USA, January 1984. URL `http://bitsavers.trailing-edge.com/pdf/ibm/370/princOps/SA22-7093-0_High_Accuracy_Arithmetic_Jan84.pdf`.

ISO:1984:IID

[1782] International Organization for Standardization. *ISO/IEC DIS 10858: Information technology — Radix-independent floating-point arithmetic*. International Organization for Standardization, Geneva, Switzerland, 1984. ISBN ???? ???? pp. LCCN ???? URL `http://www.iso.ch/cate/d18890.html`.

Jones:1984:SRM

[1783] Christopher B. Jones. A significance rule for multiple-precision arithmetic. *ACM Transactions on Mathematical Software*, 10(1):97–107, March 1984. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Karp:1984:ELS

[1784] A. H. Karp. Exponential and logarithm by sequential squaring. *IEEE Transactions on Computers*, C-33(5):462–464, May 1984. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Katzan:1984:IA

[1785] Harry Katzan. *Invitation to Ada*. Petrocelli invitation to series. PBI, New York, NY, USA, 1984. ISBN 0-89433-239-2 (paperback). x + 173 pp. LCCN QA76.73.A35 K36 1984. US$14.95.

Kawabata:1984:SFP

[1786] Hugh M. Kawabata. Savage floating point benchmark in Fortran in 16BST. *Dr. Dobb's Journal of Software Tools*, 9(1):83–??, January 1984. CODEN DDJOEB. ISSN 1044-789X.

Koopman:1984:FFP

[1787] Philip J. Koopman. *FORTH floating point*. MVP-FORTH series; v. 3. Mountain View Pr., Mountain View, CA, USA, second edition, 1984. 346 pp.

Korn:1984:ISD

[1788] G. A. Korn. Interactive simulation with a direct-executing, floating-point equation language. *Systems analysis, modelling, simulation*, 1(1):45–54, 1984. CODEN SAMSEC. ISSN 0232-9298.

Kornerup:1984:CFP

[1789] Peter Kornerup and David W. Matula. Correction to "Finite Precision Rational Arithmetic: An Arithmetic Unit". *IEEE Transactions on Computers*, C-33(7):682, July 1984. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009346`.

Lin:1984:DSD

[1790] Ming-Liang Lin, Ernst Leiss, and Bayliss McInnis. Division and sign detection algorithms for residue number systems. *Computers and Mathematics with Applications*, 10(4–5):331–342, ???? 1984. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0898122184900610`.

Ling:1984:NAS

[1791] Fuyun Ling and J. Proakis. Numerical accuracy and stability: Two problems of adaptive estimation algorithms caused by round-off error. In *IEEE International Conference on Acoustics, Speech, and Signal Processing: ICASSP '84*, pages 571–574. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1984. CODEN ???? ISSN ????

Longo:1984:CFU

[1792] S. A. Longo. Calculating functions using Ada. *Journal of Pascal and Ada*, 3(4):34–36, July–August 1984. ISSN 0735-1232.

Look:1984:CSH

[1793] H. W. Look. Compatible software and hardware implementations permitted by IEEE standards for binary floating-point arithmetic. In AFIPS NCC '84 [7756], pages 101–105. ISBN 0-88283-043-0. LCCN ????

Lorenz:1984:MIL

[1794] E. Lorenz and R. Sandau. Möglichkeiten der Implementierung leistungsfähiger Multiplikationsprogramme in Mikrorechnersystemen [*English:* Possibilities of the Implementation of Efficient Multiplication Instructions in Microcomputer Systems]. *Nachrichtentechnik Elektronik*, 34(8):288–290, ???? 1984. CODEN NTELAP. ISSN 0323-4657.

Mackin:1984:FFG

[1795] Michael A. Mackin and James F. Soeder. Floating-point function generation routines for 16-bit microcomputers. Technical report, National Aeronautics and Space Administration, Washington DC, USA, 1984. ???? pp.

Mactaggart:1984:SCR

[1796] I. Ross Mactaggart and Mervyn A. Jack. A single chip radix-2 FFT butterfly architecture using parallel data distributed arithmetic. *IEEE Journal of Solid-State Circuits*, SC-19(3):368–373, June 1984. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Mansfield:1984:CAC

[1797] Richard Mansfield. A complete axiomatization of computer arithmetic. *Mathematics of Computation*, 42(166):623–635, April 1984. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Miller:1984:ILA

[1798] D. Miller and J. Polky. An implementation of the LMS algorithm in the residue number system. *IEEE Transactions on Circuits and Systems*, 31(5):452–461, May 1984. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23556`.

Moran:1984:SST

[1799] Thomas W. Moran. Some spreadsheet tests of the Savage floating-point benchmark in 16BST. *Dr. Dobb's Journal of Software Tools*, 9(8):106–??, August 1984. CODEN DDJOEB. ISSN 1044-789X.

Munzel:1984:RAE

[1800] Georg Münzel. Residue arithmetic for exact calculations on the DAP. In *Parallel computing 83 (Berlin, 1983)*, pages 199–204. North-Holland, Amsterdam, The Netherlands, 1984.

Murray:1984:SFA

[1801] J. T. Murray. Sin/cos functions via approximations plus error compensation. *IBM Technical Disclosure Bulletin*, 26(10A):4967–4968, March 1984. CODEN IBMTAA. ISSN 0018-8689.

Naseem:1984:IPC

[1802] Asif Naseem. *Implementation of Parallel Computational Algorithms on a Modified CORDIC Arithmetic Logic Unit*. Ph.D. thesis, Michigan State University, East Lansing, MI, USA, 1984. 137 pp. URL https://login.ezproxy.lib.utah.edu/login?url=https://www.proquest.com/dissertations-theses/implementation-parallel-computational-algorithms/docview/303294026/se-2.

OliverWhiteheadQuintet:1984:FN

[1803] Oliver Whitehead Quintet. Free for now, 1984. 1 sound disc.

Palmer:1984:FBU

[1804] John Palmer, Bruce Ravenel, and Rafi Nave. Fraction bus for use in a numeric data processor. US Patent 4,484,259., November 10, 1984. URL https://ieeemilestones.ethw.org/w/images/3/3d/Patent_8087_fraction_bus.pdf. Filed 22 January, 1982. This patent discusses the 67-bit data path in the 8087, supporting both the use of three extra bits — Guard, Round, and Sticky — in computing 64-bit results and the use of full 67-bit chopped arithmetic in the computation of the transcendental functions.

Palmer:1984:P

[1805] John F. Palmer and Stephen P. Morse. *The 8087 Primer*. Wiley, New York, NY, USA, 1984. ISBN 0-471-87569-4. viii + 182 pp. LCCN QA76.8.I2923 P34 1984. URL https://ieeemilestones.ethw.org/w/images/d/d2/Palmer_Morse_Elementary_Functions_Chapter.pdf. Excellent coverage of the 8087 numeric coprocessor by the chief architects of the Intel 8087 (Palmer) and 8086 (Morse). Contains many candid statements about design decisions in these processors. A must for serious assembly language coding of the 8087 and 80287 chips. See also [1905].

Parker:1984:CCS

[1806] J. R. Parker. On converting character strings to integers. *Information Processing Letters*, 19(1):17–19, July 26, 1984. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic). URL http://www.sciencedirect.com/science/article/pii/0020019084901224.

Pei:1984:CAD

[1807] Soo-Chang Pei and Kuo-Chih Ho. Comments on "Adaptive digital control implemented using residue number systems". *IEEE Transactions on Automatic Control*, 29(9):863, September 1984. CODEN IETAA9. ISSN 0018-9286 (print), 1558-2523 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=24217`. See [1581].

Pfenninger:1984:DES

[1808] E. Pfenninger. Divisionsalgorithmus – einfach und schnell [*English:* Division Algorithms – Simple and Fast]. *Elektroniker (Switzerland)*, 15: 62–64, 1984. CODEN ELKRBL. ISSN 0531-9218.

Pountain:1984:PM

[1809] D. Pountain. PROLOG on microcomputers. *Byte Magazine*, 9(13):355–62, December 1984. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Prince:1984:SFP

[1810] Thomas Prince. Savage floating point benchmark in logo in 16BST. *Dr. Dobb's Journal of Software Tools*, 9(6):82–??, June 1984. CODEN DDJOEB. ISSN 1044-789X.

Rauchwerk:1984:MBF

[1811] M. D. Rauchwerk. A microprocessor-based fast floating point library. In IEEE Southeastcon '84 [7752], pages 488–490. LCCN TK 7801 I117 1984.

Regener:1984:MID

[1812] Eric Regener. Multiprecision integer division examples using arbitrary radix. *ACM Transactions on Mathematical Software*, 10(3):325–328, September 1984. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See also [3292].

Schryer:1984:DCF

[1813] N. L. Schryer. Determination of correct floating-point model parameters. In Cowell [7746], pages 360–366. ISBN 0-13-823501-5. LCCN QA76.95 .S68 1984.

Shahan:1984:MIF

[1814] V. Shahan. The MC68881: The IEEE floating point standard reduced to one VLSI chip. In IEEE [7753], pages 172–176. CODEN PCICDQ. ISBN

0-8186-0525-1 (paperback), 0-8186-8525-5 (hardcover). LCCN QA75.5 .C58 1984, TK7885.A1 C53 1984. IEEE catalog no. 84CH2017-2.

Shen:1984:DET

[1815] J. P. Shen and F. J. Ferguson. The design of easily testable VLSI array multipliers. *IEEE Transactions on Computers*, C-33(6):554–560, June 1984. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676480`.

Shively:1984:CTG

[1816] R. R. Shively, W. V. Robinson, and D. E. Orton. Cascading transmission gates to enhance multiplier performance. *IEEE Transactions on Computers*, C-33(7):677–679, July 1984. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009343`.

Sips:1984:BSA

[1817] Henk J. Sips. Bit-sequential arithmetic for parallel processors. *IEEE Transactions on Computers*, C-33(1):7–20, January 1984. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009311`.

Smoktunowicz:1984:BCI

[1818] Alicja Smoktunowicz and Jolanta Sokolnicka. Binary cascades iterative refinement in doubled-mantissa arithmetics. *BIT (Nordisk tidskrift for informationsbehandling)*, 24(1):123–127, March 1984. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=24&issue=1&spage=123`.

Soderstrand:1984:AQL

[1819] M. Soderstrand and G. Poe. Application of quadratic-like complex residue number system arithmetic to ultrasonics. In *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '84*, pages 484–487. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1984. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Soderstrand:1984:PRR

[1820] M. Soderstrand and B. Sinha. A pipelined recursive residue number system digital filter. *IEEE Transactions on Circuits and Systems*, 31 (4):415–417, April 1984. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23555.

Steele:1984:CLL

[1821] Guy L. Steele. *COMMON LISP: the language*. Digital Press, 12 Crosby Drive, Bedford, MA 01730, USA, 1984. ISBN 0-932376-41-X (paperback). xii + 465 pp. LCCN QA76.73.L23S73 1984. With contributions by Scott E. Fahlman and Richard P. Gabriel and David A. Moon and Daniel L. Weinreb.

Stetter:1984:SDC

[1822] Hans J. Stetter. Sequential defect correction for high-accuracy floating-point algorithms. In Griffiths [7751], pages 186–202. CODEN LNMAA2. ISBN 3-540-13344-5 (print), 3-540-38881-8 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). LCCN QA3.L28 no.1066, QA 297 D915n 1983. URL http://link.springer.com/chapter/10.1007/BFb0099525/.

Stewart:1984:PWG

[1823] R. G. Stewart. P854 working group completes radix-independent floating-point draft. *IEEE Micro*, 4(1):82–83, January/February 1984. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Takla:1984:MBF

[1824] N. Takla and M. Hecker. A monolithic 64 bit floating-point coprocessor. *IEEE Journal of Solid-State Circuits*, SC-19(4):538–539, August 1984. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Taylor:1984:BFP

[1825] F. Taylor. Block floating-point distributed filters. *IEEE Transactions on Circuits and Systems*, 31(3):300–304, March 1984. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Taylor:1984:RAT

[1826] Fred J. Taylor. Residue arithmetic: a tutorial with examples. *Computer*, 17(5):50–62, May 1984. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Teufel:1984:HAO

[1827] Thomas Teufel. A hardware architecture of an optimal BCD-floating-point processor. In Feilmeier et al. [7748], pages 553–560. ISBN 0-444-87528-X. LCCN QA76.6.I547 1983.

Teufel:1984:OG

[1828] T. Teufel. *Ein optimaler Gleitkommaprozessor [English: An Optimal Floating-Point Processor]*. Dissertation, Universität Karlsruhe, Karlsruhe, Germany, 1984. ?? pp.

Tricker:1984:ERM

[1829] A. R. Tricker. Effects of rounding on the moments of a probability distribution. *Journal of the Royal Statistical Society. Series D (The Statistician)*, 33(4):381–390, December 1984. CODEN ???? ISSN 0039-0526 (print), 1467-9884 (electronic). URL http://www.jstor.org/stable/2987741.

Trivedi:1984:DVF

[1830] Mrugesh Popatlal Trivedi. Dianostics of VLSI floating-point processors. Thesis (M.S.), The University of Tennessee, Knoxville, Knoxville, TN, USA, 1984. viii + 98 pp.

Truong:1984:FPP

[1831] Hung Si Truong. A floating point processor. Project (M.S., Electrical and Electronic Engineering), California State University, Sacramento, CA, USA, 1984. viii + 81 pp. Charles Lytle, Chairperson.

Uya:1984:CFP

[1832] M. Uya, K. Kaneko, and J. Yasui. A CMOS floating point multiplier. *IEEE Journal of Solid-State Circuits*, 19(5):697–702, October 1984. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

vonGudenberg:1984:BMG

[1833] J. Wolff von Gudenberg. Berechnung maximal genauer Standardfunktionen mit einfacher Mantissenlänge [*English:* Computation of Maximally Accurate Elementary Functions Using Simple Mantissa Length]. *Elektronische Rechenanlagen*, 26(5):230–238, October 1984. CODEN ELRAA4. ISSN 0013-5720.

Ware:1984:CMC

[1834] F. Ware and W. McAllister. C-MOS chip set streamlines floating-point processing. In Evanczuk [7747], pages 374–377. ISBN 0-07-019756-3, 0-07-606876-5 (paperback). LCCN QA76.5 .M521955 1984.

Wehmeyer:1984:EFF

[1835] Keith R. Wehmeyer. Effects of fixed and floating point mathematics on digital filters. Thesis (M.S.), University of Cincinnati, Cincinnati, OH, USA, 1984. vi + 92 pp.

Wolrich:1984:HPF

[1836] G. Wolrich, E. McLellan, L. Harada, J. Montanaro, and R. A. J. Yodlowski. A high performance floating point coprocessor. *IEEE Journal of Solid-State Circuits*, SC-19(5):690–696, October 1984. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Woo:1984:AMC

[1837] B. Woo, L. Lin, and R. E. Owen. ALU, multiplier chips zip through IEEE floating-point operations. In Evanczuk [7747], pages 354–359. ISBN 0-07-019756-3, 0-07-606876-5 (paperback). LCCN QA76.5 .M521955 1984.

Zuse:1984:CML

[1838] Konrad Zuse. *Der Computer, mein Lebenswerk*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1984. ISBN 0-387-13814-5 (U.S.). xv + 218 pp. LCCN TK7885.22.Z87 A33 1984. Based on the author's autobiography with the same title published in 1970.

Ahmed:1985:AAU

[1839] H. M. Ahmed. *Alternative arithmetic unit architectures for VLSI digital signal processors*. Prentice-Hall, Englewood Cliffs, NJ, USA, 1985.

Aridgides:1985:EIQ

[1840] A. Aridgides and D. Morgan. Effects of input quantization in floating-point digital pulse compression. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 33(2):434–435, April 1985. CODEN IETABA. ISSN 0096-3518.

Armstrong:1985:PLHa

[1841] Robert Clyde Armstrong. Procedural layout of a high-speed floating-point arithmetic unit. Technical report, Massachusetts Institute of Technology, Research Laboratory of Electronics, Cambridge, MA, USA, 1985. 116 pp.

Armstrong:1985:PLHb

[1842] Robert Clyde Armstrong. *Procedural layout of a high-speed floating-point arithmetic unit*. Thesis (Elect. E.), Massachusetts Institute of Technology. Dept. of Electrical Engineering and Computer Science, Cambridge, MA, USA, 1985. 116 pp. Supervised by Jonathan Allen.

Aspinwall:1985:RVM

[1843] D. B. Aspinwall and Y. N. Patt. Retrofitting the VAX-11/780 microarchitecture for IEEE floating point arithmetic — implementation issues, measurements, and analysis. *IEEE Transactions on Computers*, C-34(8):692–708, August 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676615.

Auzinger:1985:AAR

[1844] W. Auzinger and H. J. Stetter. Accurate arithmetic results for decimal data on non-decimal computers. *Computing (New York)*, 35(2):141–151, 1985. CODEN ????

Avizienis:1985:AAO

[1845] Algirdas Avižienis. Arithmetic algorithms for operands encoded in two-dimensional low-cost arithmetic error code. In Hwang [7758], pages 285–292. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Avizienis.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Bannur:1985:VIS

[1846] J. Bannur and A. Varma. The VLSI implementation of a square root algorithm. In Hwang [7758], pages 159–165. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Bannur_Varma.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Barlow:1985:PEA

[1847] J. L. Barlow and E. H. Bareiss. Probabilistic error analysis of Gaussian elimination in floating point and logarithmic arithmetic. *Computing: Archiv fur informatik und numerik*, 34(4):349–364, 1985. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Barlow:1985:RED

[1848] J. L. Barlow and E. H. Bareiss. On roundoff error distributions in floating point and logarithmic arithmetic. *Computing: Archiv fur informatik und numerik*, 34(4):325–347, December 1985. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Barnes:1985:SFP

[1849] C. Barnes, Boi Tran, and Shu Leung. On the statistics of fixed-point roundoff error. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 33(3):595–606, June 1985. CODEN IETABA. ISSN 0096-3518.

Bayoumi:1985:HVA

[1850] M. A. Bayoumi, G. A. Jullien, and W. C. Miller. Hybrid VLSI architecture of FIR filters using residue number systems. *Electronics Letters*, 21(8):358–359, April 11, 1985. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4251043`.

Bittner:1985:WPD

[1851] L. Bittner. Weiteres über Pseudo-Divisionsverfahren zur Berechnung der Standardfunktionen und gewisser Nicht-Standardfunktionen [*English:* Further Details on Pseudo-Division Procedures for Computation of Standard Functions and Certain Nonstandard Functions]. *Zeitschrift für Angewandte Mathematik und Mechanik*, 65(12):605–612, 1985. CODEN ZAMMAX. ISSN 0044-2267 (print), 1521-4001 (electronic).

Bleher:1985:AHA

[1852] J. H. Bleher, A. E. Roeder, and Siegfried M. Rump. ACRITH: High-accuracy arithmetic, an advanced tool for numerical computation. In Hwang [7758], pages 318–321. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Bleher_Roeder_Rump.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Bohte:1985:GEF

[1853] Zvonimir Bohte and Marko Petkovšek. Gaussian elimination in floating-point arithmetic. In Vrdoljak [7763], pages 85–91. ISBN ???? LCCN ????

Brent:1985:SAI

[1854] R. P. Brent and H. T. Kung. A systolic algorithm for integer GCD computation. In Hwang [7758], pages 118–125. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Brent_Kung.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Burton:1985:SFE

[1855] C. G. Burton. The solution of finite element equations on the floating point systems FPS-164 attached processor. *Computer Physics Communications*, 37(1-3):171–180, 1985. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic).

Cantoni:1985:PPA

[1856] V. Cantoni, M. Ferretti, S. Levialdi, and R. Stefanelli. PAPIA: Pyramidal Architecture for Parallel Image Analysis. In Hwang [7758], pages 237–242. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Cantoni_Ferretti_Levialdi_Stefanelli.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Cathey:1985:ISR

[1857] James Cathey. 68000 integer square root routine in 16BST. *Dr. Dobb's Journal of Software Tools*, 10(5):118–??, May 1985. CODEN DDJOEB. ISSN 1044-789X.

Chen:1985:FPP

[1858] Jen-Chyun Chen. 8087 floating point processor software utilities development and evaluation. Thesis (M.S.E.E.), University of Alabama. Graduate School. Dept. of Electrical and Engineering, Tuscaloosa, AL, USA, 1985. x + 128 pp.

Chen:1985:MRS

[1859] Tien Chi Chen. Maximal redundancy signed-digit systems. In Hwang [7758], pages 296–300. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Chen.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Cheng:1985:APF

[1860] H. D. Cheng and K. S. Fu. Algorithm partition for a fixed-size VLSI architecture using space-time domain expansion. In Hwang [7758], pages 126–132. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Cheng_Fu.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Chiarulli:1985:DDR

[1861] Donald M. Chiarulli, W. G. Rudd, and Duncan A. Buell. DRAFT: a dynamically reconfigurable processor for integer arithmetic. In Hwang [7758], pages 309–317. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Chiarulli_Rudd_Buell.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Chow:1985:PFD

[1862] Edward T. Chow and Dan I. Moldovan. Prime factor DFT parallel processor using wafer scale integration. In Hwang [7758], pages 133–139. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Chow_Moldovan.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Ciminiera:1985:ESP

[1863] L. Ciminiera and A. Serra. Efficient serial-parallel arrays for multiplikation and addition. In Hwang [7758], pages 28–35. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Ciminiera_Serra.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Cody:1985:PRW

[1864] W. J. Cody, J. T. Coonen, D. M. Gay, K. Hanson, D. Hough, W. Kahan, R. Karpinski, J. Palmer, F. N. Ris, and D. Stevenson. A proposed radix- and word-length-independent standard for floating-point arithmetic. *ACM SIGNUM Newsletter*, 20(1):37–51, January 1985. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Conover:1985:AHS

[1865] B. Conover and D. L. Gustafson. An algorithm for high speed square roots. In IEEE Region 5 ’85 [7759], pages 19–21. LCCN TK 7801 N56 1985.

Cozzens:1985:CDF

[1866] J. Cozzens and L. Finkelstein. Computing the discrete Fourier transform using residue number systems in a ring of algebraic integers. *IEEE Transactions on Information Theory*, 31(5):580–588, September 1985.

CODEN IETTAW. ISSN 0018-9448 (print), 1557-9654 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=22750.

Cuyt:1985:REA

[1867] Annie Cuyt and Paul Van der Cruyssen. Rounding error analysis for forward continued fraction algorithms. *Computers and Mathematics with Applications*, 11(6):541–564, June 1985. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/0898122185900379.

Dadda:1985:FMT

[1868] Luigi Dadda. Fast multipliers for two's-complement numbers in serial form. In Hwang [7758], pages 57–63. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Dadda.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Dadda:1985:SBN

[1869] Luigi Dadda. Squares for binary numbers in serial form. In Hwang [7758], pages 173–180. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Dadda1.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

DeMori:1985:DRP

[1870] R. De Mori and R. Cardin. Design for a recursive parallel multiplier. In Hwang [7758], pages 44–50. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Demori_Cardin.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Dongarra:1985:FAS

[1871] J. J. Dongarra and D. C. Sorensen. A fast algorithm for the symmetric eigenvalue problem. In Hwang [7758], pages 338–342. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Dongarra_Sorensen.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Dunham:1985:PFM

[1872] C. B. Dunham. Floating point with rounding before normalization. In Meek and van Rees [7760], pages 91–102. ISBN 0-919628-46-X. LCCN QA1 C75.

Eldon:1985:FCF

[1873] John A. Eldon. A family of CMOS floating point arithmetic chips. In Hwang [7758], pages 101–109. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Eldon.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Enzmann:1985:WDS

[1874] K. Enzmann. Wurzelziehen durch sukzessive Approximation [*English:* Root-Finding by Successive Approximation]. *Elektronik*, 18:92, 1985. CODEN EKRKAR. ISSN 0013-5658.

Ercegovac:1985:DAP

[1875] M. D. Ercegovac and T. Lang. A division algorithm with prediction of quotient digits. In Hwang [7758], pages 51–56. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Ercegovac_Lang.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Ercegovac:1985:DSH

[1876] Miloš D. Ercegovac and Tomás Lang. *Digital systems and hardware/firmware algorithms*. Wiley, New York, NY, USA, 1985. ISBN 0-471-88393-X. xix + 838 pp. LCCN TK7868.D5 E73 1985. US$32.95. URL http://www.loc.gov/catdir/bios/wiley043/84021983.html; http://www.loc.gov/catdir/description/wiley035/84021983.html; http://www.loc.gov/catdir/toc/onix06/84021983.html.

Fandrianto:1985:VFP

[1877] Jan Fandrianto and B. Y. Woo. VLSI floating-point processors. In Hwang [7758], pages 93–100. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Fandrianto_Woo.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Ferguson:1985:RBA

[1878] Warren E. Ferguson and David W. Matula. Rationally biased arithmetic. In Hwang [7758], pages 194–202. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Ferguson_Matula.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Froberg:1985:NMT

[1879] Carl Erik Fröberg. *Numerical mathematics: theory and computer applications*. Benjamin/Cummings Pub. Co., Redwood City, CA, USA, 1985. ISBN 0-8053-2530-1. xi + 436 pp. LCCN QA297 .F6813 1985.

Gal:1985:CEF

[1880] Shmuel Gal. Computing elementary functions: a new approach for achieving high accuracy and good performance. In Miranker and Toupin [7761], pages 1–16. ISBN 0-387-16798-6. LCCN QA76.95 .A231 1986.

Gannon:1985:SPH

[1881] Dennis Gannon. On the structure of parallelism in a highly concurrent PDE solver. In Hwang [7758], pages 252–259. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Gannon.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Gnanasekaran:1985:FSP

[1882] R. Gnanasekaran. A fast serial-parallel binary multiplier. *IEEE Transactions on Computers*, C-34(8):741–744, August 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676620.

Gomez:1985:PFA

[1883] Gustavo Rodríguez Gómez and David Carrasco Villareal. Problems in floating-point arithmetic, and a method for obtaining internal characteristics of digital computers. (Spanish). *Miscelánea Mat.*, 15:15–25, 1985.

Goodman:1985:REF

[1884] R. H. Goodman, A. Feldstein, and J. Bustoz. Relative error in floating-point multiplication. *Computing: Archiv fur informatik und numerik*, 35

(2):127–139, 1985. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Gooley:1985:DFM

[1885] Markian Myron Gooley. Design of a floating-point multiplier with a recursive fraction-unit. Thesis (M.S.), University of Illinois at Urbana-Champaign, Urbana-Champaign, IL 61801, USA, 1985. vi + 54 pp.

Graham:1985:IFF

[1886] Douglas R. Graham. Implementation of FORTH with floating point capabilities of an 8085 system. Thesis (M.S.), Ohio University, Athens, OH, USA, March 1985. v + 122 pp.

Grappel:1985:FSC

[1887] R. D. Grappel. Fast subroutine calculates exponentials. *EDN*, 30(10): 231, May 1985. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Gridley:1985:IPS

[1888] Curt Gridley. Improving the performance of scientific applications on a supermicro using a custom floating point processor and an optimizing compiler. In USENIX Association [7762], pages 597–610. LCCN QA76.8.U65 U8 1985.

Gross:1985:FPA

[1889] Thomas Gross. Floating-point arithmetic on a reduced-instruction-set processor. In Hwang [7758], pages 86–92. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Gross.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Gross:1985:SIF

[1890] Thomas Gross. Software implementation of floating-point arithmetic on a reduced-instruction-set processor. *Journal of Parallel and Distributed Computing*, 2(4):362–375, November 1985. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Gudenberg:1985:CID

[1891] R. Lohner and J. Wolff V. Gudenberg. Complex interval division with maximum accuracy. In Hwang [7758], pages 332–336. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN

QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Lohner_Gudenberg.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Hack:1985:RPS

[1892] James J. Hack. The relationship of peak to sustained performance in highly concurrent vector machine organizations. Research report RC 11094 (#49829), IBM T.J. Watson Research Center, Yorktown Heights, NY, USA, 1985. 22 pp.

Helyer:1985:SCC

[1893] R. Helyer. Sine and cosine calculations. *Microprocessors and Microsystems*, 2(5):284, October 1985. CODEN MIMID5. ISSN 0141-9331 (print), 1872-9436 (electronic).

Hull:1985:NT

[1894] T. E. Hull, A. Abraham, M. S. Cohen, A. F. X. Curley, C. B. Hall, D. A. Penny, and J. T. M. Sawchuk. Numerical Turing. *ACM SIGNUM Newsletter*, 20(3):26–34, July 1985. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Hull:1985:PRV

[1895] T. E. Hull and A. Abrham. Properly rounded variable precision square root. *ACM Transactions on Mathematical Software*, 11(3):229–237, September 1985. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1985-11-3/p229-hull/.

Hunter:1985:III

[1896] Colin B. Hunter, James F. Ready, and Erin Farquhar. *Introduction to the Intel iAPX 432 Architecture*. Reston Publishing Co. Inc., Reston, VA, USA, 1985. ISBN 0-8359-3222-2. vii + 181 pp. LCCN QA76.8.I267 H86 1984. US$16.95.

Hurson:1985:SMU

[1897] A. R. Hurson and B. Shirazi. A systolic multiplier unit and its VLSI design. *ACM SIGARCH Computer Architecture News*, 13(3):302–309, June 1985. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Hwang:1985:MEC

[1898] Kai Hwang and Zhiwei Xu. Multiprocessors for evaluating compound arithmetic functions. In Hwang [7758], pages 266–275. ISBN 0-8186-

0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Hwang_Xu.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Hwang:1985:SIS

[1899] Kai Hwang, Daniel D. Gajski, and Ahmed Sameh. The Seventh IEEE Symposium on Computer Arithmetic: Foreword. In Hwang [7758], page iii. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_contents.pdf; http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Hwang_Gajski_Sameh.pdf; http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_preface.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

IEEE:1985:AIS

[1900] IEEE Task P754. *ANSI/IEEE 754-1985, Standard for Binary Floating-Point Arithmetic*. IEEE, New York, NY, USA, August 12, 1985. ISBN 1-55937-653-8. 20 pp. US$35.00. URL http://standards.ieee.org/reading/ieee/std/busarch/754-1985.pdf; http://standards.ieee.org/reading/ieee/std_public/description/busarch/754-1985_desc.html; http://www.iec.ch/cgi-bin/procgi.pl/www/iecwww.p?wwwlang=E&wwwprog=cat-det.p&wartnum=019113; https://ieeexplore.ieee.org/iel1/2355/1316/00030711.pdf. Revised 1990. A preliminary draft was published in the January 1980 issue of IEEE Computer, together with several companion articles [1414, 1417, 1299, 1416, 1438, 1490, 1491]. The final version was republished in [1902, 1903]. See also [1589]. Also standardized as *IEC 60559 (1989-01) Binary floating-point arithmetic for microprocessor systems*.

IEEE:1985:ASI

[1901] IEEE Task P754. *ANSI/IEEE 754-1985, Standard for Binary Floating-Point Arithmetic*. IEEE, New York, August 12 1985. A preliminary draft was published in the January 1980 issue of IEEE Computer, together with several companion articles [1414, 1417, 1299, 1416, 1438, 1490, 1491]. Available from the IEEE Service Center, Piscataway, NJ, USA.

IEEE:1985:ISBa

[1902] IEEE. IEEE standard for binary floating-point arithmetic. *ACM SIGPLAN Notices*, 22(2):9–25, February 1985. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). See [1900].

IEEE:1985:ISBb

[1903] IEEE Computer Society Standards Committee.Working group of the Microprocessor Standards Subcommittee and American National Standards Institute. *IEEE standard for binary floating-point arithmetic*. ANSI/IEEE Std 754-1985. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1985. 18 pp. See [1900].

Intel:1985:FPL

[1904] Intel Staff. *Floating Point Library for DOS 8096 Systems Manual*. Intel Corporation, Santa Clara, December 1985. ISBN 0-917017-75-7. 60 pp. LCCN ???? US$10.00.

Intel:1985:PRM

[1905] Intel. *The iAPX 286 Programmer's Reference Manual*. Intel Corporation, Santa Clara, CA, USA, 1985. The definitive statement of what the 80286 and 80287 are. A valuable reference for instruction definitions. See also [1654, 1805].

IntelCorporation:1985:FAL

[1906] Intel Corporation. *The 8096 floating-point arithmetic library user's guide for DOS systems*. Intel Corporation, Santa Clara, CA., 1985. various pp.

Jankowski:1985:ASC

[1907] M. Jankowski and H. Woźniakowski. The accurate solution of certain continuous problems using only single precision arithmetic. *BIT (Nordisk tidskrift for informationsbehandling)*, 25(4):635–651, 1985. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic).

Jenkins:1985:CDI

[1908] W. Jenkins, E. Davidson, and D. Paul. A custom-designed integrated circuit for the realization of residue number digital filters. In *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '85*, pages 220–223. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1985. CODEN ???? ISSN ????

Kahan:1985:AIA

[1909] W. Kahan and E. LeBlanc. Anomalies in the IBM ACRITH package. In Hwang [7758], pages 322–331. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Kahan_LeBlanc.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Karpinski:1985:PFP

[1910] R. Karpinski. Paranoia: a floating-point benchmark. *Byte Magazine*, 10 (2):223–235, February 1985. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Kaushik:1985:MEC

[1911] Saroj Kaushik. Multiple error correction and addictive overflow detection with magnitude indices in residue code. In Hwang [7758], pages 278–284. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Kaushik.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Klatte:1985:ASS

[1912] R. Klatte, C. P. Ullrich, and J. W. Von Gudenberg. Arithmetic specification for scientific computation in ADA. *IEEE Transactions on Computers*, C-34(11):996–1005, November 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676532.

Kobayashi:1985:MTC

[1913] Hideaki Kobayashi. A multioperand two's complement addition algorithm. In Hwang [7758], pages 16–19. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Kobayashi.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Koopman:1985:FFP

[1914] Philip J. Koopman. *FORTH floating point*. Mountain View Press, Mountain View, CA, USA, revised edition, 1985. 346 pp.

Kornerup:1985:FPL

[1915] Peter Kornerup and David W. Matula. Finite precision lexicographic continued fraction number systems. In Hwang [7758], pages 207–214. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Kornerup_Matula.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Krishnan:1985:CDS

[1916] R. Krishnan, G. Jullien, and W. Miller. Complex digital signal processing using quadratic residue number systems. In *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '85*, pages 764–767. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1985. CODEN ???? ISSN ????

Kurokawa:1985:PT

[1917] Takakazu Kurokawa and Hideo Aiso. Polynomial transformer. In Hwang [7758], pages 153–158. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Kurokawa_Aiso.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Kwan:1985:MOW

[1918] Hon Kwan. A multi-output wave — digital biquad using magnitude truncation instead of controlled rounding. *IEEE Transactions on Circuits and Systems*, 32(11):1185–1187, November 1985. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Lang:1985:ICL

[1919] J. H. Lang, C. A. Zukowski, R. O. Lamaire, and Chae Han. Integrated-circuit logarithmic arithmetic units. *IEEE Transactions on Computers*, C-34(5):475–483, May 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676588`.

Li:1985:FCD

[1920] S.-Y. R. Li. Fast constant division routines. *IEEE Transactions on Computers*, C-34(9):866–869, September 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676646`.

Li:1985:PAC

[1921] Xiaobo Li and Lionel M. Ni. A pipeline architecture for computing cumulative hypergeometric distributions. In Hwang [7758], pages 166–172. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Li_Ni.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Ling:1985:NFL

[1922] Fuyun Ling, D. Manolakis, and J. Proakis. New forms of LS lattice algorithms and an analysis of their round-off error characteristics. In *IEEE International Conference on Acoustics, Speech, and Signal Processing: ICASSP '85*, pages 1739–1742. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1985. CODEN ???? ISSN ????

Liu:1985:DVR

[1923] Wentai Liu, J. C. Duh, and Daniel E. Atkins. The design of a vector-radix 2DFFT chip. In Hwang [7758], pages 231–236. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Liu_Duh_Atkins.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Lohninger:1985:GF

[1924] H. Lohninger. Gleitkommaarithmetik für den 68000 [*English:* Floating-point Arithmetic for the 68000]. *mc*, 2:58–64, 1985. ISSN 0720-4442, 0941-777x, 0943-5409.

Lorenz:1985:AIP

[1925] E. Lorenz. Aspekte der Implementierung eines Programmpaketes zur schnellen und flexiblen Ausführung von arithmetischen Operationen mit dem U880 [*English:* Aspects of the Implementation of a Software Package for Fast and Flexible Execution of Arithmetic Operations on the U880]. *Nachrichtentechnik Elektronik*, 35(5):179–181, ???? 1985. CODEN NTELAP. ISSN 0323-4657. The U880 is a Z80 clone microprocessor that was built in the GDR (East Germany).

Luk:1985:PMC

[1926] Franklin T. Luk. A parallel method for computing the generalized singular value decomposition. In Hwang [7758], pages 260–265. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Luk.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Majerski:1985:SRA

[1927] S. Majerski. Square-rooting algorithms for high-speed digital circuits. *IEEE Transactions on Computers*, C-34(8):724–733, August 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956

(electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676618.

Matula:1985:FPR

[1928] David W. Matula and Peter Kornerup. Finite precision rational arithmetic: Slash number systems. *IEEE Transactions on Computers*, C-34(1):3–18, January 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

ME:1985:FPS

[1929] Microprocessor Engineering, Southampton, UK. *Floating point and string listing*, second edition, 1985. 36 pp.

Mithani:1985:ASN

[1930] D. Mithani and S. Iyer. Algorithm speeds nonrestoring division in microprogrammed systems. *EDN*, 30(4):199–208, February 1985. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Modi:1985:AIS

[1931] J. J. Modi and J. S. Rollett. An algorithm for inverse square-roots. *Parallel Computing*, 2(1):69–71, March 1985. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Moharir:1985:ESG

[1932] P. S. Moharir. Extending the scope of Golub's method beyond complex multiplication. *IEEE Transactions on Computers*, C-34(5):484–487, May 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676590.

Montgomery:1985:MMT

[1933] Peter L. Montgomery. Modular multiplication without trial division. *Mathematics of Computation*, 44(170):519–521, April 1985. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.jstor.org/stable/2007970.

Motorola:1985:MFC

[1934] Motorola, Inc., Phoenix, AZ, USA. *MC68881 floating-point coprocessor user's manual*, 1985. various pp.

Motorola:1985:MFP

[1935] Motorola. *MC68881 Floating-Point Coprocessor User's Manual*. Motorola Corporation, Phoenix, AZ, USA, second edition, 1985.

Muller:1985:DBC

[1936] Jean-Michel Muller. Discrete basis and computation of elementary functions. *IEEE Transactions on Computers*, C-34(9):857–862, September 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676643`.

Naseem:1985:MCA

[1937] Asif Naseem and P. David Fisher. The modified CORDIC algorithm. In Hwang [7758], pages 144–152. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Naseem_Fisher.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Neumaier:1985:IPR

[1938] A. Neumaier. Inner product rounding error analysis in the presence of underflow. *Computing: Archiv fur informatik und numerik*, 34(4): 365–373, 1985. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Ngai:1985:RAT

[1939] Tin-Fook Ngai and Mary Jane Irwin. Regular, area-time efficient carry-lookahead adders. In Hwang [7758], pages 9–15. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Ngai_Irwin.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Ni:1985:VRT

[1940] L. M. Ni and Kai Hwang. Vector-reduction techniques for arithmetic pipelines. *IEEE Transactions on Computers*, C-34(5):404–411, May 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676580`.

Ohhashi:1985:HSC

[1941] M. Ohhashi and R. E. Schneider. High-speed computation of unary functions. In Hwang [7758], pages 82–85. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Ohhashi_Schneider.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Oklobdzija:1985:SOS

[1942] Vojin G. Oklobdzija and Earl R. Barnes. Some optimal schemes for ALU implementations in VLSI technology. In Hwang [7758], pages 2–8. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Oklobdzija_Barnes.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Palmer:1985:MGN

[1943] John F. Palmer and Stephen P. Morse. *Die mathematischen Grundlagen der Numerik-Prozessoren 8087/80287*. te-wi, München, Germany, 1985. ISBN 3-921803-33-0. 240 pp. LCCN ???? German translation of *The 8087 Primer* [1805].

Palmer:1985:PBS

[1944] John Palmer, Bruce Ravenel, and Ravi Nave. Programmable bidirectional shifter. US Patent 4,509,144., April 2, 1985. URL `https://ieeemilestones.ethw.org/w/images/a/a4/Patent_Barrel_shifter_8087.pdf`. Filed 5 December 1983. See discussion [6945].

Papachristou:1985:MIR

[1945] Christos A. Papachristou. Multi-input residue arithmetic utilizing read-only associate memory. In Hwang [7758], pages 182–188. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Papachristou.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Parker:1985:GCI

[1946] J. R. Parker. A general character to integer conversion method. *Software—Practice and Experience*, 15(8):761–766, August 1985. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Pellegrino:1985:RNS

[1947] J. M. Pellegrino, B. M. Sadler, and S. D. Casey. A residue number system for wideband acousto-optic spectrum analysis. In Bruce Ronald McAvoy, editor, *IEEE 1985 Ultrasonics Symposium: proceedings, October 16–18, 1985, Cathedral Hill Hotel, Van Ness at Geary, San Francisco, CA*, pages 385–390. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1985. CODEN ???? ISSN ???? LCCN A367 .U46 1985eb. IEEE catalog number 85CH2209-5.

Peralta:1985:TRN

[1948] Rene Caupolican Peralta. *Three results in number theory and cryptography: a new algorithm to compute square roots modulo a prime number; On the bit complexity of the discrete logarithm; A framework for the study of cryptoprotocols*. Thesis (Ph.D.), Department of Computer Science, University of California, Berkeley, Berkeley, CA, USA, December 1985. 52 pp.

Raimi:1985:FDP

[1949] Ralph A. Raimi. The first digit phenomenon again. *Proceedings of the American Philosophical Society*, 129(2):211–219, June 1985. CODEN PAPCAA. ISSN 0003-049X (print), 2326-9243 (electronic). URL `http://www.jstor.org/stable/986989`. This paper contains strong criticism of a derivation of Benford's Law [1164].

Ramnarayan:1985:LMR

[1950] R. Ramnarayan and F. Taylor. On large moduli residue number system recursive digital filters. *IEEE Transactions on Circuits and Systems*, 32(4):349–359, April 1985. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23567`.

Rao:1985:CCC

[1951] T. R. N. Rao and Kasem Vathanvit. A class of $A(N + C)$ codes and its properties. In Hwang [7758], pages 293–295. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Rao_Vathanvit.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Reed:1985:VRM

[1952] I. S. Reed, T. K. Truong, J. J. Chang, H. M. Shao, and I. S. Hsu. VLSI residue multiplier modulo a Fermat number. In Hwang [7758], pages 203–206. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Reed_Truong_Chang_Shao_Hsu.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Rump:1985:HOC

[1953] Siegfried M. Rump. Higher order computer arithmetic. In Hwang [7758], pages 302–308. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Rump.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Salomon:1985:TGF

[1954] D. Salomon. Two generalized floating-point representations. *Byte Magazine*, 10(9):154–158, September 1985. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Schaeffer:1985:SPE

[1955] Jonathan Schaeffer and Darrell Makarenko. Systolic polynomial evaluation and matrix multiplication with multiple precision. In Hwang [7758], pages 110–117. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Schaeffer_Makarenko.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Schoof:1985:ECF

[1956] René Schoof. Elliptic curves over finite fields and the computation of square roots mod$p$. *Mathematics of Computation*, 44(170):483–494, April 1985. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Scott:1985:CNS

[1957] Norman R. Scott. *Computer Number Systems and Arithmetic*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1985. ISBN 0-13-164211-1. x + 254 pp. LCCN QA76.9.C62 S38 1985.

Shah:1985:PHS

[1958] A. Shah, M. Sid-Ahmed, and G. Jullien. A proposed hardware structure for two-dimensional recursive digital filters using the residue number system. *IEEE Transactions on Circuits and Systems*, 32(3):285–288, March 1985. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23566.

Shimada:1985:NAC

[1959] R. Shimada, Y. Ohkura, and J. Aoe. Nonbinary arithmetic AN codes using odd radix expressions. *IEEE Transactions on Computers*, C-34 (11):1050–1056, November 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676538.

Smith:1985:DFI

[1960] S. P. Smith and H. C. Torng. Design of a faster inner product processor. In Hwang [7758], pages 38–43. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Smith_Torng.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Smith:1985:FIP

[1961] S. P. Smith and H. C. Torng. A fast inner product processor based on equal alignments. *Journal of Parallel and Distributed Computing*, 2(4): 376–390, November 1985. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Spafford:1985:RAS

[1962] Eugene Howard Spafford. A report on the accuracy of some floating point math functions on selected computers. Technical report, School of Information and Computer Science, Georgia Institute of Technology, Atlanta, GA, USA, 1985. 26 pp.

Sreedharan:1985:ASS

[1963] J. Sreedharan and A. Dhurkadas. 8086 algorithm solves square roots. *EDN*, 30(7):272, April 1985. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Stewart:1985:NCD

[1964] G. W. Stewart. A note on complex division. *ACM Transactions on Mathematical Software*, 11(3):238–241, September 1985. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1985-11-3/p238-stewart/. See also [2063].

Stummel:1985:FEA

[1965] Friedrich Stummel. Forward error analysis of Gaussian elimination. I. error and residual estimates. *Numerische Mathematik*, 46(3):365–

395, 1985. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Swartzlander:1985:AHS

[1966] Earl Swartzlander, Jr. and John Eldon. Arithmetic for high speed FFT implementation. In Hwang [7758], pages 223–230. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Swartzlander_Eldon.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Symbolics:1985:RGS

[1967] Symbolics, Inc., Cambridge, MA, USA. *Reference Guide to Symbolics-Lisp*, March 1985.

Takagi:1985:HSV

[1968] N. Takagi, H. Yasuura, and S. Yajima. High-speed VLSI multiplication algorithm with a redundant binary addition tree. *IEEE Transactions on Computers*, C-34(9):789–796, 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Takeda:1985:SCB

[1969] K. Takeda, F. Ishino, Y. Ito, and T. Nakashima. A single-chip 80-bit floating point processor. *IEEE Journal of Solid-State Circuits*, 20(5):986–992, October 1985. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Taniguchi:1985:TDI

[1970] Kenji Taniguchi. Three dimensional IC's and application to high speed image processor. In Hwang [7758], pages 216–222. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Taniguchi.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Taylor:1985:HFP

[1971] F. Taylor. A hybrid floating-point logarithmic number system processor. *IEEE Transactions on Circuits and Systems*, 32(1):92–95, January 1985. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Taylor:1985:MER

[1972] Fred J. Taylor. A more efficient residue arithmetic implementation of the FFT. In Hwang [7758], pages 243–250. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Taylor1.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Taylor:1985:RFU

[1973] F. J. Taylor, G. Papadourakis, A. Skavantzos, and A. Stouraitis. A radix-4 FFT using complex RNS arithmetic. *IEEE Transactions on Computers*, C-34(6):573–576, June 1985. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009414`.

Taylor:1985:RSD

[1974] George S. Taylor. Radix 16 SRT dividers with overlapped quotient selection stages: a 225 nanosecond double precision divider for the S-1 Mark IIB. In Hwang [7758], pages 64–71. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL `http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Taylor.pdf`. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Tesnow:1985:IDS

[1975] Kurt Alan Tesnow. Implementation of the digital simulation of a synchronous machine using a floating-point processor. Thesis (M.S.), Department of Electrical Engineering and Applied Physics, Case Western Reserve University, Cleveland, OH 44106, USA, 1985. vii + 255 pp.

Thies:1985:NPE

[1976] Klaus-Dieter Thies. *Die 8087/80287 numerischen Prozessor Erweiterungen für 8086/80286 Systeme* [English: *The 8087/80287 Numeric Processor Extension for 8086/80286 Systems*]. te-wi, München, Germany, 1985. ISBN 3-921803-53-5. 355 pp. LCCN ????

Tsuji:1985:REF

[1977] Kumiko Tsuji. Round-off errors in floating-point additions. *Memoirs of the Faculty of Science, Kyushu Imperial University. Series A, Mathematics = Kyushu Teikoku Daigaku Rigakubu kiyo*, 39(2):209–225, 1985. CODEN MFKAAF. ISSN 0373-6385 (print), 1883-2172 (electronic).

vonGudenberg:1985:FPC

[1978] J. W. von Gudenberg. Floating-point computation in PASCAL-SC with verified results. In Buchberger and Caviness [7757], pages 322–324.

CODEN LNCSD9. ISBN 0-387-15983-5 (v. 1), 0-387-15984-3 (v. 2). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA155.7.E4 E85 1985. Vol. 2 edited by: Bob F. Caviness. "Jointly organized by the ACM Special Interest Group on Symbolic and Algebraic Manipulation (SIGSAM) and by the Symbolic and Algebraic Manipulation Group in Europe (SAME)"–Vol. 2, pref. Contents: v. 1. Invited lectures — v. 2. Research contributions.

Williamson:1985:NAB

[1979] D. Williamson, S. Sridharan, and P. McCrea. A new approach for block floating-point arithmetic in recursive filters. *IEEE Transactions on Circuits and Systems*, 32(7):719–722, July 1985. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Yun:1985:BPS

[1980] David Y. Y. Yun and Chang N. Zhang. Binary paradigm and systolic array implementation for residue arithmetic. In Hwang [7758], pages 189–193. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Yun_Zhang.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Zaccone:1985:INR

[1981] Richar J. Zaccone and Jesse L. Barlow. Improved normalization results for digit on-line arithmetic. In Hwang [7758], pages 20–27. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Zaccone_Barlow.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Zadrozny:1985:AFP

[1982] Włodzimierz Zadrożny. Axiomatizations of floating point arithmetics. In Hwang [7758], pages 74–81. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. URL http://www.acsel-lab.com/arithmetic/arith7/papers/ARITH7_Zadrozny.pdf. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

Zorpette:1985:BBN

[1983] Glenn Zorpette. The beauty of 32 bits: This near-optimum bit width has unprecedented potential for the well-informed designer of microprocessor-based systems. *IEEE Spectrum*, 22(9):65–71, September 1985. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Adams:1986:FSSa

[1984] Glenn D. Adams. Functional specification and simulation of a floating point co-processor for SPUR [1]. Report UCB/CSD 87/311, University of California. Computer Science Division, Berkeley, CA., 1986. 52 pp.

Adams:1986:FSSb

[1985] Glenn D. Adams. Functional specification and simulation of a floating point co-processor for SPUR: research project. Master of Science, Plan II, University of California, Berkeley. Dept. of Electrical and Engineering and Computer Sciences, Berkeley, CA., 1986. various pp.

Agarwal:1986:NSV

[1986] Ramesh C. Agarwal, James W. Cooley, Fred G. Gustavson, James B. Shearer, Gordon Slishman, and Bryant Tuckerman. New scalar and vector elementary functions for the IBM System/370. *IBM Journal of Research and Development*, 30(2):126–144, March 1986. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). See clarification [2077].

Apple:1986:ANM

[1987] Apple Computer, Inc. and Don Reed. *Apple Numerics Manual*. Addison-Wesley, Reading, MA, USA, 1986. ISBN 0-201-17741-2. vii + 295 pp. LCCN QA297 .A66; QA76.8.A662 A59 1986. See also [2223, 3285].

Ardalan:1986:FPE

[1988] S. Ardalan. Floating-point error analysis of recursive least-squares and least-mean-squares adaptive filters. *IEEE Transactions on Circuits and Systems*, 33(12):1192–1208, December 1986. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Bayoumi:1986:LBV

[1989] Magdy A. Bayoumi. Lower bounds for VLSI implementation of residue number system architectures. *Integration, the VLSI journal*, 4(3):263–269, September 1986. CODEN IVJODL. ISSN 0167-9260 (print), 1872-7522 (electronic).

Beims:1986:FPP

[1990] B. Beims. The floating-point performance standard gets even faster! In WESCON '86 [7768], pages 35/1/1–13. LCCN TK 7801 W47 1986.

Berger:1986:NNF

[1991] P. A. Berger. The National NS32381 floating point slave processor. In WESCON '86 [7768], pages 35/2/1–6. LCCN TK 7801 W47 1986.

Bernstein:1986:MIC

[1992] Robert L. Bernstein. Multiplication by integer constants. *Software—Practice and Experience*, 16(7):641–652, July 1986. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Campbell:1986:NSR

[1993] R. A. Campbell. NS32000 square roots. *Dr. Dobb's Journal of Software Tools*, 11(3):122–123, 106, March 1986. CODEN DDJOEB. ISSN 1044-789X.

Campbell:1986:SS

[1994] R. A. Campbell. In search of a sine. *Dr. Dobb's Journal of Software Tools*, 11(12):30–32, December 1986. CODEN DDJOEB. ISSN 1044-789X.

Cao:1986:BFP

[1995] Hai Cao. A bit-slice floating point processor. Project (M.S., Electrical and Electronic Engineering), California State University, Sacramento, CA, USA, 1986. vii + 104 pp. Karl E. Stoffers, Chairperson.

Cathey:1986:LEI

[1996] J. Cathey. Letter to the editor [integer square root]. *Dr. Dobb's Journal of Software Tools*, 11(8):14, 82–85, August 1986. CODEN DDJOEB. ISSN 1044-789X.

Chadha:1986:IHP

[1997] K. Chadha. Intel 80387: high performance, single chip numerics coprocessor for the 80386. In WESCON '86 [7768], pages 35/4/1–5. LCCN TK 7801 W47 1986.

Chakraborti:1986:IMR

[1998] N. B. Chakraborti, J. S. Soundararajan, and A. L. N. Reddy. An implementation of mixed-radix conversion for residue number applications. *IEEE Transactions on Computers*, C-35(8):762–764, August 1986. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=12`; `http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35258`; `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676829`.

Chowdary:1986:APR

[1999] N. Chowdary and W. Steenaart. Accumulation of product roundoff errors in modified FFT's. *IEEE Transactions on Circuits and Systems*, 33(1): 103–107, January 1986. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Clenshaw:1986:GEL

[2000] C. W. Clenshaw, Daniel W. Lozier, F. W. J. Olver, and P. R. Turner. Generalized exponential and logarithmic functions. *Computers and Mathematics with Applications*, 12(5–6):1091–1101, September/ December 1986. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

Clenshaw:1986:UAR

[2001] C. W. Clenshaw and F. W. J. Olver. Unrestricted algorithms for reciprocals and square roots. *BIT (Nordisk tidskrift for informationsbehandling)*, 26(4):475–492, December 1986. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=26&issue=4&spage=475.

Coonen:1986:CPS

[2002] Jerome Toby Coonen. *Contributions to a proposed standard for binary floating-point arithmetic*. Thesis (Ph.D.), University of California, Berkeley, Berkeley, CA, USA, 1986. various pp.

Crowell:1986:ECU

[2003] Deborah Susan Crowell. Error-free computation using multiple-modulus residue arithmetic. Thesis (M.S.), University of Tennessee, Knoxville, Knoxville, TN, USA, 1986. vi + 106 pp.

Curtis:1986:CPL

[2004] T. W. Curtis, Paul Allison, and James A. Howard. A CORDIC processor for laser trimming. *IEEE Micro*, 6(3):61–71, May/June 1986. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Desrosiers:1986:CFP

[2005] B. Desrosiers, J.-L. Peter, and C. Sitbon. Custom floating point chip designed with a cohesive structured method. In IEEE ICCD '86 [7765], pages 402–405. ISBN 0-8186-0735-1 (paperback), 0-8186-8735-5 (hard), 0-8186-4735-3 (microfiche). LCCN TK 7888.4 I23 1986.

DuCroz:1986:FFP

[2006] J. Du Croz. FPV – a floating-point validation package. In SQART'86 [7767], pages 47–55. ISBN 0-291-39732-8. LCCN ????

Dutka:1986:SRT

[2007] Jacques Dutka. On square roots and their representations. *Archive for History of Exact Sciences*, 36(1):21–39, March 1986. CODEN AHESAN. ISSN 0003-9519 (print), 1432-0657 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0003-9519&volume=36&issue=1&spage=21.

Dutta:1986:IMF

[2008] U. Dutta, D. Bhattacharya, and A. D. Sarma. Implementation of multibyte floating point arithmetic in 8-bit microprocessor. *Mechanical Engineering Bulletin (India)*, 17(3):104–113, September 1986. CODEN MEGBBQ. ISSN 0379-5527.

Feldstein:1986:OUS

[2009] Alan Feldstein and Peter Turner. Overflow, underflow, and severe loss of significance in floating-point addition and subtraction. *IMA Journal of Numerical Analysis*, 6(2):241–251, April 1986. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).

Ferro:1986:DTF

[2010] F. Ferro. DSP tackles floating-point arithmetic. *Computer Design*, 25 (15):53–56, August 15, 1986. CODEN CMPDAM. ISSN 0010-4566.

Gavrielov:1986:NFP

[2011] Moshe Gavrielov and Lev Epstein. The NS32081 floating-point unit — architecture and implementation. *IEEE Micro*, 6(2):6–12, March/April 1986. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Grappel:1986:SRA

[2012] R. D. Grappel. Square-root algorithm is fast and simple. *EDN*, 31(8): 248, April 1986. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Gustafson:1986:AHV

[2013] John L. Gustafson, Stuart Hawkinson, and Ken Scott. The architecture of a homogeneous vector supercomputer. *Journal of Parallel and Distributed Computing*, 3(3):297–304, September 1986. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Hamming:1986:NMS

[2014] R. W. (Richard Wesley) Hamming. *Numerical methods for scientists and engineers*. Dover, New York, NY, USA, second edition, 1986. ISBN 0-486-65241-6 (paperback). ix + 721 pp. LCCN QA297 .H28 1986. US$14.95. URL `http://www.loc.gov/catdir/description/dover032/86016226.html`.

Heath:1986:NRD

[2015] J. Heath. A note on "Realization of digital filters using input-scaled floating-point arithmetic". *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 34(4):995, August 1986. CODEN IETABA. ISSN 0096-3518. See [1233].

Henning:1986:KBD

[2016] D. Henning. Konvertierung binärer in dezimale Gleitkommazahlen für meßtechnische Anwendungen [*English:* Conversion of Binary [Numbers] to Decimal Floating-Point Numbers for Measurement Applications]. *Radio Fernsehen Elektronik*, 35(11):731–733, ???? 1986.

Higginbotham:1986:AF

[2017] T. F. Higginbotham. Another factor of $(10^{31} - 1)/9$. *ACM SIGNUM Newsletter*, 21(3):12, July 1986. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Hill:1986:DDS

[2018] Mark Hill, Susan Eggers, Jim Larus, George Taylor, Glenn Adams, B. K. Bose, Garth Gibson, Paul Hansen, Jon Keller, Shing Kong, Corinna Lee, Daebum Lee, Joan Pendleton, Scott Ritchie, David Wood, Ben Zorn, Paul Hilfinger, Dave Hodges, Randy Katz, John Ousterhout, and Dave Patterson. Design decisions in SPUR. *Computer*, 19(11):8–22, November 1986. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Hongyuan:1986:CSL

[2019] Wang Hongyuan and S. C. Lee. Comments on "Sign/Logarithm Arithmetic for FFT Implementation". *IEEE Transactions on Computers*, C-35(5):482–484, May 1986. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676792`. See [1725].

Hull:1986:VPE

[2020] T. E. Hull and A. Abrham. Variable precision exponential function. *ACM Transactions on Mathematical Software*, 12(2):79–91, June

1986. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1986-12-2/p79-hull/.

IBM:1986:IHA

[2021] IBM Corporation. IBM High-Accuracy Arithmetic Subroutine Library (ACRITH). Technical Report GC 33-6163-02, SC 33-6164-02, GX 33-9009-02, IBM Corporation, San Jose, CA, USA, 1986.

IBM:1986:IRP

[2022] IBM. *IBM RT Personal Computer Technology, publication SA23-1057*. IBM Corporation, San Jose, CA, USA, 1986.

Iiguni:1986:REA

[2023] Y. Iiguni, H. Sakai, and H. Tokumaru. Rounding error analysis of the triangular lattice and escalator algorithms. In *IEEE International Conference on Acoustics, Speech, and Signal Processing: ICASSP '86*, pages 2119–2122. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1986. CODEN ???? ISSN ????

Jansen:1986:HAA

[2024] Paul Jansen and Peter Weidner. High-accuracy arithmetic software — some tests of the ACRITH problem-solving routines. *ACM Transactions on Mathematical Software*, 12(1):62–70, March 1986. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://doi.acm.org/10.1145/5960.5962; http://www.acm.org/pubs/citations/journals/toms/1986-12-1/p62-jansen/.

Johnson:1986:TRH

[2025] T. Johnson and G. Clark. Techniques for realization of high-speed recursive digital filters using residue number system arithmetic. In IEEE [7764], pages 2623–2626. CODEN ITCOB4. ISBN ???? ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=8362. IEEE catalog number 86CH2243-4.

Kabal:1986:PFP

[2026] P. Kabal and B. Sayar. Performance of fixed-point FFT's: Rounding and scaling considerations. In *IEEE International Conference on Acoustics, Speech, and Signal Processing: ICASSP '86*, pages 221–224. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1986. CODEN ???? ISSN ????

Kahan:1986:RAF

[2027] W. Kahan. Rational arithmetic in floating-point. Technical Report PAM-343, Center for Pure and Applied Mathematics, University of California, Berkeley, CA, USA, September 1986. 8 pp.

Kreithen:1986:FPC

[2028] Daniel E. Kreithen. Floating point calculation speeds for the image processing workstation. Technical report, Brown University, Division of Engineering, Providence, RI, USA, 1986. 23 pp.

Krishnan:1986:CCN

[2029] R. Krishnan, G. Jullien, and W. Miller. Computation of complex number theoretic transforms using quadratic residue number systems. In *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '86*, pages 233–236. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1986.

Krishnan:1986:CDS

[2030] R. Krishnan, G. Jullien, and W. Miller. Complex digital signal processing using quadratic residue number systems. *Acoustics, Speech, and Signal Processing [see also IEEE Transactions on Signal Processing], IEEE Transactions on*, 34(1):166–177, February 1986. CODEN ???? ISSN ???? URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=26196`.

Krishnan:1986:ICN

[2031] R. Krishnan, G. Jullien, and W. Miller. Implementation of complex number theoretic transforms using quadratic residue number systems. *IEEE Transactions on Circuits and Systems*, 33(8):759–766, August 1986. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23583`.

Krishnan:1986:MQR

[2032] R. Krishnan, G. Jullien, and W. Miller. The modified quadratic residue number system (MQRNS) for complex high-speed signal processing. *IEEE Transactions on Circuits and Systems*, 33(3):325–327, March 1986. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23578`.

Kulisch:1986:ADC

[2033] Ulrich W. Kulisch and Willard L. Miranker. The arithmetic of the digital computer: a new approach. *SIAM Review*, 28(1):1–40, March 1986. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Kulisch:1986:CGS

[2034] Ulrich Kulisch. Circuitry for generating scalar products and sums of floating point numbers with maximum accuracy. US Patent 4622650, November 11, 1986. URL `http://www.patentstorm.us/patents/4622650/fulltext.html`.

Lorang:1986:SD

[2035] O. Lorang. Schnelle Division [*English:* Fast Division]. *Elektronik*, 22: 167–168, 1986. CODEN EKRKAR. ISSN 0013-5658.

MacIntyre:1986:UOS

[2036] Ferren MacIntyre and Thomas Dowling. User-oriented suggestions for floating-point and complex-arithmetic Forth standard extensions. *Journal of FORTH Application and Research*, 3(4):65–84, 1986. CODEN JFAREL. ISSN 0738-2022.

Marrin:1986:MBF

[2037] K. Marrin. Microprocessor brings floating-point capability to 32-bit market. *Computer Design*, 25(9):31–38, May 1, 1986. CODEN CMPDAM. ISSN 0010-4566.

Marrin:1986:PBT

[2038] K. Marrin. Plug-in boards transform PCs into floating-point workstations. *Computer Design*, 25(4):31–34, February 15, 1986. CODEN CMPDAM. ISSN 0010-4566.

Melear:1986:HSM

[2039] C. Melear and D. Tietjen. High speed math using a floating point coprocessor. In Mini-Micro Northeast '86 [7766], pages 14/3/1–8. LCCN TK 7801 E375 1986.

Moore:1986:PFS

[2040] Brian A. Moore. A pipelined floating-point systolic array arithmetic processor. Thesis (M.S.), Brigham Young University. Department of Electrical Engineering, Provo, UT, USA, 1986. vi + 58 pp.

Moshier:1986:CA

[2041] S. L. Moshier. Computer approximations. *Byte Magazine*, 11(4):161–178, April 1986. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Ngai:1986:RAT

[2042] Tin-Fook Ngai, Mary Jane Irwin, and Shishpal Rawat. Regular, area-time efficient carry-lookahead adders. *Journal of Parallel and Distributed Computing*, 3(1):92–105, March 1986. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Nowak:1986:HBU

[2043] M. Nowak. Hex-BCD-Umwandlung [*English:* Hexadecimal-BCD Conversion]. *mc*, 10:68, 1986. ISSN 0720-4442, 0941-777x, 0943-5409.

Paez-Monzon:1986:ERC

[2044] Gerard Paez-Monzon. *Étude et Réalisation d'un Co-processeur Arithmétique en Virgule Flottante. (French) [Study and Implementation of a Floating-Point Coprocessor]*. Doctorat d'état, Sciences Appliquées, Université Paris 6, Paris, France, 1986. 229 pp. Sous la direction de Gerard Noguez.

Payne:1986:PTF

[2045] Mary H. Payne. Proposal for the transfer of floating point data. *ACM SIGNUM Newsletter*, 21(3):25–26, July 1986. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Petkovic:1986:SIS

[2046] M. S. Petković and L. V. Stefanović. On some improvements of square root iteration for polynomial complex zeros. *Journal of Computational and Applied Mathematics*, 15(1):13–25, May 1986. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0377042786902359`.

Pfenninger:1986:SQA

[2047] E. Pfenninger. Schneller Quadratwurzel-Algorithmus [*English:* Fast Square-Root Algorithms]. *Elektronik*, 22:179–180, 1986. CODEN EKRKAR. ISSN 0013-5658.

Porter:1986:FPM

[2048] K. Porter and J. Kath. Floating-point methods combine to boost performance. *Computer Design*, 25(3):75–80, February 1986. CODEN CMPDAM. ISSN 0010-4566.

Quong:1986:FPI

[2049] D. Quong. Floating-point μP implements high-speed math functions. *EDN*, 31(3):143–150, February 1986. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Ramnarayan:1986:LCL

[2050] R. Ramnarayan and F. Taylor. Limit cycles in large moduli residue number system digital filters. *IEEE Transactions on Circuits and Systems*, 33(9):912–915, September 1986. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23584`.

Rhyne:1986:SBS

[2051] T. Rhyne and N. R. Strader II. A signed bit-sequential multiplier. *IEEE Transactions on Computers*, C-35(10):896–901, October 1986. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676680`. See comments [2519].

Robertson:1986:NQD

[2052] James Evans Robertson. Normalization and quotient digit selection for a variable precision arithmetic unit. Report UIUCDCS-R-86-1229, Department of Computer Science, University of Illinois at Urbana-Champaign, Urbana, IL, USA, 1986. 14 pp.

Rump:1986:SER

[2053] Siegfried M. Rump. Sichere Ergebnisse auf Rechenanlagen [*English:* Safe Results from Computers]. *Informatik Spektrum*, 9(3):174–183, June 1986. CODEN INSKDW. ISSN 0170-6012 (print), 1432-122X (electronic).

Schatte:1986:ALD

[2054] Peter Schatte. On the asymptotic logarithmic distribution of the floating-point mantissas of sums. *Math. Nachr.*, 127:7–20, 1986. CODEN MTMNAQ. ISSN 0025-584X.

Schmickley:1986:CCP

[2055] Ronald D. Schmickley and David H. Bailey. A comparison of the Cray-2 performance before and after the installation of memory psudo-banking. NASA contractor report NASA CR-177462, National Aeronautics and Space Administration, Ames Research Center; National Technical Information Service, distributor, Moffett Field, CA, USA, 1986. ???? pp.

Semba:1986:ADL

[2056] I. Semba. An algorithm for division of large integers. *Journal of Information Processing (of Japan??)*, 9(3):145–147, ???? 1986.

Shukla:1986:IMN

[2057] Pankaj N. Shukla. An implementation on a MC68000/NS32081 microcomputer of binary floating-point arithmetic based on the IEEE 754 standard. Thesis (M.S.), Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931-1295, USA, 1986. vii + 166 pp.

Simcoe:1986:MFP

[2058] R. J. Simcoe, A. Fisher, B. M. Leary, W. R. Bidermann, and W. R. Wheeler. The MicroVAX 78132 floating point chip. In IEEE ICCD '86 [7765], pages 420–425. ISBN 0-8186-0735-1 (paperback), 0-8186-8735-5 (hard), 0-8186-4735-3 (microfiche). LCCN TK 7888.4 I23 1986.

Soderstrand:1986:RNS

[2059] Michael A. Soderstrand, W. K. Jenkins, G. A. Graham, and F. J. Taylor, editors. *Residue number system arithmetic: modern applications in digital signal processing*. IEEE Press selected reprint series. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1986. ISBN 0-87942-205-X. vii + 418 pp. LCCN QA247.35 .R45 1986.

Soderstrand:1986:VIM

[2060] M. Soderstrand and R. Escott. VLSI implementation in multiple-valued logic of an FIR digital filter using residue number system arithmetic. *IEEE Transactions on Circuits and Systems*, 33(1):5–25, January 1986. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=23573`.

Spafford:1986:RASa

[2061] E. H. Spafford and J. C. Flaspohler. A report on the accuracy of some floating-point math functions on selected computers. Technical Report GIT-SERC-86/02, GIT-ICS-85/06, Georgia Institute of Technology, 1986. ?? pp.

Spafford:1986:RASb

[2062] Eugene H. Spafford and John C. Flaspohler. A report on the accuracy of some floating point math functions on selected computers. *;login:*, 11(2): 31–56, March/April 1986. CODEN LOGNEM. ISSN 1044-6397 (print), 2169-9364 (electronic).

Stewart:1986:CNC

[2063] G. W. Stewart. Corrigendum: "A note on complex division". *ACM Transactions on Mathematical Software*, 12(3):285, September 1986. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See [1964].

Strobach:1986:NFL

[2064] P. Strobach. New forms of least squares lattice algorithms and a comparison of their round-off error characteristics. In *IEEE International Conference on Acoustics, Speech, and Signal Processing: ICASSP '86*, pages 573–576. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1986. CODEN ???? ISSN ????

Stummel:1986:SOP

[2065] F. Stummel. Strict optimal a posteriori error and residual bounds for Gaussian elimination in floating-point arithmetic. *Computing: Archiv fur informatik und numerik*, 37(2):103–124, 1986. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Sun:1986:FPG

[2066] *Floating-point programmer's guide for the Sun workstation.* Mountain View, CA, USA, revision A of 19 September 1986. edition, 1986. various pp.

Thun:1986:RNS

[2067] R. Thun. On residue number system decoding. *Acoustics, Speech, and Signal Processing [see also IEEE Transactions on Signal Processing], IEEE Transactions on*, 34(5):1346–1347, October 1986. CODEN ???? ISSN ???? URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=26200`.

Troutman:1986:DSF

[2068] W. W. Troutman, P. W. Diodato, A. K. Goksel, Mean-Sea Tsay, and R. H. Krambeck. Design of a standard floating-point chip. *IEEE Journal of Solid-State Circuits*, 21(3):396–399, June 1986. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Truong:1986:TCD

[2069] T. K. Truong, J. J. Chang, I. S. Hsu, D. Y. Pei, and I. S. Reed. Techniques for computing the discrete Fourier transform using the quadratic residue Fermat number systems. *IEEE Transactions on Computers*, C-35(11): 1008–1012, November 1986. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676704`.

Twaddell:1986:HPM

[2070] W. Twaddell. Higher performance marks floating-point chips. *Computer Design*, 25(8):24–30, April 15, 1986. CODEN CMPDAM. ISSN 0010-4566.

Vaccaro:1986:SDF

[2071] J. Vaccaro, B. Johnson, and C. Nowacki. A systolic discrete Fourier transform using residue number systems over the ring of Gaussian integers. In *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '86*, pages 1157–1160. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, August 1986.

Verma:1986:DEF

[2072] Deepak Verma. Design of an efficient floating point vector coprocessor of an advanced microcomputer system. Thesis (M.S.), Department of Computer Engineering and Science, Case Western Reserve University, Cleveland, OH 44106, USA, 1986. viii + 121 pp.

Waterhouse:1986:TMW

[2073] William C. Waterhouse. The teaching of mathematics: Why square roots are irrational. *American Mathematical Monthly*, 93(3):213–214, March 1986. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Weitek:1986:WSW

[2074] Weitek Corporation. WTL 1164/WTL 1165 64-bit IEEE floating-point multiplier/divider and ALU. Technical report, Weitek Corporation, 1060 E. Arques Ave., Sunnyvale, CA 94086-BRM-9759, USA, July 1986.

Wichmann:1986:FPI

[2075] Brian A. Wichmann. Floating point interval arithmetic for validation. Technical report, National Physical Laboratory, Division of Information Technology and Computing, Teddington Middlesex, 1986. i + 12 pp.

Wollenberg:1986:SRD

[2076] R. Wollenberg and R. Milnikel. Schnelles Radizierverfahren durch Tabellenzugriff [*English:* Fast Square-rooting Method by Means of Table Lookup]. *Elektronik*, 6:79–82, 1986. CODEN EKRKAR. ISSN 0013-5658.

Agarwal:1987:CNS

[2077] Ramesh C. Agarwal, James W. Cooley, Fred G. Gustavson, James B. Shearer, Gordon Slishman, and Bryant Tuckerman. Clarification: "New scalar and vector elementary functions for the IBM System/370" [IBM J. Res. Develop. **30** (1986), no. 2, 126–144]. *IBM Journal of Research and Development*, 31(2):274, March 1987. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). See [1986].

Agrawal:1987:CEF

[2078] J. C. Agrawal and P. S. Sehdev. Comparison and evaluation of floating point representations in IBM/370 and VAX-11/780. In Zunde and Agrawal [7778], pages 353–369. ISBN 0-306-42817-2. LCCN QA75.5 .S956 1986.

Ahmad:1987:IDA

[2079] M. Ahmad. Implementable decimal arithmetic algorithms for micro/minicomputers. *Microprocessing and Microprogramming*, 19(2):119–128, February 1987. CODEN MMICDT. ISSN 0165-6074 (print), 1878-7061 (electronic).

Anonymous:1987:BRCe

[2080] Anonymous. Book review: *Computer arithmetic — scientific computation and programming languages*: E. Kaucher, U. Kulisch and Ch. Ullrich (Eds): B. G. Teubner, Stuttgart, 1987, 456 pages, DM 28.00, ISBN 3-519- 02448-9. *Mathematics and Computers in Simulation*, 29(5):448–449, October 1987. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic). URL https://www.sciencedirect.com/science/article/pii/0378475487900863.

Anonymous:1987:MAU

[2081] Anonymous. Multiply-addition — an ultra high performance dataflow. *IBM Technical Disclosure Bulletin*, 30(3):982–987, August 1987. CODEN IBMTAA. ISSN 0018-8689.

ANSI:1987:AIS

[2082] ANSI/IEEE. *ANSI/IEEE Std 854-1987: An American National Standard: IEEE Standard for Radix-Independent Floating-Point Arithmetic*. IEEE, New York, NY, USA, October 5, 1987. ISBN 0-7381-1167-8. v + 14 pp. US$44.00. URL http://ieeexplore.ieee.org/xpl/standardstoc.jsp?isnumber=1121&isYear=1987; https://ieeexplore.ieee.org/iel1/2502/1121/00027840.pdf. Revised 1994. INSPEC Accession Number: 3095617.

Ardalan:1987:FPR

[2083] S. Ardalan and S. Alexander. Fixed-point roundoff error analysis of the exponentially windowed RLS algorithm for time-varying systems. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 35(6):770–783, June 1987. CODEN IETABA. ISSN 0096-3518.

Azmi:1987:FPS

[2084] Aqil M. Azmi. A floating point system with variable-length exponent. Thesis (M.S.), University of Colorado, Boulder, CO, USA, 1987. viii + 73 pp.

Balsara:1987:SSS

[2085] Paras T. Balsara and Robert M. Owens. Systolic and semi-systolic digit serial multipliers. In Irwin and Stefanelli [7772], pages 169–173. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Balsara_Owens.pdf`.

Baranyk:1987:EBP

[2086] Michael L. Baranyk. Extensions beyond the proposed IEEE standard number 754 for binary floating point arithmetic. Thesis (M.S.), Marquette University, Milwaukee, WI, USA, 1987. various pp.

Barrett:1987:FAR

[2087] Geoff Barrett. A formal approach to rounding. In Irwin and Stefanelli [7772], pages 247–254. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Barrett.pdf`.

Barrett:1987:FMA

[2088] Geoff Barrett. Formal methods applied to a floating point number system. Technical monograph PRG 58, Oxford University Computing Laboratory, Oxford, England, 1987. 47 pp.

Boettner:1987:QA

[2089] H. Böttner. Quadratwurzel-Algorithmus [*English:* Square-Root Algorithms]. *mc*, 5:58, 1987. ISSN 0720-4442, 0941-777x, 0943-5409.

Bohlender:1987:DFP

[2090] G. Bohlender and T. Teufel. A decimal floating-point processor for optimal arithmetic. In Kaucher et al. [7774], pages 31–58. ISBN 3-519-02448-9. LCCN QA76.9.C62 C69 1987.

Boisvert:1987:AAH

[2091] Ronald F. Boisvert. Algorithm 651: Algorithm HFFT—high-order fast-direct solution of the Helmholtz equation. *ACM Transactions on Mathematical Software*, 13(3):235–249, September 1987. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org/pubs/citations/journals/toms/1987-13-3/p235-boisvert/`. See also [2133].

Bose:1987:DAR

[2092] B. Bose. 2-dimensional arithmetic residue check codes. *Computers and Mathematics with Applications*, 13(5–6):547–554, ???? 1987. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0898122187900824`.

Bose:1987:FMD

[2093] B. K. Bose, L. Pei, G. S. Taylor, and D. A. Patterson. Fast multiply and divide for a VLSI floating-point unit. In Irwin and Stefanelli [7772], pages 87–93. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Bose_Pei_Taylor_Patterson.pdf`.

Braune:1987:HSF

[2094] K. Braune. *Hochgenaue Standardfunktionen für reelle und komplexe Punkte und Intervalle in beliebigen Gleitpunktrastern [*English: *High-Accuracy Elementary Functions for Real and Complex Points and Intervals in Arbitrary Floating-Point Systems]*. Dissertation, Universität Karlsruhe, Karlsruhe, Germany, 1987. ?? pp.

Breuer:1987:NMR

[2095] P. T. Breuer. A new method for real rational uniform approximation. In Mason and Cox [7777], pages 265–284. ISBN 0-19-853612-7. LCCN QA221 .A5361 1987; QA221 .I47 1985. US$90.

Carter:1987:SAT

[2096] Tony M. Carter. Structured arithmetic tiling of integrated circuits. In Irwin and Stefanelli [7772], pages 41–48. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Carter.pdf`.

Cavallaro:1987:CAS

[2097] Joseph R. Cavallaro and Franklin T. Luk. CORDIC arithmetic for an SVD processor. In Irwin and Stefanelli [7772], pages 113–120. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Cavallaro_Luk.pdf`.

Chandra:1987:ACR

[2098] D. V. Chandra. Accumulation of coefficient roundoff error in fast Fourier transforms implemented with logarithmic number system. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 35(11):1633–1636, November 1987. CODEN IETABA. ISSN 0096-3518.

Chen:1987:MFP

[2099] Chang-Fuu Chen. A modified floating-point code for voice coding and its applications. *Journal of the Chinese Institute of Engineers = Chung-kuo kung ch'eng hsueh kan*, 10(4):421–427, July 1987. CODEN CKCKDZ. ISSN 0253-3839.

Ciminiera:1987:PMB

[2100] Luigi Ciminiera. Parallel multipliers based on horizontal compressors. In Irwin and Stefanelli [7772], pages 63–69. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Ciminiera.pdf`.

Clenshaw:1987:LIA

[2101] C. W. Clenshaw and Frank W. J. Olver. Level-index arithmetic operations. *SIAM Journal on Numerical Analysis*, 24(2):470–485, April 1987. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Colagrossi:1987:NAT

[2102] A. Colagrossi and A. Miola. A normalization algorithm for truncated p-ADIC arithmetic. In Irwin and Stefanelli [7772], pages 212–216. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Colagrossi_Miola.pdf`.

Cosnard:1987:FAC

[2103] M. Cosnard, A. Guyot, B. Hochet, Jean-Michel Muller, H. Ouaouicha, P. Paul, and E. Zysman. The FELIN arithmetic coprocessor chip.

In Irwin and Stefanelli [7772], pages 107–112. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Cosnard_Guyot_Hochet_Muller_Ouaouicha_Paul_Zysman.pdf.

Crockett:1987:PFF

[2104] Thomas W. Crockett. Performance of Fortran floating-point operations on the Flex/32 multicomputer. ICASE Interim Report 4, ICASE, NASA Langley Research Center, Hampton, VA, USA, 1987. ???? pp.

Crowell:1987:FPA

[2105] Charles Crowell. Floating-point arithmetic with the TMS32020. In Lin [7775], pages 245–268. ISBN 0-13-212466-1. LCCN ???? US$30.67.

Demmel:1987:EAA

[2106] James W. Demmel. On error analysis in arithmetic with varying relative precision. In Irwin and Stefanelli [7772], pages 148–152. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.netlib.org/na-digest/91/v91n39.

Dion:1987:MFA

[2107] Jeremy Dion, David Reeves Boggs, and Norman P. Jouppi. MultiTitan: four architecture papers. Technical report, Digital, Western Research Laboratory, Palo Alto, CA, USA, 1987. various pp.

DuCroz:1987:DFP

[2108] J. Du Croz and M. Pont. The development of a floating-point validation package. In Irwin and Stefanelli [7772], page 255. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987.

Duff:1987:EAP

[2109] Iain S. Duff, Jacques Laminie, Alain Lichnewsky, and François Thomasset. An experiment with arithmetic precision in linear algebra computations. *Int. J. Num. Meth. Fluids*, 7(????):1077–1092, 1987.

Duhamel:1987:ASR

[2110] Bob Duhamel. *Atari System Reference Manual*. 6915 Casselberry Way, San Diego, CA 92119, USA, 1987. URL http://atrey.karlin.mff.cuni.cz/~pavel/atari/atr11.html;

http://web.archive.org/web/20040606074520/trident.mcs.kent.edu/~clisowsk/8bit/atrpref.html. See Chapter 11: The Floating Point Arithmetic Package.

Dunham:1987:PMA

[2111] C. B. Dunham. Provably monotone approximations II. *ACM SIGNUM Newsletter*, 22(3):30–31, July 1987. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Ercegovac:1987:FCR

[2112] M. D. Ercegovac and T. Lang. On-the-fly conversion of redundant into conventional representations. *IEEE Transactions on Computers*, C-36 (7):895–897, July 1987. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Ercegovac:1987:LSC

[2113] Miloš D. Ercegovac and Tomas Lang. On-line scheme for computing rotation factors. In Irwin and Stefanelli [7772], pages 196–203. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Ercegovac_Lang.pdf.

Fandrianto:1987:AHS

[2114] Jan Fandrianto. Algorithms for high speed shared radix 4 division and radix 4 square-root. In Irwin and Stefanelli [7772], pages 73–79. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Fandrianto.pdf.

FPS:1987:AR

[2115] *Annual report*, page various, 1987. Floating Point Systems, Inc., Portland, OR, USA.

Froggatt:1987:FPC

[2116] Terry Froggatt. Fixed-point conversion, multiplication, and division in Ada. *ACM SIGADA Ada Letters*, 7(1):71–81, January/February 1987. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Grosse:1987:UCB

[2117] Eric Grosse and Cleve Moler. Underflow can be harmful. *SIAM News*, 20(6):1, 1987. ISSN 0036-1437.

Guyot:1987:WBE

[2118] Alain Guyot, Bertrand Hochet, and Jean-Michel Muller. A way to build efficient carry-skip adders. *IEEE Transactions on Computers*, C-36(10): 1144–1152, October 1987. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676855`.

Hamada:1987:NRN

[2119] Hozumi Hamada. A new real number representation and its operation. In Irwin and Stefanelli [7772], pages 153–157. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Hamada.pdf`.

Han:1987:FAE

[2120] Tackdon Han and David A. Carlson. Fast area-efficient VLSI adders. In Irwin and Stefanelli [7772], pages 49–56. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Han_Carlson.pdf`.

Herz-Fischler:1987:MHD

[2121] Roger Herz-Fischler. *A mathematical history of division in extreme and mean ratio*. Wilfrid Laurier University Press, Waterloo, ON, Canada, 1987. ISBN 0-88920-152-8. xvi + 191 pp. LCCN A481.H47 1987. US$65.00.

Hildebrand:1987:INA

[2122] Francis Begnaud Hildebrand. *Introduction to numerical analysis*. Dover, New York, NY, USA, second edition, 1987. ISBN 0-486-65363-3 (paperback). xiii + 669 pp. LCCN QA297 .H54 1987. URL `http://www.loc.gov/catdir/description/dover032/87005370.html`.

Himmeroeder:1987:CKC

[2123] H.-J. Himmeröder and R. M. Toschke. c't-KAT-Ce. Ein 68000-Einplatinenrechner, Teil 3: REAL-Arithmetik [*English:* c't-KAT-Ce. A 68000 Single-Board Computer]. *c't*, 1:152–158, 1987. ISSN 0724-8679.

Hochet:1987:SSL

[2124] Bertrand Hochet, Patrice Quinton, and Yves Robert. Systolic solution of linear systems over GF(p) with partial pivoting. In Irwin and

Stefanelli [7772], pages 161–168. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Hochet_Quinton_Robert.pdf`.

Homewood:1987:ITT

[2125] Mark Homewood, David May, David Shepherd, and Roger Shepherd. The IMS T800 transputer. *IEEE Micro*, 7(5):10–26, September/October 1987. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

HP:1987:IPH

[2126] Hewlett Packard. The IEEE proposal for handling math exceptions. In *HP-71 Reference Manual*, pages 338–345. Hewlett Packard Company, Palo Alto, CA, USA, October 1987. URL `http://www.hpmuseum.org/` . Mfg. #0071-90110, Reorder #0071-90010. First edition October 1983. Manual available from *The Museum of HP Calculators*.

Hu:1987:CDT

[2127] Timothy Hu. Circuit design techniques for a floating-point processor: research project. Master of Science, Plan II, University of California, Berkeley. Dept. of Electrical Engineering and Computer Sciences, Berkeley, CA, USA, 1987. 70 pp.

Hull:1987:TIC

[2128] T. E. Hull and M. S. Cohen. Toward an ideal computer arithmetic. In Irwin and Stefanelli [7772], pages 131–138. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Hull_Cohen.pdf`.

IEEE:1987:ISB

[2129] IEEE. IEEE standard for binary floating-point arithmetic. *ACM SIGPLAN Notices*, 22(2):9–25, February 1987. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

IEEE:1987:RIS

[2130] IEEE, editor. *854-1987 (R1994) IEEE Standard for Radix-Independent Floating-Point Arithmetic*. IEEE, New York, NY, USA, 1987. ISBN 1-55937-859-X. 16 pp. US$44.00. URL `http://standards.ieee.org/reading/ieee/std_public/description/busarch/854-1987_desc.html`. Revised 1994.

Jensen:1987:CIS

[2131] Debby Jensen. Control implementation for the SPUR floating point coprocessor: research project. Master of Science, Plan II, University of California, Berkeley. Dept. of Electrical Engineering and Computer Sciences, Berkeley, CA, USA, 1987. 76 pp.

Johnson:1987:AES

[2132] Kenneth C. Johnson. Algorithm 650: Efficient square root implementation on the 68000. *ACM Transactions on Mathematical Software*, 13(2):138–151, June 1987. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See also [2133].

Johnson:1987:CES

[2133] Kenneth C. Johnson. Corrigendum: "Algorithm 650: efficient square root implementation on the 68000" [ACM Trans. Math. Software **13** (1987), no. 2, 138–151]. *ACM Transactions on Mathematical Software*, 13(3):320, September 1987. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See [2132, 2159, 2091].

Kahan:1987:BCC

[2134] W. Kahan. Branch cuts for complex elementary functions or much ado about nothing's sign bit. In Iserles and Powell [7773], pages 165–211. ISBN 0-19-853614-3. LCCN QA297 .S781 1987. UK£55.00, US$77.50. URL `http://people.freebsd.org/~das/kahan86branch.pdf`; `http://www.cs.berkeley.edu/~dbindel/class/cs279/`.

Kahan:1987:CWF

[2135] W. Kahan. Checking whether floating-point division is correctly rounded. Lecture notes., 1987.

Kahan:1987:DPI

[2136] W. Kahan. Doubled-precision IEEE Standard 754 floating-point arithmetic. Manuscript, February 1987.

Kahan:1987:HAE

[2137] W. Kahan. Handling arithmetic exceptions. Report, Department of Mathematics and Department of Electrical Engineering and Computer Science, University of California, Berkeley, Berkeley, CA, USA, May 14, 1987. URL `http://www.arithmazium.org/classroom/lib//Kahan_Handling_Arithmetic_Exceptions.pdf`.

Kane:1987:MRR

[2138] Gerry Kane. *MIPS R2000 RISC Architecture*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1987. ISBN 0-13-584749-4. LCCN QA76.8.M52 K36 1987.

Kao:1987:ISM

[2139] Rom-Shen Kao and Fred J. Taylor. Implementation of the single modulus complex ALU. In Irwin and Stefanelli [7772], pages 21–27. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Kao_Taylor.pdf.

Kirchner:1987:AVP

[2140] R. Kirchner and U. Kulisch. Arithmetic for vector processors. In Irwin and Stefanelli [7772], pages 256–269. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Kirchner_Kulisch.pdf.

Kirchner:1987:SVS

[2141] Reinhard Kirchner and Ulrich Kulisch. Schaltungsanordnung und Verfahren zur schnellen Berechnung von Summen und Skalarprodukten von Gleitkommazahlen mit maximaler Genauigkeit mittels Pipelinetechnik. (German) [circuit diagrams and methods for fast computation of sums and scalar products of floating point numbers with maximal accuracy via pipeline technique]. *Beiträge zur angewandten Mathematik und Statistik*, pages 139–177, 1987.

Koopman:1987:TF

[2142] P. Koopman. Transcendental functions. *Forth Dimensions*, 9(4):21–22, December 1987. CODEN FODMD5. ISSN 0884-0822.

Kornerup:1987:BSA

[2143] Peter Kornerup and David W. Matula. A bit-serial arithmetic unit for rational arithmetic. In Irwin and Stefanelli [7772], pages 204–211. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Kornerup_Matula.pdf.

Kraemer:1987:ISF

[2144] W. Krämer. *Inverse Standardfunktionen für reelle und komplexe Intervallargumente mit a priori Fehlerabschätzungen für beliebige*

Datenformate [English: *Inverse Elementary Functions for Real and Complex Interval Arguments with A-Priori Error Estimates for Arbitrary Data Formats*]. Dissertation, Universität Karlsruhe, Karlsruhe, Germany, 1987. ?? pp.

Kuninobu:1987:DHS

[2145] Shigeo Kuninobu, Tamotsu Nishiyama, Hisakazu Edamatsu, Takashi Taniguchi, and Naofumi Takagi. Design of high speed MOS multiplier and divider using redundant binary representation. In Irwin and Stefanelli [7772], pages 80–86. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Kuninobu_Nishiyama_Edamatsu_Taniguchi_Takagi.pdf.

Lange:1987:ITA

[2146] Eberhard Lange. Implementation and test of the ACRITH facility in a System/370. *IEEE Transactions on Computers*, C-36(9):1088–1096, September 1987. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009539.

Leavitt:1987:APF

[2147] Randal Leavitt. Adjustable precision floating point arithmetic in Ada. *ACM SIGADA Ada Letters*, 7(5):63–78, September/October 1987. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Lien:1987:RCI

[2148] B. Lien and G. Tang. Reversed Chebyshev implementation of McClellan transform and its roundoff error. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 35(10):1435–1439, October 1987. CODEN IETABA. ISSN 0096-3518.

Lin:1987:NFP

[2149] Haixiang X. Lin and Henk J. Sips. A novel floating-point online division algorithm. In Irwin and Stefanelli [7772], pages 188–195. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Lin_Sips.pdf.

Liu:1987:BEF

[2150] Zhi-Shun Alex Liu. Berkeley elementary function test suite: Research project. Master of Science, Plan II, Computer Science Division, Department of Electrical Engineering and Computer Science, Univerity of California at Berkeley, Berkeley, CA, USA, December 1987.

Lo:1987:HGA

[2151] H.-Y. Lo and J.-L. Chen. A hardwired generalized algorithm for generating the logarithm base-k by iteration. *IEEE Transactions on Computers*, C-36(11):1363–1367, November 1987. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Maenner:1987:FIB

[2152] R. Maenner. A fast integer binary logarithm of large arguments. *IEEE Micro*, 7(6):41–45, November/December 1987. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Magenheimer:1987:IMD

[2153] Daniel J. Magenheimer, Liz Peters, Karl Pettis, and Dan Zuras. Integer multiplication and division on the HP Precision Architecture. *ACM SIGPLAN Notices*, 22(10):90–99, October 1987. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Makarenko:1987:VMM

[2154] Darrell Makarenko and Jonathan Schaeffer. A VLSI multiprecision matrix multiplier and polynomial evaluator. *Journal of Parallel and Distributed Computing*, 4(6):619–628, December 1987. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Manzoul:1987:QCN

[2155] Mahmoud A. Manzoul. A quaternary complex number CCD adder (abstract only). In Davis and McClintock [7771], page 434. ISBN 0-89791-218-7. LCCN ???? ACM order number 404870.

Mariella:1987:IDF

[2156] Ray Mariella. Integers don't float. *Dr. Dobb's Journal of Software Tools*, 12(12):48–??, December 1987. CODEN DDJOEB. ISSN 1044-789X.

Mays:1987:IDA

[2157] Michael E. Mays. Iterating the division algorithm. *Fibonacci Quarterly*, 25(3):204–213, August 1987. CODEN FIBQAU. ISSN 0015-0517. URL `http://www.fq.math.ca/Scanned/25-3/mays.pdf`.

McMcusersmanual:1987:MMF

[2158] Motorola, Inc. *MC68881/MC68882 floating-point coprocessor user's manual*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1987. ISBN 0-13-566936-7 (pbk.). various pp. LCCN ????

Monahan:1987:AGC

[2159] John F. Monahan. An algorithm for generating chi random variables. *ACM Transactions on Mathematical Software*, 13(2):168–172, June 1987. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See also [2133, 2306].

Montgomery:1987:SPE

[2160] Peter L. Montgomery. Speeding the Pollard and elliptic curve methods of factorization. *Mathematics of Computation*, 48(177):243–264, January 1987. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). See improvement [7479].

Motorola:1987:MFP

[2161] Motorola, Inc. MC68881 floating-point coprocessor as a peripheral in an M68000 system. Motorola Semiconductor Application Note AN947/D, Motorola, Inc., Phoenix, AZ, USA, 1987. 37 pp. URL http://www.bitsavers.org/components/motorola/_appNotes/AN-0947_MC68881_Floating-Point_Coprocessor_as_a_Peripheral_in_a_M68000_System_%5BMotorola_1987_37p%5D.pdf.

Motorola:1987:MMF

[2162] Motorola, Inc. *MC68881/MC68882 Floating-Point Coprocessor User's Manual*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1987. ISBN 0-13-566936-7. various pp. LCCN QA76.8.M69 M3 1987.

Mutrie:1987:FEA

[2163] Mark P. W. Mutrie, Richard H. Bartels, and Bruce W. Char. Floating-point error analysis using symbolic algebraic computation. Research report CS-87-08, University of Waterloo, Faculty of Mathematics, Waterloo, Ont., Canada, 1987. 13 pp.

Nakano:1987:MAD

[2164] Hiraku Nakano. Method and apparatus for division using interpolation approximation. United States Patent 4,707,798, November 17, 1987. URL http://www.freepatentsonline.com/4707798.html.

Nelsen:1987:PSR

[2165] Roger B. Nelsen and James E. Schultz. The probability that the "Sum of the rounds" equals the "Round of the sum". *College Mathematics Journal*, 18(5):390–396, November 1987. CODEN ???? ISSN 0746-8342 (print), 1931-1346 (electronic). URL http://www.jstor.org/stable/2686963; http://www.tandfonline.com/doi/abs/10.1080/07468342.1987.11973061.

Obermaier:1987:SCI

[2166] A. Obermaier. Sin und cosin mit Integerarithmetik [*English:* Sine and Cosine with Integer Arithmetic]. *mc*, 6:108–112, 1987. ISSN 0720-4442, 0941-777x, 0943-5409.

Olver:1987:CCA

[2167] F. W. J. Olver. A closed computer arithmetic. In Irwin and Stefanelli [7772], pages 139–143. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Olver.pdf.

Olver:1987:ILI

[2168] F. W. J. Olver and P. R. Turner. Implementation of level-index arithmetic using partial table look-up. In Irwin and Stefanelli [7772], pages 144–147. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Olver_Turner.pdf.

Owens:1987:AC

[2169] Robert Michael Owens and Mary Jane Irwin. The arithmetic cube. *IEEE Transactions on Computers*, C-36(11):1342–1348, November 1987. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009473.

Papachristou:1987:ATL

[2170] Christos A. Papachristou. Associative table lookup processing for multioperand residue arithmetic. *Journal of the Association for Computing Machinery*, 34(2):376–396, April 1987. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Parhami:1987:CTL

[2171] B. Parhami. On the complexity of table lookup for iterative division. *IEEE Transactions on Computers*, C-36(10):1233–1236, October 1987. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676863.

Parhami:1987:SUC

[2172] Behrooz Parhami. Systolic up/down counters with zero and sign detection. In Irwin and Stefanelli [7772], pages 174–178. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Parhami.pdf.

Peng:1987:ISM

[2173] Victor Peng, Sridhar Samudrala, and Moshe Gavrielov. On the implementation of shifters, multipliers, and dividers in VLSI floating point units. In Irwin and Stefanelli [7772], pages 95–102. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Peng_Samudrala_Gavrielov.pdf.

Perlmutter:1987:A

[2174] D. Perlmutter and A. K.-W. Yuen. The 80387 and its applications. *IEEE Micro*, 7(4):42–57, July/August 1987. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Pfeiffer:1987:ADP

[2175] F. W. Pfeiffer. Automatic differentiation in PROSE. *ACM SIGNUM Newsletter*, 22(1):2–8, January 1987. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Piuri:1987:FTS

[2176] Vincenzo Piuri. Fault-tolerant systolic arrays: An approach based upon residue arithmetic. In Irwin and Stefanelli [7772], pages 230–238. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Piuri.pdf.

Prado:1987:FSR

[2177] J. Prado and R. Alcantara. A fast square-rooting algorithm using a digital signal processor. *Proceedings of the IEEE*, 75(2):262–264, February 1987. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic).

Purdy:1987:IDL

[2178] C. N. Purdy and G. B. Purdy. Integer division in linear time with bounded fan-in. *IEEE Transactions on Computers*, C-36(5):640–644, May 1987. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676952.

Rall:1987:ISC

[2179] L. B. Rall. An introduction to the scientific computing language Pascal-SC. *Computers and Mathematics with Applications*, 14(1):53–69, 1987. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

Rauch:1987:MCH

[2180] K. Rauch. Math chips: How they work: Augmenting microprocessors, they speed up math operations while giving systems designers a variety of performance, cost, and integration options. *IEEE Spectrum*, 24(7): 25–30, July 1987. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Reddy:1987:STF

[2181] Chakradher Ayyalaper Reddy. A self-testing and testable floating point divider. Thesis (M.S.), Mississippi State University. Department of Electrical Engineering, Mississippi State, MS 39762, USA, 1987. viii + 103 pp.

Redinbo:1987:PCT

[2182] G. Robert Redinbo. Protecting convolution-type arithmetic array calculations with generalized cyclic codes. In Irwin and Stefanelli [7772], pages 219–225. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Redinbo.pdf.

Rehmer:1987:DIM

[2183] Karl Rehmer. Development and implementation of the Magnavox generic Ada basic mathematics package. *ACM SIGADA Ada Letters*, 7(3):73–83, May/June 1987. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Robertson:1987:EDC

[2184] James E. Robertson. Error-detection and correction for addition and subtraction through use of higher radix extensions of Hamming codes. In Irwin and Stefanelli [7772], pages 226–229. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Robertson.pdf.

Rolfe:1987:FIS

[2185] Timothy J. Rolfe. On a fast integer square root algorithm. *ACM SIGNUM Newsletter*, 22(4):6–11, October 1987. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Rysavy:1987:MSC

[2186] M. Rysavý. MISHA — a system for calculations with arbitrary arithmetic precision. *Computer Physics Communications*, 47(2–3):351–359, November/December 1987. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL http://www.sciencedirect.com/science/article/pii/0010465587901202.

Scheidt:1987:DFP

[2187] J. K. Scheidt and C. W. Schelin. Distributions of floating point numbers. *Computing: Archiv fur informatik und numerik*, 38(4):315–324, 1987. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Scherson:1987:VCO

[2188] Isaac D. Scherson and Yiming Ma. Vector computations on orthogonal memory access multiprocessor system. In Irwin and Stefanelli [7772], pages 28–36. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Scherson_Ma.pdf.

Schumacher:1987:CAI

[2189] Günter Schumacher. Computer arithmetic and ill-conditioned algebraic problems. In Irwin and Stefanelli [7772], pages 270–276. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Schumacher.pdf.

Sharma:1987:ATE

[2190] Ramautar Sharma. Area-time efficient arithmetic elements for VLSI systems. In Irwin and Stefanelli [7772], pages 58–62. ISBN 0-8186-0774-

2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Sharma.pdf.

Shenoy:1987:AST

[2191] A. Shenoy and R. Kumaresan. An accurate scaling technique in improved residue number system arithmetic. In *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '87*, pages 1414–1417. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, ???? 1987.

Shyu:1987:CIM

[2192] H. C. Shyu, T. K. Truong, and I. S. Reed. A complex integer multiplier using the quadratic-polynomial residue number system with numbers of form $22n + 1$. *IEEE Transactions on Computers*, C-36(10):1255–1258, October 1987. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=12; http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=35260; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676868.

Simar:1987:FPA

[2193] R. Simar, Jr. Floating-point arithmetic with the TMS32010. In Lin [7775], pages 213–244. ISBN 0-13-212466-1. LCCN ???? US$30.67.

Smith:1987:SAE

[2194] S. G. Smith and P. B. Denyer. Synthesis of area-efficient VLSI architectures for vector and matrix multiplication. In Irwin and Stefanelli [7772], pages 13–20. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Smith_Denyer.pdf.

Spangler:1987:RMM

[2195] R. A. Spangler. Revealing the mystery—the machine and how it functions. In Anbar [7769], pages 9–46. ISBN 0-88175-080-8. LCCN ???? US$32.95.

Sun:1987:SAM

[2196] Sun Microsystems, 2550 Garcia Avenue, Mountain View, CA 94043, USA. *The SPARC Architecture Manual*, part no: 800-1399-07 edition, August 8 1987.

Takagi:1987:LED

[2197] Naofumi Takagi and Shuzo Yajima. On-line error-detectable high-speed multiplier using redundant binary representation and three-rail logic. *IEEE Transactions on Computers*, C-36(11):1310–1317, November 1987. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009470`.

Takagi:1987:SHA

[2198] Naofumi Takagi. *Studies on Hardware Algorithms for Arithmetic Operations with a Redundant Binary Adder*. PhD dissertation, Department of Information Sciences, Faculty of Engineering, Kyoto University, Kyoto, Japan, August 1987. vii + 150 pp. URL `http://hdl.handle.net/2433/154053; https://repository.kulib.kyoto-u.ac.jp/server/api/core/bitstreams/b38960be-ee22-458e-9899-ed77db01155e/content;`.

Taylor:1987:RAI

[2199] Fred J. Taylor. A residue arithmetic implementation of the FFT. *Journal of Parallel and Distributed Computing*, 4(2):191–208, April 1987. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Thompson:1987:FME

[2200] T. Thompson. Fast math — a first look at Motorola's 68882 math coprocessor. *Byte Magazine*, 12(12):120–121, December 1987. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Thompson:1987:IEF

[2201] P. Thompson. Implementing an elementary function library. *ACM SIGNUM Newsletter*, 22(2):2–5, April 1987. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Tu:1987:RLD

[2202] Paul K. G. Tu and Miloš D. Ercegovac. A radix-4 on-line division algorithm. In Irwin and Stefanelli [7772], pages 181–187. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Tu_Ercegovac.pdf`.

Turner:1987:DDI

[2203] Peter R. Turner. The distribution of l.s.d. and its implications for computer design. *The Mathematical Gazette*, 71(455):26–31, March 1987. CODEN MAGAAS. ISSN 0025-5572 (print), 2056-6328 (electronic).

Umeo:1987:DTO

[2204] Hiroshi Umeo. A design of time-optimum and register-number-minimum systolic convolver. In Irwin and Stefanelli [7772], pages 5–12. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Umeo.pdf`.

Ushio:1987:CRE

[2205] T. Ushio and C. Hsu. Chaotic rounding error in digital control systems. *IEEE Transactions on Circuits and Systems*, 34(2):133–139, February 1987. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Vachss:1987:CMF

[2206] R. Vachss. The Cordic magnification function. *IEEE Micro*, 7(5):83–84, September/October 1987. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Vitek:1987:EFA

[2207] V. Vitek. Enumeration in floating-point arithmetic. *ASR - Bulletin INORGA*, 21(6):301–305, ???? 1987. ISSN 0231-8954.

Wang:1987:EEF

[2208] Kai Hwang, H. C. Wang, and Z. Xu. Evaluating elementary functions with Chebyshev polynomials on pipeline nets. In Irwin and Stefanelli [7772], pages 121–128. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Hwang_Wang_Xu.pdf`.

WeitekCorporation:1987:WFP

[2209] Weitek Corporation, Sunnyvale, CA, USA. *WTL 1167 floating point coprocessor: preliminary data*, 1987. 54 pp.

Williams:1987:FPL

[2210] Robert Leslie Williams. A floating point loop engine architecture using pattern generation. Thesis (M.S.), University of New Mexico, Albuquerque, NM, USA, 1987. ix + 92 pp.

Williams:1987:STC

[2211] T. E. Williams, M. Horowitz, R. L. Alverson, and T. S. Yang. A self-timed chip for division. In Losleben [7776], pages 75–96. ISBN 0-262-12121-2. LCCN TK7888.4 .A4 1987.

Wu:1987:FDS

[2212] I-Chen Wu. A fast 1-D serial-parallel systolic multiplier. *IEEE Transactions on Computers*, C-36(10):1243–1247, October 1987. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1676865`.

Wu:1987:TRF

[2213] Chwan-Ghia Wu, Lih-Ren Tzeng, and Tien-Shou Wu. Time-redundant fault-masking in ALUs. In Irwin and Stefanelli [7772], pages 239–243. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987. URL `http://www.acsel-lab.com/arithmetic/arith8/papers/ARITH8_Wu_Cheng_Wu.pdf`.

Zaccone:1987:ENP

[2214] Richard J. Zaccone and Jesse L. Barlow. Eliminating the normalization problem in digit on-line arithmetic. *IEEE Transactions on Computers*, C-36(1):36–46, January 1987. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009447`.

Zurawski:1987:DHS

[2215] J. H. P. Zurawski and J. B. Gosling. Design of a high-speed square root multiply and divide unit. *IEEE Transactions on Computers*, C-36(1):13–23, January 1987. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5009445`.

Aberth:1988:PNA

[2216] Oliver Aberth. *Precise Numerical Analysis*. William C. Brown Company Publishers, Dubuque, IA, USA, 1988. ISBN 0-697-06760-2. x + 225 pp. LCCN QA297 .A28 1988.

Alt:1988:FEP

[2217] René Alt. Floating-point error propagation in iterative methods. stochastic methods in round-off error analysis. *Mathematics and Computers in Simulation*, 30(6):505–517, 1988. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic).

Alt:1988:FPE

[2218] R. Alt. Floating-point error propagation in iterative methods. *Mathematics and Computers in Simulation*, 30(6):505–517, December 1988. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic).

AMD:1988:IFP

[2219] Advanced Micro Devices. IEEE floating-point format. *Microprocessors and Microsystems*, 12(1):13–23, January/February 1988. CODEN MIMID5. ISSN 0141-9331 (print), 1872-9436 (electronic).

An:1988:CRE

[2220] S. H. An and K. Yao. Convergent and roundoff error properties of reflection coefficients in adaptive spatial recursive least squares lattice algorithm. *IEEE Transactions on Circuits and Systems*, 35(2):241–246, February 1988. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Anderson:1988:MRE

[2221] Ned Anderson. Minimum relative error approximations for $1/t$. *Numerische Mathematik*, 54(2):117–124, November 1988. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Anonymous:1988:IGI

[2222] Anonymous. IMACS-GAMM international symposium on computer arithmetic and self-validating numerical methods. *Mathematics and Computers in Simulation*, 30(6):572, December 1988. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic). URL `https://www.sciencedirect.com/science/article/pii/0378475488900912`.

Apple:1988:ANM

[2223] Apple Computer, Inc. *Apple Numerics Manual*. The Apple technical library. Addison-Wesley, Reading, MA, USA, second edition, 1988. ISBN 0-201-17738-2. xxvi + 294 pp. LCCN QA76.8.A662 A767 1988. US$29.95.

Bailey:1988:EHS

[2224] David H. Bailey. Extra high speed matrix multiplication on the Cray-2. *SIAM Journal on Scientific and Statistical Computing*, 9(3):603–607, May 1988. CODEN SIJCD4. ISSN 0196-5204.

Bandyopadhyay:1988:SAF

[2225] S. Bandyopadhyay, G. A. Jullien, and A. Sengupta. A systolic array for fault tolerant digital signal processing using a residue number system approach. In *Proceedings of the International Conference on Systolic Arrays, 1988. 25–27 May 1988*, pages 577–586. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. CODEN ???? ISSN ????

Banning:1988:PRF

[2226] Craig Banning. Perfectly rounded floats. *C Users Journal*, 6(2):14–??, February 1988. ISSN 0898-9788.

Barany:1988:FEI

[2227] T. E. Barany. Fast evaluation of integer roots in microcontroller systems. *Microprocessors and Microsystems*, 12(6):341–344, July–August 1988. CODEN MIMID5. ISSN 0141-9331 (print), 1872-9436 (electronic).

Barlow:1988:EAU

[2228] Jesse Louis Barlow and Richard J. Zaccone. Error analysis in unnormalized floating point arithmetic. Technical report CS-88-33, Pennsylvania State University, Department of Computer Science, University Park, PA, USA, 1988. 12 pp.

Barlowe:1988:EAU

[2229] Jesse L. Barlowe. Error analysis in unnormalized floating point arithmetic. Technical report CS-88-10, Pennsylvania State University, Department of Computer Science, University Park, PA, USA, 1988. 14 pp.

BenChorin:1988:NPC

[2230] S. Ben-Chorin. NS32532-NS32580 processor cluster delivers high floating-point performance. In Midcon [7792], pages 243–248. ISBN ???? LCCN ????

Bewick:1988:ANB

[2231] G. Bewick, P. Song, G. De Micheli, and M. Flynn. Approaching a nanosecond: a 32-bit adder. In IEEE ICCD '88 [7786], pages 221–226. ISBN 0-8186-8872-6. LCCN TK 7888.4 I23 1988.

Birman:1988:DHS

[2232] M. Birman, G. Chu, L. Hu, J. McLeod, N. Bedard, F. Ware, L. Torban, and C. M. Lim. Design of a high-speed arithmetic datapath. In IEEE ICCD '88 [7786], pages 214–216. ISBN 0-8186-8872-6. LCCN TK 7888.4 I23 1988.

Blaker:1988:FPB

[2233] David Mark Blaker. Floating point bit-sequential arithmetic units. Thesis (M.S.), Lehigh University, Bethlehem, PA, USA, 1988. vi + 73 pp.

Bohlender:1988:IFA

[2234] Gerd Bohlender. Is floating-point arithmetic still adequate? *Systems analysis and simulation*, 46:105–108, 1988.

Bose:1988:VDT

[2235] Bidyut Kumar Bose. VLSI design techniques for floating-point computation. Report UCB/CSD 88/469, University of California, Berkeley, Computer Science Division, Berkeley, CA, USA, 1988. vi + 173 pp.

Brooks:1988:VIF

[2236] Kelvin R. Brooks. The VLSI implementation of a floating-point multiplier. Thesis (M.S.), North Carolina A&T State University, Greensboro, NC, USA, 1988. x + 78 pp.

Brosnan:1988:MED

[2237] T. J. Brosnan and N. R. Strader II. Modular error detection for bit-serial multiplication. *IEEE Transactions on Computers*, 37(9):1043–1052, September 1988. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=2255`.

Byington:1988:HGB

[2238] Carl Byington. How to get better floating-point results. *Byte Magazine*, 13(3):229–236, March 1988. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Callahan:1988:EII

[2239] D. Callahan, J. Cocke, and K. Kennedy. Estimating interlock and improving balance for pipelined architectures. *Journal of Parallel and Distributed Computing*, 5(4):334–358, August 1988. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Capocelli:1988:EVN

[2240] R. M. Capocelli and R. Giancarlo. Efficient VLSI networks for converting an integer from binary system to residue number system and vice versa. *IEEE Transactions on Circuits and Systems*, 35(11):1425–1430, November 1988. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=565`.

Cappello:1988:SSSa

[2241] Peter R. Cappello and Willard L. Miranker. Systolic super summation with reduced hardware. Technical report TRCS88-27, University of California, Santa Barbara, College of Engineering Department of Computer Science, Santa Barbara, CA, USA, 1988. 8 pp.

Cappello:1988:SSSb

[2242] Peter R. Cappello and Willard L. Miranker. Systolic super summation device. US Patent 4751665, June 14, 1988. URL `http://www.patentstorm.us/patents/4751665/fulltext.html`.

Capps:1988:OAL

[2243] C. David Capps, R. Aaron Falk, and Theodore L. Houk. Optical arithmetic/logic unit based on residue arithmetic and symbolic substitution. *Applied Optics*, 27(9):1682–1686, May 1988. CODEN APOPAI. ISSN 0003-6935.

Cardarilli:1988:SPD

[2244] G. C. Cardarilli, R. Lojacono, G. Martinelli, and M. Salerno. Structurally passive digital filters in residue number systems. *IEEE Transactions on Circuits and Systems*, 35(2):149–158, February 1988. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=107`.

Cavallaro:1988:CAS

[2245] Joseph R. Cavallaro and Franklin T. Luk. CORDIC arithmetic for an SVD processor. *Journal of Parallel and Distributed Computing*, 5(3):271–290, June 1988. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Cavallaro:1988:FPC

[2246] J. R. Cavallaro and F. T. Luk. Floating point CORDIC for matrix computations. In *Proceedings 1988 IEEE International Conference on Computer Design: VLSI*, pages 40–42. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988.

Chaitin:1988:RA

[2247] Gregory J. Chaitin. Randomness in arithmetic. *Scientific American*, 259(1):80–85 (Intl. ed. 52–57), July 1988. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL `http://www.nature.com/scientificamerican/journal/v259/n1/pdf/scientificamerican0788-80.pdf`.

Chen:1988:GCM

[2248] M. C. Chen. The generation of a class of multipliers: synthesizing highly parallel algorithms in VLSI. *IEEE Transactions on Computers*, 37(3): 329–338, March 1988. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=2170.

Cheng:1988:ATM

[2249] Kuo kuang Cheng and Robert R. Seban. Algorithm theory and the microarchitecture of an optimal VLSI floating point divider. Technical report, Department of Computer Science, College of Engineering and Applied Sciences, Arizona State University, Tempe, AZ, USA, 1988. 17 pp.

Cody:1988:AMS

[2250] W. J. Cody. Algorithm 665: MACHAR: a subroutine to dynamically determine machine parameters. *ACM Transactions on Mathematical Software*, 14(4):303–311, December 1988. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1988-14-4/p303-cody/.

Cody:1988:FPS

[2251] W. J. Cody. Floating-point standards — theory and practice. In Moore [7793], pages 99–107. ISBN 0-12-505630-3. LCCN QA76.9.E94 R45 1988.

Cosentino:1988:FTS

[2252] R. J. Cosentino. Fault tolerance in a systolic residue arithmetic processor array. *IEEE Transactions on Computers*, 37(7):886–890, July 1988. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=2239.

Davila:1988:FPA

[2253] J. M. Davila, A. J. Phillips, and D. Tabak. Floating point arithmetic on a RISC. *Microprocessing and Microprogramming*, 23(1–5):179–184, March 1988. CODEN MMICDT. ISSN 0165-6074 (print), 1878-7061 (electronic).

deLange:1988:OFP

[2254] A. A. J. de Lange, A. J. van der Hoeven, E. F. Deprettere, and J. Bu. An optimal floating-point pipeline CMOS CORDIC processor. In *1988.,* *IEEE International Symposium on Circuits and Systems*, pages 2043–2047 (vol. 3). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988.

Duerksen:1988:CAP

[2255] Joel L. Duerksen. A comparative analysis of the performance of floating point and integer based line drawing algorithms for raster displays. Thesis (M.S.), Department of Computer Science, Ball State University, Muncie, IN 47306, USA, 1988. ix + 206 pp.

Dunham:1988:PMA

[2256] C. B. Dunham. Provably monotone approximations III. *ACM SIGNUM Newsletter*, 23(1):10, January 1988. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Duprat:1988:HPE

[2257] Jean Duprat and Jean-Michel Muller. Hardwired polynomial evaluation. *Journal of Parallel and Distributed Computing*, 5(3):291–309, June 1988. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Ercegovac:1988:LAD

[2258] M. D. Ercegovac and T. Lang. On-line arithmetic: a design methodology and applications in digital signal processing. In Brodersen and Moscovitz [7781], pages 252–263. ISBN 0-87942-248-3. LCCN TK5102.5 .V563 1988; TK5102.5 .V56 1988. Reprinted in [7821, 66–77].

Ercegovac:1988:LSC

[2259] Miloš D. Ercegovac and Tomas Lang. On-line scheme for computing rotation factors. *Journal of Parallel and Distributed Computing*, 5(3):209–227, June 1988. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Fam:1988:ECM

[2260] A. T. Fam. Efficient complex matrix multiplication. *IEEE Transactions on Computers*, 37(7):877–879, July 1988. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=2236`.

Farnum:1988:CSF

[2261] Charles Farnum. Compiler support for floating-point computation. *Software—Practice and Experience*, 18(7):701–709, July 1988. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Fiske:1988:RAP

[2262] S. Fiske and W. J. Dally. The reconfigurable arithmetic processor. *ACM SIGARCH Computer Architecture News*, 16(2):30–36, May 1988. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Fitzpatrick:1988:PVF

[2263] S. Fitzpatrick. Processeur à virgule flottante à 33 Mflops [*English:* 33 Mflops Floating-Point Processor]. *Electronique Industrielle*, 148:30–32, September 15, 1988.

Fuccio:1988:DAS

[2264] M. L. Fuccio, R. N. Gadenz, C. J. Garen, J. M. Huser, B. Ng, S. P. Pekarich, and K. D. Ulery. The DSP32C: AT&T's second-generation floating-point digital signal processor. *IEEE Micro*, 8(6): 30–48, November/December 1988. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Gibson:1988:GBA

[2265] J. K. Gibson. A generalisation of Brickell's algorithm for fast modular multiplication. *BIT (Nordisk tidskrift for informationsbehandling)*, 28(4): 755–763, December 1988. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=28&issue=4&spage=755`.

Grehan:1988:BBL

[2266] R. Grehan and T. Thompson. Borland beefs up its languages. *Byte Magazine*, 13(10):151–154, October 1988. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Grehan:1988:FPCa

[2267] Rick Grehan. Floating-point without a coprocessor. *Byte Magazine*, 13(9):313–319, September 1988. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Grehan:1988:FPCb

[2268] R. Grehan. Floating-point without a coprocessor, part 2. *Byte Magazine*, 13(10):293–297 (or 293–298??), October 1988. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Helminen:1988:AFP

[2269] Brenda K. Helminen. An analysis of the floating point and communication performance of the FPS T-Series hypercube. Thesis (M.S.), Michigan Technological University, Houghton, MI, USA, 1988. viii + 69 pp.

Ho:1988:ADI

[2270] Naven Chuen Wing Ho. Analysis and design of an instantaneous floating point amplifier. Thesis (M.S.), Department of Electrical Engineering, Cullen College of Engineering, University of Houston, Houston, TX, USA, 1988. xv + 185 pp.

Holt:1988:BR

[2271] Wayne E. Holt, Steven M. Cooper, Jason M. Goertz, Scott E. Levine, Joanna L. Mosher, Stanley R. Sieler, Jr., and Jacques Van Damme, editors. *Beyond RISC—An Essential Guide to Hewlett–Packard Precision Architecture*. Software Research Northwest, Inc., 17710 100th Avenue SW, Vashon Island, WA 98070, USA, 1988. ISBN 0-9618813-7-2. xvii + 342 pp. LCCN QA76.8.H66 B49 1988.

Hsu:1988:CVA

[2272] I. S. Hsu, T. K. Truong, L. J. Deutsch, and I. S. Reed. A comparison of VLSI architecture of finite field multipliers using dual, normal, or standard bases. *IEEE Transactions on Computers*, 37(6):735–739, June 1988. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=2212`.

Iacobovici:1988:HFC

[2273] S. Iacobovici. High-performance floating-point coprocessor for the NS32532 CPU. In Wescon [7796], pages 1.3/1–6. ISBN ???? LCCN ????

Iacobovici:1988:PIH

[2274] S. Iacobovici. A pipelined interface for high floating-point performance with precise exceptions. *IEEE Micro*, 8(3):77–87, May/June 1988. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Irwin:1988:SIP

[2275] M. J. Irwin. Special issue on parallelism in computer arithmetic. *Journal of Parallel and Distributed Computing*, 5(3):205–208, June 1988. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Jenkins:1988:SCP

[2276] W. K. Jenkins and E. J. Altman. Self-checking properties of residue number error checkers based on mixed radix conversion. *IEEE Transactions on Circuits and Systems*, 35(2):159–167, February 1988. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=107.

Johnstone:1988:DFP

[2277] Paul Johnstone. *Decimal floating point representation*. Thesis (Ph.D.), Tulane University, New Orleans, LA 70118, USA, 1988. vi + 101 pp.

Jouppi:1988:MFA

[2278] Norman Paul Jouppi, Jeremy Dion, David Reeves Boggs, and Michael J. K. Nielsen. MultiTitan: four architecture papers. Technical report, Digital Western Research Laboratory, Palo Alto, CA, USA, 1988. various pp.

Jouppi:1988:UVS

[2279] Norman P. Jouppi, Jonathan Bertoni, and David W. Wall. A unified vector/scalar floating-point architecture. Report WRL TN-3, Digital Western Research Laboratory, Palo Alto, CA, USA, 1988. 19 pp.

Joy:1988:OCT

[2280] Edward Bennett Joy, Paul R. Beaudet, and Pankaj K. Das. Optical communications techniques/floating point residue number system. Technical report, School of Electrical Engineering, Georgia Institute of Technology, Atlanta, GA, USA, 1988. 17 pp.

Juffa:1988:SAF

[2281] N. Juffa. Schnelle Algorithmen für Sin und Cos [*English:* Fast Algorithms for Sin and Cos]. *mc*, 5:105–107, 1988. ISSN 0720-4442, 0941-777x, 0943-5409.

Kahan:1988:AFP

[2282] William Kahan. Arithmazium: The floating point exposé. Web site, May/July 1988. URL https://www.arithmazium.org/classroom/wk88_toc.html. This site includes 27 lectures with notes and videos for CS 279 (Computer System Support for Scientific and Engineering Computation). The class handouts amount to more than 2000 pages.

Kahan:1988:CSS

[2283] W. Kahan and David Goldberg. Computer system support for scientific and engineering computation. Report, Department of

Computer Science, University of California, Berkeley, CA, USA, July 26, 1988. URL http://www.arithmazium.org/classroom/lib//Lecture_25_notes_slides.pdf. Revised 14 June 1990.

Kahaner:1988:BRP

[2284] D. K. Kahaner. Benchmarks for 'real' programs. *SIAM News*, pages A–61, November 1988. ISSN 0036-1437.

Kanada:1988:VMA

[2285] Yasumasa Kanada. Vectorization of multiple-precision arithmetic program and 201,326,000 decimal digits of π calculation. In Martin and Lundstrom [7790], pages 117–128. CODEN ???? ISBN 0-8186-0882-X (v. 1; paper), 0-8186-8882-3 (v. 1; case), 0-8186-4882-1 (v. 1: microfiche) 0-8186-8923-4 (v. 2), 0-8186-5923-X (v. 2: microfiche), 0-8186-8923-4 (v. 2: case). ISSN ???? LCCN QA76.5 .S894 1988. Two volumes. IEEE catalog number 88CH2617-9. IEEE Computer Society Order Number 882.

Kanada:1988:VMP

[2286] Yasumasa Kanada. Vectorization of multiple-precision arithmetic program and 201,326,000 decimal digits of π calculation. In *Proceedings of Supercomputing 88. Vol. II: Science and Applications*, volume 2, pages 117–128. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. CODEN ???? ISSN ????

Kida:1988:FPP

[2287] H. Kida, M. Watabe, T. Nakamikawa, S. Morinaga, S. Kawasaki, and H. Inayoshi. A floating point processing unit for the GMICRO CPU. In Sakamura [7794], pages 301–316. ISBN 0-387-70038-2 (New York), 3-540-70038-2 (Berlin), 4-431-70038-2 (Tokyo). LCCN ????

Kirchner:1988:AAV

[2288] R. Kirchner and U. Kulisch. Accurate arithmetic for vector processors. *Journal of Parallel and Distributed Computing*, 5(3):250–270, June 1988. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Knuth:1988:FM

[2289] Donald E. Knuth. Fibonacci multiplication. *Applied Mathematics Letters*, 1(1):57–60, 1988. CODEN AMLEEL. ISSN 0893-9659 (print), 1873-5452 (electronic).

Kornerup:1988:LAU

[2290] Peter Kornerup and David W. Matula. An on-line arithmetic unit for bit-pipelined rational arithmetic. *Journal of Parallel and Distributed Computing*, 5(3):310–330, June 1988. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Krishnan:1988:IRN

[2291] R. Krishnan. Implementation of recursive and nonrecursive digital filters using the single multiplexed ROM in the quadratic residue number system. In *IEEE International Symposium on Circuits and Systems, 7–9 June 1988*, volume 2, pages 1297–1300. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. CODEN ???? ISSN ????

Krishnan:1988:SCR

[2292] R. Krishnan. A single-channel ROM-based complex digital filter implementation in the quadratic residue number systems. In *International Conference on Acoustics, Speech, and Signal Processing, ICASSP-88, 11–14 April 1988*, volume 3, pages 1842–1845. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. CODEN ???? ISSN ????

Lai:1988:FAI

[2293] K. Lai and J. Valerio. The floating-point architecture of Intel's 80960. In Wescon [7796], pages 1.5/1–3. ISBN ???? LCCN ????

Lai:1988:IFS

[2294] K. Lai and J. Valerio. Integrated floating-point solution for the Intel 80960KB. In Midcon [7792], pages 249–251. ISBN ???? LCCN ????

Lawson:1988:SRR

[2295] Charles L. Lawson. Series reversion as the reversed chain rule. *ACM SIGNUM Newsletter*, 23(1):7–9, January 1988. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Liu:1988:BEF

[2296] Zhi-Shun Alex Liu. Berkeley elementary function test suite. Technical report, Computer Science Division, Department of Electrical Engineering and Computer Science, Univerity of California at Berkeley, Berkeley, CA, USA, December 30, 1988. ii + 59 pp. URL http://www.netlib.org/fp/ucbtest.tgz; http://www.ucbtest.org/zaliu-papers/zaliu-beef-doc.pdf.

Lu:1988:MCF

[2297] P. Y. Lu, A. Jain, J. Kung, and P. H. Ang. A 30-MFLOP 32b CMOS floating-point processor. In ???? [7785], pages 28, 29, 285. ISBN ???? LCCN ????

Luk:1988:AAB

[2298] Franklin T. Luk and Haesun Park. An analysis of algorithm-based fault tolerance techniques. *Journal of Parallel and Distributed Computing*, 5 (2):172–184, April 1988. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Lyu:1988:PFP

[2299] Chung nan Lyu. Pipelined floating point divider with built-in testing circuits. Thesis (M.S.), Ohio University, Athens, OH, USA, June 1988. 90 pp.

Magenheimer:1988:IMD

[2300] Daniel J. Magenheimer, Liz Peters, Karl W. Peters, and Dan Zuras. Integer multiplication and division on the HP Precision Architecture. *IEEE Transactions on Computers*, 37(8):980–990, August 1988. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Marchyulaitis:1988:SRN

[2301] Saulyus Marchyulaĭtis. Summation of real numbers in arithmetic with a floating point. A probability approach to determining the variance of absolute round-off error. (Russian). *Statist. Problemy Upravleniya*, 82: 57–68, 1988.

Maurer:1988:DVW

[2302] P. M. Maurer. Design verification of the WE 32106 math accelerator unit. *IEEE Design & Test of Computers*, 5(3):11–21, June 1988. ISSN 0740-7475 (print), 1558-1918 (electronic).

McLellan:1988:DCF

[2303] E. J. McLellan, G. M. Wolrich, and R. A. J. Yodlowski. Development of the CVAX floating-point chip. *Digital Technical Journal*, ??(7):109–120, August 1988. CODEN DTJOEL. ISSN 0898-901X.

Melear:1988:IFP

[2304] C. Melear. An integrated floating point unit for a RISC architecture. In Wescon [7796], pages 1.2/1–8. ISBN ???? LCCN ????

Milnikel:1988:SRF

[2305] R. Milnikel and R. Wollenberg. Schnelles Radizierverfahren für Gleitkommazahlen im IEEE-Format [*English:* Fast Square-rooting method for Floating-point Numbers in IEEE Format]. *Elektronik*, 8: 114–1122, 1988. CODEN EKRKAR. ISSN 0013-5658.

Monahan:1988:CAG

[2306] John F. Monahan. Corrigendum: "An algorithm for generating chi random variables". *ACM Transactions on Mathematical Software*, 14 (1):111, March 1988. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See [2159].

Motorola:1988:GPF

[2307] Motorola, Inc., Phoenix, AZ, USA. *96-bit general purpose floating-point digital-signal processor technical summary*, 1988. 23 pp.

Motorola:1988:MFP

[2308] Motorola, Inc. *MC68881/MC68882 Floating-Point Coprocessor User's Manual*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, February 1988. ISBN 0-13-566936-7. LCCN ???? US$22.50.

Nakamura:1988:SCP

[2309] S. Nakamura and K.-Y. Chu. A single chip parallel multiplier by MOS technology. *IEEE Transactions on Computers*, 37(3):274–282, March 1988. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=2164`.

Nikolos:1988:EDT

[2310] D. Nikolos, A. M. Paschalis, and G. Philokyprou. Efficient design of totally self-checking checkers for all low-cost arithmetic codes. *IEEE Transactions on Computers*, 37(7):807–814, July 1988. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=2226`.

Normand:1988:PSP

[2311] J. M. Normand. Percola: a special purpose programmable 64-bit floating-point processor. In ACM [7779], pages 55–65. ISBN 0-89791-272-1. LCCN QA76.5 .I547 1988. US$49.00. URL `http://doi.acm.org/10.1145/55364.55370`.

Oklobdzija:1988:IAV

[2312] Vojin G. Oklobdzija and Earl R. Barnes. On implementing addition in VLSI technology. *Journal of Parallel and Distributed Computing*, 5(6): 716–728, December 1988. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Papadourakis:1988:VDP

[2313] G. M. Papadourakis and J. Condorodis. A VLSI design of processing element for reconfigurable systolic architectures based on LNS. In *1988 International Conference on Acoustics, Speech, and Signal Processing: ICASSP-88, 11–14 April 1988*, volume 4, pages 2080–2083. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. CODEN ???? ISSN ????

Papamichalis:1988:TFP

[2314] P. Papamichalis and R. Simar, Jr. The TMS320C30 floating-point digital signal processor. *IEEE Micro*, 8(6):13–29, November/December 1988. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Perlman:1988:AFP

[2315] R. M. Perlman. The Am29027 — a floating-point accelerator for the Am29000 streamlined instruction processor. In Wescon [7796], pages 1.4/1–7. ISBN ???? LCCN ????

Pichat:1988:APC

[2316] M. A. Pichat. All possible computed results in correct floating-point summation. stochastic methods in round-off error analysis. *Mathematics and Computers in Simulation*, 30(6):541–552, 1988. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic).

Pier:1988:IPA

[2317] Richard Michael Pier. An IBM PC/AT-based floating point imaging workstation architecture. Thesis (M.S.E.E.), University of Washington, Seattle, WA, USA, 1988. vi + 35 pp.

Pitas:1988:FPE

[2318] I. Pitas and M. G. Strintzis. Floating point error analysis of two-dimensional, fast Fourier transform algorithms. *IEEE Transactions on Circuits and Systems*, 35(1):112–115, January 1988. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Plauger:1988:PFP

[2319] P. J. Plauger. Properties of floating-point arithmetic. *Computer Language Magazine*, 5(3):17–22, March 1988. CODEN COMLEF. ISSN 0749-2839.

Prandolini:1988:VIB

[2320] R. Prandolini and S. Sridharan. VLSI implementation of a block floating point coprocessor for the TMS320 fixed point digital signal processor. In IREE [7788], pages 33–40. ISBN ???? LCCN ????

Prather:1988:CET

[2321] R. E. Prather. Comparison and extension of theories of Zipf and Halstead. *The Computer Journal*, 31(3):248–252, June 1988. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_31/Issue_03/tiff/248.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_31/Issue_03/tiff/249.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_31/Issue_03/tiff/250.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_31/Issue_03/tiff/251.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_31/Issue_03/tiff/252.tif.

Press:1988:NRC

[2322] W. H. Press, B. P. Flannery, S. A. Teukolsky, and W. T. Vetterling. *Numerical Recipes in C: The Art of Scientific Computing*. Cambridge University Press, Cambridge, UK, 1988. ISBN 0-521-43724-5. xxii + 735 pp. LCCN QA76.73.C15 N865 1988.

Rajanala:1988:ISP

[2323] Arunkumar V. Rajanala. IEEE 754 single precision standard compatible floating point processor implemented using silicon compiler technology. Thesis (M.S.), Oregon State University, Corvallis, OR, USA, 1988. 77 pp.

Randal:1988:FPC

[2324] V. T. Randal, J. L. Schmalzel, and A. P. Shepherd. Floating-point computation using a microcontroller. In Harris and Walker [7784], pages 1243–1244. LCCN R856.A2 I344 1988. Four volumes.

Razaz:1988:TPM

[2325] M. Razaz and J. L. Schonfelder. Test procedures for measurement of floating-point characteristics of computing environments. *The Computer*

Journal, 31(1):12–16, February 1988. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic).

Ries:1988:MFP

[2326] P. S. Ries. An 8 MFLOP floating-point coprocessor for a RISC microprocessor. In Electro '88 [7783], pages 48/1/1–8. ISBN (done). LCCN TK 7801 E375 1988.

Robertazzi:1988:BOF

[2327] T. G. Robertazzi and S. C. Schwartz. Best "Ordering" for floating-point addition. *ACM Transactions on Mathematical Software*, 14(1):101–110, March 1988. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org/pubs/citations/journals/toms/1988-14-1/p101-robertazzi/`.

Rowen:1988:MRF

[2328] Chris Rowen, Mark Johnson, and Paul Ries. The MIPS R3010 floating-point coprocessor. *IEEE Micro*, 8(3):53–62, May/June 1988. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Roylance:1988:EMS

[2329] G. Roylance. Expressing mathematical subroutines constructively. In ACM LFP '88 [7780], pages 8–13. ISBN 0-89791-273-X. LCCN QA76.73.L23 A24 1988. US$27.00.

Santoro:1988:PIA

[2330] M. Santoro and M. Horowitz. A pipelined 64×64 b iterative array multiplier. In *Digest of Technical Papers, IEEE International Solid-State Circuits Conference*, pages 35–36. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, February 1988.

Schatte:1988:ASC

[2331] Peter Schatte. On the almost sure convergence of floating-point mantissas and Benford's law. *Math. Nachr.*, 135:79–83, 1988. CODEN MTMNAQ. ISSN 0025-584X.

Schatte:1988:MDC

[2332] P. Schatte. On mantissa distribution in computing and Benford's law. *Journal of Information Processing and Cybernetics: EIK*, 24(9):443–455, ???? 1988. CODEN JICYE5. ISSN 0863-0593.

Scherson:1988:MOA

[2333] Isaac D. Scherson and Smil Ruhman. Multi-operand arithmetic in a partitioned associative architecture. *Journal of Parallel and Distributed*

Computing, 5(6):655–668, December 1988. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Schwarz:1988:CLI

[2334] Jerry Schwarz. A C++ library for infinite precision floating point. In USENIX Association [7795], pages 271–281.

Scott:1988:CMM

[2335] Michael Scott. CUG247 — M.I.R.A.C.L. — a multi-precision arithmetic library. *C Users Journal*, 6(5):76–??, May 1988. ISSN 0898-9788.

Shepherd:1988:LEC

[2336] Roger Shepherd and Charles Farnum. Letter to the Editor: Compiler support for floating-point computation. *Software—Practice and Experience*, 18(12):1193–1194, December 1988. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Simon:1988:SP

[2337] Barry Simon and Richard M. Wilson. Supercalculators on the PC. *Notices of the American Mathematical Society*, 35(7):978–1001, September 1988. CODEN AMNOAN. ISSN 0002-9920 (print), 1088-9477 (electronic).

Smith:1988:ASD

[2338] S. G. Smith and P. B. Denyer. Advanced serial-data computation. *Journal of Parallel and Distributed Computing*, 5(3):228–249, June 1988. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Sohie:1988:DSP

[2339] G. R. L. Sohie and K. L. Kloker. A digital signal processor with IEEE floating-point arithmetic. *IEEE Micro*, 8(6):49–67, November/December 1988. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Sridharan:1988:BFP

[2340] S. Sridharan and G. Dickman. Block floating-point implementation of digital filters using the DSP56000. *Microprocessors and Microsystems*, 12(6):299–308, August 1988. CODEN MIMID5. ISSN 0141-9331 (print), 1872-9436 (electronic).

Startz:1988:IPC

[2341] Richard Startz. *8087/80287/80387 for the IBM PC and Compatibles: Applications and Programming with Intel's Math Coprocessors*. Robert

J. Brady Co., Bowie, MD 20715, USA, third edition, 1988. ISBN 0-13-246604-X. xviii + 296 pp. LCCN QA76.8.I2923 S79 1988.

Stasinski:1988:MRE

[2342] R. Stasinski and E. Lukasik. Minimization of rounding errors in WFTA programs. In *Acoustics, Speech, and Signal Processing, 1988. ICASSP-88., 1988 International Conference on. 11–14 April 1988*, volume 3, pages 1423–1426. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. CODEN ???? ISSN ????

Stouraitis:1988:FPL

[2343] Thanos Stouraitis and Fred J. Taylor. Floating-point to logarithmic encoder error analysis. *IEEE Transactions on Computers*, 37(7):858–863, July 1988. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Sun:1988:PG

[2344] *Programmer's guides*. Mountain View, CA, USA, 1988. 12 volumes in 1 case.

Takagi:1988:SHA

[2345] Naofumi Takagi. Studies on hardware algorithms for arithmetic operations with a redundant binary representation. Report, Department of Information Sciences, Faculty of Engineering, Kyoto University, Kyoto, Japan, January 23, 1988. vii + 150 pp. URL `http://hdl.handle.net/2433/154053; https://repository.kulib.kyoto-u.ac.jp/server/api/core/bitstreams/b38960be-ee22-458e-9899-ed77db01155e/content;`.

Taylor:1988:BLN

[2346] F. J. Taylor, R. Gill, J. Joseph, and J. Radke. A 20 bit logarithmic number system processor. *IEEE Transactions on Computers*, C-37(2): 190–199, 1988. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Taylor:1988:HFP

[2347] Fred J. Taylor. Hybrid floating point/logarithmic number system arithmetic processor. United States Patent 4,720,809, January 19, 1988. URL `http://www.freepatentsonline.com/4720809.html`.

Thistle:1988:PAH

[2348] M. R. Thistle and B. J. Smith. A processor architecture for Horizon. In IEEE [7787], pages 35–41. ISBN 0-8186-0882-X (v. 1; paper), 0-8186-

8882-3 (v. 1; case), 0-8186-4882-1 (v. 1: microfiche) 0-8186-8923-4 (v. 2), 0-8186-5923-X (v. 2: microfiche), 0-8186-8923-4 (v. 2: case). LCCN QA76.5 .S894 1988. Two volumes. Available from IEEE Service Center (Catalog number 88CH2617-9), Piscataway, NJ, USA.

Ton-That:1988:NAC

[2349] Long Ton-That. Numerical accuracy control in fixed-point arithmetic. *Mathematics and Computers in Simulation*, 30(6):553–561, December 1988. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic). URL `https://www.sciencedirect.com/science/article/pii/0378475488900766`.

Tsao:1988:AST

[2350] Nai kuan Tsao. On the accuracy of solving triangular systems in parallel. Technical report, National Aeronautics and Space Administration; For sale by the National Technical Information Service, Washington, DC, USA, 1988. ???? pp.

Venkaiah:1988:CMS

[2351] V. Ch Venkaiah and S. K. Sen. Computing a matrix symmetrizer exactly using modified multiple modulus residue arithmetic. *Journal of Computational and Applied Mathematics*, 21(1):27–40, January 1988. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0377042788903858`.

Voelzke:1988:FSAa

[2352] H. Völzke. Fließkomma-Arithmetik und IEEE-Spezifikationen. Teil 1: Standards und Strukturen [*English:* Floating-point Arithmetic and its IEEE Specification. Part 1: Standards and Structures]. *mc*, 10:123–129, 1988. ISSN 0720-4442, 0941-777x, 0943-5409.

Voelzke:1988:FSAb

[2353] H. Völzke. Fließkomma-Arithmetik und IEEE-Spezifikationen. Teil 2: Entwurf eines Fließkommapakets [*English:* Floating-point Arithmetic and its IEEE Specification. Part 2: Design of a Floating-Point Package]. *mc*, 11:78–95, 1988. ISSN 0720-4442, 0941-777x, 0943-5409.

Voelzke:1988:FSAc

[2354] H. Völzke. Fließkomma-Arithmetik und IEEE-Spezifikationen. Teil 3: Die verwendeten Algorithmen [*English:* Floating-point Arithmetic and its IEEE Specification. Part 3: The Algorithms Used]. *mc*, 12:95–108, 1988. ISSN 0720-4442, 0941-777x, 0943-5409.

Weyland:1988:LCS

[2355] Nicholas J. Weyland and Edward A. Puckett. Lossless coding for sources of floating-point and fixed-precision numbers. *IEEE Transactions on Information Theory*, 34(4):882–888, July 1988. CODEN IETTAW. ISSN 0018-9448 (print), 1557-9654 (electronic).

Wilson:1988:FPS

[2356] Pete Wilson. Floating-point survival kit. *Byte Magazine*, 13(3):217, March 1988. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Wilson:1988:NDP

[2357] Fred Wilson. A note on division of positive integers. *ACM SIG Micro Newsletter*, 19(1–2):4, June 1988. CODEN SIGMDJ. ISSN 0163-5751, 1050-916X. URL `https://dl.acm.org/doi/10.1145/62197.1096672`.

Wilson:1988:NFP

[2358] R. Wilson. Newest floating-point processors blur architectural distinctions. *Computer Design*, 27(8):32–43, April 15, 1988. CODEN CMPDAM. ISSN 0010-4566.

Wollard:1988:TSS

[2359] K. Wollard. Technology '88: Solid state. *IEEE Spectrum*, 25(1):44–46, January 1988. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Young:1988:SNMa

[2360] David M. Young and Robert Todd Gregory. *A Survey of Numerical Mathematics*, volume I. Dover, New York, NY, USA, 1988. ISBN 0-486-65691-8. x + 492 + A22 + B16 + I18 pp. LCCN QA297.Y63 1972. URL `http://www.zentralblatt-math.org/zmath/en/search/?an=0732.65002`. Corrected reprint of the 1973 original.

Yuen:1988:IFP

[2361] A. K. Yuen. Intel's floating-point processors. In Electro '88 [7783], pages 48/5/1–7. ISBN (done). LCCN TK 7801 E375 1988.

Zhou:1988:NBS

[2362] B. B. Zhou. A new bit-serial systolic multiplier over GF(2^m). *IEEE Transactions on Computers*, 37(6):749–751, June 1988. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=2216`.

Zoicas:1988:PBG

[2363] A. Zoicas, K. Grohe, and C. Kellerhoff. PC based general-purpose floating-point DSP μPD77230 board with various analog front end options and application software packages. In Lacoume et al. [7789], pages 1233–1236 vol.3. ISBN 0-444-70516-3. LCCN ???? 3 vol.

Ahmed:1989:EEF

[2364] Hassan M. Ahmed. Efficient elementary function generation with multipliers. In Ercegovac and Swartzlander, Jr. [7801], pages 52–59. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Ahmed.pdf`. IEEE catalog no. 89CH2757-3.

Amit:1989:MRE

[2365] G. Amit and U. Shaked. Minimization of roundoff errors in digital realizations of Kalman filters. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 37(12):1980–1982, December 1989. CODEN IETABA. ISSN 0096-3518.

Anonymous:1989:FAR

[2366] Anonymous. FasMath accuracy report. Report, Cyrix Corporation, Richardson, TX, USA, August 1989. ???? pp.

Arison:1989:SAN

[2367] D. Arison, A. Genusov, and L. Gerzberg. System applications of a new 32-bit floating-point DSP processor. In Chen [7800], pages 890–897 vol.2. ISBN 0-929029-15-1. LCCN ???? Two volumes. IEEE catalog number 88CH2660-9. IEEE catalog no. 88CH2835-7.

Arnold:1989:RLN

[2368] M. G. Arnold, T. A. Bailey, J. R. Cowles, and J. J. Cupal. Redundant logarithmic number systems. In Ercegovac and Swartzlander, Jr. [7801], pages 144–151. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Arnold.pdf`. IEEE catalog no. 89CH2757-3.

Ashton:1989:AFP

[2369] C. Ashton. The Am29C327 floating point processor. *Electronic Product Design*, 10(3):51–59, March 1989.

Azmi:1989:TFP

[2370] A. M. Azmi and F. Lombardi. On a tapered floating point system. In Ercegovac and Swartzlander, Jr. [7801], pages 2–9. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Azmi.pdf`. IEEE catalog no. 89CH2757-3.

Bailey:1989:FPA

[2371] D. H. Bailey, H. D. Simon, and J. T. Barton. Floating point arithmetic in future supercomputers. *The International Journal of Supercomputer Applications*, 3(3):86–90, Fall 1989. CODEN IJSAE9. ISSN 0890-2720.

Baran:1989:MST

[2372] N. Baran. The Mac SE takes off. *Byte Magazine*, 14(2):113–116, February 1989. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Bardin:1989:IUI

[2373] B. Bardin, C. Colket, and D. Smith. Implementation of unsigned integers in Ada. *ACM SIGADA Ada Letters*, 9(1):47–70, January/February 1989. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Barrett:1989:FMA

[2374] Geoff Barrett. Formal methods applied to a floating-point number system. *IEEE Transactions on Software Engineering*, 15(5):611–621, May 1989. CODEN IESEDJ. ISSN 0098-5589 (print), 1939-3520 (electronic).

Bedard:1989:WFD

[2375] N. Bedard, M. Birman, G. Chu, L. Hu, C. M. Lim, J. McLeod, L. Torban, and F. Ware. The Weitek 64-bit floating-point datapath unit. In Chen [7800], pages 898–902 (vol. 2). ISBN 0-929029-15-1. LCCN ???? Two volumes. IEEE catalog number 88CH2660-9. IEEE catalog no. 88CH2835-7.

Beliankov:1989:NPO

[2376] A. Ia Beliankov. *Nekotorye primeneniia otsenochnoi ("gruboi") arifmetiki*. Soobshcheniia po vychislitelnoi matematike. VTS AN SSSR, Moskva, Russia, 1989. 35 pp.

Benschneider:1989:MUP

[2377] B. J. Benschneider, W. J. Bowhill, E. M. Cooper, M. N. Gavrielov, P. E. Gronowski, V. K. Maheshwari, V. Peng, J. D. Pickholtz, and

S. Samudrala. A 50 MHz uniformly pipelined 64b floating-point arithmetic processor. In Wuorinen [7807], pages 50–51, 288. CODEN DTPCDE. ISBN ???? ISSN 0193-6530. LCCN TK7870 .I58 1989. IEEE catalog no. 89CH2684-9.

Benschneider:1989:PMC

[2378] Bradley J. Benschneider, William J. Bowhill, Elizabeth M. Cooper, Moshe N. Gavrielov, Paul E. Gronowski, Vijay K. Maheshwari, Victor Peng, Jeffrey D. Pickholtz, and Sridhar Samudrala. A pipelined 50-MHz CMOS 64-bit floating-point arithmetic processor. *IEEE Journal of Solid-State Circuits*, 24(5):1317–1323, October 1989. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Bleher:1989:MCA

[2379] J. Hartmut Bleher, Axel T. Gerlicher, Siegfried M. Rump, and Dieter K. Unkauf. Method and circuit arrangement for adding floating point numbers. US Patent 4866651, September 12, 1989. URL `http://www.patentstorm.us/patents/4866651/fulltext.html`.

Boddie:1989:FDC

[2380] J. R. Boddie, R. N. Gadenz, C. J. Garen, J. M. Huser, B. Ng, and S. P. Pekarich. A 32-bit floating-point DSP with C compiler. In Chen [7800], pages 880–884 vol.2. ISBN 0-929029-15-1. LCCN ???? Two volumes. IEEE catalog number 88CH2660-9. IEEE catalog no. 88CH2835-7.

Bohlender:1989:FST

[2381] Gerd Bohlender, J. Wolff von (Jurgen Wolff) Gudenberg, and Willard L. Miranker. Floating-point systems for theorem proving. Research report RC 15101 (#67356), IBM T.J. Watson Research Center, Yorktown Heights, NY, USA, November 2, 1989. 14 pp.

Brackert:1989:DLM

[2382] R. H. Brackert, Jr., M. D. Ercegovac, and A. N. Willson, Jr. Design of an on-line multiply-add module for recursive digital filters. In Ercegovac and Swartzlander, Jr. [7801], pages 34–41. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Brackert.pdf`. IEEE catalog no. 89CH2757-3.

Brightman:1989:ASF

[2383] T. Brightman. Advancing the standard in floating-point performance. *High performance systems*, 10(11):59, 62–64, November 1989. CODEN HPSYEA. ISSN 0279-2834.

Buell:1989:MIA

[2384] D. Buell and R. Ward. A multiprecise integer arithmetic package. *The Journal of Supercomputing*, 3(??):89–107, ???? 1989. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic).

Carter:1989:CHH

[2385] T. M. Carter. Cascade: hardware for high/variable precision arithmetic. In Ercegovac and Swartzlander, Jr. [7801], pages 184–191. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Carter.pdf. IEEE catalog no. 89CH2757-3.

Chan:1989:ADC

[2386] P. K. Chan and M. D. F. Schlag. Analysis and design of CMOS Manchester adders with variable carry-skip. In Ercegovac and Swartzlander, Jr. [7801], pages 86–95. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Chan.pdf. IEEE catalog no. 89CH2757-3.

Chen:1989:DRN

[2387] J. T. Chen and W. K. Jenkins. Design of a residue number system digital correlator for real-time processing in ultrasonic blood flow measurements. In *IEEE International Symposium on Circuits and Systems, 8–11 May 1989*, volume 1, pages 208–211. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Chen:1989:FCN

[2388] S. G. Chen and P. Y. Hsieh. Fast computation of the N th root. *Computers and Mathematics with Applications*, 17(10):1423–1427, 1989. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

Chen:1989:FCTa

[2389] S.-G. Chen and P. Y. Hsieh. Fast computation of the N-th root. *Computers and Mathematics with Applications*, 17(10):1423–1427, ???? 1989. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/0898122189900242.

Chinn:1989:DIA

[2390] Patty Chinn. The design, implementation, and applications of an ACT8837 floating point processor in an image processing hardware subsystem. Thesis (M.S.E.E.), University of Washingto, Seattle, WA, USA, 1989. vi + 45 + 1 pp.

Chow:1989:MXR

[2391] Paul Chow, editor. *The MIPS-X RISC Microprocessor*. The Kluwer international series in engineering and computer science. Kluwer Academic Publishers Group, Norwell, MA, USA, and Dordrecht, The Netherlands, 1989. ISBN 0-7923-9045-8. xxiv + 231 pp. LCCN QA76.8.M524 M57 1989.

Clenshaw:1989:LIA

[2392] C. W. Clenshaw, F. W. J. Olver, and Peter R. Turner. Level-index arithmetic: an introductory survey. In Turner [7806], pages 95–168. ISBN 0-387-51645-X, 0-387-13864-1. LCCN QA3 .L28 no. 1397. US$45.00.

Clenshaw:1989:RSU

[2393] C. W. Clenshaw and Peter R. Turner. Root squaring using level-index arithmetic. *Computing: Archiv fur informatik und numerik*, 43(2):171–185, June 1989. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Cody:1989:AXF

[2394] W. J. Cody. Algorithm XXX: Functions to support the IEEE standard for binary floating-point arithmetic. Technical Report MCS-P90-0789, Mathematics and Computer Science Division, Argonne National Laboratory, Argonne, IL, USA, July 1989. ?? pp.

Dadda:1989:PC

[2395] Luigi Dadda. Polyphase convolvers. In Ercegovac and Swartzlander, Jr. [7801], pages 78–85. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Dadda.pdf`. IEEE catalog no. 89CH2757-3.

Dadda:1989:SIM

[2396] Luigi Dadda. On serial-input multipliers for two's complement numbers. *IEEE Transactions on Computers*, 38(9):1341–1345, September 1989. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=29478`.

Dally:1989:MOF

[2397] W. J. Dally. Micro-optimization of floating-point operations. *ACM SIGARCH Computer Architecture News*, 17(2):283–289, April 1989. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

DAngelo:1989:DEA

[2398] S. D'Angelo and G. R. Sechi. Definition of elementary arithmetic operations by using ACM. *ACM SIG Micro Newsletter*, 20(3):160–162, August 1989. CODEN SIGMDJ. ISSN 0163-5751, 1050-916X. URL `https://dl.acm.org/doi/10.1145/75395.75414`.

Darley:1989:FPI

[2399] Henry M. Darley, Michael C. Gill, Dale C. Earl, Dinh T. Ngo, Paul C. Wang, Maria B. L. Hipona, and Jim Dodrill. Floating point/ integer processor with divide and square root functions, October 31, 1989. URL `https://patentimages.storage.googleapis.com/bb/ca/c5/ed5ce0fc874200/US4878190.pdf`. U.S. Patent No. 4,878,190 held by Texas Instruments. Expired 2008-01-29.

deLange:1989:DMA

[2400] A. A. J. de Lange, A. J. van der Hoeven, E. F. Deprettere, P. Dewilde, and J. Bu. The design of a 50 mflop arithmetic chip for massively parallel pipelined DSP algorithms: the floating point pipeline CORDIC processor. In IEE [7802], pages 410–414. ISBN 0-85296-383-1. LCCN ???? Conference publication no. 308.

Demmel:1989:FPE

[2401] J. Demmel. On floating point errors in Cholesky. LAPACK Working Note 14, Department of Computer Science, University of Tennessee, Knoxville, Knoxville, TN 37996, USA, October 1989. URL `http://www.netlib.org/lapack/lawns/lawn14.ps; http://www.netlib.org/lapack/lawnspdf/lawn14.pdf`. UT-CS-89-87, October 1989.

Dennis:1989:AAD

[2402] A. M. Dennis, C. B. Marshall, and I. A. Burgess. Algorithm and architecture design for the implementation of high order FIR filters using the residue number system. In *IEE Colloquium on Signal Processing Applications of Finite Field Mathematics, 1 June 1989*, pages 1/1–1/5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Dowling:1989:MVF

[2403] E. Dowling, M. Griffin, M. Lynch, and F. Taylor. A multi-purpose VLSI floating-point array processor. In Chen [7800], pages 730–734 vol.2. ISBN 0-929029-15-1. LCCN ???? Two volumes. IEEE catalog number 88CH2660-9. IEEE catalog no. 88CH2835-7.

Dritz:1989:RPS

[2404] K. W. Dritz. Rationale for the proposed standard for a generic package of elementary functions for Ada. Report ANL-89/2 Rev. 1, Argonne National Laboratory, Mathematics and Computer Science Division, Argonne, IL, USA, October 1989. ?? pp.

Dunham:1989:ICA

[2405] C. B. Dunham. Improvement of complex arithmetic by use of double elements. *ACM SIGNUM Newsletter*, 24(4):3–7, October 1989. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Dunham:1989:PAH

[2406] C. B. Dunham. Perturbation analysis of Horner's method for nice cases. *ACM SIGNUM Newsletter*, 24(2 and 3):8–9, April/July 1989. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Dunham:1989:S

[2407] C. B. Dunham. Summation. *ACM SIGNUM Newsletter*, 24(1):14–15, January 1989. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Duprat:1989:SRA

[2408] Jean Duprat, Yves Herreros, and Jean-Michel Muller. Some results about on-line computation of functions. In Ercegovac and Swartzlander, Jr. [7801], pages 112–118. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Duprat.pdf`. IEEE catalog no. 89CH2757-3.

Elleithy:1989:ARA

[2409] K. M. Elleithy, M. A. Bayoumi, and K. P. Lee. $\theta(\log N)$ architectures for RNS arithmetic decoding. In Ercegovac and Swartzlander, Jr. [7801], pages 202–209. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Elleithy.pdf`. IEEE catalog no. 89CH2757-3.

Ercegovac:1989:FRD

[2410] M. D. Ercegovac and T. Lang. On-the-fly rounding for division and square root. In Ercegovac and Swartzlander, Jr. [7801], pages 169–173. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Ercegovac_rounding.pdf`. IEEE catalog no. 89CH2757-3.

Ercegovac:1989:FSC

[2411] Miloš D. Ercegovac, Algirdas Avižienis, and Earl Swartzlander. Foreword: 9th Symposium on Computer Arithmetic (ARITH9). In Ercegovac and Swartzlander, Jr. [7801], page v. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_contents.pdf; http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_foreword.pdf; http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_preface.pdf`. IEEE catalog no. 89CH2757-3.

Ercegovac:1989:IMC

[2412] M. D. Ercegovac and T. Lang. Implementation of module combining multiplication, division, and square root. In *IEEE International Symposium on Circuits and Systems, 8–11 May 1989*, volume 1, pages 150–153. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Ercegovac:1989:RSR

[2413] Miloš D. Ercegovac and Tomas Lang. Radix-4 square root without initial PLA. In Ercegovac and Swartzlander, Jr. [7801], pages 162–168. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Ercegovac_radix4.pdf`. IEEE catalog no. 89CH2757-3.

Fandrianto:1989:AHS

[2414] Jan Fandrianto. Algorithms for high-speed shared radix 8 division and radix 8 square root. In Ercegovac and Swartzlander, Jr. [7801], pages 68–75. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Fandrianto.pdf`. IEEE catalog no. 89CH2757-3.

Feldstein:1989:NAP

[2415] Alan Feldstein and Richard H. Goodman. *Some aspects of floating point computation*, pages 169–181. Volume 1397 of Turner [7806], 1989. ISBN 0-387-51645-X, 0-387-13864-1. LCCN QA3 .L28 no. 1397. US$45.00.

Fowler:1989:AHS

[2416] D. L. Fowler and J. E. Smith. An accurate, high speed implementation of division by reciprocal approximation. In Ercegovac and Swartzlander, Jr. [7801], pages 60–67. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Fowler.pdf`. IEEE catalog no. 89CH2757-3.

Fried:1989:ONC

[2417] S. Fried. Optimizing numeric coprocessing. *Byte Magazine*, 14(11):221–224, ???? 1989. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Fu:1989:PMI

[2418] B. Fu, A. Saini, and P. P. Gelsinger. Performance and microarchitecture of the i486^{TM} processor. In IEEE ICCD '89 [7805], pages 182–187. ISBN 0-8186-1971-6 (paper), 0-8186-5971-8 (microfiche), 0-8186-8971-4 (case). LCCN TK 7888.4 I23 1989. IEEE catalog number 89CH2794-6.

Fujiyama:1989:FD

[2419] T. Fujiyama, Y. Shimazu, T. Tokuda, and S. Tsujimichi. A 24-bit floating-point DSP. *Mitsubishi Denki Giho*, 63(12):59–62, ???? 1989. ISSN 0369-2302.

Gamberger:1989:ISN

[2420] D. Gamberger. Incompletely specified numbers in the residue number system-definition and applications. In Ercegovac and Swartzlander, Jr. [7801], pages 210–215. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Gamberger.pdf`. IEEE catalog no. 89CH2757-3.

Games:1989:AIQ

[2421] R. A. Games, D. Moulin, S. D. O'Neil, and J. J. Rushanan. Algebraic-integer quantization an residue number system processing. In *International Conference on Acoustics, Speech, and Signal Processing, ICASSP-89, 23–26 May 1989*, volume 2, pages 948–951. IEEE Computer

Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Goel:1989:RTA

[2422] B. D. Goel, M. M. Jamali, and S. C. Kwatra. Real time architecture for vector quantization in residue number system. In *IEEE International Symposium on Circuits and Systems, 8–11 May 1989*, volume 1, pages 204–207. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Goldberg:1989:FCS

[2423] David Goldberg. Floating-point and computer systems. Technical report CSL-89-9, Xerox Corp., Palo Alto Research Center, Palo Alto, CA, USA, 1989. 58 pp.

Gonnella:1989:ACF

[2424] J. Gonnella and J. Periard. The application of core functions to residue number system signal processing. In *IEEE Military Communications Conference, 1989. MILCOM '89. Conference Record. Bridging the Gap. Interoperability, Survivability, Security, 1989*, volume 2, pages 604–608. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Gordon:1989:RDF

[2425] Stephen E. Gordon. Recursive digital filtering with digital differential analyzers and floating point incremental coders. Thesis (M.S.E.C.E.), University of Massachusetts at Amherst, Amherst, MA, USA, 1989. xi + 123 pp.

Grassmann:1989:PAR

[2426] Winfried K. Grassmann. A probabilistic analysis of rounding errors of floating point numbers. Eighteenth Manitoba Conference on Numerical Mathematics and Computing (Winnipeg, MB, 1988). *Congressus Numerantium*, 68:171–182, 1989. ISSN 0384-9864.

Grehan:1989:FPR

[2427] R. Grehan. Floating-point revisited. *Byte Magazine*, 14(4):311–318, April 1989. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Griffin:1989:ESR

[2428] M. Griffin, M. Sousa, and F. Taylor. Efficient scaling in the residue number system. In *International Conference on Acoustics, Speech, and*

Signal Processing, ICASSP-89, 23–26 May 1989, volume 2, pages 1075–1078. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Griffin:1989:RNS

[2429] M. F. Griffin and F. J. Taylor. A residue number system reduced instruction set computer (RISC) concept. In *International Conference on Acoustics, Speech, and Signal Processing, ICASSP-89, 23–26 May 1989*, volume 4, pages 2581–2584. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Groeger:1989:DRG

[2430] Detlef Gröger. Zur Division mit Rest auf Gleitkommarechnern. (German) [On division with remainder on floating point computers]. *Mathematische Semesterberichte*, 36(1):106–111, 1989. ISSN 0720-728x (print), 1432-1815 (electronic).

Guyot:1989:JLM

[2431] Alain Guyot, Bertrand Hochet, and Jean-Michel Muller. JANUS, an on-line multiplier/divider for manipulating large numbers. In Ercegovac and Swartzlander, Jr. [7801], pages 106–111. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Guyot.pdf`. IEEE catalog no. 89CH2757-3.

Hoffmann:1989:PAR

[2432] C. M. Hoffmann. The problems of accuracy and robustness in geometric computation. *Computer*, 22(3):31–39, 41, March 1989. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Hohne:1989:PHP

[2433] R. A. Hohne and R. Siferd. A programmable high performance processor using the residue number system and CMOS VLSI technology. In *Proceedings of the IEEE 1989 National Aerospace and Electronics Conference, NAECON 1989, 22–26 May 1989*, volume 1, pages 41–43. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Hollingsworth:1989:CPI

[2434] Walter Hollingsworth, Howard Sachs, and Alan Jay Smith. The Clipper^{TM} processor: Instruction set architecture and implementation. *Communications of the Association for Computing Machinery*, 32(2):

200–219, February 1989. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Hoshi:1989:RPV

[2435] T. Hoshi, K. Koya, A. Kuwata, T. Uno, M. Kashimura, T. Kuwata, T. Nishigouri, K. Obuchi, and N. Morikawa. RISC processor V/sub R/3000. *NEC Technical Journal = NEC giho*, 42(11):34–38, December 1989. CODEN NECGEZ. ISSN 0285-4139.

Hu:1989:ARM

[2436] Y. H. Hu and S. Naganathan. Angle recoding method for efficient implementation of the CORDIC algorithm. In IEEE SCS '89 [7803], pages 175–178 (Vol. 1). LCCN TK 7801 I22 1989. Three volumes.

Hu:1989:SCD

[2437] Xiaobo Hu. *A silicon compiler for dedicated mathematical systems based on CORDIC arithmetic processors*. Ph.D. thesis, Purdue University, West Lafayette, IN, USA, 1989. 184 pp. URL `https://login.ezproxy.lib.utah.edu/login?url=https://www.proquest.com/dissertations-theses/silicon-compiler-dedicated-mathematical-systems/docview/303729399/se-2`.

Huck:1989:ACA

[2438] Jerome C. Huck and Michael J. Flynn. *Analyzing Computer Architectures*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. ISBN 0-8186-8857-2, 0-8186-4857-0 (microfiche), 0-8186-8857-2 (casebound). xiii + 188 pp. LCCN QA76.9.A73 H83 1989. IEEE Computer Society order number 857. IEEE catalog number EH0285-7. SAN 264-620X.

Husby:1989:FPE

[2439] D. Husby, R. Atac, A. Cook, J. Deppe, M. Fischler, I. Gaines, T. Nash, T. Pham, T. Zmuda, E. Eichten, G. M. Hockney, P. B. Mackenzie, H. B. Thacker, and D. Toussaint. A floating point engine for lattice gauge calculations. *IEEE Transactions on Nuclear Science*, 36(1):734–737, February 1989. CODEN IRNSAM. ISSN 0018-9499 (print), 1558-1578 (electronic). URL `http://weblib.cern.ch/format/showfull?uid=1451323_18194&base=CERCER&sysnb=0105825`.

Hwang:1989:OAU

[2440] Kai Hwang and D. K. Panda. Optical arithmetic using high-radix symbolic substitution rules. In Ercegovac and Swartzlander, Jr. [7801], pages 226–232. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche).

LCCN QA 76.9 C62 S95 1989. URL http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Hwang.pdf. IEEE catalog no. 89CH2757-3.

IEC:1989:IBF

[2441] IEC. *IEC 60559 (1989-01): Binary floating-point arithmetic for microprocessor systems*. International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland. Telephone: +41 22 919 02 11. Telefax: +41 22 919 03 00. E-mail: info@iec.ch. URL: http://www.iec.ch, 1989. 45 pp. US$86.00. URL http://www.iec.ch/cgi-bin/procgi.pl/www/iecwww.p?wwwlang=E&wwwprog=cat-det.p&wartnum=019113. This Standard was formerly known as IEEE 754.

Intwala:1989:BFP

[2442] Jaiprakash D. Intwala. 8085A based floating point arithmetic system. Thesis (M.S.), California State University, Northridge, Northridge, CA, USA, 1989. viii + 81 pp.

Jain:1989:SLU

[2443] V. K. Jain, D. L. Landia, and C. E. Alvarez. Systolic L-U decomposition array with a new reciprocal cell. In IEEE ICCD '89 [7805], pages 460–465. ISBN 0-8186-1971-6 (paper), 0-8186-5971-8 (microfiche), 0-8186-8971-4 (case). LCCN TK 7888.4 I23 1989. IEEE catalog number 89CH2794-6.

Jamieson:1989:SNR

[2444] M. J. Jamieson. Short notes: Rapidly converging iterative formulae for finding square roots and their computational efficiencies. *The Computer Journal*, 32(1):93–94, February 1989. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/32/1/93.full.pdf+html; http://www3.oup.co.uk/computer_journal/hdb/Volume_32/Issue_01/tiff/93.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_32/Issue_01/tiff/94.tif. This work generalizes the Pythagorean sums in [1633, 1684].

Jenkins:1989:AFP

[2445] W. K. Jenkins and J. K. Yun. Analysis of fixed point roundoff effects in transform domain LMS adaptive filters. In *European Conference on Circuit Theory and Design, 5–8 Sep 1989*, pages 228–232. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Johnson:1989:IMA

[2446] K. R. Johnson. An iterative method for approximating square roots. *Mathematics Magazine*, 62(4):253–259, October 1989. CODEN MAMGA8. ISSN 0025-570X.

Johnstone:1989:HRF

[2447] Paul Johnstone and Frederick E. Petry. Higher radix floating point representations. In Ercegovac and Swartzlander, Jr. [7801], pages 128–135. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Johnstone.pdf. IEEE catalog no. 89CH2757-3.

Jones:1989:EDC

[2448] Tom Jones. Engineering design of the Convex C2. *Computer*, 22(1):36–44, January 1989. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Jorke:1989:AAM

[2449] Günter Jorke, Bernhard Lampe, and Norbert Wengel. *Arithmetische Algorithmen der Mikrorechentechnik [*English: *Arithmetic Algorithms of Microcomputing]*. VEB Verlag Technik, Berlin, Germany, 1989. ISBN 3-341-00515-3. 323 pp. LCCN ????

Joslin:1989:EPN

[2450] David A. Joslin. Extended Pascal — numerical features. *ACM SIGPLAN Notices*, 24(6):77–80, June 1989. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Jouppi:1989:UVSa

[2451] Norman Paul Jouppi, Jonathan Bertoni, and David Wayne Wall. A unified vector/scalar floating-point architecture. Technical report, Digital Western Research Laboratory, Palo Alto, CA, USA, July 1989. v + 23 pp.

Jouppi:1989:UVSb

[2452] N. P. Jouppi, J. Bertoni, and D. W. Wall. A unified vector/scalar floating-point architecture. *ACM SIGARCH Computer Architecture News*, 17(2):134–143, April 1989. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Kahan:1989:PCA

[2453] W. Kahan. Paradoxes in concepts of accuracy. Lecture notes from Joint Seminar on Issues and Directions in Scientific Computation, Berkeley, 1989.

Kak:1989:BAS

[2454] S. C. Kak and A. O. Barbir. The Brahmagupta algorithm for square rooting. In *Proceedings of the Twenty-First Southeastern Symposium on System Theory, 26–28 March 1989*, pages 456–459. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Kaneko:1989:VRM

[2455] K. Kaneko, T. Okamoto, M. Nakajima, Y. Nakakura, S. Gokita, J. Nishikawa, Y. Tanikawa, and H. Kadota. A VLSI RISC with 20-MFLOPS peak, 64-bit floating-point unit. *IEEE Journal of Solid-State Circuits*, 24(5):1331–1340, October 1989. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Kaneko:1989:VRP

[2456] K. Kaneko, T. Okamoto, M. Nakajima, Y. Nakakura, S. Gokita, J. Nishikawa, Y. Tanikawa, and H. Kadota. A VLSI RISC with 20-MFLOPS peak, 64-bit floating-point unit. *IEEE Journal of Solid-State Circuits*, 24(5):1331–1340, October 1989. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Kawarai:1989:OPM

[2457] S. Kawarai and T. Murakami. An optimization procedure to minimize the roundoff noise in cascade floating-point digital filters. In *Acoustics, Speech, and Signal Processing, 1989. ICASSP-89., 1989 International Conference on. 23–26 May 1989*, volume 2, pages 884–887. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Kawasaki:1989:FPV

[2458] S. Kawasaki, M. Watabe, and S. Morinaga. A floating-point VLSI chip for the TRON architecture: an architecture for reliable numerical programming. *IEEE Micro*, 9(3):26–44, May/June 1989. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Koc:1989:SAI

[2459] Ç. K. Koç and P. R. Cappello. Systolic arrays for integer Chinese remaindering. In Ercegovac and Swartzlander, Jr. [7801], pages 216–223.

ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Koc.pdf. IEEE catalog no. 89CH2757-3.

Kohn:1989:ISM

[2460] L. Kohn and N. Margulis. The i860 64-bit supercomputing microprocessor. In ACM [7798], pages 450–456. ISBN 0-89791-341-8. LCCN QA 76.5 S87 1989. IEEE 89CH2802-7.

Kohn:1989:TM

[2461] L. Kohn and S.-W. Fu. A 1,000,000 transistor microprocessor. In Wuorinen [7807], pages 54–55, 290. CODEN DTPCDE. ISBN ???? ISSN 0193-6530. LCCN TK7870 .I58 1989. IEEE catalog no. 89CH2684-9.

Komori:1989:FPE

[2462] S. Komori, H. Takata, T. Tamura, F. Asai, T. Ohno, O. Tomisawa, T. Yamasaki, K. Shima, H. Nishikawa, and H. Terada. A 40-MFLOPS 32-bit floating-point processor with elastic pipeline scheme. *IEEE Journal of Solid-State Circuits*, 24(5):1341–1347, October 1989. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Komori:1989:MBFa

[2463] S. Komori, H. Takata, T. Tamura, F. Asai, T. Ohno, O. Tomisawa, T. Yamasaki, K. Shima, H. Nishikawa, and H. Terada. A 40 MFLOPS 32-bit floating-point processor. In Wuorinen [7807], pages 46–47, 286. CODEN DTPCDE. ISBN ???? ISSN 0193-6530. LCCN TK7870 .I58 1989. IEEE catalog no. 89CH2684-9.

Komori:1989:MBFb

[2464] S. Komori, H. Takata, T. Tamura, F. Asai, T. Ohno, O. Tomisawa, T. Yamasaki, K. Shima, H. Nishikawa, and H. Terada. A 40-MFLOPS 32-bit floating-point processor with elastic pipeline scheme. *IEEE Journal of Solid-State Circuits*, 24(5):1341–1347, October 1989. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Komori:1989:MFP

[2465] S. Komori, H. Takata, T. Tamura, F. Asai, T. Ohno, O. Tomisawa, T. Yamasaki, K. Shima, H. Nishikawa, and H. Terada. A 40 MFLOPS 32-bit floating-point processor. In Wuorinen [7807], pages 46–47, 286. CODEN DTPCDE. ISBN ???? ISSN 0193-6530. LCCN TK7870 .I58 1989. IEEE catalog no. 89CH2684-9.

Kornerup:1989:ERB

[2466] Peter Kornerup and David W. Matula. Exploiting redundancy in bit-pipelined rational arithmetic. In Ercegovac and Swartzlander, Jr. [7801], pages 119–126. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Kornerup.pdf`. IEEE catalog no. 89CH2757-3.

Krishna:1989:NAC

[2467] H. Krishna and Kuo Yu Lin. New algorithms for correcting errors in redundant residue number systems. In *Twenty-Third Asilomar Conference on Signals, Systems and Computers, 1989*, pages 653–657. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Krishnan:1989:CBN

[2468] R. Krishnan. Conventional binary number system (BNS) versus residue number system (RNS) digital signal processing architecture suitable for complex digital filtering. In *Twenty-Third Asilomar Conference on Signals, Systems and Computers, 1989*, pages 873–877. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Krishnan:1989:ESA

[2469] R. Krishnan. An efficient systolic array VLSI cell architecture for the implementation of transversal filter based on the quadratic residue number systems. In *International Conference on Acoustics, Speech, and Signal Processing, ICASSP-89, 23–26 May 1989*, volume 4, pages 2585–2588. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Kulisch:1989:CGS

[2470] Ulrich Kulisch and Reinhard Kirchner. Circuitry for generating sums, especially scalar products. US Patent 4866653, September 12, 1989. URL `http://www.patentstorm.us/patents/4866653/fulltext.html`.

Lai:1989:HNS

[2471] F. S. Lai and C. E. Wu. A hybrid number system multiplier for graphics and complex arithmetic applications. In IEEE [7804], pages 352–356. ISBN ???? LCCN ???? IEEE catalog no. 89CH2631-0.

Langston:1989:DBT

[2472] J. L. Langston and K. Hinman. Digital beamforming techniques and processors based on quadratic residue number system techniques. In *IEEE Military Communications Conference, 1989. MILCOM '89. Conference Record. Bridging the Gap. Interoperability, Survivability, Security, 1989*, volume 2, pages 609–614. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Lee:1989:FIR

[2473] Jeong-A Lee and Tomas Lang. Floating-point implementation of redundant CORDIC for QR decomposition. Technical report CSD-890044, Computer Science Dept., University of California, Los Angeles, CA, USA, 1989. 15 + 8 pp.

Lee:1989:MGR

[2474] Corinna Lee. Multistep gradual rounding. *IEEE Transactions on Computers*, 38(4):595–600, April 1989. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://dlib.computer.org/tc/books/tc1989/pdf/t0593.pdf; http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=21152; http://www.computer.org/tc/tc1989/t0595abs.htm.

Lee:1989:QCC

[2475] Jon Lee. A quirk of the CRAY CFT77 compiler: IF (logical) in lieu of IF (arithmetic). *The Journal of Supercomputing*, 3(4):351–355, December 1989. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0920-8542&volume=3&issue=4&spage=351.

Levy:1989:CPA

[2476] Henry M. Levy and Richard H. Eckhouse, Jr. *Computer programming and architecture: the VAX*. Digital Press, 12 Crosby Drive, Bedford, MA 01730, USA, second edition, 1989. ISBN 1-55558-015-7. xix + 444 pp. LCCN QA76.8.V32 L48 1989.

Lewis:1989:ADB

[2477] D. M. Lewis and L. K. Yu. Algorithm design for a 30-bit integrated logarithmic processor. In Ercegovac and Swartzlander, Jr. [7801], pages 192–199. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Lewis.pdf. IEEE catalog no. 89CH2757-3.

Lin:1989:LCA

[2478] H. Lin and H. J. Sips. On-line CORDIC algorithms. In Ercegovac and Swartzlander, Jr. [7801], pages 26–33. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Lin.pdf`. IEEE catalog no. 89CH2757-3.

Lo:1989:CED

[2479] J.-C. Lo, S. Thanawastien, and T. R. N. Rao. Concurrent error detection in arithmetic and logical operations using Berger codes. In Ercegovac and Swartzlander, Jr. [7801], pages 233–240. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Lo.pdf`. IEEE catalog no. 89CH2757-3.

Lu:1989:VMI

[2480] P. Y. Lu and K. Dawallu. A VLSI module for IEEE floating-point multiplication/division/square root. In IEEE ICCD '89 [7805], pages 366–368. ISBN 0-8186-1971-6 (paper), 0-8186-5971-8 (microfiche), 0-8186-8971-4 (case). LCCN TK 7888.4 I23 1989. IEEE catalog number 89CH2794-6.

Malarkey:1989:RNS

[2481] E. C. Malarkey, G. E. Marx, J. D. Fogarty, D. Mergerian, H. K. Hahn, J. C. Bradley, P. R. Beaudet, and R. Fenton. Residue-number-system-based optical adaptive processor. In *IEEE Military Communications Conference, 1989. MILCOM '89. Conference Record. Bridging the Gap. Interoperability, Survivability, Security, 1989*, volume 2, pages 620–623. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Mansour:1989:CAS

[2482] Y. Mansour, B. Schieber, and P. Tiwari. The complexity of approximating the square root. In *30th Annual Symposium on Foundations of Computer Science, 1989*, pages 325–330. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Marshall:1989:TUT

[2483] Mark Marshall. Techniques for user testing of the 68882. *Microprocessors and Microsystems*, 13(6):382–386, July/August 1989. CODEN MIMID5. ISSN 0141-9331 (print), 1872-9436 (electronic).

Mastrovito:1989:VDM

[2484] E. D. Mastrovito. VLSI designs for multiplication over finite fields $GF(2^m)$. *Lecture Notes in Computer Science*, 357:397–309, 1989. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Maytal:1989:DCG

[2485] B. Maytal, S. Iacobovici, D. B. Alpert, D. Biran, J. Levy, and S. Y. Tov. Design considerations for a general-purpose microprocessor. *Computer*, 22(1):66–76, January 1989. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Milenkovic:1989:DPG

[2486] V. Milenkovic. Double precision geometry: a general technique for calculating line and segment intersections using rounded arithmetic. In *30th Annual Symposium on Foundations of Computer Science, 1989*, pages 500–505. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Milutinovic:1989:MSD

[2487] V. Milutinovic, M. Bettinger, and W. Helbig. Multiplier/shifter design tradeoffs in a 32-bit microprocessor. *IEEE Transactions on Computers*, 38(6):874–880, June 1989. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=24298`.

Molnar:1989:MBF

[2488] K. Molnar, C.-Y. Ho, D. Staver, B. Davis, and R. Jerdonek. A 40 MHz 64-bit floating-point co-processor. In Wuorinen [7807], pages 48–49, 287. CODEN DTPCDE. ISBN ???? ISSN 0193-6530. LCCN TK7870 .I58 1989. IEEE catalog no. 89CH2684-9.

Montuschi:1989:EIH

[2489] Paolo Montuschi and Luigi Cinimera. On the efficient implementation of higher radix square root algorithms. In Ercegovac and Swartzlander, Jr. [7801], pages 154–161. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Montuschi.pdf`. IEEE catalog no. 89CH2757-3.

Moshier:1989:MPM

[2490] Stephen L. B. Moshier. *Methods and Programs for Mathematical Functions*. Ellis Horwood, New York, NY, USA, 1989. ISBN 0-7458-

0289-3. vii + 415 pp. LCCN QA331 .M84 1989. US£48.00. URL http://www.moshier.net/; http://www.netlib.org/cephes.

Motorola:1989:DIF

[2491] Motorola, Inc., Phoeniz, AZ, USA. *DSP96002: IEEE floating-point dual-port processor: user's manual*, 1989. various pp.

Motorola:1989:MMF

[2492] Motorola, Inc. *MC68881/MC68882 Floating-Point Coprocessor User's Manual*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, second edition, August 1989. ISBN 0-13-567009-8 (paperback). 409 (various paging) pp. LCCN ???? URL https://www.nxp.com/docs/en/reference-manual/MC68881UM.pdf.

Motorola:1989:MRM

[2493] Motorola. *MC88100 RISC Microprocessor User's Manual*. Motorola Corporation, Phoenix, AZ, USA, second edition, 1989. ISBN 0-13-567090-X. LCCN QA76.8.M75 M3 1990.

Mulcahy:1989:FPR

[2494] L. P. Mulcahy. On fixed-point roundoff error analysis. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 37(10):1623, October 1989. CODEN IETABA. ISSN 0096-3518.

Nakayama:1989:BMF

[2495] T. Nakayama, S. Kojima, H. Harigai, H. Igarashi, K. Tamada, and T. Toba. An 80 b, 6.7 MFLOPS floating-point processor with vector/matrix instructions. In Wuorinen [7807], pages 52–53, 289. CODEN DTPCDE. ISBN ???? ISSN 0193-6530. LCCN TK7870 .I58 1989. IEEE catalog no. 89CH2684-9.

Nakayama:1989:FCV

[2496] T. Nakayama, H. Harigai, S. Kojima, H. Kaneko, H. Igarashi, T. Toba, Y. Yamagami, and Y. Yano. A 6.7-MFLOPS floating-point coprocessor with vector/matrix instructions. *IEEE Journal of Solid-State Circuits*, 24 (5):1324–1330, October 1989. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Nakayama:1989:MFPa

[2497] T. Nakayama, S. Kojima, H. Harigai, H. Igarashi, K. Tamada, and T. Toba. An 80b, 6.7 MFLOPS floating-point processor with vector/matrix instructions. In Wuorinen [7807], pages 52–53, 289. CODEN

DTPCDE. ISBN ???? ISSN 0193-6530. LCCN TK7870 .I58 1989. IEEE catalog no. 89CH2684-9.

Nakayama:1989:MFPb

[2498] T. Nakayama, H. Harigai, S. Kojima, H. Kaneko, H. Igarashi, T. Toba, Y. Yamagami, and Y. Yano. A 6.7-MFLOPS floating-point coprocessor with vector/matrix instructions. *IEEE Journal of Solid-State Circuits*, 24 (5):1324–1330, October 1989. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Nowacki:1989:ABQ

[2499] C. L. Nowacki, J. D. Harris, and M. N. Richard. Adaptive beamforming in quadratic residue number systems on a cluster array processor. In *IEEE Military Communications Conference, 1989. MILCOM '89. Conference Record. Bridging the Gap. Interoperability, Survivability, Security, 1989*, volume 2, pages 624–628. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Ochs:1989:TPF

[2500] T. Ochs. Theory and practice (floating point arithmetic). *Computer Language Magazine*, 6(3):67–70, 72, 74, 77–78, 80–81, March 1989. CODEN COMLEF. ISSN 0749-2839.

Petkovsek:1989:CDS

[2501] M. Petkovsek. Contiguous digit sets and local roundings. In Ercegovac and Swartzlander, Jr. [7801], pages 136–143. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Petkovsek.pdf`. IEEE catalog no. 89CH2757-3.

Pincin:1989:NAM

[2502] A. Pincin. A new algorithm for multiplication in finite fields. *IEEE Transactions on Computers*, 38(7):1045–1049, July 1989. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=30855`.

Prince:1989:FTF

[2503] Timothy Prince. Float trig functions for the C preprocessor. *C Users Journal*, 7(8):103–??, August 1989. ISSN 0898-9788.

Ramamoorthy:1989:HSA

[2504] P. A. Ramamoorthy and B. Potu. High-speed ADC using residue number system. In *International Conference on Acoustics, Speech, and Signal*

Processing, ICASSP-89, 23–26 May 1989, volume 2, pages 1063–1066. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Rao:1989:RNF

[2505] B. D. Rao. Roundoff noise in floating point state space digital filters. In *IEEE International Symposium on Circuits and Systems, 8–11 May 1989*, volume 1, pages 724–727. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Ray:1989:MCA

[2506] G. A. Ray. Multiple core algorithms for residue number systems. In *Proceedings of the 32nd Midwest Symposium on Circuits and Systems, 1989*, volume 2, pages 833–836. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Rishe:1989:LEN

[2507] Naphtali Rishe. Lexicographic encoding of numeric data fields. In Ercegovac and Swartzlander, Jr. [7801], pages 241–246. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Rishe.pdf`. IEEE catalog no. 89CH2757-3.

Robbins:1989:CXM

[2508] Kay A. Robbins and Steven Robbins. *The Cray X-MP/Model 24*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1989. ISBN 0-387-97089-4, 3-540-97089-4. vi + 165 pp. LCCN QA76.8 C72 R63 1989.

Saffari:1989:PDW

[2509] B. Saffari. Putting DSPs to work. *Byte Magazine*, 14(13):259–272, December 1989. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Santoro:1989:RAI

[2510] M. R. Santoro, G. Bewick, and M. A. Horowitz. Rounding algorithms for IEEE multipliers. In Ercegovac and Swartzlander, Jr. [7801], pages 176–183. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Santoro.pdf`. IEEE catalog no. 89CH2757-3.

Sasaki:1989:AAD

[2511] Tateaki Sasaki and Mutsuko Sasaki. Analysis of accuracy decreasing in polynomial remainder sequence with floating-point number coefficients. *J. Inform. Process.*, 12(4):394–403, 1989.

Schwarz:1989:IIP

[2512] Jerry Schwarz. Implementing infinite precision arithmetic. In Ercegovac and Swartzlander, Jr. [7801], pages 10–17. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL `http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Schwarz.pdf`. IEEE catalog no. 89CH2757-3.

Scott:1989:FRM

[2513] M. Scott. Fast rounding in multiprecision floating-slash arithmetic. *IEEE Transactions on Computers*, 38(7):1049–1052, July 1989. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Shenoy:1989:FBE

[2514] A. P. Shenoy and R. Kumaresan. Fast base extension using a redundant modulus in RNS. *IEEE Transactions on Computers*, 38(2):292–297, February 1989. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=16508`.

Shimazu:1989:MFP

[2515] Y. Shimazu, T. Kengaku, T. Fujiyama, E. Teraoka, T. Ohno, T. Tokuda, O. Tomisawa, and S. Tsujimichi. A 50 MHz 24b floating-point DSP. In Wuorinen [7807], pages 44–45, 285. CODEN DTPCDE. ISBN ???? ISSN 0193-6530. LCCN TK7870 .I58 1989. IEEE catalog no. 89CH2684-9.

Sinha:1989:FPA

[2516] B. P. Sinha and P. K. Srimani. Fast parallel algorithms for binary multiplication and their implementation on systolic architectures. *IEEE Transactions on Computers*, 38(3):424–431, March 1989. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=21128`.

Sit:1989:MFP

[2517] H. P. Sit, M. R. Nofal, and S. Kimn. An 80 MFLOPS floating-point engine in the Intel i860^{TM} processor. In IEEE ICCD '89 [7805], pages 374–379. ISBN 0-8186-1971-6 (paper), 0-8186-5971-8 (microfiche), 0-8186-8971-4 (case). LCCN TK 7888.4 I23 1989. IEEE catalog number 89CH2794-6.

Skavantzos:1989:DFC

[2518] A. Skavantzos. Designing fast convolvers for residue number systems. In *Twenty-Third Asilomar Conference on Signals, Systems and Computers, 1989*, pages 497–501. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Smith:1989:CSB

[2519] S. G. Smith. Comments on "A signed bit-sequential multiplier" by T. Rhyne and N. R. Strader II. *IEEE Transactions on Computers*, 38(9): 1328–1330, September 1989. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=29473`. See [2051].

Spaderna:1989:IFP

[2520] D. Spaderna, P. Green, K. Tam, T. Datta, and M. Kumar. An integrated floating point vector processor for DSP and scientific computing. In IEEE ICCD '89 [7805], pages 8–13. ISBN 0-8186-1971-6 (paper), 0-8186-5971-8 (microfiche), 0-8186-8971-4 (case). LCCN TK 7888.4 I23 1989. IEEE catalog number 89CH2794-6.

Stearns:1989:SFD

[2521] C. C. Stearns. Subtractive floating-point division and square root for VLSI DSP. In IEE [7802], pages 405–409. ISBN 0-85296-383-1. LCCN ???? Conference publication no. 308.

Stearns:1989:SFP

[2522] C. C. Stearns. Subtractive floating-point division and square root for VLSI DSP. In *European Conference on Circuit Theory and Design, 5–8 Sep 1989*, pages 405–409. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Tang:1989:TCA

[2523] P. T. P. Tang. Testing computer arithmetic by elementary number theory. Technical report, Mathematics and Computer Science Division, Argonne National Laboratory, August 1989. ?? pp.

Tang:1989:TDI

[2524] Ping Tak Peter Tang. Table-driven implementation of the exponential function in IEEE floating-point arithmetic. *ACM Transactions on Mathematical Software*, 15(2):144–157, June 1989. CODEN ACMSCU.

ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1989-15-2/p144-tang/.

Thies:1989:PXA

[2525] Klaus-Dieter Thies. *PC/XT/AT Numerik Buch [English: PC/XT/AT Numeric Book]*. te-wi, München, Germany, 1989. ISBN 3-89362-033-8. xiii + 707 pp. LCCN ????

Tu:1989:DLD

[2526] Paul K. Tu and M. D. Ercegovac. Design of on-line division unit. In Ercegovac and Swartzlander, Jr. [7801], pages 42–49. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Tu.pdf. IEEE catalog no. 89CH2757-3.

Turner:1989:SIS

[2527] Peter R. Turner. A software implementation of SLI arithmetic. In Ercegovac and Swartzlander, Jr. [7801], pages 18–24. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Turner.pdf. IEEE catalog no. 89CH2757-3.

Turrini:1989:OGD

[2528] Silvio Turrini. Optimal group distribution in carry-skip adders. In Ercegovac and Swartzlander, Jr. [7801], pages 96–103. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. URL http://www.acsel-lab.com/arithmetic/arith9/papers/ARITH9_Turrini.pdf. IEEE catalog no. 89CH2757-3.

Unguru:1989:BRB

[2529] Sabetai Unguru. Book review: *A Mathematical History of Division in Extreme and Mean Ratio* by Roger Herz-Fischler. *Isis*, 80(2):298–299, June 1989. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL http://www.jstor.org/stable/234607.

VanVeen:1989:MBC

[2530] B. D. Van Veen and R. Baraniuk. Matrix based computation of floating-point roundoff noise. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 37(12):1995–1998, December 1989. CODEN IETABA. ISSN 0096-3518.

Vassiliadis:1989:GPO

[2531] S. Vassiliadis, E. M. Schwarz, and D. J. Hanrahan. A general proof for overlapped multiple-bit scanning multiplications. *IEEE Transactions on Computers*, 38(2):172–183, February 1989. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=16494.

Vassiliadis:1989:SMF

[2532] S. Vassiliadis, D. S. Lemon, and M. Putrino. S/370 sign-magnitude floating-point adder. *IEEE Journal of Solid-State Circuits*, 24(4):1062–1070, August 1989. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Voelzke:1989:FSAa

[2533] H. Völzke. Fließkomma-Arithmetik und IEEE-Spezifikationen. Teil 4: Die Konvertierungsroutinen [*English:* Floating-point Arithmetic and its IEEE Specification. Part 4: Conversion Routines]. *mc*, 1:66–73, 1989. ISSN 0720-4442, 0941-777x, 0943-5409.

Voelzke:1989:FSAb

[2534] H. Völzke. Fließkomma-Arithmetik und IEEE-Spezifikationen. Teil 5: Ein- und Ausgabefunktionen [*English:* Floating-point Arithmetic and its IEEE Specification. Part 5: Input and Output Functions]. *mc*, 2:65–71, 1989. ISSN 0720-4442, 0941-777x, 0943-5409.

Vulchanov:1989:SCR

[2535] N. L. Vulchanov and M. M. Konstantinov. Safe calculation of the relative machine precision in floating-point computing environments. *Comptes rendus de l'Académie bulgare des sciences*, 42(2):45–48, 1989. CODEN DBANAD. ISSN 0366-8681.

Wagner:1989:EDD

[2536] Neal R. Wagner and Paul Putter. Error detecting decimal digits. *Communications of the Association for Computing Machinery*, 32(1):106–110, January 1989. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL http://www.acm.org/pubs/toc/Abstracts/0001-0782/63246.html.

Wang:1989:ADF

[2537] C. C. Wang. An algorithm to design finite field multipliers using a self-dual normal basis. *IEEE Transactions on Computers*, 38(10):1457–1460, October 1989. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=35840`.

Wang:1989:MBC

[2538] Song-Tine Wang, Chi-Suan Wang, Morries Wang, Shyh-Rurong Wang, Jhy-Kun Wang, Ching-Lu Hon, Row-Ming Yang, Wei-Hsiung Chuang, Te-Tsoung Tsai, Ming-Yuan Jang, and Gwo-Jeng Pun. A 34-MFLOP 32-bit CMOS floating point processor. In IEEE [7804], pages 361–364. ISBN ???? LCCN ???? IEEE catalog no. 89CH2631-0.

Ward:1989:BFP

[2539] Kenneth L. Ward. A block floating point distributed arithmetic finite impulse response filter. Thesis (M.S.), University of Florida, Gainesville, FL, USA, 1989.

Wichmann:1989:SPI

[2540] B. A. Wichmann. Scientific processing in ISO-Pascal: a proposal to get the benefits of mixed precision floating-point. *ACM SIGPLAN Notices*, 24(6):20–22, June 1989. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Wichmann:1989:TFS

[2541] B. A. Wichmann. Towards a formal specification of floating point. *The Computer Journal*, 32(5):432–436, October 1989. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic).

Wittman:1989:SCU

[2542] Susan Jean Wittman. Servo compensation using a floating point digital signal processor. Thesis (M.S.), Massachusetts Institute of Technology, Dept. of Aeronautics and Astronautics, Cambridge, MA, USA, 1989. 60 pp. Supervised by James K. Roberge.

Zeng:1989:RNP

[2543] B. Zeng and Y. Neuvo. Roundoff noise properties of lattice filters employing floating-point arithmetic. In *European Conference on Circuit Theory and Design, 5–8 Sep 1989*, pages 233–237. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. CODEN ???? ISSN ????

Zorpette:1989:PGD

[2544] Glenn Zorpette. Parkinson's gun director. *IEEE Spectrum*, 26(4):43, April 1989. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Alsup:1990:MFA

[2545] M. Alsup. Motorola's 88000 family architecture. *IEEE Micro*, 10(3):48–66, May/June 1990. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Anonymous:1990:MUF

[2546] Anonymous. Motorola unveils 96002 floating point processor. *Integrated circuits international*, pages 3–??, July 1990. ISSN 0263-6522.

Ansari:1990:MBF

[2547] Ahmad Ansari. A 3×3 multipurpose bus-connected floating-point array processor. Thesis (M.S.), University of Florida, Gainesville, FL, USA, 1990. vi + 127 pp.

Arnold:1990:RLA

[2548] M. G. Arnold, T. A. Bailey, J. R. Cowles, and J. J. Cupal. Redundant logarithmic arithmetic. *IEEE Transactions on Computers*, 39(8):1077–1086, August 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=57046`.

Aspray:1990:BBS

[2549] William Aspray. Back to basics: The stored program concept. *IEEE Spectrum*, 27(9):51, September 1990. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Bajwa:1990:FFP

[2550] A. Bajwa and R. Steck. A fast floating point unit in the i960 general-purpose embedded processor family. In Wescon [7824], pages 218–222. ISBN ???? LCCN ????

Barlow:1990:EAU

[2551] Jesse Louis Barlow and Richard J. Zaccone. Error analysis in unnormalized floating point arithmetic. Technical report CS-90-23, Pennsylvania State University, Department of Computer Science, University Park, PA, USA, April 1990. 9 pp. Supported by the Air Force Office of Scientific Research. Supported by the National Science Foundation. Supported by the Office of Naval Research.

Bhargava:1990:DFP

[2552] Ish Kumar Bhargava. Design of a floating point data acquisition system and a development system for the NC 4016. Electrical engineering thesis

(M.S.), University of Missouri–Rolla, Rolla, MO, USA, 1990. ix + 107 pp.

Birman:1990:DWS

[2553] Mark Birman, Allen Samuels, George Chu, Chuk Ting, Larry Hu, John McLeod, and John Barnes. Developing the WTL3170/3171 Sparc floating-point coprocessors. *IEEE Micro*, 10(1):55–64, January/February 1990. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Blevins:1990:BHI

[2554] D. W. Blevins, E. W. Davis, R. A. Heaton, and J. H. Feif. BLITZEN: a highly integrated massively parallel machine. *Journal of Parallel and Distributed Computing*, 8(2):150–160, February 1990. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Branham:1990:PFP

[2555] Richard L. Branham. *Properties of Floating-Point Numbers*, pages 1–19. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1990. ISBN 1-4612-3362-3 (e-book), 1-4612-7981-X. LCCN QA76.9.D35.

Buck:1990:PAN

[2556] P. D. Buck, S. L. Day, and D. Gonzalez. Problems with Ada numeric routines. In Anonymous [7810], pages 195–204. ISBN ???? LCCN ????

Bursky:1990:FMC

[2557] D. Bursky. Floating-point math chip delivers 200 mflops peak. *Electronic Design*, 38(4):51–52, 54, 55, February 1990. CODEN ELODAW. ISSN 0013-4872 (print), 1944-9550 (electronic).

Carter:1990:RSD

[2558] T. M. Carter and J. E. Robertson. Radix-16 signed-digit division. *IEEE Transactions on Computers*, 39(12):1424–1433, December 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=61063`.

Carter:1990:STA

[2559] T. M. Carter and J. E. Robertson. The set theory of arithmetic decomposition. *IEEE Transactions on Computers*, 39(8):993–1005, August 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=57037`.

Chen:1990:DIH

[2560] J. T. Chen, W. K. Jenkins, I. A. Hein, and W. D. O'Brien, Jr. Design and implementation of a high speed residue number system correlator for ultrasonic time domain blood flow measurement. In *IEEE International Symposium on Circuits and Systems, 1–3 May 1990*, volume 4, pages 2893–2896. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. CODEN ???? ISSN ????

Chren:1990:NRN

[2561] W. A. Chren, Jr. A new residue number system division algorithm. *Computers and Mathematics with Applications*, 19(7):13–29, ???? 1990. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/089812219090190U`.

Ciminiera:1990:HRS

[2562] L. Ciminiera and P. Montuschi. Higher radix square rooting. *IEEE Transactions on Computers*, 39(10):1220–1231, October 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=59853`.

Clinger:1990:HRF

[2563] William D. Clinger. How to read floating point numbers accurately. *ACM SIGPLAN Notices*, 25(6):92–101, June 1990. CODEN SINODQ. ISBN 0-89791-364-7. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL `http://www.acm.org:80/pubs/citations/proceedings/pldi/93542/p92-clinger/`. See also output algorithms in [2604, 2658, 3631, 4043, 5019].

Codenotti:1990:ATT

[2564] B. Codenotti, G. Lotti, and F. Romani. Area-time trade-offs for matrix-vector multiplication. *Journal of Parallel and Distributed Computing*, 8 (1):52–59, January 1990. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Cosnard:1990:STF

[2565] Michel Cosnard, Jean Duprat, and Yves Robert. Systolic triangularization over finite fields. *Journal of Parallel and Distributed Computing*, 9(3):252–260, July 1990. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Cyrix:1990:FCU

[2566] *FasMath CX-83D87 User's Manual: High Performance CMOS Math Processor*. Richardson, TX, USA, 1990. 115 + 5 + 3 pp. URL `https://www.ardent-tool.com/CPU/docs/Cyrix/387/83d87.pdf`.

Darley:1990:TFC

[2567] Merrick Darley, Bill Kronlage, David Bural, Bob Churchill, David Pulling, Paul Wang, Rick Iwamoto, and Larry Yang. The TMS390C602A floating-point coprocessor for Sparc systems. *IEEE Micro*, 10(3):36–47, May/June 1990. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Darley:1990:TFP

[2568] Merrick Darley, Bill Kronlage, David Bural, Bob Churchill, David Pulling, Paul Wang, Rick Iwamoto, and Larry Yang. The TMS390C602A floating-point coprocessor for Sparc systems. *IEEE Micro*, 10(3):36–47, May/June 1990. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

deLange:1990:ASI

[2569] A. A. J. de Lange, A. J. van der Hoeven, E. F. Deprettere, and P. Dewilde. An application specific IC for digital signal processing: the floating point pipeline CORDIC processor. In *[Proceedings] EURO ASIC '90*, pages 62–67. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990.

deLange:1990:RTA

[2570] A. A. J. de Lange, E. F. Deprettere, A. J. van der Veen, and J. Bu. Real time applications of the floating point pipeline CORDIC processor in massive-parallel pipelined DSP algorithms. In ????, editor, *Proceedings of the ICASSP International Conference on Acoustic, Speech, and Signal Processing April 1990*, pages 1013–1016 (vol. 2). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990.

Dewar:1990:MPV

[2571] Robert B. K. Dewar and Matthew Smosna. *Microprocessors: a programmer's view*. McGraw-Hill, New York, NY, USA, 1990. ISBN 0-07-016638-2, 0-07-016639-0 (soft). xvii + 462 pp. LCCN ????

Dixon:1990:HPB

[2572] G. Dixon. A high performance block floating point DSP chip-set. In IEE [7815], pages 9/1–7. ISBN ???? LCCN ????

Dotzel:1990:DMG

[2573] Günter Dotzel. Does Modula-2 generate racehorses? Comparison of compiler generated code quality for floating point arithmetic. *ACM SIGPLAN Notices*, 25(12):85–88, December 1990. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Dunham:1990:FFE

[2574] C. B. Dunham. Feasibility of 'perfect' function evaluation. *ACM SIGNUM Newsletter*, 25(4):25–26, October 1990. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Edenfield:1990:PPD

[2575] R. W. Edenfield, M. G. Gallup, W. B. Ledbetter, Jr., R. C. McGarity, E. E. Quintana, and R. A. Reininger. The 68040 processor. Part 1, design and implementation. *IEEE Micro*, 10(1):66–78, January/February 1990. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Ercegovac:1990:FMC

[2576] M. D. Ercegovac and T. Lang. Fast multiplication without carry-propagate addition. *IEEE Transactions on Computers*, 39(11):1385–1390, November 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=61047`.

Ercegovac:1990:RSR

[2577] M. D. Ercegovac and T. Lang. Radix-4 square root without initial PLA. *IEEE Transactions on Computers*, 39(8):1016–1024, August 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=57040`.

Ercegovac:1990:SRD

[2578] M. D. Ercegovac and T. Lang. Simple radix-4 division with operands scaling. *IEEE Transactions on Computers*, 39(9):1204–1208, September 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=57060`.

Fussichen:1990:GAM

[2579] Kenneth Fussichen. Getting Ada into the mainstream in the 1990's. In ACM [7809], page 428. ISBN 0-89791-409-0. LCCN QA76.73.A35.

Gallant:1990:MCI

[2580] John Gallant and Bill Travis. Math coprocessor ICs: Floating-point chips boost muP performance. *EDN*, 35(12):63–??, June 1990. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Gay:1990:CRB

[2581] David M. Gay. Correctly rounded binary-decimal and decimal-binary conversions. Numerical Analysis Manuscript 90-10, AT&T Bell Laboratories, November 30 1990. 16 pp. URL `http://cm.bell-labs.com/cm/cs/doc/90/4-10.ps.gz`; `http://www.ampl.com/ampl/REFS/rounding.ps.gz`; `http://www.netlib.org/fp/dtoa.c`; `http://www.netlib.org/fp/g_fmt.c`; `http://www.netlib.org/fp/gdtoa.tgz`; `http://www.netlib.org/fp/rnd_prod.s`.

Gibson:1990:CII

[2582] D. H. Gibson. Considerations for including IEEE floating point in large systems. In SHARE [7819], pages 47–62. ISBN ???? ISSN 0255-6464. LCCN ???? 2 vol.

Glass:1990:MC

[2583] L. B. Glass. Math coprocessors. *Byte Magazine*, 15(1):337–348, January 1990. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Goldberg:1990:CA

[2584] D. Goldberg. Computer arithmetic. In *Computer Architecture: a Quantitative Approach* [7814], chapter A, pages A–1–A–66. ISBN 1-55860-069-8, 1-55880-169-8. LCCN QA76.9.A73 P377 1990.

Goodman:1990:SMR

[2585] R. H. Goodman. Some models of relative error in products. *Applied Numerical Mathematics*, 6(3):209–220, March 1990. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Goodreau:1990:DIF

[2586] Michael S. Goodreau. The design and implementation of a floating-point format conversion integrated circuit. Thesis (M.S.E.E.), University of Washington, Seattle, WA, USA, 1990. ix + 113 pp.

Gries:1990:BDO

[2587] David Gries. Binary to decimal, one more time. In Feijen et al. [7813], chapter 16, pages 141–148. ISBN 0-387-97299-4, 3-540-97299-4, 1-4612-8792-8 (print), 1-4612-4476-5 (online). ISSN 0172-603X. LCCN

QA76 .B326 1990. URL https://link.springer.com/chapter/10.1007/978-1-4612-4476-9_17. This paper presents an alternate proof of Knuth's algorithm [2604] for conversion between decimal and fixed-point binary numbers.

Gu:1990:TIT

[2588] Li Zhen Gu and Xing Yuan Chen. Table-driven implementation of the trigonometric functions using IEEE floating point operations. (Chinese). *Journal of Tsinghua University*, 30(3):31–38, 1990.

Hamacher:1990:CO

[2589] V. Carl Hamacher, Zvonko G. Vranesic, and Safwat G. Zaky. *Computer organization*. McGraw-Hill series in computer organization and architecture. McGraw-Hill, New York, NY, USA, third edition, 1990. ISBN 0-07-025685-3. xx + 617 pp. LCCN QA76.9.A73 H351 1990.

Hashemian:1990:SRA

[2590] R. Hashemian. Square rooting algorithms for integer and floating-point numbers. *IEEE Transactions on Computers*, 39(8):1025–1029, August 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=57041.

Hokenek:1990:LZA

[2591] E. Hokenek and R. K. Montoye. Leading-zero anticipator (LZA) in the IBM RISC System/6000 floating-point execution unit. *IBM Journal of Research and Development*, 34(1):71–77, January 1990. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Hokenek:1990:SGR

[2592] E. Hokenek, R. K. Montoye, and P. W. Cook. Second-generation RISC floating point with multiply-add fused. *IEEE Journal of Solid-State Circuits*, 25(5):1207–1213, October 1990. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Hong:1990:DTP

[2593] S. J. Hong. The design of a testable parallel multiplier. *IEEE Transactions on Computers*, 39(3):411–416, March 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=48874.

Horiguchi:1990:FNR

[2594] Hiroshi Horiguchi. Floating-point numbers and real numbers. *Advances in software science and technology*, 1(??):157–??, 1990. ISSN 1044-7997.

IBM:1990:AXI

[2595] IBM Corporation. ACRITH-XSC: IBM high accuracy arithmetic — extended scientific computation. Technical Report GC33-6461-01, SC33-6462-00, SC33-6463-00, SC33-6464-00, SC33-6466-00., IBM Corporation, San Jose, CA, USA, 1990.

IBM:1990:IRS

[2596] Mamata Misra, editor. *IBM RISC System/6000 Technology, publication SA23-2619-00*. IBM Corporation, San Jose, CA, USA, 1990.

Jarvis:1990:ICA

[2597] P. Jarvis. Implementing Cordic algorithms. *Dr. Dobb's Journal of Software Tools*, 15(10):152–158, October 1990. CODEN DDJOEB. ISSN 1044-789X.

Kahan:1990:HCA

[2598] W. Kahan. How Cray's arithmetic hurts scientific computation (and what might be done about it). In CUG [7812], page 42. ISBN ???? LCCN ???? URL `http://754r.ucbtest.org/issues/cray-hurts-uk.pdf; http://754r.ucbtest.org/issues/cray-hurts-ut.pdf; http://754r.ucbtest.org/issues/cray-hurts.pdf`. Manuscript prepared for the Cray User Group meeting in Toronto, Canada, April 10, 1990.

Kahan:1990:PCA

[2599] William Kahan. Paradoxes in concepts of accuracy, 1990. 1 videocassette (60 min.).

Kalbasi:1990:CYT

[2600] K. Kalbasi. Can you trust your computer? *IEEE Potentials*, 9(2):15–18, April 1990. CODEN IEPTDF. ISSN 0278-6648 (print), 1558-1772 (electronic).

Katsuno:1990:BFP

[2601] A. Katsuno, H. Takahashi, H. Kubosawa, T. Sato, A. Suga, and G. Goto. A 64-bit floating-point processing unit with a horizontal instruction code for parallel operations. In IEEE ICCD '90 [7817], pages 347–350. ISBN 0-8186-9079-8 (case), 0-8186-6079-1 (microfiche), 0-8186-2079-X (paper).

Khan:1990:FPA

[2602] A. Khan. Floating point architecture and implementation. In Wescon [7824], pages 205–213. ISBN ???? LCCN ????

Kiernan:1990:FAE

[2603] J. M. Kiernan and T. B. Blachowiak. Fast, accurate elementary functions for the Cray Y-MP computer. In CUG [7812], pages 243–252. ISBN ???? LCCN ????

Knuth:1990:SPW

[2604] Donald E. Knuth. A simple program whose proof isn't. In Feijen et al. [7813], chapter 27, pages 233–242. ISBN 0-387-97299-4, 3-540-97299-4, 1-4612-8792-8 (print), 1-4612-4476-5 (online). ISSN 0172-603X. LCCN QA76 .B326 1990. URL `http://www.zentralblatt-math.org/zmath/en/search/?an=0718.68004`. Reprinted in [8078, Chapter 11]. This paper discusses the algorithm used in TEX for converting between decimal and scaled fixed-point binary values, and for guaranteeing a minimum number of digits in the decimal representation. See also [2563, 4907] for decimal to binary conversion, [2658, 5019] for binary to decimal conversion, and [2587] for an alternate proof of Knuth's algorithm.

Koren:1990:EEF

[2605] I. Koren and O. Zinaty. Evaluating elementary functions in a numerical coprocessor based on rational approximations. *IEEE Transactions on Computers*, C-39(8):1030–1037, August 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kornerup:1990:ARB

[2606] Peter Kornerup and David W. Matula. An algorithm for redundant binary bit-pipelined rational arithmetic. *IEEE Transactions on Computers*, 39(8):1106–1115, August 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=57048`.

Laakso:1990:RFP

[2607] T. Laakso, B. Zeng, I. Hartimo, and Y. Neuvo. Reduction of floating-point roundoff noise in recursive digital filters with error feedback. In *IEEE International Conference on Systems Engineering, 1990*, pages 244–247. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. CODEN ???? ISSN ????

Lee:1990:OPC

[2608] Vernon A. Lee, Jr. and Hans-J. Boehm. Optimizing programs over the constructive reals. *ACM SIGPLAN Notices*, 25(6):102–111, June 1990. CODEN SINODQ. ISBN 0-89791-364-7. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL `http://www.acm.org:80/pubs/citations/proceedings/pldi/93542/p102-lee/`.

Ling:1990:AIM

[2609] H. Ling. An approach to implementing multiplication with small tables. *IEEE Transactions on Computers*, 39(5):717–718, May 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=53588`.

Lozier:1990:CPL

[2610] D. W. Lozier and F. W. J. Olver. Closure and precision in level-index arithmetic. *SIAM Journal on Numerical Analysis*, 27(5):1295–1304, October 1990. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

MacDonald:1990:IFP

[2611] Tom MacDonald. IEEE floating-point arithmetic and C. *The Journal of C Language Translation*, 2(2):102–112, September 1990. ISSN 1042-5721.

Mandelbaum:1990:SMD

[2612] D. M. Mandelbaum. A systematic method for division with high average bit skipping. *IEEE Transactions on Computers*, 39(1):127–130, January 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=46287`.

MangaEbongue:1990:PBV

[2613] Charles Manga Ebongue. *Processeur 32 Bits en Virgule Flottante: Techniques de Validation Fonctionnelle, Électrique et Test à la Conception. (French) [32-bit Floating-Point Processor: Techniques of Functional and Electrical Validation and Test in the Design]*. Thèse doctoral, Sciences Appliquées, Université Paris 6, Paris, France, 1990. Sous la direction de Alain Greiner.

Mar:1990:DSP

[2614] Amy Mar, editor. *Digital signal processing applications using the ADSP-2100 family*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1990. ISBN 0-13-212978-7. xvi + 611 pp. LCCN TK5102.5 .D44824 1990.

Margulis:1990:IMI

[2615] N. Margulis. i860 microprocessor internal architecture. *Microprocessors and Microsystems*, 14(2):89–96, March 1990. CODEN MIMID5. ISSN 0141-9331 (print), 1872-9436 (electronic).

Markstein:1990:CEF

[2616] P. W. Markstein. Computation of elementary functions on the IBM RISC System/6000 processor. *IBM Journal of Research and Development*, 34 (1):111–119, January 1990. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Matula:1990:HPD

[2617] D. Matula. Highly parallel divide and square root algorithms for a new generation floating point processor. In Ullrich [7822], page ?? ISBN ???? LCCN ????

McCloud:1990:FPU

[2618] S. McCloud, D. Anderson, C. DeWitt, C. Hinds, Y. W. Ho, D. Marquette, and E. Quintana. A floating point unit for the 68040. In IEEE ICCD '90 [7817], pages 187–190. ISBN 0-8186-9079-8 (case), 0-8186-6079-1 (microfiche), 0-8186-2079-X (paper). LCCN TK 7888.4 I23 1990.

Metafas:1990:DPP

[2619] Dimitris E. Metafas and Costas E. Goutis. A DSP processor with a powerful set of elementary arithmetic operations based on CORDIC and CCM algorithms. *Microprocessing and Microprogramming*, 30(1): 51–57, 1990. CODEN MMICDT. ISSN 0165-6074 (print), 1878-7061 (electronic). URL `https://www.sciencedirect.com/science/article/pii/016560749090217W`. Proceedings Euromicro 90: Hardware and Software in System Engineering.

Mills:1990:DIH

[2620] Karl Scott Mills. The design and implementation of a high performance floating-point image processing and graphics subsystem for the NeXT computer. Thesis (M.S.E.E.), University of Washington, Seattle, WA, USA, 1990. v + 60 + 3 pp.

Montoye:1990:DIR

[2621] R. K. Montoye, E. Hokenek, and S. L. Runyon. Design of the IBM RISC System/6000 floating-point execution unit. *IBM Journal of Research and Development*, 34(1):59–70, January 1990. CODEN IBMJAE. ISSN

0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/341/ibmrd3401G.pdf.

Montuschi:1990:SSR

[2622] P. Montuschi and P. M. Mezzalama. Survey of square rooting algorithms. *IEE Proceedings. Computers and Digital Techniques*, 137(1):31–40, January 1990. CODEN ICDTEA. ISSN 1350-2387 (print), 1359-7027 (electronic).

Morita:1990:FMM

[2623] Hikaru Morita. A fast modular-multiplication algorithm based on a higher radix. *Lecture Notes in Computer Science*, 435:387–??, 1990. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/0435/04350387.htm; http://link.springer-ny.com/link/service/series/0558/papers/0435/04350387.pdf.

Muller:1990:HCA

[2624] Volker Müller. Hochgenaue CORDIC-Algorithmen für reelle Standardfunktionen mittels dynamischer Defektberechnung. (German) [High-accuracy CORDIC algorithms for real elementary functions by means of dynamic error computation]. Diplomarbeit, Institut für angewandte Mathematik, Universität Karlsruhe, Karlsruhe, Germany, December 1990. ???? pp.

Murthy:1990:MPA

[2625] Narayan Murthy and Allen Stix. Multiple precision arithmetic: a programming assignment in CS2 applying linked lists. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 22(1): 129–133, February 1990. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

Ohtomo:1990:FPD

[2626] Hiroyasu Ohtomo, Hisao Ishizuka, Masahiko Kashimura, Akio Nakajima, and Tetsuhiro Hira. A 32-bit floating point digital signal processor for graphics application. *Nippon Electric Company research and development*, ??(99):47–??, October 1990. CODEN NECRAU. ISSN 0048-0436.

Olson:1990:FAA

[2627] T. Olson and B. Stewart. Floating-point architecture of the am29050. In Wescon [7824], pages 214–217. ISBN ???? LCCN ????

Owens:1990:BSM

[2628] R. M. Owens and M. J. Irwin. Being stingy with multipliers. *IEEE Transactions on Computers*, 39(6):809–818, June 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=53602`.

Palmore:1990:CAC

[2629] J. Palmore and C. Herring. Computer arithmetic, chaos and fractals. *Physica D*, 42(1-3):99–110, June 1990. CODEN PDNPDT. ISSN 0167-2789 (print), 1872-8022 (electronic). Ninth Annual International Conference of the Center for Nonlinear Studies on Self-Organizing, Collective and Cooperative Phenomena in Natural and Artificial Networks.

Pan:1990:FSI

[2630] J. Pan and K. N. Levitz. A formal specification of the IEEE Floating-Point Standard with application to the verification of floating-point coprocessors. In Chen [7811], pages 505–510. ISBN 0-8186-2182-6. LCCN TK 5102.5 A78 1990. Two volumes.

Parhami:1990:GSD

[2631] Behrooz Parhami. Generalized signed-digit number systems: a unifying framework for redundant number representations. *IEEE Transactions on Computers*, 39(1):89–98, January 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Payne:1990:PLCa

[2632] M. Payne, C. Schaffert, and B. Wichmann. Proposal for a language compatible arithmetic standard. *ACM SIGNUM Newsletter*, 25(1):2–43, January 1990. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Payne:1990:PLCb

[2633] M. Payne, C. Schaffert, and B. Wichmann. Proposal for a language compatible arithmetic standard. *ACM SIGPLAN Notices*, 25(1):59–86, January 1990. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Peter:1990:PZW

[2634] O. Peter. Prozessor zieht Wurzeln [*English:* Processor Extracts Roots]. *c't*, 1:300–306, 1990. ISSN 0724-8679.

Piestrak:1990:DHS

[2635] S. J. Piestrak. Design of high-speed and cost-effective self-testing checkers for low-cost arithmetic codes. *IEEE Transactions on Computers*, 39(3): 360–374, March 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=48866`.

Popov:1990:AFA

[2636] Wladimir Popov. On the axiomatizations of floating-point arithmetics. contributions to computer arithmetic and self-validating numerical methods (Basel, 1989). *IMACS Ann. Comput. Appl. Math.*, 7:55–66, 1990.

Preparata:1990:PCD

[2637] F. P. Preparata and Jean E. Vuillemin. Practical cellular dividers. *IEEE Transactions on Computers*, 39(5):605–614, May 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=53574`.

Prince:1990:GST

[2638] Timothy Prince. Generating source for `<float.h>`. *C Users Journal*, 8 (6):119–??, June 1990. ISSN 0898-9788.

Pugh:1990:CBF

[2639] Kenneth Pugh. Converting BASIC floating point files to C. *C Users Journal*, 8(5):69–??, May 1990. ISSN 0898-9788.

Quach:1990:IAH

[2640] N. T. Quach and M. J. Flynn. An improved algorithm for high-speed floating-point addition. Technical Report CSL-TR-90-442, Computer Systems Laboratory, Stanford University, Stanford, CA, USA, August 1990.

Quinn:1990:REL

[2641] T. Quinn and S. Tremaine. Roundoff error in long-term planetary orbit integrations. *Astronomical Journal*, 99(3):1016–1023, March 1990. CODEN ANJOAA. ISSN 0004-6256 (print), 1538-3881 (electronic).

Ramamoorthy:1990:MRN

[2642] P. A. Ramamoorthy, P. E. Pace, and D. Styer. A modified residue number system with applications to signal processing. In *Proceedings of the 33rd Midwest Symposium on Circuits and Systems, 1990*, volume 2, pages

1018–1021. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. CODEN ???? ISSN ????

Rao:1990:SAA

[2643] B. D. Rao. A systematic approach for the analysis of roundoff noise in floating point digital filters. In *Signals, Systems and Computers, 1990. 1990 Conference Record Twenty-Fourth Asilomar Conference on. 5–7 Nov 1990*, page 495. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. CODEN ???? ISSN ????

Rauchwerger:1990:MFPa

[2644] Lawrence Rauchwerger and Michael P. Farmwald. A multiple floating point coprocessor architecture. *ACM SIGARCH Computer Architecture News*, 18(2):15–24, June 1990. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Rauchwerger:1990:MFPb

[2645] L. Rauchwerger and P. M. Farmwald. A multiple floating point coprocessor architecture. In IEEE [7816], pages 216–222. ISBN 0-8186-2124-9. LCCN ???? IEEE catalog no. 90TH0341-8.

Reemtsen:1990:MFR

[2646] Rembert Reemtsen. Modifications of the first Remez algorithm. *SIAM Journal on Numerical Analysis*, 27(2):507–518, April 1990. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Reif:1990:OSI

[2647] John H. Reif and Stephen R. Tate. Optimal size integer division circuits. *SIAM Journal on Computing*, 19(5):912–924, October 1990. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic).

Rowan:1990:FSA

[2648] Thomas Harvey Rowan. *Functional stability analysis of numerical algorithms*. Ph.D. thesis, University of Texas at Austin, Austin, TX, USA, May 1990. xii + 206 pp. URL `https://search.proquest.com/pqdtglobal/docview/303865032`.

Sam:1990:GMR

[2649] H. Sam and A. Gupta. A generalized multibit recoding of two's complement binary numbers and its proof with application in multiplier implementations. *IEEE Transactions on Computers*, 39(8):1006–1015, August 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956

(electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=57039.

Schatte:1990:SBF

[2650] Peter Schatte. On the stochastic behaviour of the floating point mantissas of sums. *J. Inform. Process. Cybernet.*, 26(4):249–254, 1990.

Schimandle:1990:MBC

[2651] James Schimandle. Microsoft BASIC's and C's floating point formats. *C Users Journal*, 8(7):139–??, July 1990. ISSN 0898-9788.

Sheppard:1990:EYF

[2652] Gene Sheppard. Evaluating your floating point library. *C Users Journal*, 8(8):121–??, August 1990. ISSN 0898-9788.

Silverman:1990:PPA

[2653] Robert D. Silverman. Parallel polynomial arithmetic over finite rings. *Journal of Parallel and Distributed Computing*, 10(3):265–270, November 1990. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Silverstein:1990:USM

[2654] Joel D. Silverstein, Steven E. Sommars, and Yio-Chian Tao. The UNIX system math library, a status report. In USENIX Winter '90 [7823], pages 117–131. LCCN QA76.8.U65 U82 1990.

Sips:1990:NML

[2655] Henk J. Sips and Hai Xiang Lin. A new model for on-line arithmetic with an application to the reciprocal calculation. *Journal of Parallel and Distributed Computing*, 8(3):218–230, March 1990. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Skelton:1990:GSE

[2656] R. E. Skelton and D. Williamson. Guaranteed state estimation accuracies with roundoff error. In *Proceedings of the 29th IEEE Conference on Decision and Control, 1990*, volume 1, pages 297–298. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. CODEN ???? ISSN ????

Slishman:1990:FPR

[2657] G. Slishman. Fast and perfectly rounding decimal/hexadecimal conversions. Research Report RC-15683, IBM Thomas J. Watson Research Center, Yorktown Heights, NY, USA, 1990.

Steele:1990:HPF

[2658] Guy L. Steele Jr. and Jon L. White. How to print floating-point numbers accurately. *ACM SIGPLAN Notices*, 25(6):112–126, June 1990. CODEN SINODQ. ISBN 0-89791-364-7. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL `http://www.acm.org:80/pubs/citations/proceedings/pldi/93542/p112-steele/`. See also input algorithm in [2563, 4907], and a faster output algorithm in [3631] and [2604], IBM S/360 algorithms in [4043] for both IEEE 754 and S/360 formats, and a twenty-year retrospective in [5019]. In electronic mail dated Wed, 27 Jun 1990 11:55:36 EDT, Guy Steele reported that an intrepid pre-SIGPLAN 90 conference implementation of what is stated in the paper revealed 3 mistakes:

1. Table 5 (page 124):
   insert `k <-- 0` after assertion, and also delete `k <-- 0` from Table 6.
2. Table 9 (page 125):
   for `-1:USER!("");`
   substitute `-1:USER!("0");`
   and delete the comment.
3. Table 10 (page 125):
   for `fill(-k, "0")`
   substitute `fill(-k-1, "0")`

Su:1990:ASS

[2659] C.-C. Su and H.-Y. Lo. An algorithm for scaling and single residue error correction in residue number systems. *IEEE Transactions on Computers*, 39(8):1053–1064, August 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=2065; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=57044`.

Sun:1990:FAM

[2660] Jenn-Dong Sun and H. Krishna. Fast algorithms for multiple errors detection and correction in redundant residue number systems. In *Conference Record Twenty-Fourth Asilomar Conference on Signals, Systems and Computers, 5–7 Nov 1990*, page 831. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. CODEN ???? ISSN ????

Tabak:1990:RS

[2661] Daniel Tabak. *RISC Systems*. John Wiley, New York, NY, USA, 1990. ISBN 0-471-92694-9. xii + 300 pp. LCCN QA76.9.A73.T294 1990. US$49.95.

Tang:1990:AET

[2662] Ping Tak Peter Tang. Accurate and efficient testing of the exponential and logarithm functions. *ACM Transactions on Mathematical Software*, 16(3):185–200, September 1990. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://doi.acm.org/10.1145/79505.79506; http://www.acm.org/pubs/citations/journals/toms/1990-16-3/p185-tang/.

Tang:1990:SSI

[2663] P. T. P. Tang. Some software implementations of the functions sine and cosine. Technical Report Report ANL-90/3, Argonne National Laboratory, Argonne, IL, USA, April 1990. 27 pp.

Tang:1990:TDIa

[2664] Ping Tak Peter Tang. Table-driven implementation of the logarithm function in IEEE floating-point arithmetic. *ACM Transactions on Mathematical Software*, 16(4):378–400, December 1990. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1990-16-4/p378-tang/.

Tang:1990:TDIb

[2665] P. T. P. Tang. Table-driven implementation of the expm1 function in IEEE floating-point arithmetic. Technical Report Preprint MCS-P144-0390, Argonne National Laboratory, Argonne, IL, USA, March 1990. ?? pp.

Teetz:1990:SNS

[2666] Ingo Teetz, Thomas Fischer, and Walter Issel. Die Sprache NBSF fur die strukturelle Beschreibung von Schaltkreisen.: Eine Darstellung am Beispiel eines Gleitkomma-Prozessors. Report R-Math-01/90 0233-2876, Akademie der Wissenschaften der DDR, Karl-Weierstrass-Institut fur Mathematik, Berlin, Germany, 1990. vii + 79 pp.

Trefethen:1990:PSP

[2667] L. N. Trefethen and M. H. Gutknecht. Padé, stable Padé, and Chebyshev–Padé approximation. In Mason and Cox [7791], page ?? ISBN 0-412-34580-3. LCCN QA221 .I54 1988.

Tricker:1990:ERP

[2668] A. R. Tricker. The effect of rounding on the power level of certain normal test statistics. *Journal of Applied Statistics*, 17(2):219–228, 1990. CODEN ???? ISSN 0266-4763 (print), 1360-0532 (electronic).

Tricker:1990:ERSa

[2669] A. R. Tricker. The effect of rounding on the significance level of certain normal test statistics. *Journal of Applied Statistics*, 17(1):31–38, 1990. CODEN ???? ISSN 0266-4763 (print), 1360-0532 (electronic).

Tricker:1990:ERSb

[2670] A. R. Tricker. The effect of rounding on the significance level and power of certain test statistics for non-normal data. *Journal of Applied Statistics*, 17(3):329–340, 1990. CODEN ???? ISSN 0266-4763 (print), 1360-0532 (electronic).

vanderVorst:1990:CBP

[2671] H. A. van der Vorst. The convergence behaviour of preconditioned CG and CG-S in the presence of rounding errors. *Lecture Notes in Mathematics*, 1457:126–136, 1990. CODEN LNMAA2. ISBN 3-540-53515-2 (print), 3-540-46746-7 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.springer.com/chapter/10.1007/BFb0090905/`.

VanElsen:1990:OCL

[2672] Lucien William Van Elsen. An optimizing compiler for low-level floating point operations. Thesis (B.S.), Massachusetts Institute of Technology, Dept. of Electrical Engineering and Computer Science, Cambridge, MA, USA, 1990. v + 56 pp. Supervised by William J. Dally.

Vuillemin:1990:ERC

[2673] Jean E. Vuillemin. Exact real computer arithmetic with continued fractions. *IEEE Transactions on Computers*, 39(8):1087–1105, August 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=57047`.

Wallis:1990:IFP

[2674] Peter J. L. Wallis, editor. *Improving Floating-Point Programming*. Wiley, New York, NY, USA, 1990. ISBN 0-471-92437-7. xvi + 191 pp. LCCN QA76.6 .I446 1990. US$60.00.

Weber:1990:EHP

[2675] Ken Weber. An experiment in high-precision arithmetic on shared memory multiprocessors. *SIGSAM Bulletin (ACM Special Interest Group on Symbolic and Algebraic Manipulation)*, 24(2):22–40, April 1990. CODEN SIGSBZ. ISSN 0163-5824 (print), 1557-9492 (electronic).

Wigley:1990:MRR

[2676] N. M. Wigley and G. A. Jullien. On modulus replication for residue arithmetic computations of complex inner products. *IEEE Transactions on Computers*, 39(8):1065–1076, August 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=57045.

Wingler:1990:TMI

[2677] Eric Wingler. The teaching of mathematics: An infinite product expansion for the square root function. *American Mathematical Monthly*, 97(9):836–839, November 1990. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Wong:1990:PFP

[2678] Kar pang Wong. The precision of floating point computation in digital computer. Thesis (M.S. in Computer Science), University of Wisconsin, Milwaukee, Milwaukee, WI, USA, 1990. vii + 45 pp.

Wong:1990:QNF

[2679] P. W. Wong. Quantization noise, fixed-point multiplicative roundoff noise, and dithering. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 38(2):286–300, February 1990. CODEN IETABA. ISSN 0096-3518.

Yager:1990:SNM

[2680] T. Yager. Sony NeWS and MIPS Magnum: a double shot of RISC. *Byte Magazine*, 15(13):172–175, December 1990. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Yang:1990:PRN

[2681] George Chia-Jin Yang. A parametric roundoff noise analysis of second-order state-space digital filters with floating-point arithmetic. Thesis (M.S.), University of Tennessee, Knoxville, Knoxville, TN, USA, 1990. vii + 67 pp.

Yeh:1990:RTI

[2682] H.-G. Yeh. Real-time implementation of a narrow-band Kalman filter with a floating-point processor DSP32. *IEEE Transactions on Industrial Electronics*, 37(1):13–18, February 1990. CODEN ITIED6. ISSN 0278-0046 (print), 1557-9948 (electronic).

Yoon:1990:MTP

[2683] Hyunsoo Yoon, Kyungsook Y. Lee, and Amos Bahiri. On the modulo M translators for the prime memory system. *Journal of Parallel and Distributed Computing*, 8(1):72–76, January 1990. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Zarowski:1990:AMH

[2684] C. J. Zarowski and H. C. Card. On addition and multiplication with Hensel codes. *IEEE Transactions on Computers*, 39(12):1417–1423, December 1990. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=61062`.

Zelniker:1990:PBD

[2685] G. S. Zelniker and F. J. Taylor. Prime blocklength discrete Fourier transforms utilising the polynomial residue number system. In *Conference Record Twenty-Fourth Asilomar Conference on Signals, Systems and Computers, 5–7 Nov 1990*, page 314. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. CODEN ???? ISSN ????

Aberth:1991:CHO

[2686] Oliver Aberth. The conversion of a high order programming language from floating-point arithmetic to range arithmetic. In Meyer and Schmidt [7834], pages 1–4. ISBN 0-387-97426-1, 3-540-97426-1. LCCN QA614.58 .I52 1989; QA297 .C638 1991.

Adali:1991:FPR

[2687] T. Adali and S. H. Ardalan. Fixed-point roundoff error analysis of the RLS algorithm with time-varying channels. In *Acoustics, Speech, and Signal Processing, 1991. ICASSP-91., 1991 International Conference on. 14–17 April 1991*, volume 3, pages 1865–1868. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. CODEN ???? ISSN ????

Alia:1991:VMM

[2688] G. Alia and E. Martinelli. A VLSI modulo m multiplier. *IEEE Transactions on Computers*, 40(7):873–878, July 1991. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=83626.

Alverson:1991:IDU

[2689] Robert Alverson. Integer division using reciprocals. In Kornerup and Matula [7833], pages 186–190. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Alverson.pdf. IEEE catalog no. 91CH3015-5.

Anido:1991:IDI

[2690] M. Lois Anido. Improving the division instruction of application-specific RISCs. *Microprocessing and Microprogramming*, 32(1-5):13–21, August 1991. CODEN MMICDT. ISSN 0165-6074 (print), 1878-7061 (electronic). 17th EUROMICRO Symposium on Microprocessing and Microprogramming. Hardware and Software Design Automation.

Anonymous:1991:FDC

[2691] Anonymous. 60M-flops, floating-point DSP chip. *EDN*, 36(13):80–??, June 1991. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Anonymous:1991:SIS

[2692] Anonymous. SCAN-1991: International Symposium on Computer Arithmetic and Scientific Computation. *Journal of Computational and Applied Mathematics*, 34(2):N13–N14, April 4, 1991. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S037704279190071Q.

Arambepola:1991:CVA

[2693] B. Arambepola. Common VLSI architecture for a practically useful residue number system. In *IEEE International Symposium on Circuits and Systems, 11–14 June 1991*, volume 5, pages 2951–2954. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. CODEN ???? ISSN ????

Arvo:1991:GGI

[2694] James Arvo. *Graphics gems II*, volume 2 of *Graphics Gems*. Academic Press, New York, NY, USA, 1991. ISBN 0-12-064480-0. xxxii + 643 pp. LCCN T385 .G6972 1991. URL http://www.sciencedirect.com/science/book/9780080507545.

Balsara:1991:DSM

[2695] Poras T. Balsara, Robert M. Owens, and Mary Jane Irwin. Digit serial multipliers. *Journal of Parallel and Distributed Computing*, 11(2):156–162, February 1991. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Barrenechea:1991:NEH

[2696] M. J. Barrenechea. Numeric exception handling. *Programmer's Journal*, 9(3):40–42, 44–49, May–June 1991. ISSN 0747-5861.

Barsi:1991:MAB

[2697] Ferruccio Barsi. Mod m arithmetic in binary systems. *Information Processing Letters*, 40(6):303–309, 1991. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Bartholomew-Biggs:1991:AST

[2698] M. C. Bartholomew-Biggs. Ada software for teaching modern computer arithmetic. *ACM SIGNUM Newsletter*, 26(3):17–26, July 1991. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

BartholomewBiggs:1991:AST

[2699] M. C. Bartholomew-Biggs. Ada software for teaching modern computer arithmetic. *ACM SIGNUM Newsletter*, 26(3):16–26, July 1991. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Bartoloni:1991:MFU

[2700] A. Bartoloni, C. Battista, S. Cabasino, N. Cabibbo, F. Del Prete, F. Marzano, P. S. Paolucci, R. Sarno, G. Salina, G. M. Todesco, M. Torelli, R. Tripiccione, W. Tross, and E. Zanetti. MAD, a floating-point unit for massively-parallel processors. *Particle World*, 2(3):65–73, ???? 1991. ISSN 1043-6790.

Bass:1991:BSF

[2701] S. C. Bass, G. M. Butler, R. L. Williams, F. Barlos, and D. R. Miller. A bit-serial, floating point CORDIC processor in VLSI. In *[Proceedings] ICASSP 91: 1991 International Conference on Acoustics, Speech, and Signal Processing*, pages 1165–1168 (vol. 2). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991.

Beal:1991:GAP

[2702] D. Beal and C. Lambrinoudakis. GPFP: an array processing element for the next generation of massively parallel supercomputer architectures. In IEEE [7829], pages 348–357. ISBN 0-8186-9158-1 (IEEE case), 0-8186-2158-3 (IEEE paper), 0-8186-6158-5 (IEEE microfiche), 0-89791-459-7 (ACM). LCCN QA76.5 .S894 1991. ACM order number 415913. IEEE Computer Society Press order number 2158. IEEE catalog number 91CH3058-5.

Beebe:1991:ASR

[2703] Nelson H. F. Beebe. Accurate square root computation. Technical report, Center for Scientific Computing, Department of Mathematics, University of Utah, Salt Lake City, UT 84112, USA, February 4, 1991. 23 pp. Supplemental class notes prepared for Mathematics 118.

Bohlender:1991:DFP

[2704] G. Bohlender. Decimal floating-point arithmetic in binary representation. In Kaucher et al. [7831], pages 13–27. ISSN 1012-2435. LCCN QA76.9.C62 I555 1990.

Bohlender:1991:SEF

[2705] G. Bohlender, W. Walter, P. Kornerup, and D. W. Matula. Semantics for exact floating point operations. In Kornerup and Matula [7833], pages 22–26. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Bohlender.pdf`. See [4754] for some special cases that this paper may have overlooked.

Bohlender:1991:SPH

[2706] Gerd Bohlender and Andreas Knöfel. A survey of pipelined hardware support for accurate scalar products. In Kaucher et al. [7831], pages 29–43. ISSN 1012-2435. LCCN QA76.9.C62 I555 1990.

Bohlender:1991:VEI

[2707] Gerd Bohlender. A vector extension of the IEEE standard for floating-point arithmetic. In Kaucher et al. [7831], pages 3–12. ISSN 1012-2435. LCCN QA76.9.C62 I555 1990.

Boughton:1991:CSG

[2708] G. A. Boughton (editor). Computation Structures Group progress report 1990–91. CSG Memo 337, MIT Laboratory for Computer Science, Cambridge, MA, USA, June 1991.

Briggs:1991:PCF

[2709] Keith Briggs. A precise calculation of the Feigenbaum constants. *Mathematics of Computation*, 57(195):435–439, July 1991. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bromley:1991:FAT

[2710] Mark Bromley, Steven Heller, Tim McNerney, and Guy L. Steele Jr. Fortran at ten gigaflops: the Connection Machine convolution compiler. *ACM SIGPLAN Notices*, 26(6):145–156, June 1991. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL http://www.acm.org:80/pubs/citations/proceedings/pldi/113445/p145-bromley/.

Brunner:1991:VAR

[2711] Richard A. Brunner, Dileep P. Bhandarkar, et al., editors. *VAX Architecture Reference Manual*. Digital Press and Prentice-Hall, 12 Crosby Drive, Bedford, MA 01730, USA and Upper Saddle River, NJ 07458, USA, 1991. ISBN 1-55558-057-2 (Digital Press), 0-13-929522-4 (Prentice-Hall). xv + 560 pp. LCCN QA76.8.V32 V39 1991.

Bruss:1991:RMF

[2712] Rolf-Jürgen Brüß. *RISC—The MIPS-R3000 Family*. Siemens Aktiengesellschaft, Berlin and Munich, Germany, 1991. ISBN 3-8009-4103-1. 340 pp. LCCN QA76.5 R48 1991.

Bryant:1991:CVI

[2713] R. E. Bryant. On the complexity of VLSI implementations and graph representations of Boolean functions with application to integer multiplication. *IEEE Transactions on Computers*, 40(2):205–213, February 1991. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=73590.

Calvetti:1991:REF

[2714] Daniela Calvetti. Roundoff error for floating point representation of real data. *Communications in Statistics: Theory and Methods*, 20(8):2687–2695, 1991. CODEN CSTMDC. ISSN 0361-0926 (print), 1532-415X (electronic).

Calvetti:1991:SRE

[2715] Daniela Calvetti. A stochastic roundoff error analysis for the Fast Fourier Transform. *Mathematics of Computation*, 56(194):755–774, April 1991. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Catanzaro:1991:STP

[2716] Ben J. Catanzaro, editor. *The SPARC Technical Papers*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1991. ISBN 0-387-97634-5, 3-540-97634-5. xvi + 501 pp. LCCN QA76.9.A73 S65 1991.

Celarier:1991:AML

[2717] Donald A. Celarier and Donald W. Sando. An Ada math library for real-time avionics. *ACM SIGADA Ada Letters*, 11(7):274–284, Fall 1991. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Chai:1991:MCF

[2718] P. Chai, T. Chuk, Y. H. Fong, L. Hu, K. Ng, J. Prabhu, A. Quek, A. Samuels, and J. Yeun. A 120 MFLOPS CMOS floating-point processor. In IEEE CICC '91 [7828], pages 15.1/1–4. ISBN 0-7803-0016-5.

Chan:1991:DOC

[2719] Pak K. Chan, Martine D. F. Schlag, Clark D. Thomborson, and Vojin G. Oklobdzija. Delay optimization of carry-skip adders and block carry-lookahead adders. In Kornerup and Matula [7833], pages 154–164. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Chan.pdf`. IEEE catalog no. 91CH3015-5.

Chance:1991:EPA

[2720] R. J. Chance. The effect of processor architecture on an efficient floating point table look-up algorithm. *Microprocessors and Microsystems*, 15 (8):411–416 (or 411–415??), October 1991. CODEN MIMID5. ISSN 0141-9331 (print), 1872-9436 (electronic).

Chang:1991:PLA

[2721] Yuh-Huu Chang, Ching-Kae Tzou, and N. J. Bershad. Postsmoothing for the LMS algorithm and a fixed point roundoff error analysis. *IEEE Transactions on Signal Processing*, 39(4):959–962, April 1991. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Chassaing:1991:DSP

[2722] Chassaing and Horning. Digital signal processing with fixed- and floating-point processors. *CoED*, II(1):1–4, January 1991. CODEN CWLJDP. ISSN 0736-8607.

Chatelin:1991:AAA

[2723] F. Chatelin and V. Frayssé. Analysis of arithmetic algorithms: a statistical study. In Kornerup and Matula [7833], pages 10–16. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Chatelin.pdf. IEEE catalog no. 91CH3015-5.

Chen:1991:BDR

[2724] F. Chen and C. S. Chen. A 20 b dynamic-range floating-point data acquisition system. *IEEE Transactions on Industrial Electronics*, 38(1): 10–14, February 1991. CODEN ITIED6. ISSN 0278-0046 (print), 1557-9948 (electronic).

Chiang:1991:FNR

[2725] Jen-Shiun Chiang and Mi Lu. Floating-point numbers in residue number systems. *Computers and Mathematics with Applications*, 22(10):127–140, ???? 1991. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

Chiang:1991:FPNa

[2726] Jen-Shiun Chiang and Mi Lu. Floating-point numbers in residue number systems. *Computers and Mathematics with Applications*, 22(10):127–140, ???? 1991. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

Chiang:1991:FPNb

[2727] Jen-Shiun Chiang and Mi Lu. Floating-point numbers in residue number systems. *Computers and Mathematics with Applications*, 22(10):127–140, ???? 1991. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/089812219190200N.

Chiang:1991:GDA

[2728] J.-S. Chiang and M. Lu. A general division algorithm for residue number systems. In Kornerup and Matula [7833], pages 76–83. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Chiang.pdf. IEEE catalog no. 91CH3015-5.

Cmelik:1991:AMS

[2729] Robert F. Cmelik, Shing I. Kong, David R. Ditzel, and Edmund J. Kelly. An analysis of MIPS and SPARC instruction set utilization on the SPEC benchmarks. *ACM SIGPLAN Notices*, 26(4):290–301 (or 290–302??), April 1991. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Cody:1991:KAA

[2730] W. J. Cody. Keynote address: Arithmetic standards: The long road. In Kornerup and Matula [7833], page ix. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_keynote.pdf`. IEEE catalog no. 91CH3015-5.

Cody:1991:PEP

[2731] W. J. Cody. Performance evaluation of programs related to the real gamma function. *ACM Transactions on Mathematical Software*, 17(1): 46–54, March 1991. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://doi.acm.org/10.1145/103147.103153`; `http://www.acm.org/pubs/citations/journals/toms/1991-17-1/p46-cody/`.

Cody:1991:UTS

[2732] W. J. Cody and L. Stoltz. The use of Taylor series to test accuracy of function programs. *ACM Transactions on Mathematical Software*, 17 (1):55–63, March 1991. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://doi.acm.org/10.1145/103147.103154`; `http://www.acm.org/pubs/citations/journals/toms/1991-17-1/p55-cody/`.

Compan:1991:GPS

[2733] A. Compan, P. Debaud, V. Delorme, J. A. François, H. Mehrez, and F. Pecheux. GAF: a portable standard-cell floating point adder generator using the CXgen function library. *Microprocessing and Microprogramming*, 32(1):637–644, August 1991. CODEN MMICDT. ISSN 0165-6074 (print), 1878-7061 (electronic).

Counihan:1991:F

[2734] Martin Counihan. *Fortran 90*. Pitman Publishing Ltd., London, UK, 1991. ISBN 0-273-03073-6. 309 pp. LCCN QA76.73.F25 C68 1991. See [2915].

Cox:1991:TSS

[2735] Christopher L. Cox and James A. Knisely. A tridiagonal system solver for distributed memory parallel processors with vector nodes. *Journal of Parallel and Distributed Computing*, 13(3):325–331, November 1991. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Crenshaw:1991:SRS

[2736] J. W. Crenshaw. Square roots are simple? *Embedded Systems Programming*, 4(11):30–52, November 1991. CODEN EYPRE4. ISSN 1040-3272.

Davida:1991:FPA

[2737] George I. Davida and Bruce Litow. Fast parallel arithmetic via modular representation. *SIAM Journal on Computing*, 20(4):756–765, August 1991. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic).

Davies:1991:FPS

[2738] T. C. (Tudor Craddock) Davies. A floating point systolic array processing element using serial communication. Thesis (M.Eng.), Royal Military College of Canada, Kingston, ON, Canada, 1991. 2 microfiches. University Microfilms order no. UMI00285885.

Davis:1991:CC

[2739] Warren Davis and Kan Yabumoto. A coprocessor for a coprocessor? *Dr. Dobb's Journal of Software Tools*, 16(5):16–28, 84–88, May 1991. CODEN DDJOEB. ISSN 1044-789X.

Deb:1991:BFF

[2740] Kalyanmoy Deb. *Binary and floating-point function optimization using messy genetic algorithms*. Thesis (Ph.D.), Department of Engineering Mechanics, University of Alabama, Tuscaloosa, AL, USA, 1991. xvii + 166 pp.

deLange:1991:DIF

[2741] Alfons A. J. de Lange and Ed F. Deprettere. Design and implementation of a floating-point quasi-systolic general purpose CORDIC rotator for high-rate parallel data and signal processing. In Kornerup and Matula [7833], pages 272–281. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Lange.pdf`. IEEE catalog no. 91CH3015-5.

Demmel:1991:OIA

[2742] James W. Demmel. On the odor of IEEE arithmetic. *NA Digest*, 91 (39), September 29, 1991. URL `http://www.netlib.org/na-digest/91/v91n39`. Rebuttal to [2764].

Dongarra:1991:GBP

[2743] J. J. Dongarra, A. Karp, K. Miura, and H. D. Simon. Gordon Bell Prize lectures (supercomputer applications). In IEEE [7829], pages 328–337. ISBN 0-8186-9158-1 (IEEE case), 0-8186-2158-3 (IEEE paper), 0-8186-6158-5 (IEEE microfiche), 0-89791-459-7 (ACM). LCCN QA76.5 .S894 1991. ACM order number 415913. IEEE Computer Society Press order number 2158. IEEE catalog number 91CH3058-5.

Dunham:1991:ABA

[2744] C. Dunham. Applications of best approximation. *ACM SIGNUM Newsletter*, 26(2):2–10, April 1991. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Duprat:1991:NRR

[2745] Jean Duprat, Yvan Herreros, and Sylvanus Kla. New redundant representations of complex numbers and vectors. In Kornerup and Matula [7833], pages 2–9. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Duprat.pdf`. IEEE catalog no. 91CH3015-5.

Duprat:1991:WND

[2746] J. Duprat and Jean-Michel Muller. Writing numbers differently for faster calculation. *Technique et Science Informatiques*, 10(3):211–224, ???? 1991. CODEN TTSIDJ. ISSN 0752-4072, 0264-7419.

Ercegovac:1991:MPM

[2747] Miloš D. Ercegovac and Tomas Lang. Module to perform multiplication, division, and square root in systolic arrays for matrix computations. *Journal of Parallel and Distributed Computing*, 11(3):212–221, March 1991. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Even:1991:SMM

[2748] Shimon Even. Systolic modular multiplication. *Lecture Notes in Computer Science*, 537:619–??, 1991. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/0537/05370619.htm;`

http://link.springer-ny.com/link/service/series/0558/papers/0537/05370619.pdf.

Ferguson:1991:AMA

[2749] Warren E. Ferguson, Jr. and Tom Brightman. Accurate and monotone approximations of some transcendental functions. In Kornerup and Matula [7833], pages 237–244. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Ferguson.pdf. IEEE catalog no. 91CH3015-5.

Ferguson:1991:SMC

[2750] Warren E. Ferguson, Jr. Selecting math coprocessors. *IEEE Spectrum*, 28(7):38–41, July 1991. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Fleurkens:1991:HLD

[2751] H. Fleurkens and R. Tangelder. The high level design of the long accumulator chip. In IEEE [7827], pages 299–301. ISBN 0-8186-2125-7. LCCN ???? IEEE catalog no. 91TH0340-0.

Fossmeier:1991:ALH

[2752] R. Fößmeier. Zur Axiomatisierung logarithmischer und halblogarithmischer Zahlensysteme. (German) [On the axiomatization of logarithmic and semi-logarithmic number systems]. *Computing: Archiv fur informatik und numerik*, 46(2):175–182, June 1991. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Fossmeier:1991:ALS

[2753] R. Fossmeier. On the axiomatization of logarithmic and semi-logarithmic number systems. *Computing: Archiv fur informatik und numerik*, 46(2):175–182, ???? 1991. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Foster:1991:PM

[2754] Kenneth R. Foster. Prepackaged math. *IEEE Spectrum*, 28(11):44–50, November 1991. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Frougny:1991:RNN

[2755] Christiane Frougny. Representation of numbers in nonclassical numeration systems. In Kornerup and Matula [7833], pages 17–21. ISBN

0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Frougny.pdf. IEEE catalog no. 91CH3015-5.

Gal:1991:AEM

[2756] Shmuel Gal and Boris Bachelis. An accurate elementary mathematical library for the IEEE floating point standard. *ACM Transactions on Mathematical Software*, 17(1):26–45, March 1991. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://doi.acm.org/10.1145/103147.103151; http://www.acm.org/pubs/citations/journals/toms/1991-17-1/p26-gal/.

Gamberger:1991:NAI

[2757] Dragan Gamberger. New approach to integer division in residue number systems. In Kornerup and Matula [7833], pages 84–91. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Gamberger.pdf. IEEE catalog no. 91CH3015-5.

Gladshtein:1991:MDD

[2758] M. A. Gladshtein. A method of designing a decimal arithmetic processor. *Automatic Control and Computer Sciences*, 25(6):51–56, ???? 1991. CODEN ACCSCE. ISSN 0132-4160.

Goldberg:1991:CWE

[2759] David Goldberg. Corrigendum: "What Every Computer Scientist Should Know About Floating-Point Arithmetic". *ACM Computing Surveys*, 23 (3):413, September 1991. CODEN CMSVAN. ISSN 0360-0300 (print), 1557-7341 (electronic). See [2760, 2946, 3077].

Goldberg:1991:WEC

[2760] David Goldberg. What every computer scientist should know about floating-point arithmetic. *ACM Computing Surveys*, 23(1):5–48, March 1991. CODEN CMSVAN. ISSN 0360-0300 (print), 1557-7341 (electronic). URL http://www.acm.org/pubs/toc/Abstracts/0360-0300/103163.html. See also [2759, 2946, 3077].

Golubev:1991:FPM

[2761] Yu. F. Golubev, I. A. Seregin, and R. Z. Khaĭrullin. The floating point method in problems of the optimization of motion during the descent of a spacecraft into the atmosphere. (Russian). Inst. Prikl. Mat. Preprint 50, Akad. Nauk SSSR, 1991. 28 pp.

Gonnella:1991:ACF

[2762] J. Gonnella. The application of core functions to residue number systems. *IEEE Transactions on Signal Processing*, 39(1):69–75, January 1991. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=2655.

Gotze:1991:SRD

[2763] J. Götze and U. Schwiegelshohn. A square root and division free Givens rotation for solving least squares problems on systolic arrays. *SIAM Journal on Scientific and Statistical Computing*, 12(4):800–807, July 1991. CODEN SIJCD4. ISSN 0196-5204.

Grcar:1991:IAS

[2764] Joe Grcar. IEEE arithmetic stinks. *NA Digest*, 91(33), August 18, 1991. URL http://www.netlib.org/na-digest/91/v91n33. See rebuttal [2742].

Griffin:1991:REA

[2765] C. Griffin, P. Rao, and F. Taylor. Roundoff error analysis of the discrete Wigner distribution using fixed-point arithmetic. *IEEE Transactions on Signal Processing*, 39(9):2096–2098, September 1991. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Gusev:1991:NCS

[2766] A. V. Gusev and I. V. Melezhnikov. Noise in a constant-current SQUID with a floating operating point. *Telecommunications and Radio Engineering*, 46(8):125–127, 1991. CODEN TCREAG. ISSN 0040-2508 (print), 1943-6009 (electronic).

Guyot:1991:OAV

[2767] Alain Guyot. OCAPI: Architecture of a VLSI coprocessor for the GCD and the extended GCD of large numbers. In Kornerup and Matula [7833], pages 226–231. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Guyot.pdf. IEEE catalog no. 91CH3015-5.

Hamza:1991:MBD

[2768] K. M. Hamza and M. A. H. Abdul-Karim. Microprocessor based direct square root extractor. *Modelling*, 34(1):45–48, ???? 1991.

Heidtmann:1991:ASA

[2769] K. D. Heidtmann. Arithmetic spectrum applied to fault detection for combinational networks. *IEEE Transactions on Computers*, 40(3):320–324, March 1991. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=76409`.

Holmes:1991:FSD

[2770] Ian Holmes. A feasibility study into the design of a 64-bit floating point processor. Thesis (M.Sc. in Electronics), University of Southampton, Department of Electronics and Computer Science, Southampton, UK, 1991.

Horiguchi:1991:HFN

[2771] Hiroshi Horiguchi, Tsutomu Tayama, and Kazuaki Kajitori. Hamada floating-point numbers and real numbers. *Advances in software science and technology*, 2(??):123–??, 1991. ISSN 1044-7997.

Horiguchi:1991:PEP

[2772] Susumu Horiguchi and Takeo Nakada. Performance evaluation of parallel fast Fourier transform on a multiprocessor workstation. *Journal of Parallel and Distributed Computing*, 12(2):158–163, June 1991. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Hough:1991:TBC

[2773] David G. Hough and Vern Paxson. Testbase: base conversion test program. World-Wide Web document, July 20, 1991. URL `http://www.netlib.org/fp/testbase`. See [2841].

Hsiao:1991:CHA

[2774] Shen-Fu Hsiao and Jean-Marc Delosme. The CORDIC Householder algorithm. In Kornerup and Matula [7833], pages 256–263. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Hsiao.pdf`. IEEE catalog no. 91CH3015-5.

Hu:1991:ERC

[2775] X. Hu, R. G. Harber, and S. C. Bass. Expanding the range of convergence of the CORDIC algorithm. *IEEE Transactions on Computers*, 40(1):13–21, January 1991. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Hui:1991:DFD

[2776] S. Hui and D. P. Brown. Digital filter design with a combination of fixed point and residue number systems. In *IEEE Pacific Rim Conference on Communications, Computers and Signal Processing, 9–10 May 1991*, volume 1, pages 331–334. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. CODEN ???? ISSN ????

Hull:1991:SVP

[2777] T. E. Hull, M. S. Cohen, and C. B. Hall. Specifications for a variable-precision arithmetic coprocessor. In Kornerup and Matula [7833], pages 127–131. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Hull.pdf`. IEEE catalog no. 91CH3015-5.

Ince:1991:SQR

[2778] D. (Darrel) Ince. *Software quality and reliability tools and methods*. Unicom applied information technology reports; [6]. Chapman and Hall, London, UK, 1991. ISBN 0-442-31314-4, 0-412-37810-8. 178 pp. LCCN ????

Iri:1991:HAD

[2779] M. Iri. History of automatic differentiation and rounding error estimation. In Griewank and Corliss [7826], pages 3–16. ISBN 0-89871-284-x. LCCN QA304 1991.

Jain:1991:CSN

[2780] Suneel Jain. Circular scheduling: a new technique to perform software pipelining. *ACM SIGPLAN Notices*, 26(6):219–228, June 1991. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL `http://www.acm.org:80/pubs/citations/proceedings/pldi/113445/p219-jain/`.

Jain:1991:NRS

[2781] V. K. Jain, G. E. Perez, and J. M. Wills. Novel reciprocal and square-root VLSI cell: architecture and application to signal processing. In ICASSP'91 [7830], pages 1201–1204. ISBN 0-7803-0003-3 (softbound), 0-7803-0004-1 (casebound), 0-7803-0005-X (microfiche). LCCN TK 7882 S65 I16 1991. Five volumes. IEEE catalog number 91CH2977-7.

Kahan:1991:APL

[2782] William Kahan and J. W. Thomas. Augmenting a programming language with complex arithmetic. Technical Report NCEG/91-039, UCB/CSD 91/667, Department of Computer Science, University of California, Berkeley, CA, USA, November 15, 1991. 8 pp. Manuscript.

Kahan:1991:ARL

[2783] W. Kahan. Analysis and refutation of the LCAS. *ACM SIGNUM Newsletter*, 26(3):2–15, July 1991. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Kantabutra:1991:DOC

[2784] Vitit Kantabutra. Designing optimum carry-skip adders. In Kornerup and Matula [7833], pages 146–153. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Kantabutra.pdf`. IEEE catalog no. 91CH3015-5.

Kim:1991:ERB

[2785] Jin Yul Kim, Kyu Ho Park, and Hwang Soo Lee. Efficient residue-to-binary conversion technique with rounding error compensation. *IEEE Transactions on Circuits and Systems*, 38(3):315–317, March 1991. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Kim:1991:NIC

[2786] S. W. Kim and T. Stouraitis. New implementations of converters for the residue and quadratic residue number system. In *IEEE International Symposium on Circuits and Systems, 11–14 June 1991*, volume 5, pages 2959–2962. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. CODEN ???? ISSN ????

Klatte:1991:PSB

[2787] R. Klatte, U. Kulisch, M. Neaga, D. Ratz, and Ch. Ullrich. *PASCAL-XSC: Sprachbeschreibung mit Beispielen*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1991. ISBN 0-387-53714-7. x + 345 pp. LCCN QA76.73.P2 P42 1991. English translation is available as [2788].

Klatte:1991:PXP

[2788] R. Klatte, U. Kulisch, M. Neaga, D. Ratz, and Ch. Ullrich. *PASCAL-XSC: A PASCAL Extension for Scientific Computation*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1991.

ISBN 0-387-55137-9 (New York), 3-540-55137-9 (Berlin). x + 344 pp. LCCN QA76.73.P2 P4213 1992. DM64.00. English translation of [2787].

Knofel:1991:FHU

[2789] Andreas Knöfel. Fast hardware units for the computation of accurate dot products. In Kornerup and Matula [7833], pages 70–74. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Knofel.pdf`. IEEE catalog no. 91CH3015-5.

Knowles:1991:APD

[2790] S. Knowles. Arithmetic processor design for the T9000 transputer. In Luk [7836], pages 230–243. ISBN 0-8194-0694-5. LCCN TS510.S63 v.1566.

Koc:1991:FAG

[2791] Cetin K. Koc and Sarath N. Arachchige. A fast algorithm for Gaussian elimination over GF(2) and its implementation on the GAPP. *Journal of Parallel and Distributed Computing*, 13(1):118–122, September 1, 1991. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Koc:1991:IAM

[2792] Çetin K. Koç. An improved algorithm for mixed-radix conversion of residue numbers. *Computers and Mathematics with Applications*, 22(8): 63–71, ???? 1991. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/089812219190014U`.

Kohprasert:1991:FAC

[2793] Teera Kohprasert. 32-bit floating-point arithmetic coprocessor design using VHDL. Thesis (M.S.), Florida Institute of Technology, Melbourne, FL, USA, 1991. xiv + 456 pp.

Kostopoulos:1991:ACB

[2794] D. K. Kostopoulos. An algorithm for the computation of binary logarithms. *IEEE Transactions on Computers*, 40(11):1267–1270, November 1991. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kramer:1991:EFA

[2795] David Kramer and Isaac D. Scherson. The effect of FPU architecture on a dynamic precision algorithm for the solution of differential equations.

Technical report 91-73, Information and Computer Science, University of California, Irvine, Irvine, CA, USA, 1991. 18 pp.

Kuhnel:1991:OPS

[2796] Lars Kühnel. Optimal purely systolic addition. In Kornerup and Matula [7833], pages 172–179. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Kuhnel.pdf. IEEE catalog no. 91CH3015-5.

Kurokawa:1991:CGU

[2797] T. Kurokawa and T. Mizukoshi. Computer graphics using logarithmic number systems. *IEICE Transactions*, E74(2):447–451, February 1991. ISSN 0917-1673.

Lai:1991:HNS

[2798] F.-S. Lai and C.-F. E. Wu. A hybrid number system processor with geometric and complex arithmetic capabilities. *IEEE Transactions on Computers*, 40(8):952–962, August 1991. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=83639.

Lee:1991:FPPa

[2799] Roland L. Lee, Alex Y. Kwok, and Fayé A. Briggs. The floating point performance of a superscalar SPARC processor. *ACM SIGARCH Computer Architecture News*, 19(2):28–37, April 1991. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic). Co-published in *Operating Systems Review*, **28**(3S).

Lee:1991:FPPb

[2800] Roland L. Lee, Alex Y. Kwok, and Fayé A. Briggs. The floating-point performance of a superscalar SPARC processor. *Operating Systems Review*, 25(3S):28–37, April 1991. CODEN OSRED8. ISSN 0163-5980 (print), 1943-586X (electronic).

Lee:1991:FPPc

[2801] Roland L. Lee, Alex Y. Kwok, and Fayé A. Briggs. The floating-point performance of a superscalar SPARC processor. *ACM SIGPLAN Notices*, 26(4):28–37, April 1991. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Lee:1991:SCF

[2802] Jeong-A. Lee and Tomás Lang. SVD by constant-factor-redundant-CORDIC. In Kornerup and Matula [7833], pages 264–271. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Lee.pdf. IEEE catalog no. 91CH3015-5.

Letcher:1991:GNC

[2803] John H. Letcher. Getting numeric coprocessors up to speed. *Dr. Dobb's Journal of Software Tools*, 16(5):36, 38, 40, 42, May 1991. CODEN DDJOEB. ISSN 1044-789X.

Lo:1991:BHS

[2804] H.-Y. Lo and T. C. Yang. Balanced high-speed residue number VLSI multiplier with error detection. *Circuits, Devices and Systems, IEE Proceedings G*, 138(3):421–423, June 1991. CODEN ???? ISSN ???? URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=6544.

Lyashenko:1991:PAR

[2805] N. N. Lyashenko and M. S. Nikulin. Probability analysis of round-off errors in floating-point arithmetic. *Theory of probability and its applications*, 35(1):66–74, ???? 1991. CODEN TPRBAU. ISSN 0040-585X (print), 1095-7219 (electronic).

Lynch:1991:RCA

[2806] Tom Lynch and Earl Swartzlander, Jr. The redundant cell adder. In Kornerup and Matula [7833], pages 165–170. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Lynch.pdf. IEEE catalog no. 91CH3015-5.

Lyons:1991:FMF

[2807] Ken Lyons. A fast method for finding an integer square root. In Koopman, Jr. [7832], pages 27–30. ISBN 0-89791-462-7. LCCN QA 76.73 F24 S53 1991. URL http://www.acm.org:80/pubs/citations/proceedings/plan/259965/p27-lyons/. ACM order number 817911.

MacKenzie:1991:FMS

[2808] Donald MacKenzie. Formal methods and the sociology of proof. In Morris and Shaw [7835], pages 115–124. ISBN 3-540-19657-9. LCCN ????

MacKenzie:1991:IAL

[2809] Donald MacKenzie. The influence of the Los Alamos and Livermore National Laboratories on the development of supercomputing. *Annals of the History of Computing*, 13(2):179–201, April/June 1991. CODEN AHCOE5. ISSN 0164-1239. URL `http://dlib.computer.org/an/books/an1991/pdf/a2179.pdf; http://www.computer.org/annals/an1991/a2179abs.htm`.

MacKenzie:1991:NAC

[2810] Donald MacKenzie and Edinburgh Pict. *Negotiating arithmetic, construction proof: the sociology of mathematics and information technology*, volume 38 of *Edinburgh PICT working paper*. Research Centre for Social Sciences, University of Edinburgh, Edinburgh, 1991. ISBN 1-872287-42-5. 27 pp. LCCN ????

Marcus:1991:HSR

[2811] Marvin Marcus and Markus Sandy. Hadamard square roots. *SIAM Journal on Matrix Analysis and Applications*, 12(1):49–69, January 1991. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Markstein:1991:WFF

[2812] V. Markstein, P. Markstein, T. Nguyen, and S. Poole. Wide format floating-point math libraries. In IEEE [7829], pages 130–138. ISBN 0-8186-9158-1 (IEEE case), 0-8186-2158-3 (IEEE paper), 0-8186-6158-5 (IEEE microfiche), 0-89791-459-7 (ACM). LCCN QA76.5 .S894 1991. ACM order number 415913. IEEE Computer Society Press order number 2158. IEEE catalog number 91CH3058-5.

McQuillan:1991:HPV

[2813] S. E. McQuillan, J. V. McCanny, and R. F. Woods. High performance VLSI architecture for division and square root. *Electronics Letters*, 27 (1):19–21, January 3, 1991. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

McQuillan:1991:VAM

[2814] S. E. McQuillan and J. V. McCanny. A VLSI architecture for multiplication, division and square root. In *1991 International Conference on Acoustics, Speech, and Signal Processing: ICASSP-91, 14–17 April 1991*, volume 2, pages 1205–1208. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. CODEN ???? ISSN ????

Mehrez:1991:AVP

[2815] Habib Mehrez. *Des architectures VLSI pipelinés pour les algorithmes numériques à flots de données en représentations arithmétiques virgule fixe et virgule flottante. (French) [Pipelined VLSI architectures for numerical algorithms for numerical data in fixed- and floating-point arithmetic]*. Thèse doctoral, Sciences Appliquées, Université Paris 6, Paris, France, 1991. Sous la direction de Alain Greiner.

Mehta:1991:HSM

[2816] Mayur Mehta, Vijay Parmar, and Earl Swartzlander, Jr. High-speed multiplier design using multi-input counter and compressor circuits. In Kornerup and Matula [7833], pages 43–50. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Mehta.pdf`. IEEE catalog no. 91CH3015-5.

Metafas:1991:FPP

[2817] D. E. Metafas and C. E. Goutis. A floating point pipeline CORDIC processor with extended operation set. In *1991 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 3066–3069 (vol. 5). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991.

Microsoft:1991:MCC

[2818] Microsoft Corporation. *Microsoft C, C++: version 7.0: programming techniques for MS-DOS and Windows operating systems*. Microsoft Corp., Redmond, WA, USA, 1991. xix + 323 pp.

Montuschi:1991:OAE

[2819] P. Montuschi and M. Mezzalama. Optimal absolute error starting values for Newton–Raphson calculation of square root. *Computing: Archiv fur informatik und numerik*, 46(1):67–86, 1991. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Montuschi:1991:SRD

[2820] Paolo Montuschi and Luigi Ciminiera. Simple radix 2 division and square root with skipping of some addition steps. In Kornerup and Matula [7833], pages 202–209. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Montuschi.pdf`. IEEE catalog no. 91CH3015-5.

Mulder:1991:AMC

[2821] J. M. Mulder, N. T. Quach, and M. J. Flynn. An area model for on-chip memories and its application. *IEEE Journal of Solid-State Circuits*, 26 (2):98–105, February 1991. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Muller:1991:EAF

[2822] Michael Müller, Christine Rüb, and Wolfgang Rülling. Exact accumulation of floating-point numbers. In Kornerup and Matula [7833], pages 64–69. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Muller.pdf`. IEEE catalog no. 91CH3015-5.

Muller:1991:FSC

[2823] Jean-Michel Muller, Peter Kornerup, and David W. Matula. Foreword: 10th Symposium on Computer Arithmetic, Grenoble, France, June 26–28, 1991. In Kornerup and Matula [7833], page v. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_contents.pdf; http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_foreword.pdf; http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_preface.pdf`. IEEE catalog no. 91CH3015-5.

Mundie:1991:OOR

[2824] David A. Mundie and David A. Fisher. Optimized overload resolution and type matching for Ada. *ACM SIGADA Ada Letters*, 11(3):83–90, Spring 1991. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Mutrie:1991:TSS

[2825] Mark P. W. Mutrie. *Towards a Symbolic System for Floating-Point Error Analysis*. PhD thesis, University of Waterloo, 1991.

Myczkowski:1991:SMA

[2826] J. Myczkowski and G. Steele. Seismic modeling at 15 Gigaflops on the Connection Machine. In IEEE [7829], pages 316–326. ISBN 0-8186-9158-1 (IEEE case), 0-8186-2158-3 (IEEE paper), 0-8186-6158-5 (IEEE microfiche), 0-89791-459-7 (ACM). LCCN QA76.5 .S894 1991. ACM order number 415913. IEEE Computer Society Press order number 2158. IEEE catalog number 91CH3058-5.

Nagal:1991:PEM

[2827] T. Nagal. Performance evaluation of mathematical functions. *Supercomputer*, 8(8):46–56, November 1991. CODEN SPCOEL. ISSN 0168-7875.

Nakano:1991:MBM

[2828] H. Nakano, M. Nakajima, Y. Nakahura, T. Yoshida, Y. Goi, Y. Nakai, R. Segawa, T. Kishida, and H. Kadora. A 80 MFLOPS 64-bit microprocessor for parallel computer. In IEEE CICC '91 [7828], pages 15.2/1–4. ISBN 0-7803-0016-5. LCCN TK 7874 C87 1991.

Nelson:1991:SPM

[2829] Greg Nelson, editor. *Systems Programming with Modula-3*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1991. ISBN 0-13-590464-1. ix + 267 pp. LCCN QA76.66 .S87 1991. A description of the Modula 3 programming language by the committee that designed it, with an entertaining appendix on how various design decisions were made. Section 3.4 describes three floating-point interfaces that provide parameters of the underlying floating-point system, access primitives, and exception handling.

Ochs:1991:NRU

[2830] T. Ochs. Numerics for the rest of us. *Computer Language Magazine*, 8 (10):113–127, October 1991. CODEN COMLEF. ISSN 0749-2839.

Ochs:1991:NTR

[2831] T. Ochs. Numeric types, representations, and other fictions. *Computer Language Magazine*, 8(8):93–101, August 1991. CODEN COMLEF. ISSN 0749-2839.

Ochs:1991:RF

[2832] T. Ochs. A rotten foundation. *Computer Language Magazine*, 8(2):103–107, February 1991. CODEN COMLEF. ISSN 0749-2839.

Ochs:1991:SRF

[2833] T. Ochs. Son of rotten foundation: The sequel. *Computer Language Magazine*, 8(3):85–91, March 1991. CODEN COMLEF. ISSN 0749-2839.

OGrady:1991:HOA

[2834] E. Pearse O'Grady and Baek-Kyu K. Young. A hardware-oriented algorithm for floating-point function generation. *IEEE Transactions on Computers*, 40(2):237–241, February 1991. CODEN ITCOB4. ISSN

0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=73596.

Okabe:1991:LDC

[2835] Y. Okabe, N. Takagi, and S. Yaima. Log-depth circuits for elementary functions using residue number system. *Electronics and communications in Japan*, 74(8):31–37, 1991. CODEN ECOJAL. ISSN 0424-8368. Translated from Denshi Joho Tsushin Gakkai Ronbunshi, vol. 21-DI, no. 9, September 1990, pp. 723-728.

Orup:1991:HRH

[2836] Holger Orup and Peter Kornerup. A high-radix hardware algorithm for calculating the exponential $M^E \bmod N$. In Kornerup and Matula [7833], pages 51–56. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Orup.pdf. IEEE catalog no. 91CH3015-5.

Ozawa:1991:FND

[2837] K. Ozawa. A fast $O(n^2)$ division algorithm for multiple-precision floating-point numbers. *Journal of Information Processing (of Japan??)*, 14(3):354–356, ???? 1991.

Ozawa:1991:FOD

[2838] K. Ozawa. A fast $O(n^2)$ division algorithm for multiple-precision floating-point numbers. *Journal of Information Processing*, 14(3):354–356, ???? 1991. CODEN JIPRDE. ISSN 0387-6101.

Parikh:1991:RBE

[2839] Shrikant N. Parikh and David W. Matula. A redundant binary Euclidean GCD algorithm. In Kornerup and Matula [7833], pages 220–225. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Parikh.pdf. IEEE catalog no. 91CH3015-5.

Paterson:1991:SMC

[2840] Michael S. Paterson and Uri Zwick. Shallow multiplication circuits. In Kornerup and Matula [7833], pages 28–34. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Peterson.pdf. IEEE catalog no. 91CH3015-5.

Paxson:1991:PTI

[2841] Vern Paxson and W. Kahan. A program for testing IEEE binary–decimal conversion. World-Wide Web document, May 1991. URL ftp://ftp.ee.lbl.gov/testbase-report.ps.Z; ftp://ftp.ee.lbl.gov/testbase.tar.Z.

Piestrak:1991:DRG

[2842] Stanisław J. Piestrak. Design of residue generators and multioperand modular adders using carry-save adders. In Kornerup and Matula [7833], pages 100–107. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Piestrak.pdf. IEEE catalog no. 91CH3015-5.

Plauger:1991:AF

[2843] P. J. Plauger. Approximating functions. *Computer Language Magazine*, 8(6):17–25, June 1991. CODEN COMLEF. ISSN 0749-2839.

Plauger:1991:EP

[2844] P. J. Plauger. Economizing polynomials. *Computer Language Magazine*, 8(7):21–27, July 1991. CODEN COMLEF. ISSN 0749-2839.

Plauger:1991:FPA

[2845] P. J. Plauger. Floating-point arithmetic. *Embedded Systems Programming*, 4(8):95–99, August 1991. CODEN EYPRE4. ISSN 1040-3272.

Plauger:1991:FPP

[2846] P. J. Plauger. Floating-point primitives. *The Journal of C Language Translation*, 3(2):89–100, September 1991. ISSN 1042-5721.

Plauger:1991:HTF

[2847] P. J. Plauger. The header <float.h>. *C Users Journal*, 9(1):9–??, January 1991. ISSN 0898-9788.

Plauger:1991:WW

[2848] P. J. Plauger. Washing the watchers. *Computer Language Magazine*, 8 (9):23–32, September 1991. CODEN COMLEF. ISSN 0749-2839.

Priest:1991:AAP

[2849] Douglas M. Priest. Algorithms for arbitrary precision floating point arithmetic. In Kornerup and Matula [7833], pages 132–143. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Priest.pdf. IEEE catalog no. 91CH3015-5.

Pugh:1991:TFV

[2850] Kenneth Pugh and Hugo Calleens. floats versus doubles. *C Users Journal*, 9(6):117–??, June 1991. ISSN 0898-9788.

Quach:1991:DIS

[2851] N. Quach and M. Flynn. Design and implementation of the SNAP floating-point adder. Technical Report CSL-TR-91-501, Computer Systems Laboratory, Stanford University, Stanford, CA, USA, December 1991.

Quach:1991:FIR

[2852] N. Quach, N. Takagi, and M. J. Flynn. On fast IEEE rounding. Technical Report CSL-TR-91-459, Stanford University, Stanford, CA, USA, January 1991. v + 27 pp. URL http://i.stanford.edu/pub/cstr/reports/csl/tr/91/459/CSL-TR-91-459.pdf.

Quach:1991:LOP

[2853] N. T. Quach and M. J. Flynn. Leading one prediction — implementation, generalization, and application. Technical Report CSL-TR-91-463, Computer Systems Laboratory, Stanford University, Stanford, CA, USA, March 1991.

Raja:1991:NDT

[2854] Paruvachi V. R. Raja. Novel design techniques for RNS systolic VLSI arrays. *Lecture Notes in Computer Science*, 507:206–??, 1991. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Rao:1991:ARN

[2855] B. D. Rao. Analysis of roundoff noise in floating point digital filters. In *Acoustics, Speech, and Signal Processing, 1991. ICASSP-91., 1991 International Conference on. 14–17 April 1991*, volume 3, pages 1893–1896. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. CODEN ???? ISSN ????

Rees:1991:RRA

[2856] Jonathan Rees, William Clinger, et al. The revised^4 report on the algorithmic language Scheme. *ACM SIGPLAN Lisp Pointers*, 4(3):1–55, July/September 1991.

Rump:1991:CAI

[2857] Siegfried M. Rump. A class of arbitrarily ill-conditioned floating-point matrices. *SIAM Journal on Matrix Analysis and Applications*, 12(4): 645–653, October 1991. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Scott:1991:MCS

[2858] T. J. Scott. Mathematics and computer science at odds over real numbers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 23(1):130–139, March 1991. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). 22nd SIGCSE Technical Symposium on Computer Science Education.

Seznec:1991:OCE

[2859] Andre Seznec and Karl Courtel. OPAC: a cost-effective floating-point coprocessor = le coprocessor numérique OPAC. Technical report, Institut National de Recherche en Informatique et en Automatique, Le Chesnay, France, 1991. 24 pp.

Seznec:1991:OFP

[2860] Andre Seznec and Karl Courtel. OPAC: a floating-point coprocessor dedicated to compute-bound kernels = OPAC: un coprocesseur flottant dedié au calcul matriciel. Rapports de recherche 1555, Institut National de Recherche en Informatique et en Automatique, Le Chesnay, France, 1991. 27 pp.

Shaeffer:1991:HEP

[2861] D. L. Shaeffer, J. R. Kimbrough, S. M. Denton, J. L. Kaschmitter, J. W. Wilburn, R. W. Davis, N. J. Colella, and D. B. Holtkamp. High energy proton SEU test results for the commercially available MIPS R3000 microprocessor and R3010 floating point unit. *IEEE Transactions on Nuclear Science*, 38(6):1421–1428, December 1991. CODEN IRNSAM. ISSN 0018-9499 (print), 1558-1578 (electronic).

Shand:1991:HSL

[2862] M. Shand, P. Bertin, and J. Vuillemin. Hardware speedups in long integer multiplication. *ACM SIGARCH Computer Architecture News*, 19(1):106–113, March 1991. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Siewiorek:1991:AST

[2863] Daniel P. Siewiorek and Philip John Koopman, Jr. *The Architecture of Supercomputers—Titan, A Case Study.* Academic Press, New York, NY, USA, 1991. ISBN 0-12-643060-8. xvii + 202 pp. LCCN QA76.5 S536 1991.

Skavantzos:1991:PRN

[2864] A. Skavantzos and F. J. Taylor. On the polynomial residue number system [digital signal processing]. *IEEE Transactions on Signal Processing*, 39(2):376–382, February 1991. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=2656.

Smith:1991:AFP

[2865] David M. Smith. Algorithm 693: A FORTRAN package for floating-point multiple-precision arithmetic. *ACM Transactions on Mathematical Software*, 17(2):273–283, June 1991. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1991-17-2/p273-smith/.

Sorensen:1991:OEC

[2866] D. C. Sorensen and Ping Tak Peter Tang. On the orthogonality of eigenvectors computed by divide and conquer techniques. *SIAM Journal on Numerical Analysis*, 28(6):1752–1775, December 1991. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). Pages 1759–1761 discuss implementation of useful primitives for higher-precision arithmetic: DPAdd2(), DPAdd3(), DPDiv().

Sparmann:1991:SBT

[2867] U. Sparmann. *Structure Based Test Methods for Arithmetic Circuits*. Ph.D. thesis, Computer Science Department, University of Saarland, Saarbrücken, Germany, 1991. In German.

Squire:1991:ANS

[2868] Jon S. Squire. Ada numerics standardization and testing. *ACM SIGADA Ada Letters*, 11(7):1–286, 1991. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Steidley:1991:FPA

[2869] C. W. Steidley. Floating point arithmetic basic exercises in mathematical reasoning for computer science majors. In ASEE [7825], pages 191–197 vol.1. ISBN ???? LCCN ???? 2 vol.

Takagi:1991:RCM

[2870] N. Takagi, T. Asada, and S. Yajima. Redundant CORDIC methods with a constant scale factor for sine and cosine computation. *IEEE*

Transactions on Computers, C-40(9):989–995, September 1991. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Takagi:1991:RMM

[2871] Naofumi Takagi. A radix-4 modular multiplication hardware algorithm efficient for iterative modular multiplications. In Kornerup and Matula [7833], pages 35–42. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Takagi.pdf`. IEEE catalog no. 91CH3015-5.

Tang:1991:TLAa

[2872] Ping Tak Peter Tang. Table-lookup algorithms for elementary functions and their error analysis. Technical Report MCS-P194-1190, Argonne National Laboratory, Argonne, IL, USA, 1991. ???? pp.

Tang:1991:TLAb

[2873] Ping Tak Peter Tang. Table-lookup algorithms for elementary functions and their error analysis. In Kornerup and Matula [7833], pages 232–236. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Tang.pdf`. IEEE catalog no. 91CH3015-5.

Taylor:1991:TFA

[2874] V. E. Taylor, A. Ranade, and D. G. Messerschmitt. Three-dimensional finite-element analyses: implications for computer architectures. In IEEE [7829], pages 786–795. ISBN 0-8186-9158-1 (IEEE case), 0-8186-2158-3 (IEEE paper), 0-8186-6158-5 (IEEE microfiche), 0-89791-459-7 (ACM). LCCN QA76.5 .S894 1991. ACM order number 415913. IEEE Computer Society Press order number 2158. IEEE catalog number 91CH3058-5.

teRiele:1991:NLB

[2875] H. J. J. te Riele. A new lower bound for the de Bruijn-Newman constant. *Numerische Mathematik*, 58(6):661–667, 1991. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

TI:1991:TDH

[2876] Texas Instruments Incorporated, Dallas, TX, USA. *TMS34082 designer's handbook*, revised edition, 1991. various pp.

TI:1991:TFDa

[2877] Texas Instruments Incorporated, Dallas, TX, USA. *TMS320 floating-point DSP optimizing C compiler user's guide*, revised edition, 1991. various pp.

TI:1991:TFDb

[2878] Texas Instruments Incorporated, Dallas, TX, USA. *TMS320 floating-point DSP assembly language tools user's guide*, revised edition, 1991. various pp.

TI:1991:TST

[2879] Texas Instruments Incorporated, Dallas. *TMS34082 software tool kit user's guide*, 2547321-9721 revision. edition, 1991. various pp.

Tomabechi:1991:DMD

[2880] N. Tomabechi. Design method of defect-tolerant WSI systems based on the residue number system. In *IEEE International Symposium on Circuits and Systems, 11–14 June 1991*, volume 5, pages 3082–3085. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. CODEN ???? ISSN ????

Tsang:1991:SDC

[2881] Annie Tsang and Manfred Olschanowsky. A study of DataBase 2 customer queries. Technical Report TR 03.413, IBM Santa Teresa Laboratory, San Jose, CA, USA, April 1991.

Tsubokawa:1991:FEA

[2882] Hiroshi Tsubokawa, Hajime Kubota, and Shigeo Tsujii. Floating-point error analysis for recursive least-square algorithm using UD factorization. *Electronics and communications in Japan. Part 3, Fundamental electronic science*, 74(6):1–10, 1991. CODEN ECJSER. ISSN 1042-0967 (print), 1520-6440 (electronic).

Tu:1991:ALA

[2883] Paul K.-G. Tu and Miloš D. Ercegovac. Application of on-line arithmetic algorithms to the SVD computation: preliminary results. In Kornerup and Matula [7833], pages 246–255. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Tu.pdf`. IEEE catalog no. 91CH3015-5.

Tu:1991:GAI

[2884] Paul K.-G. Tu and Miloš D. Ercegovac. Gate array implementation of on-line algorithms for floating-point operations. *Journal of VLSI Signal Processing*, 3(4):307–318, October 1991. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Turner:1991:IAE

[2885] Peter R. Turner. Implementation and analysis of extended SLI operations. In Kornerup and Matula [7833], pages 118–126. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Turner.pdf`. IEEE catalog no. 91CH3015-5.

Umemura:1991:FNL

[2886] K. Umemura. Floating-point number LISP. *Software—Practice and Experience*, 21(10):1015–1026, October 1991. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Umemura:1991:FPN

[2887] Kyoji Umemura. Floating-point number LISP. *Software—Practice and Experience*, 21(10):1015–1026, October 1991. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Vassiliadis:1991:HWM

[2888] S. Vassiliadis, E. M. Schwarz, and B. M. Sung. Hard-wired multipliers with encoded partial products. *IEEE Transactions on Computers*, 40 (11):1181–1197, November 1991. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=102823`.

Vishin:1991:FPP

[2889] Sanjay Vishin. A floating point primitive classifier for the ray casting machine. Typescript. thesis (M.S.), Duke University. Department of Computer Science, Durham, NC 27708, USA, 1991. ix + 79 pp.

Vuillemin:1991:CTA

[2890] Jean E. Vuillemin. Constant time arbitrary length synchronous binary counters. In Kornerup and Matula [7833], pages 180–183. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Vuillemin.pdf`. IEEE catalog no. 91CH3015-5.

Walter:1991:FMM

[2891] Colin D. Walter. Faster modular multiplication by operand scaling. *Lecture Notes in Computer Science*, 576:313–??, 1991. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/0576/05760313.htm; http://link.springer-ny.com/link/service/series/0558/papers/0576/05760313.pdf.

Wigley:1991:FMR

[2892] N. W. Wigley and G. A. Jullien. Flexible modulus residue number system for complex digital signal processing. *Electronics Letters*, 27 (16):1436–1438, August 1991. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=2666.

Wigley:1991:SMR

[2893] N. Wigley, G. A. Jullien, D. Reaume, and W. C. Miller. Small moduli replications in the MRRNS. In Kornerup and Matula [7833], pages 92–99. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Wigley.pdf. IEEE catalog no. 91CH3015-5.

Williams:1991:NBC

[2894] Ted E. Williams and Mark A. Horowitz. A 160 ns 54 bit CMOS division implementation using self-timing and symmetrically overlapped SRT stages. In Kornerup and Matula [7833], pages 210–217. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Williams.pdf. IEEE catalog no. 91CH3015-5.

Williams:1991:ZOS

[2895] Ted E. Williams and Mark A. Horowitz. A zero-overhead self-timed 160-ns 54-b CMOS divider. *IEEE Journal of Solid-State Circuits*, 26(11): 1651–1661, November 1991. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Winter:1991:FPA

[2896] Dik T. Winter. Floating point attributes in Ada. *ACM SIGADA Ada Letters*, 11(7):244–273, Fall 1991. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Wong:1991:FDU

[2897] Derek C. Wong and Michael J. Flynn. Fast division using accurate quotient approximations to reduce the number of iterations. In Kornerup and Matula [7833], pages 191–201. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Wong.pdf. IEEE catalog no. 91CH3015-5.

Yan:1991:RFA

[2898] Tak W. Yan. A rational function arithmetic and simplification system in Common Lisp. *SIGSAM Bulletin (ACM Special Interest Group on Symbolic and Algebraic Manipulation)*, 25(4):4–6, October 1991. CODEN SIGSBZ. ISSN 0163-5824 (print), 1557-9492 (electronic).

Yassine:1991:FAB

[2899] H. M. Yassine. Fast arithmetic based on residue number system architectures. In *IEEE International Symposium on Circuits and Systems, 11–14 June 1991*, volume 5, pages 2947–2950. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. CODEN ???? ISSN ????

Yassine:1991:IMR

[2900] H. M. Yassine and W. R. Moore. Improved mixed-radix conversion for residue number system architectures. *Circuits, Devices and Systems, IEE Proceedings G*, 138(1):120–124, February 1991. CODEN ???? ISSN ???? URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=2864.

Yokoo:1991:OUF

[2901] Hidetoshi Yokoo. Overflow/underflow-free floating-point number representations with self-delimiting variable-length exponent field. In Kornerup and Matula [7833], pages 110–117. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Yokoo.pdf. IEEE catalog no. 91CH3015-5.

Yoshida:1991:PRT

[2902] N. Yoshida, E. Goto, and S. Ichikawa. Pseudorandom rounding for truncated multipliers. *IEEE Transactions on Computers*, 40(9):1065–1067, September 1991. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=83650.

Yu:1991:FCF

[2903] Tsung Lun Yu and William B. Ribbens. A floating-point coprocessor for fault detection and isolation in electronically controlled internal combustion engines. Technical Report GLCTTR 03-91/1, Great Lakes Center for Truck Transportation Research, Ann Arbor, MI, USA, September 1991. 68 pp.

Zelniker:1991:RCF

[2904] G. Zelniker and F. J. Taylor. A reduced complexity finite field ALU. *IEEE Transactions on Circuits and Systems*, 38(12):1571–1573, December 1991. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Zeng:1991:AFP

[2905] B. Zeng and Y. Neuvo. Analysis of floating point roundoff errors using dummy multiplier coefficient sensitivities. *IEEE Transactions on Circuits and Systems*, 38(6):590–601, June 1991. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Zeng:1991:ARR

[2906] Bing Zeng. *Analysis and reduction of roundoff errors in floating-point recursive digital filters.* Avhandling (doktorgrad), Tampereen teknillinen korkeakoulu, Tampere, Finland, 1991. 45 + 80 pp.

Zhang:1991:ADN

[2907] D. Zhang, G. A. Jullien, W. C. Miller, and Earl Swartzlander, Jr. Arithmetic for digital neural networks. In Kornerup and Matula [7833], pages 58–63. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL `http://www.acsel-lab.com/arithmetic/arith10/papers/ARITH10_Zhang.pdf`. IEEE catalog no. 91CH3015-5.

Zhang:1991:HSE

[2908] C. N. Zhang and H. D. Cheng. A high speed error correcting converter for residue number processing. In *Reliable Systems and Applications. 5th Annual European Computer Conference. Proceedings. CompEuro 91. Advanced Computer Technology, 13–16 May 1991*, pages 816–820. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. CODEN ???? ISSN ????

Zhang:1991:HSS

[2909] C. N. Zhang and H. D. Cheng. High-speed single error correcting convertor for residue number processing. *IEE Proceedings. Computers* *and Digital Techniques*, 138(4):177–182, July 1991. CODEN ICDTEA. ISSN 1350-2387 (print), 1359-7027 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=2686.

Ziv:1991:FEE

[2910] Abraham Ziv. Fast evaluation of elementary mathematical functions with correctly rounded last bit. *ACM Transactions on Mathematical Software*, 17(3):410–423, September 1991. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1991-17-3/p410-ziv/.

Acha:1992:LOF

[2911] J. I. Acha and J. Calvo. Low-frequency oscillator for floating-point digital signal processor chips. *Electronics Letters*, 28(17):1582–??, August 1992. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Anonymous:1992:FPa

[2912] Anonymous. Floating point. *Computer-aided engineering: CAE*, 11(8):58–??, August 1992. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

Anonymous:1992:FPb

[2913] Anonymous. Floating point. *Computer-aided engineering: CAE*, 11(11):62–??, November 1992. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

Anonymous:1992:FPc

[2914] Anonymous. Floating point. *Computer-aided engineering: CAE*, 11(10):101–??, October 1992. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

ANSI:ftn92

[2915] American National Standards Institute, 1430 Broadway, New York, NY 10018, USA. *American National Standard Programming Language Fortran Extended X3.198–1992*, 1992.

Arazi:1992:BDC

[2916] B. Arazi and D. Naccache. Binary-to-decimal conversion based on the divisibility of $2^8 - 1$ by 5. *Electronics Letters*, 28(3):2151–2152, November 1992. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Arjomand:1992:FPC

[2917] Ata'u'llah Arjomand. *Fast Parallel Computation of the Singular Value Decomposition of Real Matrices Using CORDIC Arithmetic*. Ph.D. thesis, Yale University, New Haven, CT, USA, 1992. 250 pp. URL https://www.proquest.com/dissertations-theses/fast-parallel-computation-singular-value/docview/304011601/se-2. Thesis (Ph.D.)–Yale University.

Arnold:1992:AFI

[2918] M. G. Arnold, T. A. Bailey, J. R. Cowles, and M. D. Winkel. Applying features of IEEE 754 to sign/logarithm arithmetic. *IEEE Transactions on Computers*, 41(8):1040–1050, August 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=156547.

Bailey:1992:ATF

[2919] David H. Bailey. Automatic translation of Fortran programs to multiprecision. RNR Technical Report RNR-91-025, NAS Applied Research Branch, NASA Ames Research Center, Moffett Field, CA 94035, April 17, 1992.

Bailey:1992:PHP

[2920] David H. Bailey. A portable high performance multiprecision package. RNR Technical Report RNR-90-022, NAS Applied Research Branch, NASA Ames Research Center, Moffett Field, CA 94035, May 29, 1992.

Baker:1992:LCE

[2921] H. G. Baker. Less complex elementary functions. *ACM SIGPLAN Notices*, 27(11):15–16, November 1992. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Bakhrakh:1992:NIF

[2922] S. M. Bakhrakh, S. V. Velichko, N. E. Pilipchatin, V. F. Spiridonov, E. G. Sukhov, Yu. G. Fedorova, and V. I. Kheifets. Numerical investigation of floating-point arithmetic operations. (Russian). *Programmirovanie*, 6: 13–17, 1992. CODEN PROGD3. ISSN 0132-3474, 0361-7688. English translation appears in [3102].

Bewick:1992:BMU

[2923] G. Bewick and M. J. Flynn. Binary multiplication using partially redundant multiples. Technical Report CSL-TR-92-528, Computer Systems Laboratory, Stanford University, Stanford, CA, USA, June 1992.

Blair:1992:PMD

[2924] M. Blair, S. Obenski, and P. Bridickas. Patriot missile defense: Software problem led to system failure at Dhahran, Saudi Arabia. Report GAO/IMTEC-92-26, Information Management and Technology Division, United States General Accounting Office, Washington, DC, USA, 1992. URL http://www.gao.gov/assets/220/215614.pdf; http://www.gao.gov/products/IMTEC-92-26.

Bohlender:1992:PAF

[2925] G. Bohlender, D. Cordes, A. Knöfel, U. Kulisch, R. Lohner, and W. V. Walter. Proposal for accurate floating-point vector arithmetic. *Mathematics in Science and Engineering*, 189(??):87–104, 1992. CODEN MTSEAT. ISSN 0076-5392.

Borwein:1992:MHP

[2926] Jonathan M. Borwein and Mark A. Limber. Maple as a high precision calculator. *Maple Technical Newsletter*, 0(8):39–44, Fall 1992. ISSN 1061-5733. URL http://www.can.nl/Systems_and_Packages/Per_Purpose/General/Maple/mtn/mtn8.html.

Brosgol:1992:ADA

[2927] Benjamin M. Brosgol, Robert I. Eachus, and David E. Emery. An Ada decimal arithmetic capability. *CrossTalk: The Journal of Defense Software Engineering*, 36, September 1992. URL http://www.iste.uni-stuttgart.de/ps/AdaBasis/pal_1195/ada/ajpo/work-grp/ev-team/ev-info/summary.txt.

Brosgol:1992:DAA

[2928] Benjamin M. Brosgol, Robert I. Eachus, and David E. Emery. Decimal arithmetic in Ada. In Katwijk [7846], pages 138–149. CODEN LNCSD9. ISBN 3-540-55585-4 (Berlin), 0-387-55585-4 (New York). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.73.A35 A24 1992. URL http://link.springer-ny.com/link/service/series/0558/tocs/t0603.htm; http://www.springerlink.com/openurl.asp?genre=issue&issn=0302-9743&volume=603.

Calvetti:1992:SRE

[2929] Daniela Calvetti. A stochastic roundoff error analysis for the convolution. *Mathematics of Computation*, 59(200):569–582, October 1992. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Clarkson:1992:SED

[2930] K. L. Clarkson. Safe and effective determinant evaluation. In IEEE [7840], pages 387–395. CODEN ASFPDV. ISBN 0-8186-2901-0 (microfiche), 0-8186-2900-2 (paperback). ISSN 0272-5428. LCCN QA 76 S979 1992. IEEE Catalog Number 92CH3188-0. IEEE Computer Society Press Order Number 2900.

Cosentino:1992:AMJ

[2931] R. J. Cosentino and J. J. Vaccaro. Adaptation of the Mactaggart and Jack complex multiplication algorithm for floating-point operators. *IEEE Transactions on Computers*, 41(10):1324–1326, October 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=166608`.

Dao-Trong:1992:SCI

[2932] S. Dao-Trong and K. Helwig. A single-chip IBM System/390 floating-point processor in CMOS. *IBM Journal of Research and Development*, 36(4):733–749, July 1992. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Dao-Trong:1992:SIS

[2933] S. Dao-Trong and K. Helwig. A single-chip IBM system/390 floating-point processor in CMOS. *IBM Journal of Research and Development*, 36(4):733–750, July 1992. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

DaoTrong:1992:SIS

[2934] S. Dao-Trong and K. Helwig. A single-chip IBM system/390 floating-point processor in CMOS. *IBM Journal of Research and Development*, 36(4):733–749, July 1992. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Daumas:1992:BIR

[2935] Marc Daumas. Basis for the implementation of a reliable dot product. Master's thesis, Southern Methodist University, Dallas, Texas, 1992.

Davarakis:1992:PPA

[2936] C. T. Davarakis and D. G. Maritsas. A probabilistic parallel associative search and query set of algorithms. *Journal of Parallel and Distributed Computing*, 14(1):37–49, January 1992. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Dawid:1992:BSC

[2937] H. Dawid and G. Fettweis. Bit-level systolic carry-save array division. In IEEE [7841], pages 484–488 vol.1. ISBN 0-7803-0608-2, 0-7803-0609-0, 0-7803-0610-4 (microfiche). LCCN ???? Three volumes. IEEE catalog no. 92CH3130-2.

Dawid:1992:VIC

[2938] H. Dawid and H. Meyr. VLSI implementation of the CORDIC algorithm using redundant arithmetic. In *[Proceedings] 1992 IEEE International Symposium on Circuits and Systems*, volume 3, pages 1089–1092 (vol. 3). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992.

Dawson:1992:RLS

[2939] Jeffrey Dawson, Mary Payne, and Craig Schaffert. The role of LIA-1 in software portability. *ACM SIGNUM Newsletter*, 27(4):9–12, October 1992. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic). LIA is now an International Standard, ISO/IEC 10967-1:1994; it is "92 pages of small print, densely mathematical, not counting 8 pages of front matter, and it is not available electronically." Its adoption has been rather controversial.

DEC:1992:AAH

[2940] Digital Equipment Corporation. *Alpha Architecture Handbook*. Digital Press, 12 Crosby Drive, Bedford, MA 01730, USA, 1992.

Demmel:1992:LWN

[2941] James Demmel. LAPACK working note 49 draft: a specification for floating point parallel prefix. Technical report CS-92-167, University of Tennessee, Computer Science Dept., Knoxville, TN, USA, May 1992. 8 + 1 pp.

Demmel:1992:SFP

[2942] J. Demmel. A specification for floating point parallel prefix. LAPACK Working Note 49, Department of Computer Science, University of Tennessee, Knoxville, Knoxville, TN 37996, USA, May 1992. URL `http://www.netlib.org/lapack/lawns/lawn49.ps; http://www.netlib.org/lapack/lawnspdf/lawn49.pdf`. UT-CS-92-167, May 1992.

Devine:1992:RTT

[2943] M. L. Devine. Real time trigonometric function evaluation. *Microprocessors and Microsystems*, 16(8):417–425, August 1992. CODEN MIMID5. ISSN 0141-9331 (print), 1872-9436 (electronic).

Dimauro:1992:NMF

[2944] G. Dimauro, S. Impedovo, and G. Pirlo. A new magnitude function for fast numbers comparison in the residue number system. *Microprocessing and Microprogramming*, 35(1–2):97–104, September 1992. CODEN MMICDT. ISSN 0165-6074 (print), 1878-7061 (electronic).

Du:1992:CAB

[2945] Sihai Du. Cellular automata based floating-point adder and multiplier with a single transition rule. Thesis (M.S.C.E.), Wright State University, Dayton, OH, USA, 1992. ix + 68 pp.

Dunham:1992:SFW

[2946] Charles B. Dunham. Surveyor's forum: "What Every Computer Scientist Should Know About Floating-Point Arithmetic". *ACM Computing Surveys*, 24(3):319, September 1992. CODEN CMSVAN. ISSN 0360-0300 (print), 1557-7341 (electronic). See [2760, 2759, 3077].

Duprat:1992:DOF

[2947] J. Duprat, M. Fiallos-Aguilar, Jean-Michel Muller, and H. J. Yeh. Delays of on-line floating point operators in borrow-save representation. In Quinton and Robert [7848], pages 273–278. ISBN 0-444-89153-6. LCCN ????

Duprat:1992:SPF

[2948] J. Duprat and M. Fiallos Aguilar. On the simulation of pipelining of fully digit on-line floating-point adder networks on massively parallel computers. *Lecture Notes in Computer Science*, ??(634):707–712, 1992. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Ercegovac:1992:FRC

[2949] M. D. Ercegovac and T. Lang. On-the-fly rounding [computing arithmetic]. *IEEE Transactions on Computers*, 41(12):1497–1503, December 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=214659`.

Fagin:1992:LIM

[2950] Barry S. Fagin. Large integer multiplication on hypercubes. *Journal of Parallel and Distributed Computing*, 14(4):426–430, April 1992. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Filanovsky:1992:SCA

[2951] I. M. Filanovsky and H. P. Baltes. Simple CMOS analog square-rooting and squaring circuits. *IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications*, 39(4):312–315, April 1992. CODEN ITCAEX. ISSN 1057-7122 (print), 1558-1268 (electronic).

Fujii:1992:FCL

[2952] H. Fujii, C. Hori, T. Takada, N. Hatanaka, T. Demura, and G. Ootomo. A floating-point cell library and a 100-MFLOPS image signal processor. *IEEE Journal of Solid-State Circuits*, 27(7):1080–1088, July 1992. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Fujii:1992:FPC

[2953] H. Fujii, C. Hori, T. Takada, N. Hatanaka, T. Demura, and G. Ootomo. A floating-point cell library and a 100-Mflops image signal processor. *IEEE Journal of Solid-State Circuits*, 27(7):1080–1088, July 1992. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Gamberger:1992:IIM

[2954] D. Gamberger. Inversion of integer matrices in residue number system. *IEE Proceedings. Computers and Digital Techniques*, 139(5):465–468, September 1992. CODEN ICDTEA. ISSN 1350-2387 (print), 1359-7027 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4186`.

Goldberg:1992:DFD

[2955] D. Goldberg. The design of floating-point data types. *ACM Letters on Programming Languages and Systems*, 1(2):138–151, June 1992. CODEN ALPSE8. ISSN 1057-4514 (print), 1557-7384 (electronic).

Gray:1992:UMF

[2956] A. Gray and R. Knill. Using Mathematica to find closed form expressions for approximations to the square root of x. *Mathematica in Education*, 1(4):12–13, Summer 1992. ISSN 1065-2965.

Hartwig:1992:AFQ

[2957] F. Hartwig and A. Lacroix. Analysis of floating-point quantization errors using stochastic models. In Vandewalle et al. [7851], pages 247–250 vol.1. ISBN 0-444-89587-6. LCCN TK5102.5 621.382/2. 3 vol.

Hartwig:1992:MFA

[2958] F. Hartwig and A. Lacroix. Multi-operand floating-point addition utilizing operand sorting. In White [7853], pages 1800–1803 vol.4. ISBN 0-7803-0593-0. LCCN ???? Six volumes. IEEE catalog no. 92CH3139-3.

Hasan:1992:BSS

[2959] M. A. Hasan and V. K. Bhargava. Bit-serial systolic divider and multiplier for finite fields $\mathrm{GF}(2^{\mathrm{m}})$. *IEEE Transactions on Computers*, 41(8):972–980, August 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=156540`.

Hasan:1992:MCL

[2960] M. A. Hasan, M. Wang, and V. K. Bhargava. Modular construction of low complexity parallel multipliers for a class of finite fields $\mathrm{GF}(2^{\mathrm{m}})$. *IEEE Transactions on Computers*, 41(8):962–971, August 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=156539`.

Hegeman:1992:AF

[2961] Frederick W. Hegeman. Arithmetic in factorial-base. *C Users Journal*, 10(2):73–??, February 1992. ISSN 0898-9788.

Hoehfeld:1992:LLN

[2962] M. Hoehfeld and S. E. Fahlman. Learning with limited numerical precision using the cascade-correlation algorithm. *IEEE Transactions on Neural Networks*, 3(4):602–611, July 1992. CODEN ITNNEP. ISSN 1045-9227 (print), 1941-0093 (electronic).

Hoff:1992:FCH

[2963] J. R. Hoff and G. W. Foster. A full custom, high speed, floating point adder. In Alley [7837], page 450 vol.1. ISBN 0-7803-0884-0. LCCN ???? Two volumes. IEEE catalog no. 92CH3232-6.

Hohfeld:1992:PRN

[2964] Markus Höhfeld and Scott E. Fahlman. Probabilistic rounding in neural network learning with limited precision. *Neurocomputing*, 4(6):291–299, December 1992. CODEN NRCGEO. ISSN 0925-2312 (print), 1872-8286 (electronic).

Horiguchi:1992:FNR

[2965] Hiroshi Horiguchi and Tsutomu Tayama. Floating-point numbers and real numbers II. *Advances in software science and technology*, 3(??): 151–156, 1992. ISSN 1044-7997.

Hoyt:1992:MFP

[2966] Brian S. Hoyt. The Macintosh floating point arithmetic visualization system. Thesis (M.S.–Electrical Engineering), Bucknell University, Lewisburg, PA, USA, 1992. ix + 88 pp. Supervised by Richard J. Zaccone. Describes the design, development, implementation, and use of MacFavs (Macintosh Floating point arithmetic visualization system). MacFavs uses simulation, visual displays, and animations to allow students to see actual machine representations of floating point numbers.

Hudak:1992:RPL

[2967] Paul Hudak, Simon Peyton Jones, Philip Wadler, Brian Boutel, Jon Fairbairn, Joseph Fasel, María M. Guzmán, Kevin Hammond, John Hughes, Thomas Johnsson, Dick Kieburtz, Rishiyur Nikhil, Will Partain, and John Peterson. Report on the programming language Haskell: a non-strict, purely functional language (version 1.2). *ACM SIGPLAN Notices*, 27(5):Ri–Rx, R1–R163, May 1992. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

IFIF:1992:CVD

[2968] IFIP Working Group 2.5 (Numerical Software). Comments on version 3.1 of draft ISO/IEC 10967:1991 Language Compatible Arithmetic. *ACM SIGNUM Newsletter*, 27(1):2–3, January 1992. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Jackson:1992:DTF

[2969] P. B. Jackson. Developing a toolkit for floating-point hardware in the Nuprl proof development system. In Prinetto and Camurati [7847], pages 401–419. ISBN 0-444-89367-9. LCCN TK7874 .A3353 1991.

Jacobson:1992:ETF

[2970] David Jacobson. Engineer's toolbox: Floating point in Mathematica. *Mathematica Journal*, 2(3):42–46, Summer 1992. CODEN ???? ISSN 1047-5974 (print), 1097-1610 (electronic). URL `http://www.mathematica-journal.com/issue/v2i3/tutorials/toolbox/index.html`.

Jaffar:1992:AMC

[2971] Joxan Jaffar, Peter J. Stuckey, Spiro Michaylov, and Roland H. C. Yap. An abstract machine for CLP($\mathcal{R}$). *ACM SIGPLAN Notices*, 27(7):128–139, July 1992. CODEN SINODQ. ISBN 0-89791-475-9. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL `http://www.acm.org:80/pubs/citations/proceedings/pldi/143095/p128-jaffar/`.

Jain:1992:AEA

[2972] V. K. Jain, G. E. Perez, and E. E. Swartzlander. Arithmetic error analysis of a new reciprocal cell. In IEEE ICCD '92 [7842], pages 106–109. ISBN 0-8186-3110-4 (paper), 0-8186-3111-2 (microfiche), 0-8186-3112-0 (case). LCCN TK 7888.4 I23 1992.

James:1992:DRC

[2973] Shelton L. James. A distributed remote computational server. Thesis (M.S.), University of Missouri, Columbia, Columbia, MO, USA, 1992. vi + 183 pp.

Johnstone:1992:RNA

[2974] P. Johnstone and F. E. Petry. Rational number approximation in higher radix floating point systems. In IEEE [7844], pages 501–504 vol.2. ISBN 0-7803-0494-2. LCCN ???? Two volumes. IEEE catalog no. 92CH3094-0.

Kahan:1992:ARL

[2975] W. Kahan. Analysis and refutation of the LCAS. *ACM SIGPLAN Notices*, 27(1):61–74, January 1992. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Kahan:1992:FPE

[2976] W. Kahan. Floating-point exception-handling. Manuscript, July 31, 1992.

Kahaner:1992:SJC

[2977] D. K. Kahaner and U. Wattenberg. Supercomputing-Japan: a competitive assessment. *IEEE Spectrum*, 29(9):42–47, September 1992. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Kalliojarvi:1992:DRN

[2978] K. Kalliojarvi and Y. Neuvo. Distribution of roundoff noise in binary floating-point addition. In White [7853], pages 1796–1799. ISBN 0-7803-0593-0. LCCN ???? Six volumes. IEEE catalog no. 92CH3139-3.

Kane:1992:MRA

[2979] Gerry Kane and Joe Heinrich. *MIPS RISC Architecture*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1992. ISBN 0-13-590472-2. LCCN QA76.8.M52 K37 1992.

Klatte:1992:PXP

[2980] Rudi Klatte, Ulrich Kulisch, Michael Neaga, Dietmar Ratz, and Christian Ullrich. *PASCAL-XSC: language reference with examples*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1992. ISBN 3-540-55137-9 (Berlin), 0-387-55137-9 (New York). x + 344 pp. LCCN QA76.73.P2 P4213 1992. DM 64.00. Translated by G. F. Corliss and others.

Koc:1992:AAS

[2981] Çetin K. Koç and Ching-Yu Hung. Adaptive m-ary segmentation and canonical recoding algorithms for multiplication of large binary numbers. *Computers and Mathematics with Applications*, 24(3):3–12, August 1992. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/089812219290209Z`.

Kola:1992:MQP

[2982] M. Kolár and T. Sasaki. Multivariate quotient by power-series division. *SIGSAM Bulletin (ACM Special Interest Group on Symbolic and Algebraic Manipulation)*, 26(3):17–20, August 1992. CODEN SIGSBZ. ISSN 0163-5824 (print), 1557-9492 (electronic).

Kontro:1992:FAS

[2983] J. Kontro, K. Kalliojarvi, and Y. Neuvo. Floating-point arithmetic in signal processing. In White [7853], pages 1784–1791 vol.4. ISBN 0-7803-0593-0. LCCN ???? Six volumes. IEEE catalog no. 92CH3139-3.

Kontro:1992:USF

[2984] J. Kontro, K. Kalliojarvi, and Y. Neuvo. Use of short floating-point formats in audio applications. *IEEE Transactions on Consumer Electronics*, 38(3):200–207, August 1992. CODEN ITCEDA. ISSN 0098-3063 (print), 1558-4127 (electronic).

Krishna:1992:CTA

[2985] H. Krishna, K.-Y. Lin, and J.-D. Sun. A coding theory approach to error control in redundant residue number systems. I. theory and single error correction. *IEEE transactions on circuits and systems. 2,* *Analog and digital signal processing*, 39(1):8–17, January 1992. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=5240.

Krishnan:1992:CGF

[2986] R. Krishnan, G. A. Jullien, and W. C. Miller. Computation of generalized FIR filter structure using the modified quadratic residue number system. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 39(1):58–62, January 1992. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=5240.

Kubosawa:1992:BFP

[2987] H. Kubosawa, A. Katsuno, H. Takahashi, T. Sato, A. Suga, and G. Goto. A 64-bit floating point processing unit for a RISC microprocessor. In Anonymous [7838], pages 270–273. ISBN 0-8186-2845-6, 0-8186-2846-4, 0-8186-2847-2. LCCN TK7874.6 .E87 1992. URL https://ieeexplore.ieee.org/iel2/416/5911/00228042.pdf. IEEE catalog no. 92TH0442-4. IEEE Computer Society Press order number 2845.

Kutuso:1992:EMO

[2988] K. N. Kutuso and H. M. Yassine. Effect of moduli ordering of mixed radix conversion methods in residue number systems. In *Proceedings of the 35th Midwest Symposium on Circuits and Systems, 1992*, volume 1, pages 678–680. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. CODEN ???? ISSN ????

Lacroix:1992:DDM

[2989] A. Lacroix and F. Hartwig. Distribution densities of the mantissa and exponent of floating point numbers. In White [7853], pages 1792–1795 vol.4. ISBN 0-7803-0593-0. LCCN ???? 6 vol.

Lang:1992:HRS

[2990] T. Lang and P. Montuschi. Higher radix square root with prescaling. *IEEE Transactions on Computers*, 41(8):996–1009, August 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=156542.

Lee:1992:ACR

[2991] J. H. M. Lee and M. H. van Emden. Adapting CLP(R) to floating-point arithmetic. *Fifth generation computer systems, vol 1*, 2:996–1003, 1992.

Lee:1992:FPP

[2992] K. Lee. On the floating point performance of the i860 microprocessor. *International Journal of High Speed Computing*, 4(4):251–268, December 1992. CODEN IHSCEZ. ISSN 0129-0533.

Leighton:1992:IPA

[2993] Frank Thomson Leighton. *Introduction to Parallel Algorithms and Architectures: Arrays, Trees, Hypercubes*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, 1992. ISBN 1-55860-117-1. xviii + 831 pp. LCCN QA76.5 .L45 1992. US$54.95.

Li:1992:CSC

[2994] Zhenyu Li and Victor Milenkovic. Constructing strongly convex hulls using exact or rounded arithmetic. *Algorithmica*, 8(5–6):345–364, 1992. CODEN ALGOEJ. ISSN 0178-4617 (print), 1432-0541 (electronic). 1990 Computational Geometry Symposium (Berkeley, CA, 1990).

Lim:1992:SPM

[2995] Y. C. Lim. Single-precision multiplier with reduced circuit complexity for signal processing applications. *IEEE Transactions on Computers*, 41(10):1333–1336, October 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=166611.

Liu:1992:QBS

[2996] K. J. R. Liu and E. Frantzeskakis. Qrd-based square root free and division free algorithms and architectures. In *Workshop on VLSI Signal Processing, V, 1992*, pages 459–468. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. CODEN ???? ISSN ????

Lozier:1992:RPC

[2997] D. W. Lozier and P. R. Turner. Robust parallel computation in floating-point and SLI arithmetic. Robuste Parallel-Verarbeitung in Gleitkomma- und SLI-Arithmetik. *Computing: Archiv fur informatik und numerik*, 48 (3-4):239–258 (or 239–257??), 1992. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Lozier:1992:RPV

[2998] D. W. Lozier and P. R. Turner. Robuste Parallel-Verarbeitung in Gleitkomma- und SLI-Arithmetik. (German) [Robust parallel computation in floating-point and SLI arithmetic]. *Computing: Archiv* *fur informatik und numerik*, 48(3–4):239–257, September 1992. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Lozier:1992:SLI

[2999] Daniel W. Lozier and P. R. Turner. Symmetric level-index arithmetic in simulation and modeling. *Journal of Research of the National Bureau of Standards*, 97(4):471–485, July 1992. CODEN JRNBAG. ISSN 0091-0635 (print), 2376-5305 (electronic). URL https://nvlpubs.nist.gov/nistpubs/jres/097/jresv97n4p471_A1b.pdf.

Lu:1992:NDA

[3000] M. Lu and J.-S. Chiang. A novel division algorithm for the residue number system. *IEEE Transactions on Computers*, 41(8):1026–1032, August 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4052; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=156545.

Lynch:1992:FCA

[3001] Thomas W. Lynch and Earl E. Swartzlander, Jr. A formalization for computer arithmetic. In Atanassova and Herzberger [7839], pages 137–145. ISBN 0-444-89834-4. LCCN QA76.9.C62 I559 1992. From the abstract: "The formalism, when applied to IEEE Std 754 shows that the non-trapping mode can produce incorrect numeric and non-numeric results.".

Lynch:1992:HSD

[3002] T. Lynch, S. McIntyre, K. Tseng, S. Shaw, and T. Hurson. High speed divider with square root capability, 1992. U.S. Patent No. 5,128,891.

Madrid:1992:MBA

[3003] P. E. Madrid, B. Millar, and E. E. Swartzlander. Modified Booth algorithm for high radix multiplication. In Dwight Hill, editor, *Proceedings of the 1992 IEEE International Conference on Computer Design: VLSI in Computers & Processors, 11–14 October 1992, Cambridge, MA, USA*, pages 118–212. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. ISBN 0-8186-3110-4 (paperback), 0-8186-3111-2 (microfiche), 0-8186-3112-0. ISSN 1063-6404. LCCN TK7888.4 .I35 1992. URL https://ieeexplore.ieee.org/document/276194/.

Maguire:1992:MD

[3004] J. Maguire. MC8810: Datapath. In Juj and Moser [7845], pages 193–197. LCCN TK 7801 N67 1992.

Makhdumi:1992:CCS

[3005] Shazia Makhdumi. Comparison of current switch bipolar circuits for high performance floating point arithmetic. Thesis (M.S.), Massachusetts Institute of Technology, Dept. of Electrical Engineering and Computer Science, Cambridge, MA, USA, 1992. 107 pp.

Mar:1992:DSP

[3006] Amy Mar, editor. *Digital signal processing applications using the ADSP-2100 family*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1992. ISBN 0-13-219726-X (vol. 1), 0-13-178567-2 (vol. 2). ???? pp. LCCN TK5102.9 .D53 1992.

McQuillan:1992:VMH

[3007] S. E. McQuillan and J. V. McCanny. VLSI module for high-performance multiply, square root and divide. *IEE Proceedings. Computers and Digital Techniques*, 139(6):505–510, November 1992. CODEN ICDTEA. ISSN 1350-2387 (print), 1359-7027 (electronic).

MenissierMorain:1992:CNR

[3008] V. Ménissier-Morain. CAML numbers reference manual. Technical Report 141, Inst. Nat. Recherche Inf. Autom., Le Chesnay, France, July 1992. 157 pp.

Menninger:1992:NWN

[3009] Karl Menninger. *Number Words and Number Symbols: a Cultural History of Numbers*. Dover, New York, NY, USA, 1992. ISBN 0-486-27096-3. xiii + 480 pp. LCCN QA141.2 .M4513 1992.

Meredith:1992:NPF

[3010] Roger W. Meredith. Numeric precision in FORTRAN computing. *Computers in Physics*, 6(5):506–512, September/October 1992. CODEN CPHYE2. ISSN 0894-1866 (print), 1558-4208 (electronic). URL `https://aip.scitation.org/doi/10.1063/1.168438`.

Mikami:1992:NDO

[3011] N. Mikami, M. Kobayashi, and Y. Yokoyama. A new DSP-oriented algorithm for calculation of the square root using a nonlinear digital filter. *IEEE Transactions on Signal Processing*, 40(7):1663–1669, July 1992. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Mitchell:1992:VFA

[3012] H. B. Mitchell. Very fast accurate square-root algorithm for use with gradient edge operators. *Electronics Letters*, 28(10):922–923, May 7, 1992. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Montuschi:1992:DAC

[3013] P. Montuschi, L. Ciminiera, and A. Giustina. A division architecture combining Newton–Raphson approximations and direct methods iterations. In Singh [7849], pages 376–380. ISBN 0-8186-3162-7 (case), 0-8186-3160-0 (paper), 0-8186-3161-9 (microfiche). LCCN TK 5102.5 A78 1992. Two volumes.

Montuschi:1992:DRD

[3014] P. Montuschi and L. Ciminiera. Design of a radix 4 division unit with simple selection table. *IEEE Transactions on Computers*, 41(12):1606–1611, December 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=214670`.

Moore:1992:PRP

[3015] David L. Moore. Programming the 29050 (RISC programming). *Dr. Dobb's Journal of Software Tools*, 17(1):34, 36, 38, 40, 42, January 1992. CODEN DDJOEB. ISSN 1044-789X.

Morgan:1992:NM

[3016] Don Morgan. *Numerical Methods: Real-time and Embedded Systems Programming*. M&T Books, M&T Publishing, Inc., 501 Galveston Drive, Redwood City, CA 94063, USA, 1992. ISBN 1-55851-232-2 (book only), 1-55851-233-0 (disk only), 1-55851-234-9 (book and disk set). 496 pp. LCCN QA76.6 .M669 1992. US$34.95.

Mou:1992:OSA

[3017] Z.-J. Mou and F. Jutand. 'Overturned-stairs' adder trees and multiplier design. *IEEE Transactions on Computers*, 41(8):940–948, August 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=156536`.

Mutrie:1992:AFE

[3018] Mark P. W. Mutrie, Richard H. Bartels, and Bruce W. Char. An approach for floating-point error analysis using computer algebra. In Wang [7852], pages 284–293. ISBN 0-89791-489-9 (soft cover), 0-89791-490-2 (hard cover). LCCN QA76.95.I59 1992. URL http://www.acm.org:80/pubs/citations/proceedings/issac/143242/p284-mutrie/. ACM order number: 505920.

Mutrie:1992:TSS

[3019] Mark P. W. Mutrie. *Towards a symbolic system for floating-point error analysis*. Thesis (Ph.D.), University of Waterloo, Waterloo, ON, Canada, 1992. 8 microfiches. University Microfilms order no. UMI00359027.

Nakano:1992:AHS

[3020] H. Nakano, M. Nakajima, Y. Nakakura, T. Yoshida, Y. Goi, Y. Nakai, R. Segawa, and T. Kishida. An accurate, high speed implementation of division by the quasi-unity divisor method. *IFIP Transactions. A. Computer Science and Technology*, A-12:261–267, ???? 1992. CODEN ITATEC. ISSN 0926-5473. Algorithms, Software, Architecture. Information Processing 92. IFIP 12th World Computer Congress.

Nakano:1992:FPB

[3021] H. Nakano, M. Nakajima, Y. Nakakura, T. Yoshida, Y. Goi, Y. Nakai, R. Segawa, T. Kishida, and H. Kadota. An 80-FLOPS (peak) 64-b microprocessor for parallel computer. *IEEE Journal of Solid-State Circuits*, 27(3):365–372, March 1992. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Ng:1992:ARH

[3022] K. C. Ng. Argument reduction for huge arguments: Good to the last bit. *SunPro*, ??(??), July 13, 1992. URL http://www.validlab.com/arg.pdf. Work in progress.

Nishimura:1992:FPR

[3023] S. Nishimura. A fixed-point roundoff error analysis of adaptive notch filters. In *Proceedings of the 35th Midwest Symposium on Circuits and Systems, 1992*, volume 1, pages 373–376. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. CODEN ???? ISSN ????

Obaidat:1992:DMA

[3024] Mohammad S. Obaidat and Saleh A. Bleha. A decimal multiplication algorithm for microcomputers. *Computers and Electrical Engineering*, 18(5):357–363, September 1992. CODEN CPEEBQ. ISSN 0045-7906 (print), 1879-0755 (electronic).

Ochs:1992:SIR

[3025] T. Ochs. This sine is also right! *Computer Language Magazine*, 9(1): 89–93, January 1992. CODEN COMLEF. ISSN 0749-2839.

Okada:1992:AQE

[3026] Kazuho Okada and Yasuaki Kuroe. Analysis of quantization errors in digital control systems using floating-point arithmetic–considering computational order in controller. *Electronics and communications in Japan. Part 3, Fundamental electronic science*, 75(6):1–??, June 1992. CODEN ECJSER. ISSN 1042-0967 (print), 1520-6440 (electronic).

Orton:1992:NFT

[3027] G. A. Orton, L. E. Peppard, and S. E. Tavares. New fault tolerant techniques for residue number systems. *IEEE Transactions on Computers*, 41(11):1453–1464, November 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4475; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=177315.

Paliouras:1992:SDP

[3028] V. Paliouras, D. Soudris, and T. Stouraitis. Systematic derivation of the processing element of a systolic array based on residue number system. In *IEEE International Symposium on Circuits and Systems. ISCAS '92. Proceedings, 3–6 May 1992*, volume 2, pages 815–818. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. CODEN ???? ISSN ????

Pan:1992:CWU

[3029] V. Y. Pan. Can we utilize the cancellation of the most significant digits? Report TR 92 061, The International Computer Science Institute, Berkeley, CA, USA, 1992.

Park:1992:MED

[3030] Haesun Park. On multiple error detection in matrix triangularizations using checksum methods. *Journal of Parallel and Distributed Computing*, 14(1):90–97, January 1992. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Parker:1992:OVN

[3031] A. Parker and J. O. Hamblen. Optimal value for the Newton–Raphson division algorithm. *Information Processing Letters*, 42(3):141–144, May

25, 1992. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Pichat:1992:SFR

[3032] Michèle Pichat. Sets of floating-point results associated with an algebraic algorithm. *Computational and applied mathematics, I (Dublin, 1991)*, pages 409–418, 1992.

Plauger:1992:SCL

[3033] P. J. Plauger. *The Standard C Library*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1992. ISBN 0-13-838012-0. xiv + 498 pp. LCCN QA76.73.C15 P563 1991.

Posch:1992:MRR

[3034] K. C. Posch and R. Posch. Modulo reduction in residue number systems. Technical report, Inst., TU, Ges., ????, 1992. 16 pp. URL `http://books.google.com/books?id=YPLKHAAACAAJ`.

Posch:1992:RNS

[3035] K. C. Posch and R. Posch. Residue number systems: a key to parallelism in public key cryptography. In *Proceedings of the Fourth IEEE Symposium on Parallel and Distributed Processing 1992*, pages 432–435. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. CODEN ???? ISSN ????

Press:1992:NRC

[3036] W. H. Press, B. P. Flannery, S. A. Teukolsky, and W. T. Vetterling. *Numerical Recipes in C: The Art of Scientific Computing*. Cambridge University Press, Cambridge, UK, second edition, 1992. ISBN 0-521-43108-5, 0-521-43720-2. xxvi + 994 pp. LCCN QA297 .N864 1992.

Priest:1992:PFP

[3037] Douglas M. Priest. *On Properties of Floating Point Arithmetics: Numerical Stability and the Cost of Accurate Computations*. Thesis (Ph.D. in mathematics), Department of Computer Science, University of California, Berkeley, Berkeley, CA, USA, December 1992. iv + 136 pp. URL `ftp://ftp.icsi.berkeley.edu/pub/theory/priest-thesis.ps.Z`. UMI order number GAX93-30692.

Quach:1992:HSA

[3038] N. T. Quach and M. J. Flynn. High-speed addition in CMOS. *IEEE Transactions on Computers*, 41(12):1612–1615, December 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Quach:1992:RFP

[3039] N. Quach and M. Flynn. A radix-64 floating-point divider. Technical Report CSL-TR-92-529, Computer Systems Laboratory, Stanford University, Stanford, CA, USA, June 1992.

Rao:1992:FPA

[3040] B. D. Rao. Floating point arithmetic and digital filters. *IEEE Transactions on Signal Processing*, 40(1):85–95, January 1992. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Rix:1992:CBF

[3041] B. Rix, D. Timmermann, H. Hahn, and B. J. Hosticka. A CORDIC-based floating-point arithmetic unit. In *1992 Proceedings of the IEEE Custom Integrated Circuits Conference*, pages 30.3.1–30.3.4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992.

Rix:1992:CFA

[3042] B. Rix, D. Timmermann, H. Hahn, and B. J. Hosticka. A CORDIC-based floating-point arithmetic unit. In IEEE [7843], pages 30.3/1–4. ISBN 0-7803-0246-X, 0-7803-0247-8, 0-7803-0248-6. LCCN ???? IEEE catalog no. 92CH3078-3.

Sanz-Gonzalez:1992:OFP

[3043] J. L. Sanz-Gonzalez and F. Lopez-Ferreras. Optimal floating-point structures for low roundoff noise digital filters. In *Proceedings of the 3rd AFRICON Conference: AFRICON '92*, pages 194–197. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. CODEN ???? ISSN ????

Scherson:1992:BPA

[3044] I. D. Scherson, D. A. Kramer, and B. D. Alleyne. Bit-parallel arithmetic in a massively-parallel associative processor. *IEEE Transactions on Computers*, 41(10):1201–1210, October 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=166599`.

Schwarz:1992:ASF

[3045] E. M. Schwarz and M. J. Flynn. Approximating the sine function with combinational logic. In Singh [7849], pages 386–390. ISBN 0-8186-3162-7 (case), 0-8186-3160-0 (paper), 0-8186-3161-9 (microfiche). LCCN TK 5102.5 A78 1992. Two volumes.

Seznec:1992:CSH

[3046] André Seznec and Karl Courtel. Controlling and sequencing a heavily pipelined floating-point operator. *ACM SIG Micro Newsletter*, 23(1–2): 111–114, December 1992. CODEN SIGMDJ. ISSN 0163-5751, 1050-916X. URL `https://dl.acm.org/doi/10.1145/144965.145008`.

Seznec:1992:OAF

[3047] André Seznec and Karl Courtel. OPAC (abstract): a floating-point coprocessor dedicated to compute-bound kernels. *ACM SIGARCH Computer Architecture News*, 20(2):427, May 1992. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Seznec:1992:OFC

[3048] A. Seznec and K. Courtel. OPAC: a floating-point coprocessor dedicated to compute-bound kernels. *ACM SIGARCH Computer Architecture News*, 20(2):427, May 1992. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Simar:1992:FPP

[3049] Ray Simar, Jr., Peter Koeppen, Jerald Leach, Steve Marshall, Dave Francis, Greg Mekras, Jeffrey Rosenstrauch, and Scott Anderson. Floating-point processors join forces in parallel processing architectures. *IEEE Micro*, 12(4):60–69, July/August 1992. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Sites:1992:AAR

[3050] Richard L. Sites, Richard Witek, et al. *Alpha Architecture Reference Manual*. Digital Press and Prentice-Hall, 12 Crosby Drive, Bedford, MA 01730, USA and Upper Saddle River, NJ 07458, USA, 1992. ISBN 0-13-033663-7 (PH), 1-55558-098-X (DP: print). LCCN QA76.9.A73 A46 1992.

Skavantzos:1992:DCM

[3051] A. Skavantzos and T. Stouraitis. Decomposition of complex multipliers using polynomial encoding. *IEEE Transactions on Computers*, 41(10): 1331–1333, October 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=166610`. See comments [3356].

Skavantzos:1992:NMM

[3052] A. Skavantzos and P. B. Rao. New multipliers modulo $2^N - 1$. *IEEE Transactions on Computers*, 41(8):957–961, August 1992. CODEN

ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=156538`.

Skavantzos:1992:TII

[3053] A. Skavantzos and N. Mitash. Theory and implementation issues of the 2-dimensional polynomial residue number system. In *IEEE Southeastcon '92, Proceedings, 12–15 April 1992*, volume 1, pages 226–233. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. CODEN ???? ISSN ????

Skeel:1992:REP

[3054] R. Skeel. Roundoff error and the Patriot missile. *SIAM News*, 25(4):11–1, July 1992. ISSN 0036-1437. URL `http://www.siam.org/siamnews/general/patriot.htm`.

Smith:1992:FPR

[3055] L. Montgomery Smith, B. W. Bomar, R. D. Joseph, and G. C. J. Yang. Floating-point roundoff noise analysis of second-order state-space digital filter structures. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 39(2):90–98, February 1992. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic).

Soudris:1992:SDAa

[3056] D. Soudris, V. Paliouras, and T. Stouraitis. Systematic development of architectures for multidimensional DSP using the residue number system. In *IEEE International Conference on Acoustics, Speech, and Signal Processing. ICASSP-92, 23–26 March 1992*, volume 3, pages 397–400. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. CODEN ???? ISSN ????

Soudris:1992:SDAb

[3057] D. Soudris, V. Paliouras, and T. Stouraitis. Systematic development of architectures for multidimensional DSP using the residue number system. In *IEEE International Conference on Acoustics, Speech, and Signal Processing. ICASSP-92, 23–26 March 1992*, volume 3, pages 397–400. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. CODEN ???? ISSN ????

SPARC:1992:SAM

[3058] SPARC International, Inc. *The SPARC Architecture Manual—Version 8*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1992. ISBN 0-13-825001-4. xxix + 316 pp. LCCN QA76.9.A73 S647 1992.

Sparmann:1992:DHQ

[3059] Uwe Sparmann. Derivation of high quality tests for large heterogeneous circuits: floating-point operations. *Informatik*, 1:425–439, 1992.

Srinivas:1992:SFV

[3060] S. Srinivas and K. Dybvig. Superscalar floating-point vector computation in scheme. *Lecture Notes in Computer Science*, ??(634):811–812, 1992. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Steidley:1992:FPA

[3061] C. W. Steidley. Floating point arithmetic basic exercises in mathematical reasoning for computer science majors. *Computers in education journal*, 2(4):1–6, October–December 1992. CODEN CEJOE7. ISSN 1069-3769.

Stetter:1992:ICR

[3062] F. Stetter. Internal computer representation of integer numbers. *Informatik Spektrum*, 15(6):352–354, December 1992. CODEN INSKDW. ISSN 0170-6012 (print), 1432-122X (electronic).

Stouraitis:1992:ECR

[3063] T. Stouraitis. Efficient convertors for residue and quadratic-residue number systems. *Circuits, Devices and Systems, IEE Proceedings G*, 139(6):626–634, December 1992. CODEN ???? ISSN ???? URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4741.

Sun:1992:CTA

[3064] J.-D. Sun and H. Krishna. A coding theory approach to error control in redundant residue number systems. II. multiple error detection and correction. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 39(1):18–34, January 1992. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=5240.

Takagi:1992:MMH

[3065] N. Takagi and S. Yajima. Modular multiplication hardware algorithms with a redundant representation and their application to RSA cryptosystem. *IEEE Transactions on Computers*, 41(7):887–891, July 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=256444.

Takagi:1992:RMM

[3066] N. Takagi. A radix-4 modular multiplication hardware algorithm for modular exponentiation. *IEEE Transactions on Computers*, 41(8):949–956, August 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=156537`.

Tang:1992:TDI

[3067] Ping Tak Peter Tang. Table-driven implementation of the `Expm1` function in IEEE floating-point arithmetic. *ACM Transactions on Mathematical Software*, 18(2):211–222, June 1992. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org/pubs/citations/journals/toms/1992-18-2/p211-tang/`. See independent analysis and accuracy confirmation of this algorithm in [3984].

Teufel:1992:IFP

[3068] Thomas Teufel. Implementation of a floating-point arithmetic with an accurate scalar product for digital signal processing. In Atanassova and Herzberger [7839], pages 147–156. ISBN 0-444-89834-4. LCCN QA76.9.C62 I559 1992.

Thirumalaiswamy:1992:DSB

[3069] Vijayashree Thirumalaiswamy. Design and simulation of bit-serial floating point arithmetic co-processor. Thesis (M.S.), University of Texas at El Paso, El Paso, TX, USA, 1992. xii + 113 pp.

Timmermann:1992:LLT

[3070] D. Timmermann, H. Hahn, and B. J. Hosticka. Low latency time CORDIC algorithms. *IEEE Transactions on Computers*, 41(8):1010–1015, August 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Vowels:1992:D

[3071] R. A. Vowels. Division by 10. *Australian Computer Journal*, 24(3):81–85, August 1992. CODEN ACMJB2. ISSN 0004-8917.

Wang:1992:RAF

[3072] Jie Wang. Response analysis for floating point implementations of linear discrete systems. Thesis (M.S.E.E.), University of Notre Dame, Notre Dame, IN 46556, USA, 1992. xi + 83 pp.

Weber-Wulff:1992:REC

[3073] Debora Weber-Wulff. Rounding error changes Parliament makeup. *The Risks Digest*, 13(37):8, 1992. URL `http://catless.ncl.ac.uk/Risks/13.37.html#subj4`.

Werter:1992:SLC

[3074] M. J. Werter. Suppression of limit cycles in the first-order two-dimensional direct form digital filter with a controlled rounding arithmetic. *IEEE Transactions on Signal Processing*, 40(6):1599–1601, June 1992. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Wesner:1992:TS

[3075] J. Wesner. Ein Tick schneller [*English:* A Tick Faster]. *mc*, 2:80–86, 1992. ISSN 0720-4442, 0941-777x, 0943-5409.

Wichmann:1992:NUF

[3076] Brian A. Wichmann. A note on the use of floating point in critical systems. *The Computer Journal*, 35(1):41–44, February 1992. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://www3.oup.co.uk/computer_journal/Volume_35/Issue_01/Vol35_01.body.html#AbstractWichmann`.

Wichmann:1992:SFW

[3077] Brian A. Wichmann. Surveyor's Forum: "What every computer scientist should know about floating-point arithmetic". *ACM Computing Surveys*, 24(3):319, September 1992. CODEN CMSVAN. ISSN 0360-0300 (print), 1557-7341 (electronic). See [2760, 2759, 2946].

Wilkes:1992:E

[3078] Maurice V. Wilkes. EDSAC 2. *IEEE Annals of the History of Computing*, 14(4):49–56, October–December 1992. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic). URL `http://dlib.computer.org/an/books/an1992/pdf/a4049.pdf`; `http://www.computer.org/annals/an1992/a4049abs.htm`.

Wilt:1992:ALP

[3079] Nicholas Wilt. Assembly language programming for the 80*87. *Dr. Dobb's Journal of Software Tools*, 17(3):36, 38, 40, 42, 88, March 1992. CODEN DDJOEB. ISSN 1044-789X.

Wong:1992:DSR

[3080] W. F. Wong and E. Goto. Division and square-rooting using a split multiplier. *Electronics Letters*, 28(18):1758–1759, August 27, 1992. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Wong:1992:FDU

[3081] D. Wong and M. Flynn. Fast division using accurate quotient approximations to reduce the number of iterations. *IEEE Transactions on Computers*, 41(8):981–995, August 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=156541`.

Woods:1992:HPD

[3082] R. F. Woods, S. E. McQuillan, J. Dowling, and J. V. McCanny. High performance DSP ASIC for multiply, divide and square root. In *Proceedings of Fifth Annual IEEE International ASIC Conference and Exhibit, 1992*, pages 209–213. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. CODEN ???? ISSN ????

Yeyios:1992:TSA

[3083] A. K. Yeyios. On two sequences of algorithms for approximating square roots. *Journal of Computational and Applied Mathematics*, 40(1):63–72, June 1992. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic).

Yokoo:1992:OUF

[3084] H. Yokoo. Overflow/underflow-free floating-point number representations with self-delimiting variable-length exponent field. *IEEE Transactions on Computers*, 41(8):1033–1039, August 1992. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=156546`.

Zelniker:1992:RMC

[3085] G. S. Zelniker and F. J. Taylor. On the reduction in multiplicative complexity achieved by the polynomial residue number system. *IEEE Transactions on Signal Processing*, 40(9):2318–2320, September 1992. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4075`.

Alam:1993:RTO

[3086] M. S. Alam and M. A. Karim. Real-time optical arithmetic/logical processing. *Journal of Parallel and Distributed Computing*, 17(3):251–

258, March 1993. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL http://www.idealibrary.com/links/doi/10.1006/jpdc.1993.1024/production; http://www.idealibrary.com/links/doi/10.1006/jpdc.1993.1024/production/pdf.

Albrecht:1993:VNT

[3087] R. (Rudolf F.) Albrecht, G. (Götz) Alefeld, and H. (Hans) J. Stetter, editors. *Validation numerics: theory and applications*, volume 9 of *Computing (Springer-Verlag). Supplementum*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1993. ISBN 3-211-82451-0 (Wien), 0-387-82451-0 (New York). 291 pp. LCCN QA297 .V27 1993. This volume is dedicated to Professor Dr. Ulrich Kulisch, ... on the occasion of his 60th birthday.

Alqeisi:1993:FPF

[3088] Yousuf Alqeisi. A 16-bit floating point fast Fourier transform processor using Xlinx's FPGA's. Thesis (M.S.), Department of Electrical Engineering, Southern Illinois University at Carbondale, Carbondale, IL, USA, 1993. v + 60 pp.

Anonymous:1993:FPa

[3089] Anonymous. Floating point. *Computer-aided engineering: CAE*, 12(1): 56–??, January 1993. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

Anonymous:1993:FPb

[3090] Anonymous. Floating point. *Computer-aided engineering: CAE*, 12(5): 67–??, May 1993. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

Anonymous:1993:FPc

[3091] Anonymous. Floating point. *Computer-aided engineering: CAE*, 12(9): 48–??, September 1993. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

Anonymous:1993:FPd

[3092] Anonymous. Floating point. *Computer-aided engineering: CAE*, 12(10): 98–??, October 1993. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

Anonymous:1993:FPe

[3093] Anonymous. Floating point. *Computer-aided engineering: CAE*, 12(11): 42–??, November 1993. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

Anonymous:1993:FSB

[3094] Anonymous. The "fastest system on the block" label must be qualified with new multiplatform, floating-point benchmarks. *PC Week*, 10(22): 85–??, June 1993. ISSN 0740-1604.

Anonymous:1993:SRT

[3095] Anonymous. *The Square Root of Two to 100,000 digits*, volume 52 of *Project Gutenberg*. Project Gutenberg, P.O. Box 2782, Champaign, IL 61825-2782, USA, 1993. URL ftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/etext93/2sqrt10.zip.

Asprey:1993:PFP

[3096] T. Asprey, G. Averill, E. DeLano, R. Mason, B. Weiner, and J. Yetter. Performance features of the PA7100 microprocessor. *IEEE Micro*, 13 (3):22–35, May/June 1993. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

ASTM:1993:AES

[3097] ASTM. *ASTM E29-08: Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications*. ASTM International, West Conshohocken, PA, USA, 1993. URL https://www.astm.org/DATABASE.CART/HISTORICAL/E29-08.htm. Superseded by [5484].

Bailey:1993:AMT

[3098] David H. Bailey. Algorithm 719: Multiprecision translation and execution of FORTRAN programs. *ACM Transactions on Mathematical Software*, 19(3):288–319, September 1993. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1993-19-3/p288-bailey/.

Bailey:1993:MPM

[3099] David H. Bailey, Robert Krasny, and Richard Pelz. Multiple precision, multiple processor vortex sheet roll-up computation. In Sincovec et al. [7863], pages 52–56. ISBN 0-89871-315-3. LCCN QA76.58 .S55 1993 v.1-2. Two volumes.

Bajard:1993:BNH

[3100] J. C. Bajard, S. Kla, and Jean-Michel Muller. BKM: a new hardware algorithm for complex elementary functions. In Swartzlander, Jr. et al. [7865], pages 146–153. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Bajard.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Baker:1993:SLR

[3101] Henry G. Baker, Jr. Safe and leakproof resource management using Ada83 limited types. *ACM SIGADA Ada Letters*, 13(5):32–42, September/October 1993. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Bakhrakh:1993:NIF

[3102] S. M. Bakhrakh, S. V. Velichko, N. E. Pilipchatin, V. F. Spiridonov, E. G. Sukhov, Yu. G. Fedorova, and V. I. Kheifets. Numerical investigation of floating-point arithmetic operations. *Programming and Computer Software; translation of Programmirovaniye (Moscow, USSR) Plenum*, 18(6):255–258, 1993. CODEN PCSODA. ISSN 0361-7688 (print), 1608-3261 (electronic). Original Russian language paper in [2922].

Barrera:1993:IBS

[3103] Tony Barrera and Pelle Olsson. An integer based square root algorithm. *BIT (Nordisk tidskrift for informationsbehandling)*, 33(2):253–261, June 1993. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.mai.liu.se/BIT/contents/bit33.html`; `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=33&issue=2&spage=253`.

Bauer:1993:LCB

[3104] P. H. Bauer and J. Wang. Limit cycle bounds for floating point implementations of second-order recursive digital filters. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 40(8):493–501, August 1993. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic).

Beckmann:1993:FFTa

[3105] P. E. Beckmann and B. R. Musicus. Fast fault-tolerant digital convolution using a polynomial residue number system. *IEEE*

Transactions on Signal Processing, 41(7):2300–2313, July 1993. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=5864.

Beckmann:1993:FFTb

[3106] P. E. Beckmann and B. R. Musicus. Fast fault-tolerant digital convolution using a polynomial residue number system. *IEEE Transactions on Signal Processing*, 41(7):2300–2313, July 1993. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=5864.

Benouamer:1993:LEA

[3107] M. O. Benouamer, P. Jaillon, D. Michelucci, and J.-M. Moreau. A lazy exact arithmetic. In Swartzlander, Jr. et al. [7865], pages 242–249. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Benouamer.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Bickerstaff:1993:RAM

[3108] K'Andrea C. Bickerstaff, Michael J. Schulte, and Earl E. Swartzlander, Jr. Reduced area multipliers. In Wah and Dadda [7866], pages 478–489. ISBN 0-8186-3492-8, 0-8186-3491-X. LCCN TK5102.5. URL http://mesa.ece.wisc.edu/publications/cp_1993-03.pdf.

Bizzan:1993:IMA

[3109] S. S. Bizzan, G. A. Jullien, N. M. Wigley, and W. C. Miller. Integer mapping architectures for the polynomial ring engine. In Swartzlander, Jr. et al. [7865], pages 44–51. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Bizzan.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Bohlender:1993:PAF

[3110] G. Bohlender, D. Cordes, A. Knöfel, U. Kulisch, R. Lohner, and W. V. Walter. Proposal for accurate floating-point vector arithmetic. In Adams and Kulisch [7854], pages 87–102. ISBN 0-12-044210-8. LCCN QA76 .S368 1993. URL http://lccn.loc.gov/92247371.

Booth:1993:ECA

[3111] Andrew D. Booth. Early computer arithmetic. In Swartzlander, Jr. et al. [7865], page ix. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_keynote.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Briggs:1993:XBM

[3112] W. S. Briggs and D. W. Matula. A 17×69 bit multiply and add unit with redundant binary feedback and single cycle latency. In Swartzlander, Jr. et al. [7865], pages 163–170. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Briggs.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Callaway:1993:EPC

[3113] Thomas K. Callaway and Earl E. Swartzlander, Jr. Estimating the power consumption of CMOS adders. In Swartzlander, Jr. et al. [7865], pages 210–216. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Callaway.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Chang:1993:REP

[3114] Long-Wen Chang. Roundoff error problem of the systolic array for DFT. *IEEE Transactions on Signal Processing*, 41(1):395, January 1993. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Choi:1993:FPR

[3115] H. Choi, W. P. Burleson, and D. S. Phatak. Fixed-point roundoff error analysis of large feedforward neural networks. In *Proceedings of 1993 International Joint Conference on Neural Networks. IJCNN '93-Nagoya*, volume 2, pages 1947–1950. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. CODEN ???? ISSN ????

Chu:1993:FPA

[3116] Tan V. Chu, Faraydon O. Karim, and Christopher H. Olson. Floating point arithmetic unit with size efficient pipelined multiply-add architecture. US Patent 5,241,493, August 31, 1993. URL `https://patents.google.com/patent/US5241493A`.

Cody:1993:ACP

[3117] W. J. Cody. Algorithm 714: CELEFUNT: a portable test package for complex elementary functions. *ACM Transactions on Mathematical Software*, 19(1):1–21, March 1993. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org/pubs/citations/journals/toms/1993-19-1/p1-cody/`.

Cody:1993:AFS

[3118] W. J. Cody and Jerome T. Coonen. Algorithm 722: Functions to support the IEEE standard for binary floating-point arithmetic. *ACM Transactions on Mathematical Software*, 19(4):443–451, December 1993. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org/pubs/citations/journals/toms/1993-19-4/p443-cody/`.

Cody:1993:ASE

[3119] W. J. Cody. Algorithm 715: SPECFUN—A portable FORTRAN package of special function routines and test drivers. *ACM Transactions on Mathematical Software*, 19(1):22–32, March 1993. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org/pubs/citations/journals/toms/1993-19-1/p22-cody/`. See remark [3741].

Cole:1993:SAA

[3120] T. J. Cole. Statistical algorithms: Algorithm AS 281: Scaling and rounding regression coefficients to integers. *Applied Statistics*, 42(1): 261–268, 1993. CODEN APSTAG. ISSN 0035-9254 (print), 1467-9876 (electronic). URL `http://lib.stat.cmu.edu/apstat/281`.

Cortadella:1993:DSQ

[3121] Jordi Cortadella and Tomás Lang. Division with speculation of quotient digits. In Swartzlander, Jr. et al. [7865], pages 87–94. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Cortadella.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Dadda:1993:MPC

[3122] Luigi Dadda, Vincenzo Piuri, and Renato Stefanelli. Multi-parallel convolvers. In Swartzlander, Jr. et al. [7865], pages 70–77. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Dadda.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Daumas:1993:DFV

[3123] Marc Daumas and D. W. Matula. Design of a fast validated dot product operation. In Swartzlander, Jr. et al. [7865], pages 62–69. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Daumas.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Delgado:1993:DSP

[3124] Maria Luisa Delgado. Design and simulation of a pipeline floating-point adder. Thesis (M.S.), University of Texas at El Paso, El Paso, TX, USA, 1993. x + 90 pp.

Demmel:1993:FNA

[3125] James W. Demmel and Xiaoye Li. Faster numerical algorithms via exception handling. In Swartzlander, Jr. et al. [7865], pages 234–241. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Demmel.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Desaulniers:1993:BEA

[3126] H. Desaulniers and N. F. (Neil Frederick) Stewart. Backward error analysis for floating-point operations on rectilinear r-sets. Publication 816, Université de Montréal, Departement d'informatique et de recherche operationnelle, Montréal, Québec, Canada, 1993. 64 pp.

DiClaudio:1993:SRR

[3127] E. D. Di Claudio, G. Orlandi, and F. Piazza. A systolic redundant residue arithmetic error correction circuit. *IEEE Transactions on Computers*, 42(4):427–432, April 1993. CODEN ITCOB4. ISSN 0018-9340 (print),

1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=214689.

DiLecce:1993:CES

[3128] V. Di Lecce and E. Di Sciascio. A comparative evaluation of solutions for inner product. *International Journal of Mini and Microcomputers*, 15(2):71–77, ???? 1993. CODEN IJMMDE. ISSN 0702-0481.

Dimauro:1993:NTF

[3129] G. Dimauro, S. Impedovo, and G. Pirlo. A new technique for fast number comparison in the residue number system. *IEEE Transactions on Computers*, 42(5):608–612, May 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=5840; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=223680.

Dittmer:1993:EUC

[3130] Ingo Dittmer. Error in Unix commands dc and bc for multiple-precision-arithmetic. *ACM SIGNUM Newsletter*, 28(2):8–11, April 1993. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Dowd:1993:HPC

[3131] Kevin Dowd. *High Performance Computing*. RISC architectures, optimization and benchmarks; A Nutshell handbook. O'Reilly & Associates, Inc., 981 Chestnut Street, Newton, MA 02164, USA, 1993. ISBN 1-56592-032-5. xxv + 371 pp. LCCN QA76.88 .D6 1993; QA76.9.A73 D68 1993. US$25.95. URL http://www.oreilly.com/catalog/9781565920323.

Duncan:1993:CES

[3132] Roy Duncan, John Tunstall, Brian T. Smith, and Richard Brankin. Correspondence: Expert systems for re-ordering arithmetic expressions? *ACM Fortran Forum*, 12(3):12–14, September 1993. CODEN ???? ISSN 1061-7264 (print), 1931-1311 (electronic).

Duprat:1993:CAN

[3133] J. Duprat and J. Muller. The CORDIC algorithm: New results for fast VLSI implementation. *IEEE Transactions on Computers*, 42(2):168–178, February 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Eisig:1993:DBI

[3134] David Eisig, Josh Rotstain, and Israel Koren. The design of a 64-bit integer multiplier/divider unit. In Swartzlander, Jr. et al. [7865], pages 171–178. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Eisig.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Eldridge:1993:HIM

[3135] S. E. Eldridge and C. D. Walter. Hardware implementation of Montgomery's modular multiplication algorithm. *IEEE Transactions on Computers*, 42(6):693–699, June 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=277287.

Ercegovac:1993:VHR

[3136] Miloš D. Ercegovac, Tomás Lang, and Paolo Montuschi. Very high radix division with selection by rounding and prescaling. In Swartzlander, Jr. et al. [7865], pages 112–119. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Ercegovac.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Etiemble:1993:AMV

[3137] D. Etiemble and K. Navi. Algorithms and multi-valued circuits for the multioperand addition in the binary stored-carry number system. In Swartzlander, Jr. et al. [7865], pages 194–201. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Etiemble.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Fortune:1993:EEA

[3138] Steven Fortune and Christopher J. Van Wyk. Efficient exact arithmetic for computational geometry. In ACM, editor, *Proceedings of the 9th ACM Symposium on Computational Geometry, May 19–21, 1993, San Diego, CA, USA*, pages 163–172. ACM Press, New York, NY 10036, USA, 1993. ISBN 0-89791-582-8. LCCN QA448.D38 S96 1993.

Fowkes:1993:HEA

[3139] R. E. Fowkes. Hardware efficient algorithms for trigonometric functions. *IEEE Transactions on Computers*, 42(3):235–239, February 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Fox:1993:HLS

[3140] J. R. Fox. A higher level of synthesis (CAD). *IEEE Spectrum*, 30(3):43–47, March 1993. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Geraminejad:1993:DIC

[3141] Mohsen Geraminejad. Design and implementation of a 16-bit CMOS floating point multiplier. Research paper (M.S.), Department of Electrical Engineering, Southern Illinois University at Carbondale, Carbondale, IL, USA, 1993. vii + 54 pp.

Gibbons:1993:FMW

[3142] Jeremy Gibbons. Formal methods: Why should I care? The development of the T800 transputer floating-point unit. In John Hosking, editor, *Proceedings of the 13th New Zealand Computer Society Conference: Applying the future today, Aotea Centre, Auckland, 18–20 August 1993*, pages 207–217. New Zealand Computer Society, Wellington, NZ, 1993. ISBN 0-9597657-6-X; 0-9597657-5-1. LCCN ????

Goldberg:1993:DFP

[3143] David Goldberg. The design of floating-point data types. Technical report CSL-93-3, Xerox Corp., Palo Alto Research Center, Palo Alto, CA, USA, 1993. 19 pp.

Gudeman:1993:RTI

[3144] David Gudeman. Representing type information in dynamically typed languages. Technical report TR 93-27, Department of Computer Science, The University of Arizona, Tucson, AZ 85721, USA, October 1993. 40 pp. URL `ftp://ftp.cs.arizona.edu/reports/1993/TR93-27.ps; http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.39.4394`.

Gupta:1993:NPF

[3145] S. Gupta, R. Periman, T. Lynch, and B. McMinn. Normalizing pipelined floating point processing units, November 30, 1993. U.S. Patent No. 5,267,186.

Hammer:1993:PXN

[3146] R. Hammer, M. Neaga, and D. Ratz. PASCAL-XSC: New concepts for scientific computation and numerical data processing. In Adams and Kulisch [7854], pages 15–44. ISBN 0-12-044210-8. LCCN QA76 .S368 1993. URL http://lccn.loc.gov/92247371.

Hasan:1993:MMO

[3147] M. A. Hasan, M. Z. Wang, and V. K. Bhargava. A modified Massey–Omura parallel multiplier for a class of finite fields. *IEEE Transactions on Computers*, 42(10):1278–1280, October 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=257715.

Hatzinakos:1993:AFP

[3148] D. Hatzinakos. Analysis of floating point roundoff errors in the estimation of higher-order statistics. *IEE proceedings. F, Radar and signal processing*, 140(6):371–379, December 1993. ISSN 0956-375X.

Heinrich:1993:MRM

[3149] Joe Heinrich. *MIPS R4000 Microprocessor User's Manual*. Prentice-Hall PTR, Upper Saddle River, NJ 07458, USA, 1993. ISBN 0-13-105925-4. xxvi + 438 + A182 + B62 + C6 + D4 + E4 pp. LCCN QA76.8.M523H45 1993. US$34.00.

Hekstra:1993:FPC

[3150] Gerben J. Hekstra and Ed F. A. Deprettere. Floating point Cordic. In Swartzlander, Jr. et al. [7865], pages 130–137. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Hekstra.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Hemkumar:1993:ECM

[3151] Nariankadu D. Hemkumar and Joseph R. Cavallaro. Efficient complex matrix transformations with CORDIC. In Swartzlander, Jr. et al. [7865], pages 122–129. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Hemkumar.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Hendtlass:1993:MNIa

[3152] T. Hendtlass. Math-who needs it? *Forth Dimensions*, 14(6):27–38, March–April 1993. CODEN FODMD5. ISSN 0884-0822.

Hendtlass:1993:MNIb

[3153] T. Hendtlass. Math—who needs it? *Forth Dimensions*, 15(1):38–39, May–June 1993. CODEN FODMD5. ISSN 0884-0822.

Higginbotham:1993:ISR

[3154] T. F. Higginbotham. The integer square root of N via a binary search. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 25(4):41–45, December 1993. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

Higham:1993:AFP

[3155] Nicholas J. Higham. The accuracy of floating point summation. *SIAM Journal on Scientific Computing*, 14(4):783–799, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://citeseer.nj.nec.com/higham93accuracy.html; http://www.maths.man.ac.uk/~nareports/narep198.pdf; http://www.maths.man.ac.uk/~nareports/narep198.ps.gz`.

Holler:1993:IFP

[3156] Paul T. Holler. Integrating a floating point unit into the AT&T Hobbit microprocessor. Thesis (M.S.), Lehigh University, Bethlehem, PA, USA, 1993. viii + 85 pp.

Hopkins:1993:CEM

[3157] Tim Hopkins and John Slater. A comment on the Eispack machine epsilon routine. *ACM SIGNUM Newsletter*, 28(4):2–6, October 1993. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Horning:1993:SUM

[3158] Jim Horning, Bill Kalsow, Paul McJones, and Greg Nelson. Some useful Modula-3 interfaces. Memo 113, Digital Equipment Corporation, Systems Research Center, Palo Alto, CA, USA, December 1993.

Hu:1993:EIS

[3159] X. Hu, S. C. Bass, and R. G. Harber. An efficient implementation of singular value decomposition rotation transformations with CORDIC processors. *Journal of Parallel and Distributed Computing*, 17(4):360–362, April 1993. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL http://www.idealibrary.com/links/doi/10.1006/jpdc.1993.1034/production; http://www.idealibrary.com/links/doi/10.1006/jpdc.1993.1034/production/pdf.

Hu:1993:NES

[3160] Xiaobo Hu and Steven C. Bass. Neglected error source in the CORDIC algorithm. In Swartzlander, Jr. et al. [7865], pages 766–769. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. IEEE Transactions on Computers **43(8)**, 1994.

IBM:1993:IPA

[3161] IBM Corporation. *The IBM PowerPC Architecture: a New Family of RISC Processors*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, 1993. ISBN 1-55860-316-6. LCCN QA76.8.P67P68 1994. US$49.95.

Ide:1993:CFP

[3162] N. Ide, H. Fukuhisa, Y. Kondo, T. Yoshida, M. Nagamatsu, J. Mori, I. Yamazaki, and K. Ueno. A 320-MFLOPS CMOS floating-point processing unit for superscalar processors. *IEEE Journal of Solid-State Circuits*, 28(3):352–361, March 1993. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Ide:1993:MCF

[3163] Nobuhiro Ide, Hiroto Fukuhisa, Yoshihisa Kondo, Takeshi Yoshida, Masato Nagamatsu, Junji Mori, Itaru Yamazaki, and Kiyoji Ueno. A 320-MFLOPS CMOS floating-point processing unit for superscalar processors. *IEEE Journal of Solid-State Circuits*, 28(3):352–361, March 1993. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Jahn:1993:LIF

[3164] K.-U. Jahn. Loop invariants in floating point algorithms. Schleifen-Invarianten in Gleitpunktalgorithmen. *Computing: Archiv fur informatik und numerik*, 50(3):255–264, 1993. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Jahn:1993:SIG

[3165] K.-U. Jahn. Schleifen-Invarianten in Gleitpunktalgorithmen. (German) [Loop invariants in floating point algorithms]. *Computing: Archiv fur informatik und numerik*, 50(3):255–264, September 1993. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Jebelean:1993:CSG

[3166] T. Jebelean. Comparing several GCD algorithms. In Swartzlander, Jr. et al. [7865], pages 180–185. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Jebelean.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Jenkins:1993:CSL

[3167] W. K. Jenkins, B. A. Schnaufer, and A. J. Mansen. Combined system-level redundancy and modular arithmetic for fault tolerant digital signal processing. In Swartzlander, Jr. et al. [7865], pages 28–35. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Jenkins.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Johnstone:1993:RNA

[3168] P. Johnstone and F. E. Petry. Rational number approximation in higher radix floating point systems. *Computers and Mathematics with Applications*, 25(6):103–108, March 1993. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

Ju:1993:WCB

[3169] Chwen-Jye Ju. What can block floating-point arithmetic do for DSP applications. In Anonymous [7855], pages 641–650 vol.1. ISBN ???? LCCN ???? Two volumes.

Juffa:1993:EYA

[3170] Norbert Juffa. Everything you always wanted to know about math coprocessors. Report, ????, ????, January 1993. URL `https://dougx.net/gaming/coproc.html`.

Karp:1993:HPD

[3171] A. H. Karp and P. Markstein. High precision division and square root. Technical Report HPL-93-42, Hewlett–Packard Lab., Palo Alto, CA, USA, June 1993. 20 pp.

Kim:1993:FABa

[3172] S. W. Kim, T. Stouraitis, and A. Skavantzos. Full adder-based inner product step processors for residue and quadratic residue number systems. In *IEEE International Symposium on Circuits and Systems, ISCAS '93, 3–6 May 1993*, volume 3, pages 1821–1824. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. CODEN ???? ISSN ????

Kim:1993:FABb

[3173] Seon Wook Kim, T. Stouraitis, and A. Skavantzos. Full adder-based inner product step processors for residue and quadratic residue number systems. In *IEEE International Symposium on Circuits and Systems, ISCAS '93, 3–6 May 1993*, pages 1821–1824. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. CODEN ???? ISSN ????

Kim:1993:FABc

[3174] S. W. Kim, T. Stouraitis, and A. Skavantzos. Full adder-based inner product step processors for residue and quadratic residue number systems. In *IEEE International Symposium on Circuits and Systems, ISCAS '93, 3–6 May 1993*, volume 3, pages 1821–1824. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. CODEN ???? ISSN ????

Kim:1993:FABd

[3175] Seon Wook Kim, T. Stouraitis, and A. Skavantzos. Full adder-based inner product step processors for residue and quadratic residue number systems. In *IEEE International Symposium on Circuits and Systems, ISCAS '93, 3–6 May 1993*, pages 1821–1824. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. CODEN ???? ISSN ????

Kirsch:1993:ABU

[3176] Bary J. Kirsch and Peter R. Turner. Adaptive beamforming using RNS arithmetic. In Swartzlander, Jr. et al. [7865], pages 36–43. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Kirsch.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Klatte:1993:CXC

[3177] Rudi Klatte, Ulrich Kulisch, Christian Lawo, Michael Rauch, and Andreas Wiethoff, editors. *C-XSC: a C++ class library for extended scientific computing*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1993. ISBN 3-540-56328-8 (Berlin), 0-387-56328-8 (New York). xii + 269 pp. LCCN QA76.73.C153 C9 1993. DM74.00.

Koren:1993:CAA

[3178] Israel Koren. *Computer Arithmetic Algorithms*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1993. ISBN 0-13-151952-2. xiii + 210 pp. LCCN 76.9.C62 K67 1993.

Kornerup:1993:HRM

[3179] Peter Kornerup. High-radix modular multiplication for cryptosystems. In Swartzlander, Jr. et al. [7865], pages 277–283. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Kornerup.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Kortemeyer:1993:CPT

[3180] Gerd Kortemeyer et al. *Coprozessoren Programmierung mit Turbo Pascal und C++: eine grundlegende Einführung in die mathematischen Coprozessoren ab 80387 und deren Programmierung [*English: *Coprocessor Programming with Turbo Pascal and C++]*. IWT, Vaterstetten, Germany, 1993. ISBN 3-88322-439-1. 391 pp. LCCN ????

Kota:1993:NAH

[3181] K. Kota and J. R. Cavallaro. Numerical accuracy and hardware tradeoffs for CORDIC arithmetic for special-purpose processors. *IEEE Transactions on Computers*, 42(7):769–779, July 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=237718`.

Krandick:1993:EMF

[3182] Werner Krandick and Jeremy R. Johnson. Efficient multiprecision floating point multiplication with optimal directional rounding. In Swartzlander, Jr. et al. [7865], pages 228–233. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Krandick.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Krishna:1993:TFA

[3183] H. Krishna and J.-D. Sun. On theory and fast algorithms for error correction in residue number system product codes. *IEEE Transactions on Computers*, 42(7):840–853, July 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=6095; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=237724.

Lee:1993:DAE

[3184] Joong-Eon Lee, Oh-Young Kwon, and Tack-Don Han. Design of an area efficient unit for floating-point division and square root. *Journal of the Korea Information Science Society = Chongbo Kwahakhoe nonmunji*, 20 (7):1060–1071, July 1993. CODEN HJKHDC. ISSN 0258-9125.

Lewis:1993:ALA

[3185] D. M. Lewis. An accurate LNS arithmetic unit using interleaved memory function interpolator. In Swartzlander, Jr. et al. [7865], pages 2–9. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Lewis.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Lindsley:1993:DME

[3186] Brett L. Lindsley. Device and method for evaluating exponentials. United States Patent 5,177,702, January 5, 1993. URL http://www.freepatentsonline.com/5177702.html.

Linzer:1993:IEF

[3187] E. N. Linzer and E. Feig. Implementation of efficient FFT algorithms on fused multiply-add architectures. *IEEE Transactions on Signal Processing*, 41(1), 1993. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Lo:1993:BCP

[3188] J.-C. Lo, S. Thanawastien, and T. R. N. Rao. Berger check prediction for array multipliers and array dividers. *IEEE Transactions on Computers*, 42(7):892–896, July 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=237731. See correction [3705].

Louie:1993:DRD

[3189] M. E. Louie and M. D. Ercegovac. On digit-recurrence division implementations for field programmable gate arrays. In Swartzlander, Jr. et al. [7865], pages 202–209. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Louie.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Louie:1993:DRS

[3190] M. E. Louie and M. D. Ercegovac. A digit-recurrence square root implementation for field programmable gate arrays. In *Proceedings of the IEEE Workshop on FPGAs for Custom Computing Machines, 5–7 April 1993*, pages 178–183. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. CODEN ???? ISSN ????

Lozier:1993:UGF

[3191] D. W. Lozier. An underflow-induced graphics failure solved by SLI arithmetic. In Swartzlander, Jr. et al. [7865], pages 10–17. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Lozier.pdf. IEEE Transactions on Computers **43(8)**, 1994.

MacKenzie:1993:NAC

[3192] Donald MacKenzie. Negotiating arithmetic, constructing proof: The sociology of mathematics and information technology. *Social Studies of Science*, 23(1):37–65, February 1, 1993. CODEN SSSCDH. ISSN 0306-3127 (print), 1460-3659 (electronic). URL https://ieeemilestones.ethw.org/w/images/1/10/Negotiating_Arithmetic_MacKenzie.pdf; https://journals.sagepub.com/doi/pdf/10.1177/030631293023001002. Summary of the process of IEEE 754, several years after its initial adoption.

Mandelbaum:1993:SRS

[3193] D. M. Mandelbaum. Some results on a SRT type division scheme. *IEEE Transactions on Computers*, 42(1):102–106, January 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=192218.

Maryoung:1993:DBP

[3194] James Maryoung. Development of a binary phase shift keying modem receiver with a floating point processor TMS320C30. Thesis (M.S.), California State University, Long Beach, Long Beach, CA, USA, 1993. xi + 265 pp.

Masotti:1993:FNE

[3195] G. Masotti. Floating-point numbers with error estimates. *Computer Aided Design*, 25(9):524–538, September 1993. CODEN CAIDA5. ISSN 0010-4485 (print), 1879-2685 (electronic).

Mazenc:1993:CFU

[3196] Christophe Mazenc, Xavier Merrheim, and Jean-Michel Muller. Computing functions $\cos^{-1}$ and $\sin^{-1}$ using Cordic. *IEEE Transactions on Computers*, 42(1):118–122, January 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=192222`.

McClellan:1993:AFP

[3197] Scott McClellan. Alternatives to floating point representation. Honors paper 4, United States Naval Academy Honors Paper. Dept. of Mathematics, 1993. various pp.

McKeeman:1993:AOC

[3198] W. M. McKeeman. Avoiding overflow in constant expression evaluation. *The Journal of C Language Translation*, 5(1):27–31, September 1993. ISSN 1042-5721.

McQuillan:1993:NAV

[3199] S. E. McQuillan, J. V. McCanny, and R. Hamill. New algorithms and VLSI architectures for SRT division and square root. In Swartzlander, Jr. et al. [7865], pages 80–86. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_McQuillan.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Meier:1993:EMC

[3200] Willi Meier and Othmar Staffelbach. Efficient multiplication on certain nonsupersingular elliptic curves. *Lecture Notes in Computer Science*, 740: 333–344, 1993. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/0740/07400333.htm; http://link.springer-ny.com/link/service/series/0558/papers/0740/07400333.pdf.

Mellott:1993:GMG

[3201] Jonathon D. Mellott, Jeremy C. Smith, and Fred J. Taylor. The Gauss machine: a Galois-enhanced quadratic residue number system systolic array. In Swartzlander, Jr. et al. [7865], pages 156–162. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Mellott.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Merrheim:1993:FEP

[3202] Xavier Merrheim, Jean-Michel Muller, and Hong-Jin Yeh. Fast evaluation of polynomials and inverses of polynomials. In Swartzlander, Jr. et al. [7865], pages 186–192. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Merrheim.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Mesfin:1993:IHP

[3203] Biniam Mesfin. Implementation of a high performance floating point unit multiplier. Thesis (M.A.Sc.), University of Windsor, Windsor, ON, Canada, 1993.

Metzger:1993:IFR

[3204] D. Metzger. Investigation of finite register length effects on Winograd FFT computation using floating point math. *IEEE Transactions on Signal Processing*, 41(1):449, January 1993. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

MicrosoftCorporation:1993:PGM

[3205] Microsoft Corporation. *Programmer's guides: Microsoft Visual C++ development system for Windows: version 1.0*. Microsoft Corp., Redmond, WA, USA, 1993. various pp.

Mikami:1993:RER

[3206] N. Mikami, M. Kobayashi, and Y. Yokoyama. Roundoff-error reduction for evaluation of a function by polynomial approximation with error feedback in fixed-point arithmetic. *IEEE Transactions on Signal Processing*, 41(5):1953–1955, May 1993. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Montuschi:1993:CSM

[3207] Paolo Montuschi and Luigi Ciminiera. $n \times n$ carry-save multipliers without final addition. In Swartzlander, Jr. et al. [7865], pages 54–61. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Montuschi.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Montuschi:1993:RIT

[3208] P. Montuschi and L. Ciminiera. Reducing iteration time when result digit is zero for radix 2 SRT division and square root with redundant remainders. *IEEE Transactions on Computers*, 42(2):239–246, February 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=204797`. See remark [3550].

Motteler:1993:APF

[3209] Frederick C. Motteler. Arbitrary precision floating-point arithmetic. *Dr. Dobb's Journal of Software Tools*, 18(9):28, 30, 32, 34, 84, 86–87, September 1993. CODEN DDJOEB. ISSN 1044-789X.

Ng:1993:FV

[3210] K-C Ng. FDLIBM version 5.3. Web site, 1993. URL `http://www.netlib.org/fdlibm/readme`.

Nguyen:1993:LDR

[3211] Q. H. Nguyen and I. Kollar. Limited dynamic range of spectrum analysis due to roundoff errors of the FFT. In *Instrumentation and Measurement Technology Conference, 1993. IMTC/93. Conference Record., IEEE. 18–20 May 1993*, pages 47–50. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. CODEN ???? ISSN ????

North:1993:FPA

[3212] R. C. North, J. R. Zeidler, W. H. Ku, and T. R. Albert. A floating-point arithmetic error analysis of direct and indirect coefficient updating techniques for adaptive lattice filters. *IEEE Transactions on Signal*

Processing, 41(5):1809–1823, May 1993. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Ozawa:1993:SAE

[3213] K. Ozawa and M. Miyazaki. A summation algorithm with error correction for parallel computers. *Systems and computers in Japan*, 24 (7):62–68, ???? 1993. CODEN SCJAEP. ISSN 0882-1666 (print), 1520-684X (electronic).

Pan:1993:TFVa

[3214] Jing Pan. *Toward a formal verification of a floating-point coprocessor and its composition with a central processing unit*. Thesis (Ph.D.), Computer Science Department, University of California, Davis, Davis, CA, USA, 1993. 221 pp.

Pan:1993:TFVb

[3215] Jing Pan, K. N. Levitt, M. Archer, and S. Kalvala. Towards a formal verification of a floating point coprocessor and its composition with a central processing unit. *IFIP Transactions. A. Computer Science and Technology*, A20:427–447, ???? 1993. CODEN ITATEC. ISSN 0926-5473. Higher Order Logic Theorem Proving and its Applications IFIP TC/WG10.2 International Workshop - HOL '92.

Panneerselvam:1993:MAF

[3216] G. Panneerselvam and B. Nowrouzian. Multiply-add fused RISC architectures for DSP applications. In IEEE [7859], pages 108–111. ISBN 0-7803-0971-5 (softbound), 0-7803-1219-8 (casebound), 0-7803-0972-3 (microfiche). LCCN TK5101.A1 I34 1993.

Parhami:1993:IAS

[3217] B. Parhami. On the implementation of arithmetic support functions for generalized signed-digit number systems. *IEEE Transactions on Computers*, 42(3):379–384, March 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=210182`.

Parker:1993:OHS

[3218] A. Parker. Optimization of high speed function generation using table-lookup. *Transactions of the Society for Computer Simulation*, 10(2): 105–114, June 1993. CODEN TSCSEV. ISSN 0740-6797.

Pichat:1993:IDC

[3219] Michèle Pichat and Jean Vignes. *Ingénierie du contrôle de la précision des calculs sur ordinateur*. Collection Informatique. Editions Technip, Paris, France, 1993. ISBN 2-7108-0653-3. xvii + 233 pp. LCCN TJ213 .P478 1993.

Plauger:1993:FCE

[3220] P. J. Plauger. Floating-point C extensions. *C Users Journal*, 11(9):10–??, September 1993. ISSN 0898-9788.

Plauger:1993:PPIc

[3221] P. J. Plauger. *Programming on Purpose III: Essays on Software Technology*, volume 3. Prentice-Hall PTR, Upper Saddle River, NJ 07458, USA, 1993. ISBN 0-13-328113-2. viii + 224 pp. LCCN QA76.76.D47 P53 1994. US$19.95.

Posch:1993:BKR

[3222] K. C. Posch and R. Posch. Basiserweiterung mit einer Konvolutionssumme in Restklassenzahlensystemen. (German) [Base extension using a convolution sum in residue number systems]. *Computing: Archiv fur informatik und numerik*, 50(2):93–104, 1993. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Pugh:1993:FPC

[3223] Kenneth Pugh. Floating point constants. *C Users Journal*, 11(10):130–??, October 1993. ISSN 0898-9788.

Reid:1993:LIA

[3224] John Reid. Language Independent Arithmetic (LIA) — a Draft International Standard (DIS). *ACM SIGNUM Newsletter*, 28(1):2–7, January 1993. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic). LIA is now an International Standard, ISO/IEC 10967-1:1994; it is "92 pages of small print, densely mathematical, not counting 8 pages of front matter, and it is not available electronically." Its adoption has been rather controversial.

Richardson:1993:ETR

[3225] S. E. Richardson. Exploiting trivial and redundant computation. In Swartzlander, Jr. et al. [7865], pages 220–227. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62

S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Richardson.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Ris:1993:WFP

[3226] Fred Ris, Ed Barkmeyer, Craig Schaffert, and Peter Farkas. When floating-point addition isn't commutative. *ACM SIGNUM Newsletter*, 28(1):8–13, January 1993. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Samani:1993:SVP

[3227] D. M. Samani, J. Ellinger, E. J. Powers, and E. E. Swartzlander. Simulation of variable precision IEEE floating point using C++ and its application in digital signal processor design. In IEEE [7860], pages 1509–1514 vol.2. ISBN 0-7803-1760-2. LCCN ???? Two volumes. IEEE catalog no. 93CH3381-1.

Sarma:1993:MAR

[3228] D. D. Sarma and D. W. Matula. Measuring the accuracy of ROM reciprocal tables. In Swartzlander, Jr. et al. [7865], pages 95–102. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Sarma.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Scannell:1993:DMM

[3229] Robert K. Scannell and John K. Hagge. Development of a multichip module DSP. *Computer*, 26(4):13–21, April 1993. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Schorn:1993:AAR

[3230] Peter Schorn. An axiomatic approach to robust geometric programs. *Journal of Symbolic Computation*, 16(2):155–166 (or 155–165??), August 1993. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic).

Schulte:1993:ERC

[3231] M. Schulte and E. Swartzlander. Exact rounding of certain elementary functions. In Swartzlander, Jr. et al. [7865], pages 138–145. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA

76.9 C62 S95 1993. URL http://mesa.ece.wisc.edu/publications/cp_1993-01.pdf; http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Schulte.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Schulte:1993:PHD

[3232] M. J. Schulte and E. E. Swartzlander, Jr. Parallel hardware designs for correctly rounded elementary functions. In Corliss and Kearfott [7856], pages 65–87 (or 65–88??). ISBN ???? ISSN 0135-4868. LCCN ????

Schulte:1993:TMC

[3233] M. J. Schulte and E. E. Swartzlander, Jr. Truncated multiplication with correction constant. In Eggermont et al. [7857], pages 388–396. ISBN 0-7803-0996-0. LCCN TK7874 .V5637 1993. URL http://mesa.ece.wisc.edu/publications/cp_1993-02.pdf.

Schwarz:1993:HRAa

[3234] E. Schwarz. High-radix algorithms for high-order arithmetic operations. Technical Report CSL-TR-93-559, Computer Systems Laboratory, Stanford University, Stanford, CA, USA, January 1993.

Schwarz:1993:HRAb

[3235] Eric Mark Schwarz. *High-radix algorithms for high-order arithmetic operations*. Thesis (Ph.D.), Department of Electrical Engineering, Stanford University, Stanford, CA, USA, April 1993. 224 pp.

Schwarz:1993:HSA

[3236] Eric M. Schwarz and Michael J. Flynn. Hardware starting approximation for the square root operation. In Swartzlander, Jr. et al. [7865], pages 103–111. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Schwarz.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Schwarz:1993:PHR

[3237] E. M. Schwarz and M. J. Flynn. Parallel high-radix nonrestoring division. *IEEE Transactions on Computers*, 42(10):1234–1246, October 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=257709.

Schwarz:1993:UFM

[3238] Eric Mark Schwarz and M. J. (Michael J.) Flynn. Using a floating-point multiplier's internals for high-radix division and square root. Technical report CSL-TR-93-554, Computer Systems Laboratory, Stanford University, Stanford, CA, USA, 1993. iv + 45 pp.

Shanbhag:1993:REAa

[3239] N. R. Shanbhag and K. K. Parhi. Roundoff error analysis of the pipelined ADPCM coder. In *IEEE International Symposium on Circuits and Systems: ISCAS '93, 3–6 May 1993*, pages 886–889. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. CODEN ???? ISSN ????

Shanbhag:1993:REAb

[3240] N. R. Shanbhag and K. K. Parhi. Roundoff error analysis of the pipelined ADPCM coder. In *IEEE International Symposium on Circuits and Systems: ISCAS '93, 3–6 May 1993*, volume 1, pages 886–889. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. CODEN ???? ISSN ????

Shand:1993:FIR

[3241] M. Shand and J. Vuillemin. Fast implementations of RSA cryptography. In Swartzlander, Jr. et al. [7865], pages 252–259. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Shand.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Shannon:1993:CES

[3242] Claude Elwood Shannon, N. J. A. (Neil James Alexander) Sloane, and A. D. (Aaron D.) Wyner. *Claude Elwood Shannon: collected papers*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. ISBN 0-7803-0434-9. xliv + 924 pp. LCCN TK5101 .S448 1993.

Sharp:1993:PRN

[3243] W. E. Sharp and Carter Bays. A portable random number generator for single-precision floating-point arithmetic. *Computers and Geosciences*, 19(4):593–??, April 1993. CODEN CGEODT, CGOSDN. ISSN 0098-3004 (print), 1873-7803 (electronic).

Shirayanagi:1993:MCM

[3244] Kiyoshi Shirayanagi. An algorithm to compute floating point Gröbner bases. In Lee [7861], pages 95–106. ISBN 0-8176-3724-9, 3-7643-3724-9. LCCN QA76.95.M36 1993.

Shute:1993:AAB

[3245] Malcolm J. Shute. Abotec: an automatic back-of-the-envelope calculator. *ACM SIGPLAN Notices*, 28(8):90–98, August 1993. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Smith:1993:PFC

[3246] Ross Smith, Gerald Sobelman, George Luk, Koichi Suda, and Jeff Bracken. A programmable floating-point cell for systolic signal processing. *Journal of VLSI Signal Processing*, 5(1):75–84, January 1993. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Smith:1993:VFP

[3247] William Smith. Varying floating-point precision. *C Users Journal*, 11 (7):87–??, July 1993. ISSN 0898-9788.

Smith:1993:WDF

[3248] William Smith. Windows, DLLs, and floating point types. *C Users Journal*, 11(9):21–??, September 1993. ISSN 0898-9788.

Soulas:1993:AMC

[3249] T. Soulas, D. Villeger, and V. G. Oklobdzija. An ASIC macro cell multiplier for complex numbers. In IEEE [7858], pages 589–593. ISBN 0-8186-3410-3. LCCN ????

Subramaniam:1993:PPP

[3250] Ramesh Subramaniam, Kiran Kundargi, and J. Dahms. Programming the Pentium processor. *Dr. Dobb's Journal of Software Tools*, 18(6):34, 36, 38, 40–42, June 1993. CODEN DDJOEB. ISSN 1044-789X.

Swartzlander:1993:FSC

[3251] Earl Swartzlander, Mary Jane Irwin, and Graham Jullien. Foreword: 11th Symposium on Computer Arithmetic, Windsor, Ontario, Canada, June 29–July 2, 1993. In Swartzlander, Jr. et al. [7865], page v. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN

QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_contents.pdf; http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_foreword.pdf; http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_preface.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Takagi:1993:MMA

[3252] N. Takagi. Modular multiplication algorithm with triangle addition. In Swartzlander, Jr. et al. [7865], pages 272–276. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Takagi.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Thompson:1993:CCQ

[3253] William J. Thompson. Cutting corners: Quick square roots and trig functions. *Computers in Physics*, 7(1):18–??, January 1993. CODEN CPHYE2. ISSN 0894-1866 (print), 1558-4208 (electronic). URL https://aip.scitation.org/doi/10.1063/1.4823136.

TI:1993:ITC

[3254] Texas Instruments Incorporated, S.l. *Interfacing TI clocked FIFOs with TI floating-point digital signal processors: first-in, first-out technology*, 1993. iv + 15 pp.

TI:1993:ITT

[3255] Inside technology today 32-bit floating point multi-port DSP / produced by Texas Instruments. VHS format. High-speed, multi-port DSPs can be used in parallel processing applications to really enhance computation time and power. A popular 6-port floating point DSP and high speed design integration and applications are described in this tape., 1993. 1 videocassette.

Timmermann:1993:GFR

[3256] D. Timmermann, B. Rix, and B. Hosticka. Gleitkommaprozessor für rechenintensive Echtzeitanwendungen [*English:* Floating-point Processor for Computationally Intensive Real-Time Use]. *Elektronik*, 20(??):142–146, ???? 1993. CODEN EKRKAR. ISSN 0013-5658.

Tiwari:1993:NCP

[3257] Neeraj Tiwari and A. K. Nigam. A note on constructive procedure for unbiased controlled rounding. *Statistics & Probability Letters*, 18

(5):415–420, December 2, 1993. CODEN SPLTDC. ISSN 0167-7152 (print), 1879-2103 (electronic). URL http://www.sciencedirect.com/science/article/pii/016771529390036I.

Tsuji:1993:FNS

[3258] Kumiko Tsuji. Floating-point number solutions in a simple linear equation with addition algorithm. numerical calculation methods with guaranteed accuracy and their applications (Japanese) (Kyoto, 1992). *Sūrikaisekikenkyūsho Kōkyūroku*, 831:33–45, 1993.

Turner:1993:CSA

[3259] P. R. Turner. Complex SLI arithmetic: Representation, algorithms and analysis. In Swartzlander, Jr. et al. [7865], pages 18–25. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Turner.pdf. IEEE Transactions on Computers **43(8)**, 1994.

Vassiliadis:1993:CHW

[3260] S. Vassiliadis and E. M. Schwarz. Correction to "Hard-wired multipliers with encoded partial products". *IEEE Transactions on Computers*, 42 (1):127, January 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=192224.

Veselic:1993:FPH

[3261] Krešimir Veselić and Ivan Slapničar. Floating-point perturbations of Hermitian matrices. *Linear Algebra and its Applications*, 195(??):81–116, December 1993. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Vignes:1993:SAR

[3262] J. Vignes. A stochastic arithmetic for reliable scientific computation. *Mathematics and Computers in Simulation*, 35(3):233–261, September 1993. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic). URL http://portal.acm.org/citation.cfm?id=165789.165792.

vonNeumann:1993:FDR

[3263] John von Neumann. First draft of a report on the EDVAC. *IEEE Annals of the History of Computing*, 15(4):28–75, October/December 1993. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic). URL http://dlib.computer.org/an/books/an1993/pdf/a4027.pdf;

http://www.computer.org/annals/an1993/a4027abs.htm. Edited and corrected by Michael D. Godfrey.

Vornberger:1993:BBM

[3264] Cal Vornberger. Beyond bit maps: Multiple floating objects deliver new power and flexibility to bit-map image processing. Micrografx Picture Publisher 4.0 and Fractal Design Painter X2 feature object layers and other useful innovations. *Byte Magazine*, 18(13):165–166, 168, December 1993. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Walter:1993:SMM

[3265] C. D. Walter. Systolic modular multiplication. *IEEE Transactions on Computers*, 42(3):376–378, March 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=210181.

Wang:1993:SAC

[3266] Chin-Liang Wang and Jung-Lung Lin. A systolic architecture for computing inverses and divisions in finite fields GF(2^m). *IEEE Transactions on Computers*, 42(9):1141–1146, September 1993. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=241603.

Wei:1993:CTA

[3267] D.-Y. D. Wei, J. H. Kim, and T. R. N. Rao. Complete tests in algorithm-based fault-tolerant matrix operation on processor arrays. In Lombardi et al. [7862], pages 255–262. ISBN 0-8186-3502-9 (case), 0-8186-3501-0 (microfiche). LCCN ???? IEEE catalog no. 93TH0571-0.

Weste:1993:PCV

[3268] Neil H. E. Weste and Kamran Eshraghian. *Principles of CMOS VLSI Design: a Systems Perspective*. Addison-Wesley, Reading, MA, USA, second edition, 1993. ISBN 0-201-53376-6. xxii + 713 pp. LCCN TK7874 .W46 1993.

Williams:1993:BFM

[3269] Al Williams. Bit floating-point math. *Dr. Dobb's Journal of Software Tools*, 18(6):70–??, June 1993. CODEN DDJOEB. ISSN 1044-789X.

Williams:1993:FM

[3270] Al Williams. 32-bit floating-point math. *Dr. Dobb's Journal of Software Tools*, 18(6):70, 72, 74, 76, 80, June 1993. CODEN DDJOEB. ISSN 1044-789X.

Wrzyszcz:1993:DDCa

[3271] A. Wrzyszcz, D. Caban, and E. L. Dagless. Design of a discrete cosine transform circuit using the residue number system. In *Proceedings. [4th] European Conference on Design Automation, 1993, with the European Event in ASIC Design*, pages 584–588. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. CODEN ???? ISSN ????

Wrzyszcz:1993:DDCb

[3272] A. Wrzyszcz, D. Caban, and E. L. Dagless. Design of a discrete cosine transform circuit using the residue number system. In *Proceedings. [4th] European Conference on Design Automation, 1993, with the European Event in ASIC Design*, pages 584–588. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. CODEN ???? ISSN ????

Zeng:1993:CFA

[3273] Chuan-Qing Zeng, Kousuke Tsukamoto, and Takeo Miyata. Charge-balancing floating-point analogue-to-digital converter using acyclic conversion. *International Journal of Electronics Theoretical & Experimental*, 74(5):705–??, May 1993. CODEN IJELA2. ISSN 0020-7217 (print), 1362-3060 (electronic).

Zhang:1993:EAP

[3274] C. N. Zhang, B. Shirazi, and D. Y. Y. Yun. An efficient algorithm and parallel implementations for binary and residue number systems. *Journal of Symbolic Computation*, 15(4):451–462, April 1993. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic).

Zuras:1993:SML

[3275] D. Zuras. On squaring and multiplying large integers. In Swartzlander, Jr. et al. [7865], pages 260–271. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. URL `http://www.acsel-lab.com/arithmetic/arith11/papers/ARITH11_Zuras.pdf`. IEEE Transactions on Computers **43(8)**, 1994.

Zuse:1993:CML

[3276] Konrad Zuse. *The Computer, My Life*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1993. ISBN 3-540-56453-5 (Berlin), 0-387-56453-5 (New York). 245 pp. LCCN TK7885.22.Z87 A3 1993.

Agarwal:1994:EFP

[3277] R. C. Agarwal, F. G. Gustavson, and M. Zubair. Exploiting functional parallelism of POWER2 to design high-performance numerical algorithms. *IBM Journal of Research and Development*, 38(5):563–576, September 1994. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.almaden.ibm.com/journal/rd38-5.html#eight.

Anonymous:1994:C

[3278] Anonymous. Corrigenda. *ACM Transactions on Mathematical Software*, 20(4):553, December 1994. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). See [3338].

Anonymous:1994:FPa

[3279] Anonymous. Floating point. *Computer-aided engineering: CAE*, 13(6): 65–??, June 1994. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

Anonymous:1994:FPb

[3280] Anonymous. Floating point. *Computer-aided engineering: CAE*, 13(7): 85–??, July 1994. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

Anonymous:1994:FPc

[3281] Anonymous. Floating point. *Computer-aided engineering: CAE*, 13(10): 122–??, October 1994. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

Anonymous:1994:SCSa

[3282] Anonymous. Single chip supercomputer: Vector processing is key to high performance in floating point calculations. *New electronics*, 27(4):7–??, April 1, 1994. ISSN 0047-9624.

Anonymous:1994:SPF

[3283] Anonymous. Signal path: Floating-point tactics. *Electronic engineering times*, ??(807):78–??, July 1994. ISSN 0192-1541.

Anonymous:1994:SRT

[3284] Anonymous. *The Square Root of Two to 5 million digits*, volume 129 of *Project Gutenberg*. Project Gutenberg, P.O. Box 2782, Champaign, IL 61825-2782, USA, 1994. URL ftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/etext94/2sqrt10a.zip.

Apple:1994:IMP

[3285] Apple Computers, Inc. *Inside Macintosh: PowerPC Numerics*. Addison-Wesley, Reading, MA, USA, 1994. ISBN 0-201-40728-0. xx + 300 pp. LCCN QA76.8.M3 I5622 1994. US$28.95.

Bajard:1994:BNH

[3286] J.-C. Bajard, S. Kla, and Jean-Michel Muller. BKM: a new hardware algorithm for complex elementary functions. *IEEE Transactions on Computers*, 43(8):955–963, August 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Bajard:1994:SOL

[3287] J.-C. Bajard, J. Duprat, S. Kla, and J.-M. Muller. Some operators for on-line radix-2 computations. *Journal of Parallel and Distributed Computing*, 22(2):336–345, August 1994. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL `http://www.idealibrary.com/links/doi/10.1006/jpdc.1994.1093/production`; `http://www.idealibrary.com/links/doi/10.1006/jpdc.1994.1093/production/pdf`.

Barsi:1994:TOM

[3288] Ferruccio Barsi and M. Cristina Pinotti. Time optimal mixed radix conversion for residue number applications. *The Computer Journal*, 37 (10):907–916, ???? 1994. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://www3.oup.co.uk/computer_journal/Volume_37/Issue_10/Vol37_10.body.html#AbstractBarsi`.

Bartolucci:1994:REC

[3289] M. Bartolucci and G. R. Sechi. Rounding error in the computation of opposite sign floating point number parametric addition: a case study. *Microprocessing and Microprogramming*, 40(10-12):833–839, December 1994. CODEN MMICDT. ISSN 0165-6074 (print), 1878-7061 (electronic). 20th Annual Euromicro Conference. System Architecture and Integration.

Bauer:1994:MDS

[3290] F. L. Bauer. Multiplication and dual system. *Informatik Spektrum*, 17 (4):245–250, August 1994. CODEN INSKDW. ISSN 0170-6012 (print), 1432-122X (electronic).

Bewick:1994:FMA

[3291] Gary Bewick. *Fast Multiplication: Algorithms and Implementations*. Ph.D. thesis, Computer Systems Laboratory, Stanford University, Stanford, CA, USA, February 1994. 170 pp. Also issued as report CSL-TR-94-617.

BrinchHansen:1994:MLD

[3292] Per Brinch Hansen. Multiple-length division revisited: a tour of the minefield. *Software—Practice and Experience*, 24(6):579–601, June 1994. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic). URL `http://brinch-hansen.net/papers/1994b.pdf`. This paper derives an algorithm for division of long integers, and implements it as a literate program, although without identifier cross-references. See also related work on division [3469, 1812] .

Brosgol:1994:ISD

[3293] Benjamin M. Brosgol, Robert I. Eachus, and David E. Emery. Information systems development in Ada. In ACM [7867], pages 2–16. ISBN 0-89791-684-0. LCCN ????

Bull:1994:SFF

[3294] Nathan Lee Bull. A study of frequency-sampling filters realized on floating-point digital signal processors. Thesis (M.S.), University of Tennessee, Knoxville, Knoxville, TN, USA, 1994. vii + 56 pp.

Carr:1994:IRM

[3295] S. Carr and K. Kennedy. Improving the ratio of memory operations in floating-point operations in loops. *ACM Transactions on Programming Languages and Systems*, 16(6):1768–1810, November 1994. CODEN ATPSDT. ISSN 0164-0925 (print), 1558-4593 (electronic).

Chandramouli:1994:DSP

[3296] V. Chandramouli. Design of a self-timed, pipelined, floating point multiplier in gallium arsenide. Thesis (M.S.), Department of Computer Science, University of Utah, Salt Lake City, UT, USA, 1994. xiii + 121 pp.

Chen:1994:EDU

[3297] Sau-Gee Chen and Chieh-Chih Li. Efficient designs of unified 2's complement division and square root algorithm and architecture. In *Proceedings of TENCON '94. IEEE Region 10's Ninth Annual International Conference. Theme: 'Frontiers of Computer Technology'*, volume 2, pages 943–947. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Chesneaux:1994:ERS

[3298] J.-M. Chesneaux. The equality relations in scientific computing. *Numerical Algorithms*, 7(2-4):129–143, July 1994. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Chren:1994:ALIa

[3299] W. A. Chren, Jr. Area and latency improvements for direct digital synthesis using the residue number system. In *Proceedings of the 37th Midwest Symposium on Circuits and Systems, 1994*, volume 1, pages 269–273. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Chren:1994:ALIb

[3300] W. A. Chren, Jr. Area and latency improvements for direct digital synthesis using the residue number system. In *Proceedings of the 37th Midwest Symposium on Circuits and Systems, 1994. 3–5 August 1994, Lafayette, LA, USA*, volume 1, pages 269–273. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISBN 0-7803-2428-5. ISSN ????

Clarke:1994:RAC

[3301] C. T. Clarke and G. R. Nudd. A redundant arithmetic CORDIC system with a unit scale factor. In *Mathematics in signal processing III. Based on the proceedings of the third IMA conference on signal processing, University of Warwick, Coventry, UK, December 15-17, 1992*, pages 63–71. Oxford: Clarendon Press, 1994. ISBN 0-19-853480-9.

Cortadella:1994:HRD

[3302] J. Cortadella and T. Lang. High-radix division and square-root with speculation. *IEEE Transactions on Computers*, 43(8):919–931, August 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=295854`.

Dallaway:1994:DAC

[3303] Richard Z. Dallaway. Dynamics of arithmetic: a connectionist view of arithmetic skills. Technical report CSRP 306, Univerity of Sussex, Brighton, UK, February 1994. 159 pp.

DasSarma:1994:MAR

[3304] D. DasSarma and D. W. Matula. Measuring the accuracy of ROM reciprocal tables. *IEEE Transactions on Computers*, 43(8):932–940, August 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Daumas:1994:FAR

[3305] Marc Daumas, C. Mazenc, X. Merrheim, and J. M. Muller. Fast and accurate range reduction for computation of the elementary functions. In Ames [7868], page ?? ISBN ???? LCCN ???? Three volumes.

Daumas:1994:RFP

[3306] Marc Daumas and David W. Matula. Rounding of floating point intervals. *Interval Computations = Interval'nye vychisleniia*, 4:28–45, 1994. ISSN 0135-4868.

De:1994:FPA

[3307] M. De and B. P. Sinha. Fast parallel algorithm for ternary multiplication using multivalued I^2L technology. *IEEE Transactions on Computers*, 43 (5):603–607, May 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=280807`.

delaSerna:1994:TBF

[3308] A. E. de la Serna and M. A. Soderstrand. Trade-off between FPGA resource utilization and roundoff error in optimized CSD FIR digital filters. In *Conference Record of the Twenty-Eighth Asilomar Conference on Signals, Systems and Computers, 1994*, volume 1, pages 187–191. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

delRosario:1994:HIM

[3309] J. M. del Rosario and A. N. Choudhary. High-performance I/O for massively parallel computers: problems and prospects. *Computer*, 27 (3):59–68, March 1994. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Demmel:1994:CPBa

[3310] James Demmel, Inderjit Dhillon, and Huan Ren. On the correctness of parallel bisection in floating point. Report UCB/CSD 94/805, Computer Science Division (EECS), University of California, Berkeley, CA, USA, March 1994. 38 pp. URL `http://www.neglib.org/lapack/lawns/lawn70.ps`. Also known as LAPACK Working Note number 70.

Demmel:1994:CPBb

[3311] James Demmel, Inderjit Dhillon, and Huan Ren. On the correctness of parallel bisection in floating point. LAPACK Working Note 70, Department of Computer Science, University of Tennessee, Knoxville, Knoxville, TN 37996, USA, March 1994. URL http://www.netlib.org/lapack/lawns/lawn70.ps; http://www.netlib.org/lapack/lawnspdf/lawn70.pdf. UT-CS-94-228, March 1994.

Demmel:1994:FNA

[3312] James W. Demmel and Xiaoye Li. Faster numerical algorithms via exception handling. *IEEE Transactions on Computers*, 43(8):983–992, August 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.cs.berkeley.edu/~xiaoye/ieee.ps.gz. This is an expanded version of [3125].

Dimauro:1994:DFNa

[3313] G. Dimauro, S. Impedovo, and G. Pirlo. The 'diagonal function' in non-redundant residue number system. In *Proceedings of the 20th EUROMICRO Conference, EUROMICRO 94. System Architecture and Integration*, pages 590–596. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Dimauro:1994:DFNb

[3314] G. Dimauro, S. Impedovo, and G. Pirlo. The 'diagonal function' in non-redundant residue number system. In *EUROMICRO 94. System Architecture and Integration. Proceedings of the 20th EUROMICRO Conference*, pages 590–596. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Edelman:1994:W

[3315] Alan Edelman. When is $x \star (1/x) \neq 1$? Web document, December 7, 1994. URL https://math.mit.edu/~edelman/homepage/papers/ieee.pdf.

Ercegovac:1994:DSR

[3316] Miloš D. (Dragutin) Ercegovac and Tomas Lang. *Division and square root: digit-recurrence algorithms and implementations*. Kluwer Academic Publishers Group, Norwell, MA, USA, and Dordrecht, The Netherlands, 1994. ISBN 0-7923-9438-0. x + 230 pp. LCCN QA76.9.C62 E73 1994.

Ercegovac:1994:VHR

[3317] M. D. Ercegovac, T. Lang, and P. Montuschi. Very-high radix division with prescaling and selection by rounding. *IEEE Transactions on Computers*, 43(8):909–918, August 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=295853`.

Fagin:1994:FPG

[3318] B. Fagin and C. Renard. Field programmable gate arrays and floating point arithmetic. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 2(3):365–367, September 1994. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Farquhar:1994:MPH

[3319] Erin Farquhar and Philip Bruce. *The MIPS Programmer's Handbook*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, 1994. ISBN 1-55860-297-6. viii + 408 pp. LCCN QA76.6 .F375 1994. US$36.95.

FiallosAguilar:1994:HPA

[3320] M. Fiallos-Aguilar. High precision arithmetic units for fine-grain massively parallel computing. In IEEE [7873], pages 403–407. ISBN 0-8186-6322-7. LCCN ????

Gander:1994:AFP

[3321] H. Gander, M. Vincze, and J. P. Prenninger. Application of a floating point digital signal processor to the control of a laser tracking system. *IEEE Transactions on Control Systems Technology*, 2(4):290–298, December 1994. CODEN IETTE2. ISSN 1063-6536 (print), 1558-0865 (electronic).

Gerber:1994:DPH

[3322] S. Gerber and M. Goessel. Detection of permanent hardware faults of a floating point adder by pseudoduplication. In Echtle et al. [7871], pages 327–335. CODEN LNCSD9. ISBN 3-540-58426-9. ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN ????

Granlund:1994:DII

[3323] Torbjörn Granlund and Peter L. Montgomery. Division by invariant integers using multiplication. *ACM SIGPLAN Notices*, 29(6): 61–72, June 1994. CODEN SINODQ. ISBN 0-89791-598-4. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

URL ftp://ftp.cwi.nl/pub/pmontgom/divcnst.psa4.gz; ftp://ftp.cwi.nl/pub/pmontgom/divcnst.psl.gz; http://www.acm.org:80/pubs/citations/proceedings/pldi/178243/p61-granlund/.

Grosse:1994:IRS

[3324] Eric Grosse and John D. Hobby. Improved rounding for spline coefficients and knots. *Mathematics of Computation*, 63(207):175–194, July 1994. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Hahn:1994:UDF

[3325] H. Hahn, D. Timmermann, B. J. Hosticka, and B. Rix. A unified and division-free CORDIC argument reduction method with unlimited convergence domain including inverse hyperbolic functions. *IEEE Transactions on Computers*, 43(11):1339–1344, November 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=324568.

Hartwig:1994:FPA

[3326] F. Hartwig and A. Lacroix. Floating point addition errors and their effect on the roundoff noise in digital signal processing. In *IEEE International Symposium on Circuits and Systems: ISCAS '94, 2 June 1994*, volume 2, pages 121–124. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Hauser:1994:PEH

[3327] John R. Hauser. Programmed exception handling: research project. Master of Science, Plan II, Department of Computer Science, University of California, Berkeley, Berkeley, CA, USA, 1994. 82 pp.

Hegland:1994:SSP

[3328] Markus Hegland. A self-sorting in-place fast Fourier transform algorithm suitable for vector and parallel processing. *Numerische Mathematik*, 68 (4):507–547, 1994. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Hemkumar:1994:RLC

[3329] N. D. Hemkumar and J. R. Cavallaro. Redundant and on-line CORDIC for unitary transformations. *IEEE Transactions on Computers*, 43(8): 941–954, August 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Hester:1994:PPP

[3330] P. D. Hester and W. J. Filip. Preface: Power2 and PowerPC architecture and implementation. *IBM Journal of Research and Development*, 38(5): 490–491, September 1994. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL `http://www.almaden.ibm.com/journal/rd38-5.html#one`.

Hicks:1994:PFU

[3331] T. N. Hicks, R. E. Fry, and P. E. Harvey. POWER2 floating-point unit: Architecture and implementation. *IBM Journal of Research and Development*, 38(5):525–536, September 1994. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

Hilker:1994:NMM

[3332] S. Hilker, N. Phan, and D. Rainey. A 3.4 ns 0.8 mu m BiCMOS 53*53 b multiplier tree. In Wuorinen et al. [7878], pages 292–293. ISBN 0-7803-1844-7, 0-7803-1845-5, 0-7803-1846-3 (microfiche). LCCN TK 7867 1994. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=1111`. IEEE catalog no. 94CH3410-8.

Hill:1994:GPL

[3333] Patricia Hill. *The Gödel Programming Language*. The MIT Press, Cambridge, MA, 1994. ISBN 0-262-08229-2. xx + 348 pp. LCCN QA76.73.G17H55 1994. Section 13.3 (pp. 206–218) defines floating-point numbers and standard functions conforming to Version 4.0 (August 1992) of the Language Independent Arithmetic Standard (LIAS) ISO/IEC CD 10967-1:1992 (JTC1/SC22/WG11 N318, ANSI X3T3 92-064). It also conforms to the ANSI/IEEE Standard for Binary Floating-Point Arithmetic 754-1985.

Hopkins:1994:CEM

[3334] Tim Hopkins and John Slater. A comment on the Eispack machine epsilon routine. Technical Report 18-94, University of Kent, Computing Laboratory, University of Kent, Canterbury, UK, 1994. URL `http://www.cs.kent.ac.uk/pubs/1994/74/content.ps.gz`.

Horvath:1994:PPM

[3335] Tamás Horváth, Spyros S. Magliveras, and Tran van Trung. A parallel permutation multiplier for a PGM crypto-chip. *Lecture Notes in Computer Science*, 839:108–113, 1994. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/0839/08390108.htm;`

http://link.springer-ny.com/link/service/series/0558/papers/0839/08390108.pdf.

Hsu:1994:CPF

[3336] Chau-Yun Hsu and Jui Chi Yao. Comparative performance of fast cosine transform with fixed-point roundoff error analysis. *IEEE Transactions on Signal Processing*, 42(5):1256–1259, May 1994. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Hsu:1994:NFP

[3337] Chau-Yun Hsu. Novel fixed-point roundoff analysis of the decimation-in-time FHT. *IEEE Transactions on Signal Processing*, 42(1):206–208, January 1994. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Hull:1994:ICE

[3338] T. E. Hull, Thomas F. Fairgrieve, and Ping Tak Peter Tang. Implementing complex elementary functions using exception handling. *ACM Transactions on Mathematical Software*, 20(2):215–244, June 1994. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1994-20-2/p215-hull/. See correction [3278], and improved analysis, tightened bounds, and exhibition of worst cases for complex square roots [6461].

Hung:1994:ASD

[3339] C. Y. Hung and B. Parhami. An approximate sign detection method for residue numbers and its application to RNS division. *Computers and Mathematics with Applications*, 27(4):23–35, February 1994. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/0898122194900523.

Hung:1994:FRD

[3340] Ching Yu Hung and Behrooz Parhami. Fast RNS division algorithms for fixed divisors with application to RSA encryption. *Information Processing Letters*, 51(4):163–169, August 24, 1994. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

IBM:1994:IRS

[3341] Steve White and John Reysa, editors. *IBM RISC System/6000 Technology: Volume II*. IBM Corporation, San Jose, CA, USA, 1994. A partial draft is available via anonymous ftp to ibminet.awdpa.ibm.com in the PostScript file /pub/rs6kpapers/techbook.ps.

IBM:1994:OA

[3342] IBM Corporation. *The PowerPC Architecture: a Specification for a New Family of RISC Processors*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, second edition, 1994. ISBN 1-55860-316-6. xxxi + 518 pp. LCCN QA76.8.P67 P68 1994. US$49.95.

Ienne:1994:BSM

[3343] P. Ienne and M. A. Viredaz. Bit-serial multipliers and squarers. *IEEE Transactions on Computers*, 43(12):1445–1450, December 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=338107`.

Ignatowski:1994:CNA

[3344] R. Ignatowski and E. E. Swartzlander. Creating new algorithms and modifying old algorithms to use the variable precision floating point simulator. *Conference record*, pages 152–??, 1994. ISSN 1058-6393.

Isaacson:1994:ANM

[3345] Eugene Isaacson and Herbert Bishop Keller. *Analysis of numerical methods*. Dover, New York, NY, USA, 1994. ISBN 0-486-68029-0 (paperback). xv + 541 pp. LCCN QA297 .I8 1994. URL `http://www.loc.gov/catdir/description/dover031/94007740.html`.

ISO:1994:IIIa

[3346] ISO. *ISO/IEC 10967-1 (1994-12): Information technology — Language independent arithmetic — Part 1: Integer and floating point arithmetic*. International Organization for Standardization, Geneva, Switzerland, December 15, 1994. viii + 92 pp. CHF 176, US$136.00. URL `http://standards.iso.org/ittf/PubliclyAvailableStandards/c018939_ISO_IEC_10967-1_1994(E).zip`; `http://www.iec.ch/cgi-bin/procgi.pl/www/iecwww.p?wwwlang=E&wwwprog=cat-det.p&wartnum=019729`; `http://www.iso.ch/cate/d18939.html`.

Jackson:1994:PCE

[3347] K. R. Jackson and N. S. Nedialkov. Precision control and exception handling in scientific computing. Technical report, Department of Computer Science, University of Toronto, Toronto, ON, Canada, 1994. 8 pp. URL `http://www.cs.toronto.edu/NA/reports.html#prec.except`; `http://www.cs.toronto.edu/pub/reports/na/prec.except.ps.Z`.

Jain:1994:SRR

[3348] V. K. Jain and Lei Lin. Square-root, reciprocal, sine/cosine, arctangent cell for signal and image processing. In *IEEE International Conference on Acoustics, Speech, and Signal Processing: ICASSP-94, 19–22 April 1994*, volume 2, pages II/521–II/524. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Jaromczyk:1994:CCH

[3349] Jerzy W. Jaromczyk and G. W. Wasilkowski. Computing convex hull in a floating point arithmetic. *Computational Geometry. Theory and Applications*, 4(5):283–292, 1994. ISSN 0925-7721 (print), 1879-081X (electronic).

Johnstone:1994:DAN

[3350] Paul Johnstone and Frederick E. Petry. Design and analysis of non-binary radix floating point representations. *Computers and Electrical Engineering*, 20(1):39–50, January 1994. CODEN CPEEBQ. ISSN 0045-7906 (print), 1879-0755 (electronic).

Kabuo:1994:ARS

[3351] H. Kabuo, T. Taniguchi, A. Miyoshi, H. Yamashita, M. Urano, H. Edamatsu, and S. Kuninobu. Accurate rounding scheme for the Newton–Raphson method using redundant binary representation. *IEEE Transactions on Computers*, 43(1):43–51, January 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=250608`.

Kalliojarvi:1994:RCW

[3352] K. Kalliojarvi and J. Astola. Required coefficient word length in floating-point and logarithmic digital filters. *IEEE Signal Processing Letters*, 1 (3):52–54, March 1994. CODEN ISPLEM. ISSN 1070-9908 (print), 1558-2361 (electronic).

Kambi:1994:EAD

[3353] Shivaprakash Jayadev Kambi. Error analysis of digital filters realized with floating-point arithmetic. Thesis (M.S.), Mississippi State University. Department of Electrical and Computer Engineering, Mississippi State, MS 39762, USA, 1994. viii + 82 pp.

Kanellakis:1994:FPR

[3354] A. Kanellakis and P. Agathoklis. Floating-point roundoff noise analysis of 2-D state-space digital filters. In *IEEE International Symposium on*

Circuits and Systems: ISCAS '94, 2 June 1994, volume 2, pages 601–604. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Karp:1994:FPA

[3355] Alan H. Karp, Peter Markstein, and Dennis Brzezinski. Floating point arithmetic unit using modified Newton–Raphson technique for division and square root. US Patent 5,341,321, August 23, 1994. URL `http://patft.uspto.gov/netahtml/PTO/search-bool.html; https://patents.google.com/patent/US5341321A`. Patent filed 5 May 1993, granted to Hewlett-Packard Company on 23 August 1994. Patent expired 5-May-2013. See criticism in [5217].

Katti:1994:CDC

[3356] R. Katti. Comments on “Decomposition of Complex Multipliers Using Polynomial Encoding”. *IEEE Transactions on Computers*, 43(3):381–383, March 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=272441`. See [3051].

Kawahito:1994:HSA

[3357] S. Kawahito, M. Ishida, T. Nakamura, M. Kameyama, and T. Higuchi. High-speed area-efficient multiplier design using multiple-valued current-mode circuits. *IEEE Transactions on Computers*, 43(1):34–42, January 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=250607`. See comments [3734].

Kim:1994:FPF

[3358] Seehyun Kim and Wonyong Sung. A floating-point to fixed-point assembly program translator for the TMS 320C25. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 41(11): 730–739, November 1994. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic).

Kobbelt:1994:FDP

[3359] L. Kobbelt. A fast dot-product algorithm with minimal rounding errors. *Computing: Archiv fur informatik und numerik*, 52(4):355–369, 1994. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Kornerup:1994:SLA

[3360] P. Kornerup. A systolic, linear-array multiplier for a class of right-shift algorithms. *IEEE Transactions on Computers*, 43(8):892–898, August 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=295851.

Krandick:1994:EMF

[3361] W. Krandick and J. R. Johnson. Efficient multiprecision floating point multiplication with exact rounding. In Calmet [7869], pages 207–?? ISBN ???? LCCN ????

Laakso:1994:BFP

[3362] T. I. Laakso and L. B. Jackson. Bounds for floating-point roundoff noise. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 41(6):424–426, June 1994. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic).

Laakso:1994:ELC

[3363] T. Laakso, B. Zeng, I. Hartimo, and Y. Neuvo. Elimination of limit cycles in floating-point implementations of direct-form recursive digital filters. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 41(4):308–313, April 1994. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic).

Ledoux:1994:TOW

[3364] C. Ledoux and J. F. Grandin. Two original weight pruning methods based on statistical tests and rounding techniques. *Vision, Image and Signal Processing, IEE Proceedings-*, 141(4):230–237, August 1994. CODEN ???? ISSN ????

Lewis:1994:IMF

[3365] D. M. Lewis. Interleaved memory function interpolators with application to an accurate LNS arithmetic unit. *IEEE Transactions on Computers*, 43(8):974–982, August 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=295859.

Lo:1994:RFP

[3366] Jien-Chung Lo. Reliable floating-point arithmetic algorithms for error-coded operands. *IEEE Transactions on Computers*, 43(4):400–412, April 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=278479.

May:1994:PAS

[3367] Cathy May, Ed Silha, Rick Simpson, and Hank Warren, editors. *The PowerPC Architecture: a Specification for a New Family of RISC Processors*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, second edition, 1994. ISBN 1-55860-316-6. xxxi + 518 pp. LCCN QA76.8.P67 P68 1994. US$49.95.

McGrath:1994:OMC

[3368] Gary McGrath. Optimizing MC68882 code. *Dr. Dobb's Journal of Software Tools*, 19(6):58, 60, 62, 64, 66, 98–99, June 1994. CODEN DDJOEB. ISSN 1044-789X.

Meek:1994:PLT

[3369] Brian L. Meek. Programming languages: towards greater commonality. *ACM SIGPLAN Notices*, 29(4):49–57, April 1994. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Mehlhorn:1994:IGA

[3370] Kurt Mehlhorn and Stefan Naher. The implementation of geometric algorithms. In Pehrson and Simon [7877], pages 223–231. ISBN 0-444-81990-8 (set). LCCN QA75.5 .I3785 1994.

Montgomery:1994:SRP

[3371] Peter L. Montgomery. Square roots of products of algebraic numbers. In Gautschi [7872], pages 567–571. ISBN 0-8218-0291-7, 0-8218-0353-0 (pt. 1), 0-8218-0354-9 (pt. 2). ISSN 0160-7634. LCCN QA1 .A56 v.48 1994; QA297.M385 1993. See also SIAM Review, September 1995, **37**(3), p. 483.

Montuschi:1994:DUN

[3372] P. Montuschi, L. Ciminiera, and A. Giustina. Division unit with Newton–Raphson approximation and digit-by-digit refinement of the quotient. *IEE Proceedings. Computers and Digital Techniques*, 141(6):317–324, November 1994. CODEN ICDTEA. ISSN 1350-2387 (print), 1359-7027 (electronic).

Montuschi:1994:RDO

[3373] P. Montuschi and L. Ciminiera. Radix-8 division with over-redundant digit set. *Journal of VLSI Signal Processing*, 7(3):259–270, May 1994. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Montuschi:1994:RDS

[3374] P. Montuschi and L. Ciminiera. Over-redundant digit sets and the design of digit-by-digit division units. *IEEE Transactions on Computers*, 43(3): 269–277, March 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=272428`.

Muller:1994:SCF

[3375] Jean-Michel Muller. Some characterizations of functions computable in on-line arithmetic. *IEEE Transactions on Computers*, 43(6):752–755, June 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=286308`.

Murofushi:1994:RBR

[3376] Makoto Murofushi and Hideko Nagasaka. The relationship between the round-off errors and Møller's algorithm in the extrapolation method. *Annals of Numerical Mathematics*, 1(1–4):451–458, 1994. ISSN 1021-2655. Scientific computation and differential equations (Auckland, 1993).

Nakamura:1994:EPV

[3377] H. Nakamura, H. Imori, Y. Yamashita, K. Nakazawa, T. Boku, H. Li, and I. Nakata. Evaluation of pseudo vector processor based on slide-windowed registers. In Mudge and Shriver [7876], pages 368–377. ISBN 0-8186-5050-8. LCCN ???? IEEE catalog no. 94TH0607-2.

Narayanaswami:1994:AE

[3378] Chandrasekhar Narayanaswami and William Luken. Approximating x^n efficiently. *Information Processing Letters*, 50(4):205–210, May 25, 1994. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Nedialkov:1994:PCE

[3379] Nedialko (Ned) Stoyanov Nedialkov. Precision control and exception handling in scientific computing. M.Sc. thesis, Department of Computer Science, University of Toronto, Toronto, ON, Canada, 1994. 51 pp. URL `http://www.cs.toronto.edu/NA/reports.html#ned-94-msc; http://www.cs.toronto.edu/pub/reports/na/ned-94-msc.ps.Z`.

Niescier:1994:DIC

[3380] Richard J. Niescier. Design of an IEEE compliant 32-bit floating point multiplier/accumulator. Thesis (M.S.), Lehigh University, Bethlehem, PA, USA, 1994. vii + 94 pp.

Novak:1994:AFP

[3381] Joseph Herschel Novak. An asynchronous floating point unit. Thesis (M.S.), Department of Computer Science, University of Utah, Salt Lake City, UT, USA, 1994. xi + 151 pp.

Oberman:1994:DIH

[3382] S. Oberman, N. Quach, and M. Flynn. The design and implementation of a high-performance floating-point divider. Technical Report CSL-TR-94-599, Computer Systems Laboratory, Stanford University, Stanford, CA, USA, January 1994.

Oh:1994:IPDa

[3383] S. Oh and D. Garcia. Implementation of a parallel DFE using residue number system. In *IEEE International Conference on Acoustics, Speech, and Signal Processing. ICASSP-94, 19–22 April 1994*, volume 3, pages III/237–III/240. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Oh:1994:IPDb

[3384] S. Oh and D. Garcia. Implementation of a parallel DFE using residue number system. In *IEEE International Conference on Acoustics, Speech, and Signal Processing. ICASSP-94, 19–22 April 1994*, volume 3, pages III/237–III/240. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Ohta:1994:INP

[3385] S. Ohta, E. Goto, Weng Fai Wong, and N. Yoshida. Improvement and new proposal on fast evaluation of elementary functions. *Transactions of the Information Processing Society of Japan*, 35(5):926–933, May 1994. CODEN JSGRD5. ISSN 0387-5806.

Omondi:1994:CAS

[3386] Amos R. Omondi. *Computer Arithmetic Systems: Algorithms, Architecture, and Implementation*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1994. ISBN 0-13-334301-4. xvi + 520 pp. LCCN QA76.9.C62 O46 1994. US$40.00.

Ooyama:1994:CSC

[3387] M. Ooyama and H. Hamada. A circuit to separate and to connect the exponent part and the mantissa part for URR floating point arithmetic and its application to a URR processor. *Transactions of the Information Processing Society of Japan*, 35(8):1642–1651, August 1994. CODEN JSGRD5. ISSN 0387-5806.

Paliouras:1994:SDMa

[3388] V. Paliouras and T. Stouraitis. Systematic design of multi-modulus/multi-function Residue Number System processors. In *IEEE International Symposium on Circuits and Systems, ISCAS '94, 2 June 1994*, volume 4, pages 79–82. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Paliouras:1994:SDMb

[3389] V. Paliouras and T. Stouraitis. Systematic design of multi-modulus/multi-function Residue Number System processors. In *IEEE International Symposium on Circuits and Systems, ISCAS '94, 2 June 1994*, volume 4, pages 79–82. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Parhami:1994:OTLa

[3390] B. Parhami and C. Y. Hung. Optimal table lookup schemes for VLSI implementation of input/output conversions and other residue number operations. In *Workshop on VLSI Signal Processing, VII, 1994*, pages 470–481. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Parhami:1994:OTLb

[3391] B. Parhami and C. Y. Hung. Optimal table lookup schemes for VLSI implementation of input/output conversions and other residue number operations. In *Workshop on VLSI Signal Processing, VII, 1994*, pages 470–481. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Parker:1994:FTLa

[3392] M. G. Parker and M. Benaissa. Fault-tolerant linear convolution using residue number systems. In *IEEE International Symposium on Circuits and Systems, ISCAS '94, 2 June 1994*, volume 2, pages 441–444. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Parker:1994:FTLb

[3393] M. G. Parker and M. Benaissa. Fault-tolerant linear convolution using residue number systems. In *IEEE International Symposium on Circuits and Systems, ISCAS '94, 2 June 1994*, volume 2, pages 441–444. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Patankar:1994:SHA

[3394] Rashmi Arun Patankar. Software and hardware approaches to data compression of IEEE 64-bit floating point data. Thesis (M.S.), Iowa State University, Ames, IA, USA, 1994. 55 pp.

Phatak:1994:HSD

[3395] D. S. Phatak and I. Koren. Hybrid signed-digit number systems: a unified framework for redundant number representations with bounded carry propagation chains. *IEEE Transactions on Computers*, 43(8):880–891, August 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Popova:1994:EIA

[3396] Evgenija D. Popova. Extended interval arithmetic in IEEE floating-point environment. *Interval Computations = Interval'nye vychisleniia*, 4:100–129, 1994. ISSN 0135-4868.

Prince:1994:TFM

[3397] Timothy Prince. `float`-precision math library. *C Users Journal*, 12(6): 45–??, June 1994. ISSN 0898-9788.

Pritchard:1994:RAR

[3398] A. J. Pritchard, S. J. Sangwine, and R. E. N. Horne. Rational arithmetic representation of colour image pixels. *Electronics Letters*, 30(18):1474–1475, September 1994. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Rajski:1994:DRP

[3399] J. Rajski and J. Tyszer. Design of random pattern testable floating point adders. In IEEE [7874], pages 227–232. ISBN 0-8186-6690-0. LCCN ???? IEEE catalog no. 94TH8016.

Robe:1994:SME

[3400] Edward D. Robe. SIMULINK modules that emulate digital controllers realized with fixed-point or floating-point arithmetic. Thesis (M.S.), Ohio University, Athens, OH, USA, June 1994. v + 130 pp.

Rothberg:1994:ILD

[3401] Edward Rothberg and Robert Schreiber. Improved load distribution in parallel sparse Cholesky factorization. Technical report, Research Institute for Advanced Computer Science, NASA Ames Research Center;

National Technical Information Service, distributor, Moffett Field, CA, USA, 1994. ???? pp.

Schaefer:1994:POU

[3402] Mark J. Schaefer. Precise optimization using range arithmetic. *Journal of Computational and Applied Mathematics*, 53(3):341–351, August 30, 1994. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/0377042794900620.

Schaffer:1994:FPM

[3403] Jonathan T. Schaffer. A floating point multiplier for a superscalar microprocessor. Thesis (M.S.), North Carolina State University, Raleigh, NC, USA, 1994. viii + 104 pp.

Schorn:1994:DGC

[3404] Peter Schorn. Degeneracy in geometric computation and the perturbation approach. *The Computer Journal*, 37(1):35–42, ???? 1994. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/Volume_37/Issue_01/Vol37_01.body.html#AbstractSchorn.

Schoss:1994:ISF

[3405] H. Schoss. Intervall Standardfunktionen für das binäre IEEE Zahlenformat [*English:* Interval Standard Functions for the Binary IEEE Number Format]. Diplomarbeit, Institut für angewandte Mathematik, Universität Karlsruhe, Karlsruhe, Germany, March 1994. ?? pp.

Schulte:1994:HDE

[3406] M. J. Schulte and E. E. Swartzlander, Jr. Hardware designs for exactly rounded elementary functions. *IEEE Transactions on Computers*, 43 (8):964–973, August 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Schulte:1994:OIA

[3407] M. J. Schulte, J. Omar, and E. E. Swartzlander, Jr. Optimal initial approximations for the Newton–Raphson division algorithm. *Computing: Archiv fur informatik und numerik*, 53(3–4):233–242, September 1994. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). International Symposium on Scientific Computing, Computer Arithmetic and Validated Numerics (Vienna, 1993).

Schulte:1994:VIA

[3408] M. J. Schulte and E. E. Swartzlander, Jr. A variable-precision interval arithmetic processor. In Cappello et al. [7870], pages 248–258. ISBN 0-8186-6517-3. LCCN ???? IEEE catalog no. 94TH0687-4.

Schwandt:1994:IAD

[3409] Hartmut Schwandt. An interval arithmetic domain decomposition method for a class of elliptic PDEs on nonrectangular domains. *Journal of Computational and Applied Mathematics*, 50(1–3):509–521, May 20, 1994. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0377042794903247`.

Sharangpani:1994:SAF

[3410] H. P. Sharangpani and M. L. Barton. Statistical analysis of floating point flaw in the Pentium processor. Technical report, Intel Corporation, Santa Clara, CA, USA, November 1994. URL `http://home1.gte.net/deleyd/pentbug/white11.ps; http://www.intel.com/procs/support/pentium/fdiv/white11.ps`.

Shippy:1994:PFD

[3411] D. J. Shippy and T. W. Griffith. POWER2 fixed-point, data cache, and storage control units. *IBM Journal of Research and Development*, 38(5):503–524, September 1994. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL `http://www.almaden.ibm.com/journal/rd38-5.html#three`.

Smith:1994:PAT

[3412] James E. Smith and Shlomo Weiss. PowerPC 601 and Alpha 21064: a tale of two RISCs. *Computer*, 27(6):46–58, June 1994. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Smith:1994:SFT

[3413] William Smith. A short floating-point type in C++. *C Users Journal*, 12(1):23–??, January 1994. ISSN 0898-9788.

Solhaug:1994:FDK

[3414] Fredrik Solhaug. Flyttalls A/D-konverter = floating point A/D converter. Hovedoppgave, Institutt for teleteknikk, NTH, Trondheim, Norway, 1994.

Srivastava:1994:ASB

[3415] A. Srivastava and A. Eustace. ATOM: a system for building customized program analysis tools. *ACM SIGPLAN Notices*, 29(6):196–205, June 1994. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). ACM SIGPLAN '94 Conference on Programming Language Design and Implementation (PLDI).

Stockman:1994:OMM

[3416] Harlan W. Stockman. Optimizing matrix math on the Pentium. *Dr. Dobb's Journal of Software Tools*, 19(5):52, 54, 56, 60, 62, 66, May 1994. CODEN DDJOEB. ISSN 1044-789X.

Thompson:1994:PSN

[3417] Tom Thompson and Bob Ryan. PowerPC 620 soars: The newest member of the PowerPC family targets the workstation market with fast throughput and speedy floating-point performance. *Byte Magazine*, 19(11):113–??, November 1994. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Timmermann:1994:CFP

[3418] D. Timmermann, B. Rix, H. Hahn, and B. J. Hosticka. A CMOS floating-point vector-arithmetic unit. *IEEE Journal of Solid-State Circuits*, 29 (5):634–639, May 1994. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Timmermann:1994:CFV

[3419] D. Timmermann, B. Rix, H. Hahn, and B. J. Hosticka. A CMOS floating-point vector-arithmetic unit. *IEEE Journal of Solid-State Circuits*, 29 (5):634–639, May 1994. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Turner:1994:SRM

[3420] Stephen M. Turner. Square roots mod p. *American Mathematical Monthly*, 101(5):443–449, May 1994. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Tydeman:1994:WCT

[3421] Fred Tydeman. What causes a trap in IEEE-754 floating-point? *ACM SIGNUM Newsletter*, 29(1):2–4, January 1994. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Upton:1994:RAH

[3422] Michael Upton, Thomas Huff, Trevor Mudge, and Richard Brown. Resource allocation in a high clock rate microprocessor. *ACM SIGPLAN Notices*, 29(11):98–109, November 1994. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL `http://www.acm.org:80/pubs/citations/proceedings/asplos/195473/p98-upton/`.

vanSomeren:1994:ARC

[3423] Alex van Someren and Carol Atack. *The ARM RISC Chip: a Programmer's Guide*. Addison-Wesley, Reading, MA, USA, 1994. ISBN 0-201-62410-9. xviii + 346 pp. LCCN QA76.5.V275 1994.

Vinnakota:1994:FCTa

[3424] B. Vinnakota and V. V. Bapeswara Rao. Fast conversion techniques for binary-residue number systems. *IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications*, 41(12):927–929, December 1994. CODEN ITCAEX. ISSN ???? URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=7979`.

Vinnakota:1994:FCTb

[3425] B. Vinnakota and V. V. Bapeswara Rao. Fast conversion techniques for binary-residue number systems. *IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications*, 41(12):927–929, December 1994. CODEN ITCAEX. ISSN ???? URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=7979`.

Vinnakota:1994:SBR

[3426] B. Vinnakota. Selection of bases for a residue number system. *Electronics Letters*, 30(11):836–837, May 26, 1994. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=7164`.

Vuillemin:1994:CN

[3427] Jean E. Vuillemin. On circuits and numbers. *IEEE Transactions on Computers*, 43(8):868–879, August 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Walker:1994:SMA

[3428] W. J. Walker. A summability method for the arithmetic Fourier transform. *BIT (Nordisk tidskrift for informationsbehandling)*, 34(2):304–309, June 1994. CODEN

BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.mai.liu.se/BIT/contents/bit34.html; http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=34&issue=2&spage=304.

Walters:1994:CTR

[3429] H. R. Walters. A complete term rewriting system for decimal integer arithmetic. Technical report CS-9435, Centrum voor Wiskunde en Informatica (CWI), Amsterdam, The Netherlands, August 1994. 9 pp.

Wang:1994:MQF

[3430] Mu-Cheng Wang, Wayne G. Nation, James B. Armstrong, Howard Jay Siegel, Shin Dug Kim, Mark A. Nichols, and Michael Gherrity. Multiple quadratic forms: a case study in the design of data-parallel algorithms. *Journal of Parallel and Distributed Computing*, 21(1):124–139, April 1994. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL http://www.idealibrary.com/links/doi/10.1006/jpdc.1994.1046/production; http://www.idealibrary.com/links/doi/10.1006/jpdc.1994.1046/production/pdf.

Weaver:1994:SAM

[3431] David L. Weaver and Tom Germond. *The SPARC Architecture Manual: Version 9*. Prentice-Hall PTR, Upper Saddle River, NJ 07458, USA, 1994. ISBN 0-13-099227-5. xxii + 357 pp. LCCN QA76.9.A73S648 1992. US$33.00. URL http://www.sparc.org/standards/SPARCV9.pdf.

Wei:1994:REF

[3432] D.-Y. D. Wei, J. H. Kim, and T. R. N. Rao. Roundoff error-free tests in algorithm-based fault tolerant matrix operations on 2-D processor arrays. In *Proceedings of the IEEE International Workshop on Defect and Fault Tolerance in VLSI Systems, 1994*, pages 74–82. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. CODEN ???? ISSN ????

Weiss:1994:PPP

[3433] Shlomo Weiss and James E. Smith. *Power and PowerPC: Principles, Architecture, Implementation*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, 1994. ISBN 1-55860-279-8. xvi + 408 pp. LCCN QA76.8.P67 W45 1994. US$54.95.

White:1994:PNG

[3434] S. W. White and S. Dhawan. POWER2: Next generation of the RISC System/6000 family. *IBM Journal of Research and Development*, 38(5):

493–502, September 1994. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL `http://www.almaden.ibm.com/journal/rd38-5.html#two`.

Wichmann:1994:CSP

[3435] B. A. Wichmann. Contribution of standard programming languages to software quality. *Software Engineering Journal*, 9(1):3–12, January 1994. CODEN SEJOED. ISSN 0268-6961.

Williams:1994:MAM

[3436] T. Williams. Method and apparatus for multiplying denormalized binary floating point numbers without additional delay, September 13, 1994. U.S. Patent No. 5,347,481.

Wong:1994:FEE

[3437] W. F. Wong and E. Goto. Fast evaluation of the elementary functions in double precision. In Mudge and Shriver [7876], pages 349–358. ISBN 0-8186-5050-8. LCCN ???? IEEE catalog no. 94TH0607-2.

Wong:1994:FHB

[3438] W. F. Wong and E. Goto. Fast hardware-based algorithms for elementary function computations using rectangular multipliers. *IEEE Transactions on Computers*, 43(3):278–294, March 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=272429`.

Yang:1994:NIPa

[3439] Ming-Chwen Yang and Ja-Ling Wu. A new interpretation of "polynomial residue number system". *IEEE Transactions on Signal Processing*, 42(8):2190–2191, August 1994. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=7453`.

Yang:1994:NIPb

[3440] Ming-Chwen Yang and Ja-Ling Wu. A new interpretation of "polynomial residue number system". *IEEE Transactions on Signal Processing*, 42(8):2190–2191, August 1994. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=7453`.

Yuen:1994:PMC

[3441] C. K. Yuen and M. D. Feng. Parallel multiplication: a case study in parallel programming. *ACM SIGPLAN Notices*, 29(3):12–17, March

1994. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Zhang:1994:EMR

[3442] Qihong Zhang and J. H. Kim. An efficient method to reduce roundoff error in matrix multiplication with algorithm-based fault tolerance. In Lea and Tewksbury [7875], pages 32–39. ISBN 0-7803-1850-1. LCCN ???? IEEE catalog no. 94CH3412-4.

Zhang:1994:TDN

[3443] M. Zhang, J. G. Delgado-Frias, and S. Vassiliadis. Table driven Newton scheme for high precision logarithm generation. *IEE Proceedings. Computers and Digital Techniques*, 141(5):281–292, September 1994. CODEN ICDTEA. ISSN 1350-2387 (print), 1359-7027 (electronic).

Zuras:1994:MSM

[3444] D. Zuras. More on squaring and multiplying large integers. *IEEE Transactions on Computers*, 43(8):899–908, August 1994. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Zuse:1994:PPV

[3445] K. Zuse. Past and present view on computer architecture. *IFIP Transactions. A. Computer Science and Technology*, A-52:248–250, ???? 1994. CODEN ITATEC. ISSN 0926-5473. Applications and Impacts. Information Processing '94 IFIP 13th World Computer Congress.

Aagaard:1995:FVP

[3446] M. Aagaard and C. Seger. The formal verification of a pipelined double-precision IEEE floating-point multiplier. In IEEE [7885], pages 7–10. ISBN 0-8186-7213-7, 0-8186-7214-5. LCCN TA174 .I52 1995; TK7874 .I3235 1995. IEEE catalog number 95CB35859. IEEE Computer Society Press order number PR07213.

Abdallah:1995:SASa

[3447] M. Abdallah and A. Skavantzos. A systematic approach for selecting practical moduli sets for residue number systems. In *Proceedings of the Twenty-Seventh Southeastern Symposium on System Theory, 12–14 March 1995*, pages 445–449. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. CODEN ???? ISSN ????

Abdallah:1995:SASb

[3448] M. Abdallah and A. Skavantzos. A systematic approach for selecting practical moduli sets for residue number systems. In *Proceedings of* *the Twenty-Seventh Southeastern Symposium on System Theory, 12–14 March 1995*, pages 445–449. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. CODEN ???? ISSN ????

Al-Mouhamed:1995:ELF

[3449] Mayez Al-Mouhamed and Lubomir Bic. Effects of loop fusion and statement migration on the speedup of vector multiprocessors. *Journal of Parallel and Distributed Computing*, 31(1):56–64, November 15, 1995. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL http://www.idealibrary.com/links/doi/10.1006/jpdc.1995.1144/production; http://www.idealibrary.com/links/doi/10.1006/jpdc.1995.1144/production/pdf.

Altwaijry:1995:PAT

[3450] H. Altwaijry and M. Flynn. Performance/area tradeoffs in Booth multipliers. Technical Report CSL-TR-95-684, Computer Systems Laboratory, Stanford University, Stanford, CA, USA, November 1995.

Anonymous:1995:FEF

[3451] Anonymous. Fraction eliminate floating-point multiply. *EDN*, 40(24): 88–??, 1995. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Anonymous:1995:INM

[3452] Anonymous. IBM's new Model 3CT RS/6000 workstation provides the industry's best floating-point price/performance numbers in the US$35,000 to US$50,000 price range. *Open Systems Today*, ??(169): 32–??, February 1995. ISSN 1061-0839.

Anonymous:1995:MVW

[3453] Anonymous. Micro view — what lessons can chip makers and their customers take from the Pentium floating-point divide flaw and the resultant tidal wave of publicity? *IEEE Micro*, 15(2):88–??, March/April 1995. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Anonymous:1995:PCH

[3454] Anonymous. Program converts hex to floating point. *EDN*, 40(15):76–??, 1995. CODEN EDNSBH. ISSN 0012-7515, 0364-6637.

Antelo:1995:RCR

[3455] Elisardo Antelo, Javier D. Bruguera, Julio Villalba, and Emilio L. Zapata. Redundant CORDIC rotator based on parallel prediction. In Knowles and McAllister [7888], pages 172–179. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Antelo.pdf`.

Bailey:1995:FBM

[3456] David H. Bailey. A Fortran-90 based multiprecision system. *ACM Transactions on Mathematical Software*, 21(4):379–387, December 1995. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org/pubs/citations/journals/toms/1995-21-4/p379-bailey/`. See also extension to complex arithmetic [4026].

Bannon:1995:IAA

[3457] P. Bannon and J. Keller. Internal architecture of Alpha 21164 microprocessor. In IEEE [7884], pages 79–87. ISBN 0-7803-2657-1 (hardcover), 0-8186-7029-0 (paperback), 0-7803-2658-X (microfiche). ISSN 1063-6390. LCCN QA 75.5 C58 1995. IEEE Computer Society Press order number PR07029. IEEE catalog number 95CH35737.

Baron:1995:FPP

[3458] P. Baron, A. Joudon, F. Lugiez, and M. Rouger. Floating point processor for photomultiplier tube signals. *IEEE Transactions on Nuclear Science*, 42(4):750–752, August 1995. CODEN IRNSAM. ISSN 0018-9499 (print), 1558-1578 (electronic).

Bauer:1995:AEB

[3459] P. H. Bauer. Absolute error bounds for block floating-point direct-form digital filters. *IEEE Transactions on Signal Processing*, 43(8):1994–1996, August 1995. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Bauer:1995:ARE

[3460] P. H. Bauer. Absolute response error bounds for floating point digital filters in state space representation. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 42(9):610–613, September 1995. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic).

Baumhof:1995:NVV

[3461] Christoph Baumhof. A new VLSI vector arithmetic coprocessor for the PC. In Knowles and McAllister [7888], pages 210–215. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-

7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Baumhof.pdf.

Beaty:1995:EAS

[3462] Steven J. Beaty and Gearold R. Johnson. Effect of adding a scalar D-cache to the Cray-4 vector processor. *IEEE International Conference on Algorithms and Architectures for Parallel Processing*, 1:227–230, 1995. IEEE catalog number 95TH0682-5.

Bederr:1995:AAE

[3463] H. Bederr, M. Nicolaidis, and A. Guyot. Analytic approach for error masking elimination in on-line multipliers. In Knowles and McAllister [7888], pages 30–37. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Bederr.pdf.

Bickerstaff:1995:PRA

[3464] K'Andrea C. Bickerstaff, Michael J. Schulte, and Earl E. Swartzlander, Jr. Parallel reduced area multipliers. *Journal of VLSI Signal Processing*, 9(3):181–191, April 1995. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109X (electronic). URL http://springerlink.metapress.com/content/761m0225754r4440/fulltext.pdf.

Bierman:1995:FAI

[3465] Keith Bierman. Fortran access to IEEE 754 exceptions. *ACM Fortran Forum*, 14(3):15–18, September 1995. CODEN ???? ISSN 1061-7264 (print), 1931-1311 (electronic).

Boley:1995:FPF

[3466] D. Boley, G. H. Golub, S. Makar, N. Saxena, and E. J. McCluskey. Floating point fault tolerance with backward error assertions. *IEEE Transactions on Computers*, 44(2):302–311, February 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=364541.

Bomar:1995:RNA

[3467] B. W. Bomar, L. M. Smith, and R. D. Joseph. Roundoff noise analysis of state-space digital filters implemented on floating-point digital signal processors. *Proceedings - IEEE International Symposium on Circuits and Systems*, ??(3):III–2023, 1995. ISSN 0271-4310.

Booker:1995:FER

[3468] Alan Booker. Floating-point emulation and representation. *Embedded Systems Programming*, 8(9):111–??, 1995. CODEN EYPRE4. ISSN 1040-3272.

BrinchHansen:1995:LDA

[3469] Per Brinch Hansen. The long division algorithm of Linger, Mills and Witt. *Software—Practice and Experience*, 25(1):109, January 1995. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic). See [7714, 3292].

Burgess:1995:COT

[3470] N. Burgess and T. Williams. Choices of operand truncation in the SRT division algorithm. *IEEE Transactions on Computers*, 44(7):933–937, July 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=392852`.

Burnikel:1995:EGC

[3471] Christoph Burnikel, Jochen Konemann, Kurt Mehlhorn, Stefan Naher, Stefan Schirra, and Christian Uhrig. Exact geometric computation in LEDA. In ACM [7879], pages C18–C19. ISBN 0-89791-724-3. LCCN QA448.D38 S96 1995.

Carreno:1995:IIF

[3472] Victor A. Carreno. Interpretation of IEEE-854 floating-point standard and definition in the HOL system. NASA technical memorandum 110189, National Aeronautics and Space Administration, Washington, DC, USA, 1995. ???? pp. Shipping list no. 96-0366-M.

Carreno:1995:SIF

[3473] Victor A. Carreño and Paul S. Miner. Specification of the IEEE-854 floating-point standard in HOL and PVS. In Anonymous [7880]. ISBN ???? LCCN ???? URL `http://shemesh.larc.nasa.gov/fm/ftp/larc/vac/hug95.ps`.

Chang:1995:REA

[3474] P. S. Chang and A. N. Willson, Jr. A roundoff error analysis of the normalized LMS algorithm. In *Conference Record of the Twenty-Ninth Asilomar Conference on Signals, Systems and Computers, 1995*, volume 2, pages 1337–1341. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. CODEN ???? ISSN ????

Chen:1995:UCA

[3475] San-Gee Chen and Chieh-Chih Li. A unified cellular array for multiplication, division and square root. In *IEEE Signal Processing Society Workshop on VLSI Signal Processing, VIII, 1995*, pages 533–541. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. CODEN ???? ISSN ????

Cheng:1995:PBS

[3476] Fuhua Cheng, G. W. Wasilkowski, Jiaye Wang, Caiming Zhang, and Wenping Wang. Parallel B-spline surface interpolation on a mesh-connected processor array. *Journal of Parallel and Distributed Computing*, 24(2):224–229, February 1, 1995. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL http://www.idealibrary.com/links/doi/10.1006/jpdc.1995.1022/production; http://www.idealibrary.com/links/doi/10.1006/jpdc.1995.1022/production/pdf.

Chesneaux:1995:LSL

[3477] Jean-Marie Chesneaux. *L'arithmétique stochastique et le logiciel CADNA. (French) [Stochastic arithmetic and CADNA software]*. Habilitation à diriger des recherches, Université Pierre et Marie Curie, Paris, France, 1995. ???? pp.

Coe:1995:CAP

[3478] Tim Coe, Terje Mathisen, Cleve Moler, and Vaughan Pratt. Computational aspects of the Pentium affair. *IEEE Computational Science & Engineering*, 2(1):18–30, Spring 1995. CODEN ISCEE4. ISSN 1070-9924 (print), 1558-190X (electronic). URL http://www.computer.org/cse/cs1998/c1018abs.htm.

Coe:1995:IPF

[3479] Tim Coe. Inside the Pentium FDIV bug. *Dr. Dobb's Journal of Software Tools*, 20(4):129–??, April 1995. CODEN DDJOEB. ISSN 1044-789X.

Coe:1995:ITS

[3480] Tim Coe and Ping Tak Peter Tang. It takes six ones to reach a flaw. In Knowles and McAllister [7888], pages 140–148. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Coe.pdf. Also available as Chinese University of Hong Kong technical report 95-5 (61), 1995.

Crenshaw:1995:PTFa

[3481] Jack W. Crenshaw. Programmer's toolbox: Floating-point math. *Embedded Systems Programming*, 8(11):25–??, 1995. CODEN EYPRE4. ISSN 1040-3272.

Crenshaw:1995:PTFb

[3482] Jack W. Crenshaw. Programmer's toolbox: Floating-point math, part 2. *Embedded Systems Programming*, 8(12):29–??, 1995. CODEN EYPRE4. ISSN 1040-3272.

Cui:1995:GIFa

[3483] S. Cui, N. Burgess, M. Liebelt, and K. Eshraghian. A 32-bit GaAs IEEE floating point multiplier using Trailing-1's rounding algorithm. In Jain [7887], pages 246–252. ISBN 0-8186-7085-1. LCCN TK7801 .E456 1995. URL `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Jain.pdf`.

Cui:1995:GIFb

[3484] S. Cui, N. Burgess, M. Liebelt, and K. Eshraghian. A GaAs IEEE floating point standard single precision multiplier. In Knowles and McAllister [7888], pages 91–97. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Cui.pdf`.

Das:1995:IFC

[3485] D. Das, K. Mukhopadhyaya, and B. P. Sinha. Implementation of four common functions on an LNS co-processor. *IEEE Transactions on Computers*, 44(1):155–161, January 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Daumas:1995:MRR

[3486] Marc Daumas, Christophe Mazenc, Xavier Merrheim, and Jean-Michel Muller. Modular range reduction: a new algorithm for fast and accurate computation of the elementary functions. *J.UCS: Journal of Universal Computer Science*, 1(3):162–175, March 28, 1995. CODEN ???? ISSN 0948-6968. URL `http://www.iicm.edu/jucs_1_3/modular_range_reduction`.

Demmel:1995:CSB

[3487] James W. Demmel, Inderjit Dhillon, and Huan Ren. On the correctness of some bisection-like parallel eigenvalue algorithms in floating point arithmetic. *Electronic Transactions on Numerical Analysis*, 3:116–149, 1995. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL http://etna.mcs.kent.edu/vol.3.1995/pp116-149.dir/pp116-149.pdf.

DiClaudio:1995:FCR

[3488] E. D. Di Claudio, F. Piazza, and G. Orlandi. Fast combinatorial RNS processors for DSP applications. *IEEE Transactions on Computers*, 44 (5):624–633, May 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=381948.

Doman:1995:SAP

[3489] B. G. S. Doman, C. J. Pursglove, and W. M. Coen. A set of Ada packages for high precision calculations. *ACM Transactions on Mathematical Software*, 21(4):416–431, December 1995. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1995-21-4/p416-doman/.

Doran:1995:SCD

[3490] R. W. Doran. Special cases of division. *J.UCS: Journal of Universal Computer Science*, 1(3):176–194, March 28, 1995. CODEN ???? ISSN 0948-6968. URL http://www.iicm.edu/jucs_1_3/special_cases_of_division.

Ercegovac:1995:SDC

[3491] Miloš D. Ercegovac and Tomás Lang. Sign detection and comparison networks with a small number of transitions. In Knowles and McAllister [7888], pages 59–66. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Ercegovac.pdf.

Espelid:1995:FPS

[3492] T. O. Espelid. On floating-point summation. *SIAM Review*, 37(4):603–607, December 1995. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL http://epubs.siam.org/27303.htm.

Fateman:1995:FFP

[3493] Richard J. Fateman, Kevin A. Broughan, Diane K. Willcock, and Duane Rettig. Fast floating point processing in Common Lisp. *ACM Transactions on Mathematical Software*, 21(1):26–62, March

1995. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1995-21-1/p26-fateman/. See remark [3745].

Ferguson:1995:ECS

[3494] Warren E. Ferguson, Jr. Exact computation of a sum or difference with applications to argument reduction. In Knowles and McAllister [7888], pages 216–221. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Ferguson.pdf.

Figueroa:1995:WDR

[3495] Samuel A. Figueroa. When is double rounding innocuous? *ACM SIGNUM Newsletter*, 30(3):21–26, July 1995. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic). URL http://www.cs.nyu.edu/csweb/Research/Theses/figueroa_sam.pdf.

Flynn:1995:ADA

[3496] Michael J. Flynn and Stuart F. Oberman. An analysis of division algorithms and implementations. Report CSL-TR-95-675, Stanford University, Stanford, CA, USA, July 1995. 58 pp. URL https://searchworks.stanford.edu/view/4639530.

Flynn:1995:SPT

[3497] M. J. Flynn, K. Nowka, G. Bewick, E. Schwarz, and N. Quach. The SNAP project: Towards sub-nanosecond arithmetic. In Knowles and McAllister [7888], pages 75–83. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL ftp://arith.stanford.edu/tr/snap_arith12.ps.Z; http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Flynn.pdf.

Freeman:1995:CAD

[3498] S. Freeman and M. O'Donnell. A complex arithmetic digital signal processor using CORDIC rotators. In *1995 International Conference on Acoustics, Speech, and Signal Processing*, volume 5, pages 3191–3194 (vol. 5). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995.

Fried:1995:PON

[3499] Stephen S. Fried. Pentium optimizations and numeric performance. *Dr. Dobb's Journal of Software Tools*, 20(1):18–20, 22, 26–29, January 1995. CODEN DDJOEB. ISSN 1044-789X.

Gluss:1995:DIA

[3500] Robert Joseph Gluss. *Design and implementation of an asynchronous radix-4 pre-scaling floating-point divider*. Thesis (M.S.), Department of Electrical and Computer Engineering, University of California, Davis, Davis, CA, USA, 1995.

Greenley:1995:UNG

[3501] D. Greenley, J. Bauman, D. Chang, Dennis Chen, R. Eltejaein, P. Ferolito, P. Fu, Robert B. Garner, D. Greenhill, H. Grewal, Kalon Holdbrook, B. Kim, Leslie Kohn, H. Kwan, M. Levitt, Guillermo Maturana, D. Mrazek, Chitresh Narasimhaiah, Kevin Normoyle, N. Parveen, P. Patel, A. Prabhu, Marc Tremblay, Michelle Wong, L. Yang, Krishna Yarlagadda, Robert K. Yu, Robert Yung, and Gregory B. Zyner. UltraSPARC: the next generation superscalar 64-bit SPARC. In IEEE [7884], pages 442–451. ISBN 0-7803-2657-1 (hardcover), 0-8186-7029-0 (paperback), 0-7803-2658-X (microfiche). ISSN 1063-6390. LCCN QA 75.5 C58 1995. IEEE Computer Society Press order number PR07029. IEEE catalog number 95CH35737.

Halfhill:1995:TBP

[3502] Tom R. Halfhill. The truth behind the Pentium bug: How often do the five empty cells in the Pentium's FPU lookup table spell miscalculation? *Byte Magazine*, 20(3):163–??, March 1995. CODEN BYTEDJ. ISSN 0360-5280 (print), 1082-7838 (electronic).

Hamano:1995:DCA

[3503] Takafumi Hamano, Naofumi Takagi, Shuzo Yajima, and Franco P. Preparata. $O(n)$-depth circuit algorithm for modular exponentiation. In Knowles and McAllister [7888], pages 188–192. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Hamano.pdf`.

Harrison:1995:FPV

[3504] J. Harrison. Floating point verification in HOL. *Lecture Notes in Computer Science*, ??(971):186–??, 1995. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Hassler:1995:FET

[3505] Hannes Hassler and Naofumi Takagi. Function evaluation by table look-up and addition. In Knowles and McAllister [7888], pages 10–16. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Hassler.pdf.

Hauser:1995:HFE

[3506] John R. Hauser. Handling floating-point exceptions in numeric programs. Report UCB/CSD 95-870, Computer Science Division (EECS), University of California, Berkeley, CA, USA, March 1995. 31 pp.

Helsley:1995:SZL

[3507] Harold David Helsley. A study of zero-input limit cycles in floating-point digital signal processors. Thesis (M.S.), University of Tennessee, Knoxville, Knoxville, TN, USA, 1995. vii + 65 pp.

Hiasat:1995:HSDa

[3508] A. A. Hiasat and H. S. Abdel-Aty-Zohdy. A high-speed division algorithm for residue number system. In *IEEE International Symposium on Circuits and Systems, ISCAS '95, 3 May 1995*, volume 3, pages 1996–1999. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. CODEN ???? ISSN ????

Hiasat:1995:HSDb

[3509] A. A. Hiasat and H. S. Abdel-Aty-Zohdy. A high-speed division algorithm for residue number system. In *IEEE International Symposium on Circuits and Systems, ISCAS '95, 3 May 1995*, volume 3, pages 1996–1999. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. CODEN ???? ISSN ????

Hitz:1995:IDR

[3510] Markus A. Hitz and Erich Kaltofen. Integer division in residue number systems. *IEEE Transactions on Computers*, 44(8):983–989, August 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=9076; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=403714.

Ho:1995:CFF

[3511] H. Ho, V. Szwarc, and L. Desormeaux. A comparison of FIR filter implementations based on two's complement and residue number arithmetic. In *Proceedings of the Eighth Annual IEEE International ASIC Conference and Exhibit, 1995*, pages 35–38. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. CODEN ???? ISSN ????

Ho:1995:FPI

[3512] Lei Ho. Floating point implementation for Motorola HC6811C: GNU C cross-compiler. Master's thesis, Department of Electrical Engineering, Ryerson Polytechnic University, Toronto, Ontario, Canada, 1995.

Hobson:1995:EMR

[3513] R. F. Hobson and M. W. Fraser. An efficient maximum-redundancy radix-8 SRT division and square-root method. *IEEE Journal of Solid-State Circuits*, 30(1):29–38, January 1995. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Houelle:1995:AFL

[3514] A. Houelle, H. Mehrez, N. Vaucher, L. Montalvo, and A. Guyot. Application of fast layout synthesis environment to dividers evaluation. In Knowles and McAllister [7888], pages 67–74. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Houelle.pdf.

Hough:1995:EPD

[3515] David Hough. Effects of Pentium division flaw and its software workaround. Report, Sun Microsystems, Mountain View, CA 94043, USA, February 28, 1995. 22 pp. URL https://www.validlab.com/reports/pentium/.

Hough:1995:UVP

[3516] David Hough. UCBTEST vs. Pentium. Report, Sun Microsystems, Mountain View, CA 94043, USA, March 5, 1995. 3 pp. URL https://www.validlab.com/reports/testing.pdf.

Hunt:1995:APF

[3517] D. Hunt. Advanced performance features of the 64-bit PA-8000. In IEEE [7884], pages 123–128. ISBN 0-7803-2657-1 (hardcover), 0-8186-7029-0 (paperback), 0-7803-2658-X (microfiche). ISSN 1063-6390. LCCN QA 75.5 C58 1995. IEEE Computer Society Press order number PR07029. IEEE catalog number 95CH35737.

Ito:1995:EIAa

[3518] Masayuki Ito, Naofumi Takagi, and Shuzo Yajima. Efficient initial approximation methods for division and square using a multiply-add unit. SIG Notes 95-HPC-55-10, IPSJ, ????, March 1995. 73–80 pp.

Ito:1995:EIAb

[3519] Masayuki Ito, Naofumi Takagi, and Shuzo Yajima. Efficient initial approximation and fast converging methods for division and square root. In Knowles and McAllister [7888], pages 2–9. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Ito.pdf.

Jain:1995:HSD

[3520] V. K. Jain and L. Lin. High-speed double precision computation of nonlinear functions. In Knowles and McAllister [7888], pages 107–114. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL https://ieeexplore.ieee.org/xpl/conhome/3236/proceeding.

Jang:1995:OSA

[3521] Ju-Wook Jang and Viktor K. Prasanna. An optimal sorting algorithm on reconfigurable mesh. *Journal of Parallel and Distributed Computing*, 25(1):31–41, February 15, 1995. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL http://www.idealibrary.com/links/doi/10.1006/jpdc.1995.1027/production; http://www.idealibrary.com/links/doi/10.1006/jpdc.1995.1027/production/pdf.

Kahan:1995:TSD

[3522] W. Kahan. A test for SRT division. Lecture notes, 1995. URL http://www.cs.berkeley.edu/~wkahan/srtest.

Kahan:1995:USP

[3523] Students of Prof.W.Kahan. UCBTEST: a suite of programs for testing certain difficult cases of IEEE 754 floating-point arithmetic. World-Wide

Web document, March 12, 1995. URL http://www.netlib.org/fp/ucbtest.tgz.

Kaliski:1995:MIA

[3524] Burton S. Kaliski, Jr. The Montgomery inverse and its applications. *IEEE Transactions on Computers*, 44(8):1064–1065, August 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=403725.

Kalliojarvi:1995:FWL

[3525] Kari Kalliojärvi. *Finite word length effects in floating-point and block-floating-point digital signal processing systems*. Avhandling (doktorgrad), Tampereen teknillinen korkeakoulu, Tampere, Finland, 1995. vii + 71 + 68 pp.

Ke:1995:SFQ

[3526] Qing Ke and M. J. Feldman. Single flux quantum circuits using the residue number system. *IEEE Transactions on Applied Superconductivity*, 5(2):2988–2991, June 1995. CODEN ITASE9. ISSN 1051-8223 (print), 1558-2515 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=9069.

Kistermann:1995:RWS

[3527] Friedrich Wilhelm Kistermann. Die Rechentechnik um 1600 und Wilhelm Schickards Rechenmaschine. (German) [The calculating technique of 1600 and Wilhelm Schickard's calculator]. In Seck [7889], pages 241–272. ISBN 3-7995-3235-8. ISSN 0340-6857. LCCN ???? DM 76.00, sfr 76.00, S 600.00.

Knowles:1995:FSC

[3528] Simon Knowles and William H. McAllister. Foreword: 12th Symposium on Computer Arithmetic, Assembly Rooms, Bath, England, July 19–21, 1995. In *Proceedings of the 12th Symposium on Computer Arithmetic, July 19–21, 1995, Bath, England* [7888], pages ix–x. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_contents.pdf; http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_foreword.pdf; http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_preface.pdf.

Koko:1995:FP

[3529] Boma Koko. Floating point. *Computer-aided engineering: CAE*, 14(10): 132–??, 1995. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

Kubota:1995:DRE

[3530] K. Kubota. On distribution of rounding errors generated in additions and subtractions of floating-point numbers. *Transactions of the Japan Society for Industrial and Applied Mathematics*, 5(1):37–46, ???? 1995. ISSN 0917-2246.

Kwan:1995:CII

[3531] Hercule Kwan, Robert Leonard Nelson, Jr., and Earl E. Swartzlander, Jr. Cascaded implementation of an iterative inverse-square-root algorithm, with overflow lookahead. In Knowles and McAllister [7888], pages 115–122. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Kwan.pdf`.

Lang:1995:VHR

[3532] Tomás Lang and Paolo Montuschi. Very-high radix combined division and square root with prescaling and selection by rounding. In Knowles and McAllister [7888], pages 124–131. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Lang.pdf`.

Leeser:1995:VSR

[3533] M. Leeser and J. O'Leary. Verification of a subtractive radix-2 square root algorithm and implementation. In *Proceedings of the IEEE International Conference on Computer Design: VLSI in Computers and Processors, ICCD '95*, pages 526–531. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. CODEN ???? ISSN ????

Lehmann:1995:SLE

[3534] N. Joachim Lehmann. Schickard und Leibniz als Erfinder von rechenmaschinen. (German) [Schickard and Leibniz, the inventors of calculators]. In Seck [7889], pages 273–286. ISBN 3-7995-3235-8. ISSN 0340-6857. LCCN ???? DM 76.00, sfr 76.00, S 600.00.

Liu:1995:SRV

[3535] S.-I. Liu. Square-rooting and vector summation circuits using current conveyors. *IEE Proceedings on Circuits, Devices and Systems [see also IEE Proceedings G- Circuits, Devices and Systems]*, 142(4):223–226, August 1995. CODEN ???? ISSN ????

Louie:1995:VPS

[3536] Marianne E. Louie and Miloš D. Ercegovac. A variable-precision square root implementation for field programmable gate arrays. *The Journal of Supercomputing*, 9(3):315–336, September 1995. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0920-8542&volume=9&issue=3&spage=315; http://www.wkap.nl/oasis.htm/95692.

Lozier:1995:EBL

[3537] Daniel W. Lozier and P. R. Turner. Error-bounding in level-index computer arithmetic. Internal Report NISTIR-5724, National Bureau of Standards, Gaithersburg, MD, USA, 1995. URL https://www.nist.gov/publications/error-bounding-level-index-computer-arithmetic.

Lynch:1995:HRL

[3538] Thomas Lynch and Michael J. Schulte. A high radix on-line arithmetic for credible and accurate computing. *J.UCS: Journal of Universal Computer Science*, 1(7):439–453, July 28, 1995. CODEN ???? ISSN 0948-6968. URL http://www.jucs.org/a_high_radix_online_arithmetic.

Lynch:1995:KTF

[3539] Tom Lynch, Ahmed Ahmed, Mike Schulte, Tom Callaway, and Robert Tisdale. The K5 transcendental functions. In Knowles and McAllister [7888], pages 163–171. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://mesa.ece.wisc.edu/publications/cp_1995-04.pdf; http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Lynch.pdf.

Lyu:1995:RBB

[3540] Chung Nan Lyu and David W. Matula. Redundant binary Booth recoding. In Knowles and McAllister [7888], pages 50–58. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA

76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Chung.pdf.

Mandelbaum:1995:DUL

[3541] D. M. Mandelbaum. Division using a logarithmic-exponential transform to form a short reciprocal. *IEEE Transactions on Computers*, 44(11): 1326–1330, November 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=475129.

Martel:1995:DSO

[3542] Charles Martel, Vojin Oklobdzija, R. Ravi, and Paul F. Stelling. Design strategies for optimal multiplier circuits. In Knowles and McAllister [7888], pages 42–49. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Martel.pdf.

Matsubara:1995:NBS

[3543] Gensoh Matsubara, Nobuhiro Ide, Haruyuki Tago, Seigo Suzuki, and Nobuyuki Goto. 30-ns 55-b shared radix 2 division and square root using a self-timed circuit. In Knowles and McAllister [7888], pages 98–105. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Matsubara.pdf.

Meissner:1995:EAD

[3544] Loren P. Meissner. From the Editor: Allocatable dummy argument arrays; how should Fortran Standards describe arithmetic? Are external procedures obsolete?; When are local variables initialized in F77 and F90? *ACM Fortran Forum*, 14(3):1–3, September 1995. CODEN ???? ISSN 1061-7264 (print), 1931-1311 (electronic).

Metafas:1995:FAC

[3545] D. E. Metafas and C. E. Goutis. A floating-point advanced CORDIC processor. *Journal of VLSI Signal Processing*, 10(1):53–65, June 1995. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Michelucci:1995:ARD

[3546] D. Michelucci. An ϵ arithmetic for removing degeneracies. In Knowles and McAllister [7888], pages 230–238. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Michelucci.pdf`.

Miner:1995:DIF

[3547] Paul S. Miner. Defining the IEEE-854 floating-point standard in PVS. Technical Report 110167, National Aeronautics and Space Administration, Langley Research Center; National Technical Information Service, distributor, Hampton, VA, USA, 1995. ???? pp.

Moler:1995:CCT

[3548] Cleve B. Moler. Cleve's corner: a tale of two numbers: With the Pentium, there is a very small chance of making a very large error. Technical note, The MathWorks, Inc., 3 Apple Hill Drive, Natick, MA 01760-2098, USA, Winter 1995. URL `http://www.mathworks.com/company/newsletter/pdf/win95cleve.pdf`.

Moler:1995:TTN

[3549] Cleve B. Moler. A tale of two numbers. *SIAM News*, 28(1):16, January 1, 1995. ISSN 0036-1437. Discusses the Intel Pentium chip divide flaw.

Montuschi:1995:RRI

[3550] P. Montuschi and L. Ciminiera. A remark on "Reducing iteration time when result digit is zero for radix-2 SRT division and square root with redundant remainders". *IEEE Transactions on Computers*, 44(1):144–146, January 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=368000`. See [3208].

Muller:1995:SLN

[3551] Jean-Michel Muller, Arnaud Tisserand, and Alexandre Scherbyna. Semi-logarithmic number systems. In Knowles and McAllister [7888], pages 201–207. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Muller.pdf`.

Nielsen:1995:MFD

[3552] Asger Munk Nielsen and Peter Kornerup. MSB-first digit serial arithmetic. *J.UCS: Journal of Universal Computer Science*, 1(7):527–547, July 28, 1995. CODEN ???? ISSN 0948-6968. URL `http://www.jucs.org/jucs_1_7/msb_first_digit_serial`.

Nowka:1995:HPC

[3553] Kevin Nowka. *High Performance CMOS VLSI System Design Using Wave Pipelining*. Thesis (Ph.D.), Department of Electrical Engineering, Stanford University, Stanford, CA, USA, September 1995. ???? pp.

Oberman:1995:DRC

[3554] S. F. Oberman and M. J. Flynn. On division and reciprocal caches. Technical Report CSL-TR-95-666, Computer Systems Laboratory, Stanford University, Stanford, CA, USA, April 1995.

OGara:1995:SET

[3555] Linda O'Gara, Jeanne Adams, Walt Brainerd, Vic Kelson, Craig Dedo, Keith Bierman, Jerry Wagener, Richard Maine, Leonard J. Moss, James H. Billen, Robert Corbett, Dick Hendrickson, Jamie Shiers, David Levine, David L. Epstein, John Reid, Lawrie Schonfelder, Kurt W. Hirchert, Jens Helmers, William Behrman, A. C. Marshall, and William B. Clodius. Some email threads: Is Fortran 90 succeeding?; Fortran market acceptance; Fortran–C interoperability; Fortran preprocessors or conditional compilation: Is standardization needed?; floating point subsets of enable; pointers to procedures, or procedure names as variables; standard linear algebra and advanced math functions modules; re: Allocatable arrays in structures; restricted module visibility. *ACM Fortran Forum*, 14(1):11–28, March 1995. CODEN ???? ISSN 1061-7264 (print), 1931-1311 (electronic).

Ohi:1995:RCN

[3556] Y. Ohi, T. Aoki, and T. Higuchi. Redundant complex number systems. In IEEE [7886], pages 14–?? ISBN 0-8186-7118-1, 0-7803-2764-0, 0-7803-2765-9. LCCN ????

Ohkubo:1995:CBM

[3557] N. Ohkubo, M. Suzuki, T. Shinbo, T. Yamanaka, A. Shimizu, K. Sasaki, and Y. Nakagome. A 4.4ns CMOS 54 $\times$ 54-b multiplier using pass-transistor multiplexor. *IEEE Journal of Solid-State Circuits*, SC-30(3): 251–257, March 1995. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

OLeary:1995:NRI

[3558] J. O'Leary, M. Leeser, J. Hickey, and M. Aagaard. Non-restoring integer square root: a case study in design by principled optimization. *Lecture Notes in Computer Science*, 901:52–??, 1995. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Orup:1995:SQD

[3559] Holger Orup. Simplifying quotient determination in high-radix modular multiplication. In Knowles and McAllister [7888], pages 193–200. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Orup.pdf`.

Owens:1995:RNC

[3560] Robert M. Owens, Raminder S. Bajwa, and Mary Jane Irwin. Reducing the number of counters needed for integer multiplication. In Knowles and McAllister [7888], pages 38–41. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Owens.pdf`.

Parker:1995:MUP

[3561] M. G. Parker and M. Benaissa. GF(p^m) multiplication using polynomial residue number systems. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 42(11):718–721, November 1995. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=10018`.

Popova:1995:FCI

[3562] E. Popova. On a formally correct implementation of IEEE computer arithmetic. *J.UCS: Journal of Universal Computer Science*, 1(7):560–??, July 28, 1995. CODEN ???? ISSN 0948-6968. URL `http://www.iicm.edu/jucs_1_7/on_a_formally_correct`.

Posch:1995:MRRa

[3563] Karl C. Posch and Reinhard Posch. Modulo reduction in residue number systems. *IEEE Transactions on Parallel and Distributed Systems*, 6(5):449–454, May 1995. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=8666`.

Posch:1995:MRRb

[3564] K. C. Posch and R. Posch. Modulo reduction in residue number systems. *IEEE Transactions on Parallel and Distributed Systems*, 6(5):449–454, May 1995. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=8666.

Prabhu:1995:MRD

[3565] J. A. Prabhu and G. B. Zyner. 167 MHz radix-8 divide and square root using overlapped radix-2 stages. In Knowles and McAllister [7888], pages 155–162. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL https://ieeexplore.ieee.org/xpl/conhome/3236/proceeding.

Prabhu:1995:MRF

[3566] J. Arjun Prabhu and Gregory B. Zyner. 167 MHz radix-8 floating point divide and square root using overlapped radix-2 stages. In Knowles and McAllister [7888], pages xvi + 252. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Prabhu.pdf.

Pratt:1995:APB

[3567] V. Pratt. Anatomy of the Pentium bug. *Lecture Notes in Computer Science*, 915:97–107, 1995. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL ftp://boole.stanford.edu/pub/FDIV/anapent.ps.gz.

Price:1995:PFF

[3568] Dick Price. Pentium FDIV flaw — lessons learned. *IEEE Micro*, 15(2): 88, 86–87, March/April 1995. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic). URL https://ieeexplore.ieee.org/iel1/40/8521/00372360.pdf.

Rogers:1995:UMP

[3569] John Rogers. Using the multiple precision library. *Dr. Dobb's Journal of Software Tools*, 20(1):36, 38, 40, 42, 86, 88–89, January 1995. CODEN DDJOEB. ISSN 1044-789X.

Rubenking:1995:UNI

[3570] Neil J. Rubenking. User-to-user — the natural imperfection of floating-point calculations; customizing the Windows 95 boot process; providing a way for the user to exit. *PC Magazine*, 14(20):293–??, 1995. CODEN PCMGEP. ISSN 0888-8507 (print), 1078-8085 (electronic).

Sammut:1995:AUD

[3571] K. M. Sammut and S. R. Jones. Arithmetic unit design for neural accelerators: cost performance issues. *IEEE Transactions on Computers*, 44(10):1256–1260, October 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=467702`.

Sangwine:1995:CIT

[3572] S. J. Sangwine and D. A. Riach. Colour image thresholding at pixel rate using rational arithmetic hardware. In *Fifth International Conference on Image Processing and its Applications: 4-6 July 1995: venue, Heriot-Watt University, Edinburgh, UK*, pages 828–832. IEE (Institution of Electrical Engineers), London, UK, 1995. ISBN 0-85296-642-3. LCCN A1632 .I553 1995.

Sanyal:1995:CAS

[3573] S. Sanyal. Computer arithmetic systems. *The Computer Journal*, 38(1): 79, ???? 1995. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://comjnl.oxfordjournals.org/content/38/1/79.full.pdf+html`.

Sarma:1995:FBR

[3574] Debjit Das Sarma and David W. Matula. Faithful bipartite ROM reciprocal tables. In Knowles and McAllister [7888], pages 17–29. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Sarma.pdf`.

Schulte:1995:DAV

[3575] M. J. Schulte and E. E. Swartzlander, Jr. Design and applications for variable-precision, interval arithmetic coprocessors. In Kearfott and Kreinovich [7897], pages 166–172. ISBN 0-7923-3847-2. LCCN QA297.75.A66 1996. “Applications of Interval Computations” contains primarily survey articles of actual industrial applications of numerical analysis with automatic result verification and of interval representation of data. Underlying topics include:

- branch and bound algorithms for global optimization,
- constraint propagation,
- solution sets of linear systems,
- hardware and software systems for interval computations, and

- fuzzy logic.

Actual applications described in the book include:

- economic input-output models,
- quality control in manufacturing design,
- a computer-assisted proof in quantum mechanics,
- medical expert systems,
- and others.

A realistic view of interval computations is taken: the articles indicate when and how overestimation and other challenges can be overcome. An introductory chapter explains the content of the papers in terminology accessible to mathematically literate graduate students. The style of the individual, refereed contributions has been made uniform and understandable, and there is an extensive book-wide index. Audience: Valuable to students and researchers interested in automatic result verification. Detailed information, including contents, contributors, and an order form can be found:

- on Kluwer homepage `http://www.wkap.nl`, or
- on the Interval Computations homepage `http://cs.utep.edu/interval-comp/main.html`, in the "Books" section.

The information on the Interval Computations homepage is basically a mirror image of the Kluwer one (the only difference is that the fonts are fancier).

Schulte:1995:HDA

[3576] Michael J. Schulte and Eearl E. Swartzlander, Jr. Hardware design and arithmetic algorithms for a variable-precision, interval arithmetic coprocessor. In Knowles and McAllister [7888], pages 222–229. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `http://mesa.ece.wisc.edu/publications/cp_1995-03.pdf`; `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Schulte.pdf`.

Schulte:1995:PSI

[3577] Michael J. Schulte and Eearl E. Swartzlander, Jr. A processor for staggered interval arithmetic. In Cappello et al. [7883], pages 104–112. ISBN 0-8186-7109-2. ISSN 1063-6862. LCCN TK7874.6 .I57 1995. URL `http://mesa.ece.wisc.edu/publications/cp_1995-02.pdf`. IEEE Computer Society Press order number PR07109. EEE catalog number 95TB8098.

Schwarz:1995:RQC

[3578] E. M. Schwarz. Rounding for quadratically converging algorithms for division and square root. In Singh [7890], pages 600–603. ISBN 0-8186-7370-2. LCCN TK7801 .A83 1995. Two volumes.

Shirazi:1995:QAF

[3579] N. Shirazi, A. Walters, and P. Athanas. Quantitative analysis of floating point arithmetic on FPGA based custom computing machines. In Athanas and Pocek [7881], pages 155–162. ISBN 0-8186-7086-X. LCCN TK79.85 G36 I36 1995.

Sigvartsen:1995:TBF

[3580] Roy L. Sigvartsen and Roar Skogstrøm. A test bench for floating point arithmetic. FFI rapport 95/04099, Forsvarets forskningsinstitut, Kjeller, Norway, 1995. 54 pp.

Sites:1995:AAA

[3581] Richard L. Sites and Richard L. Witek. *Alpha AXP Architecture Reference Manual*. Digital Press, 12 Crosby Drive, Bedford, MA 01730, USA, second edition, 1995. ISBN 1-55558-145-5. various pp. LCCN QA76.9.A73A46 1995. US$52.95.

Siu:1995:TMP

[3582] Kai-Yeung Y. Siu, V. Roychowdhury, and T. Kailath. Toward massively parallel design of multipliers. *Journal of Parallel and Distributed Computing*, 24(1): 86–93, January 1995. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL `http://www.idealibrary.com/links/doi/10.1006/jpdc.1995.1008/production; http://www.idealibrary.com/links/doi/10.1006/jpdc.1995.1008/production/pdf`.

Sleijpen:1995:MCP

[3583] Gèrard L. G. Sleijpen and Henk A. van der Vorst. Maintaining convergence properties of BiCGstab methods in finite precision arithmetic. *Numerical Algorithms*, 10(3–4):203–223, October 1995. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Smith:1995:CFA

[3584] Roger Alan Smith. A continued-fraction analysis of trigonometric argument reduction. *IEEE Transactions on Computers*, 44(11):1348–1351, November 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Smith:1995:FTC

[3585] J. C. Smith and F. J. Taylor. A fault-tolerant CEQRNS processing element for linear systolic array DSP applications. *IEEE Transactions on Computers*, 44(9):1121–1130, September 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=464390`.

Soderquist:1995:APC

[3586] Peter Soderquist and Miriam Leeser. An area/performance comparison of subtractive and multiplicative divide/square root implementations. In Knowles and McAllister [7888], pages 132–139. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Soderquist.pdf`.

Song:1995:RCT

[3587] Gi-Yong Song. *Robust checksum test in algorithm-based fault tolerance on 2-D processor arrays*. Thesis (Ph.D.), University of Southwestern Louisiana, Lafayette, LA, USA, 1995. 95 pp.

Srinivas:1995:FRD

[3588] H. R. Srinivas and K. K. Parhi. A fast radix-4 division algorithm and its architecture. *IEEE Transactions on Computers*, 44(6):826–831, June 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=391179`.

Suarez:1995:CAA

[3589] Elisardo Antelo Suárez. *Algoritmos y arquitecturas CORDIC con aritmética redundante para procesamiento de alta velocidad (Spanish) [CORDIC algorithms and architectures with redundant arithmetic for high-speed processing]*. Tesis doctorales, Universidade de Santiago de Compostela, Santiago de Compostela, Spain, 1995. ix + 210 pp. URL `https://login.ezproxy.lib.utah.edu/login?url=https://www.proquest.com/dissertations-theses/cordic-algorithms-architectures-with-redundant/docview/304224973/se-2`.

Tatsaki:1995:ICB

[3590] A. Tatsaki, T. Stouraitis, and C. Goutis. Image coder based on residue number system for progressive transmission. *Electronics Letters*, 31(6): 442–443, March 1995. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=8573.

Thimbleby:1995:NCW

[3591] Harold Thimbleby. A new calculator and why it is necessary. *The Computer Journal*, 38(6):418–433, ???? 1995. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/38/6/418.full.pdf+html; http://www3.oup.co.uk/computer_journal/Volume_38/Issue_06/Vol38_06.body.html#AbstractThimbleby.

Thomas:1995:IFC

[3592] Jim Thomas and Jerome T. Coonen. An introduction to floating-point C extensions. *C/C++ Users Journal*, 13(1):49–??, January 1995. CODEN CCUJEX. ISSN 1075-2838.

Tsuji:1995:ASF

[3593] K. Tsuji. An algorithm for sum of floating-point numbers without round-off error. In Bainov and Covachev [7882], pages 181–190. ISBN 90-6764-193-6. LCCN QA297.I45 1994.

Turner:1995:PSI

[3594] P. R. Turner Daniel W. Lozier. Parallel and serial implementations of SLI arithmetic. Internal report NISTIT-5660, National Institute of Standards and Technology, Gaithersburg, MD, USA, June 1, 1995.

Ueda:1995:DMA

[3595] T. Ueda. Decimal multiplying assembly and multiply module. U.S. Patent number 5,379,245., January 1995.

VanDrunen:1995:ARA

[3596] R. VanDrunen, L. Spaanenburg, P. Lucassen, and J. A. G. Nijhuis. Arithmetic for relative accuracy. In Knowles and McAllister [7888], pages 208–209, 239–250. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_vanDrunen.pdf.

Vinnakota:1995:IMS

[3597] B. Vinnakota. Implementing multiplication with split read-only memory. *IEEE Transactions on Computers*, 44(11):1352–1356, November 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956

(electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=475134.

Wang:1995:NDT

[3598] Zhongde Wang, G. A. Jullien, and W. C. Miller. A new design technique for column compression multipliers. *IEEE Transactions on Computers*, 44(8):962–970, August 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=403712.

Wei:1995:CNM

[3599] Belle W. Y. Wei, He Du, and Honglu Chen. A complex-number multiplier using radix-4 digits. In Knowles and McAllister [7888], pages 84–90. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Wei.pdf.

Williams:1995:SBA

[3600] T. Williams, N. Patkar, and G. Shen. SPARC64: a 64-b 64-active-instruction out-of-order-execution MCM processor. *IEEE Journal of Solid-State Circuits*, 30(11):1215–1226, November 1995. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Wong:1995:FEE

[3601] W. F. Wong and E. Goto. Fast evaluation of the elementary functions in single precision. *IEEE Transactions on Computers*, 44(3):453–457, March 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Wu:1995:SRM

[3602] Youfeng Wu. Strength reduction of multiplications by integer constants. *ACM SIGPLAN Notices*, 30(2):42–48, February 1995. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Ypma:1995:HDN

[3603] Tjalling J. Ypma. Historical development of the Newton–Raphson method. *SIAM Review*, 37(4):531–551, December 1995. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL http://epubs.siam.org/23425.htm; http://link.aip.org/link/?SIR/37/531/1.

Yu:1995:MRF

[3604] Robert K. Yu and Gregory B. Zyner. 167 MHz radix-4 floating point multiplier. In Knowles and McAllister [7888], pages 149–154. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Yu.pdf.

Zaytoun:1995:SFR

[3605] M. M. Zaytoun and T. J. Owens. State feedback robust to rounding errors. *Electronics Letters*, 31(13):1108–1109, June 22, 1995. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Zhou:1995:HSD

[3606] Feng Zhou and Peter Kornerup. High speed DCT/IDCT using a pipelined CORDIC algorithm. In Knowles and McAllister [7888], pages 180–187. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL http://www.acsel-lab.com/arithmetic/arith12/papers/ARITH12_Feng.pdf.

Ahrendt:1996:FHC

[3607] Timm Ahrendt. Fast high-precision computations of complex square roots. In Lakshman Y.N. [7898], pages 142–149. ISBN 0-89791-796-0. LCCN QA 76.95 I59 1996. URL http://www.acm.org:80/pubs/citations/proceedings/issac/236869/p142-ahrendt/.

Al-Twaijry:1996:OPR

[3608] H. Al-Twaijry and M. J. Flynn. Optimum placement and routing of multiplier partial product trees. Technical report CSL-TR-96-706, Computer Systems Laboratory, Stanford University, Stanford, CA, USA, September 1996.

Alefeld:1996:EII

[3609] G. E. Alefeld, F. A. Potra, and W. Voelker. Effective improvements of the internal-Newton-method. In Alefeld et al. [7892], pages 133–139. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Andraos:1996:FPU

[3610] S. Andraos. Fixed point unsigned fractional representation in residue number system. In *IEEE 39th Midwest symposium on Circuits and Systems, 1996*, volume 1, pages 555–558. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Angarai:1996:NRS

[3611] Vijayanand Jaganaathan Angarai. Number representation schemes for energy efficient computer arithmetic. Thesis (M.S.), University of Texas at Dallas, Dallas, TX, USA, 1996. ix + 57 pp.

Anonymous:1996:DC

[3612] Anonymous. Divide and conquer. In Barry Cipra and Paul Zorn, editors, *What's Happening in the Mathematical Sciences*, volume 3, pages 39–47. American Mathematical Society, Providence, RI, USA, 1996. ISBN 0-8218-0355-7 (paperback). LCCN QA3 .C57 1996. URL `http://www.ams.org/samplings/math-history/divide.pdf`.

Anonymous:1996:FPF

[3613] Anonymous. Floating point — finding electronic/mechanical parts. *Computer-aided engineering: CAE*, 15(1):76–??, 1996. CODEN CCAEDJ. ISSN 0733-3536 (print), 2162-1365 (electronic).

Anonymous:1996:IBT

[3614] Anonymous. Inquiry board traces Ariane 5 failure to overflow error. *SIAM News*, 29(8):1, 12, 13, October 1996. ISSN 0036-1437. URL `http://www.siam.org/siamnews/general/ariane.htm`.

Anonymous:1996:SROa

[3615] Anonymous. *The Square Root of 3 to one million digits*, volume 628 of *Project Gutenberg*. Project Gutenberg, P.O. Box 2782, Champaign, IL 61825-2782, USA, 1996. URL `ftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/etext96/3sqrt10.zip`.

Anonymous:1996:SROb

[3616] Anonymous. *The Square Root of 5 to one million digits*, volume 629 of *Project Gutenberg*. Project Gutenberg, P.O. Box 2782, Champaign, IL 61825-2782, USA, 1996. URL `ftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/etext96/5sqrt10.zip`.

Anonymous:1996:SROc

[3617] Anonymous. *The Square Root of 6 to one million digits*, volume 630 of *Project Gutenberg*. Project Gutenberg, P.O. Box 2782, Champaign, IL 61825-2782, USA, 1996. URL `ftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/etext96/6sqrt10.zip`.

Anonymous:1996:SROd

[3618] Anonymous. *The Square Root of 7 to one million digits*, volume 631 of *Project Gutenberg*. Project Gutenberg, P.O. Box 2782, Champaign, IL 61825-2782, USA, 1996. URL `ftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/etext96/7sqrt10.zip`.

Anonymous:1996:SROe

[3619] Anonymous. *The Square Root of 8 to one million digits*, volume 632 of *Project Gutenberg*. Project Gutenberg, P.O. Box 2782, Champaign, IL 61825-2782, USA, 1996. URL `ftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/etext96/8sqrt10.zip`.

Anonymous:1996:SROf

[3620] Anonymous. *The Square Root of 10 to one million digits*, volume 635 of *Project Gutenberg*. Project Gutenberg, P.O. Box 2782, Champaign, IL 61825-2782, USA, 1996. URL `ftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/etext96/10srt10.zip`.

Antelo:1996:HRC

[3621] E. Antelo, J. D. Bruguera, T. Lang, J. Villalba, and E. L. Zapata. *High radix CORDIC rotation based on selection by rounding*, pages 155–164. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1996. ISBN 3-540-70636-4. ISSN 1611-3349.

Anuta:1996:BLA

[3622] M. A. Anuta, Daniel W. Lozier, N. Schabanel, and P. R. Turner. Basic linear algebra operations in SLI arithmetic. In Bouge [7894], pages 193–202. ISBN 3-540-61626-8 (vol. 1), 3-540-61627-6 (vol. 2). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.58.I554 1996. URL `http://math.nist.gov/acmd/Staff/DLozier/publications/nistir5811.ps.Z`; `https://www.nist.gov/publications/basic-linear-algebra-operations-sli-arithmetic`.

Anuta:1996:MMC

[3623] M. A. Anuta, Daniel W. Lozier, and P. R. Turner. The MasPar MP-1 as a computer arithmetic laboratory. *Journal of Research of the National Bureau of Standards*, 101(2):165–174, March/April 1996. CODEN JRNBAG. ISSN 0091-0635 (print), 2376-5305 (electronic). URL `https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907584/`.

Arioli:1996:REA

[3624] M. Arioli and C. Fassino. Roundoff error analysis of algorithms based on Krylov subspace methods. *BIT Numerical Mathematics*, 36(2):189–

205, June 1996. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.mai.liu.se/BIT/contents/bit36.html; http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=36&issue=2&spage=189.

Bajard:1996:NED

[3625] J.-C. Bajard, L.-S. Didier, and Jean-Michel Muller. A new Euclidean division algorithm for residue number systems. In *Proceedings of International Conference on Application Specific Systems, Architectures and Processors, 1996. ASAP 96*, pages 45–54. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Barber:1996:QAC

[3626] C. Bradford Barber, David P. Dobkin, and Hannu Huhdanpaa. The Quickhull Algorithm for convex hulls. *ACM Transactions on Mathematical Software*, 22(4): 469–483, December 1996. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1996-22-4/p469-barber/.

Berlejung:1996:PSM

[3627] H. M. E. Berlejung. Processing software metrics in an integrated development environment for Pascal-XSC. In Alefeld et al. [7892], pages 79–83. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Berner:1996:PMV

[3628] S. Berner. A parallel method for verified global optimization. In Alefeld et al. [7892], pages 200–206. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Blum:1996:RPD

[3629] Manuel Blum and H. Wasserman. Reflections on the Pentium division bug. *IEEE Transactions on Computers*, 45(4):385–393, April 1996. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://http.cs.berkeley.edu/~blum/pentium.ps; http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=494097.

Bockenfeld:1996:TNT

[3630] Don Bockenfeld. TSQRT: a new trick for an old dog. *C/C++ Users Journal*, 14(3):39–41, March 1996. CODEN CCUJEX. ISSN 1075-2838. Implements a small table-driven square root function in C, using exclusively integer operations.

Burger:1996:PFP

[3631] Robert G. Burger and R. Kent Dybvig. Printing floating-point numbers quickly and accurately. *ACM SIGPLAN Notices*, 31(5): 108–116, May 1996. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL `http://www.acm.org:80/pubs/citations/proceedings/pldi/231379/p108-burger/`. This paper offers a significantly faster algorithm than that of [2658], together with a correctness proof and an implementation in Scheme. See also [2563, 4043, 5019, 4907].

Burnikel:1996:HPF

[3632] Christoph Burnikel and Jochen Könemann. High precision floating point numbers in LEDA. Report MPI I 96 1 002, Max-Planck-Institut für Informatik, Saarbrücken, Germany, 1996. 7 pp.

Candev:1996:AIA

[3633] M. Candev. On the application of an interval algorithm for set inversion. In Alefeld et al. [7892], pages 140–146. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Cappuccino:1996:DDH

[3634] G. Cappuccino, P. Corsonello, and G. Cocorullo. Design and demonstration of high throughput square rooting circuit. *Electronics Letters*, 32(5):434, ???? 1996. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Chaitin-Chatelin:1996:FPA

[3635] F. Chaitin-Chatelin. Is finite precision arithmetic useful for physics? *J.UCS: Journal of Universal Computer Science*, 2(5):380–??, May 28, 1996. CODEN ???? ISSN 0948-6968. URL `http://www.jucs.org/is_finite_precision_arithmetic_useful_for_physics`.

Chaitin-Chatelin:1996:LFP

[3636] Françoise Chaitin-Chatelin and Valérie Frayssé. *Lectures on Finite Precision Computations*. Software, environments, tools. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1996. ISBN 0-89871-358-7. xv + 235 pp. LCCN QA297 .C417 1996.

Chen:1996:VAC

[3637] Y.-A. Chen, E. Clarke, P.-H. Ho, Y. Hoskote, T. Kam, M. Khaira, J. O. Leary, and X. Zhao. Verification of all circuits in a floating-point unit using word-level model checking. *Lecture Notes in Computer Science*,

1166:19–33, 1996. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Chesneaux:1996:CSS

[3638] J.-M. Chesneaux and B. Troff. Computational stability study using the CADNA software applied to the Navier–Stokes solver PEGASE. In Alefeld et al. [7892], pages 84–90. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Chren:1996:DPP

[3639] W. A. Chren, Jr., C. H. Brogdon, and D. Andrevska. Delay-power product simulation results for one-hot residue number system arithmetic circuits. In *IEEE 39th Midwest symposium on Circuits and Systems, 1996*, volume 1, pages 544–547. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Chren:1996:DSD

[3640] W. A. Chren, Jr. Delta-sigma demodulator with large oversampling ratio using the one-hot residue number system. In *IEEE International Symposium on Circuits and Systems. ISCAS '96, Connecting the World, 12–15 May 1996*, volume 2, pages 473–476. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Chren:1996:RDU

[3641] W. A. Chren, Jr. and C. H. Brogdon. RSA decryption using the one-hot residue number system. In *IEEE 39th Midwest symposium on Circuits and Systems, 1996*, volume 1, pages 551–554. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Ciminiera:1996:CSM

[3642] L. Ciminiera and P. Montuschi. Carry-save multiplication schemes without final addition. *IEEE Transactions on Computers*, 45(9):1050–1055, September 1996. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=537128`.

Clarke:1996:VSD

[3643] E. M. Clarke, S. M. German, and X. Zhao. Verifying the SRT division algorithm using theorem proving techniques. *Lecture Notes in Computer Science*, 1102:111–??, 1996. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Clarke:1996:WLS

[3644] E. M. Clarke, M. Khaira, and X. Zhao. Word-level symbolic model checking: avoiding the Pentium FDIV error. In IEEE [7896], pages 645–648. ISBN 0-7803-3294-6 (casebound), 0-7803-3364-0 (softbound), 0-7803-3295-4 (microfiche), 0-89791-779-0 (ACM). LCCN TA174 .D46 1996. URL `http://www.acm.org/pubs/articles/proceedings/dac/240518/p645-clarke/p645-clarke.pdf`; `http://www.acm.org/pubs/citations/proceedings/dac/240518/p645-clarke/`; `http://www.acm.org/pubs/contents/proceedings/dac/240518/`. ACM order number 47796. IEEE catalog number 96CH35932.

Corliss:1996:VPE

[3645] G. F. Corliss and R. Rihm. Validating an A priori enclosure using high-order Taylor series. In Alefeld et al. [7892], pages 228–238. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Crenshaw:1996:PTF

[3646] Jack W. Crenshaw. Programmer's toolbox: Floating-point math, part 3. *Embedded Systems Programming*, 9(1):19–??, 1996. CODEN EYPRE4. ISSN 1040-3272.

Darcy:1996:FMF

[3647] Joseph D. Darcy and David Gay. FLECKmarks: Measuring floating point performance using a FulL IEEE Compliant Arithmetic BenchmarK. Technical report, Department of Computer Science, University of California, Berkeley, Berkeley, CA, USA, December 1996. URL `http://www.cs.berkeley.edu/~darcy/Research/fleckmrk.pdf`.

Dimitrov:1996:NCD

[3648] V. Dimitrov, Saeid Sadeghi-Emamchaie, G. A. Jullien, and W. C. Miller. Near canonic double-based number system (DBNS) with applications in digital signal processing. In Luk [7899], pages 14–25. ISBN 0-8194-2234-7. LCCN ???? URL `http://spie.org/x648.html?product_id=235316`; `http://www.gbv.de/dms/bowker/toc/9780819422347`.

Dimitrov:1996:RNS

[3649] V. S. Dimitrov, G. A. Jullien, and W. C. Miller. A residue number system implementation of real orthogonal transforms via approximation over a direct product of quadratic number rings. In *IEEE 39th Midwest symposium on Circuits and Systems, 1996*, volume 1, pages 533–536. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Dimitrova:1996:NAS

[3650] N. S. Dimitrova. On a numerical approach for solving a class of nonlinear systems. In Alefeld et al. [7892], pages 147–153. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Djebbari:1996:GAS

[3651] A. Djebbari, S. A. Elahmar, M. F. Belbachir, and J. M. Rouvaen. Global asymptotic stability of normal digital filters with rounding and two's complement truncation quantization. In *3rd International Conference on Signal Processing, 1996*, volume 1, pages 154–157. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Dobner:1996:AAD

[3652] H.-J. Dobner and W. Klein. Application of automatic differentiation techniques to circuit simulation. In Alefeld et al. [7892], pages 329–333. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Dobronets:1996:PEE

[3653] B. S. Dobronets. A posteriori error estimation for partial differential equations. In Alefeld et al. [7892], pages 239–244. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

El-Guibaly:1996:HSC

[3654] Fayez El-Guibaly and A. Sabaa. High-speed CORDIC algorithm. In Luk [7899], page 512. ISBN 0-8194-2234-7. LCCN ???? URL `http://spiedigitallibrary.org/proceedings/resource/2/psisdg/2846/1`.

Farag:1996:LPR

[3655] Emad N. Farag, M. Anwarul Hasan, and Mohamed I. Elmasry. Low-power radix 2 division algorithm with minimum add/sub operations. In Luk [7899], pages 39–511. ISBN 0-8194-2234-7. LCCN ???? URL `http://spiedigitallibrary.org/proceedings/resource/2/psisdg/2846/1`.

Feldstein:1996:OUM

[3656] Alan Feldstein and Peter R. Turner. Overflow and underflow in multiplication and division. *Applied Numerical Mathematics*, 21(3):221–239, August 20, 1996. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/apnum/cas_sub/browse/browse.cgi?year=1996&volume=21&issue=3&aid=692`.

Fenn:1996:MDD

[3657] S. T. J. Fenn, M. Benaissa, and D. Taylor. GF(2^m) multiplication and division over the dual basis. *IEEE Transactions on Computers*, 45(3): 319–327, March 1996. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=485570.

Flynn:1996:SPT

[3658] Michael J. Flynn, Stuart Oberman, Steve Fu, Hesham Al-Twaijry, Kevin Nowka, Gary Bewick, Eric Schwarz, and Nhon Quach. The SNAP project: Towards sub-nanosecond arithmetic. In *NSF/MIPS Conference on Experimental Research on Computer Systems, June 1996*, page ?? ????, ????, 1996. URL ftp://arith.stanford.edu/tr/snap_nsf.ps.Z.

Fortune:1996:SAY

[3659] Steven Fortune and Christopher J. Van Wyk. Static analysis yields efficient exact integer arithmetic for computational geometry. *ACM Transactions on Graphics*, 15(3):223–248, July 1996. CODEN ATGRDF. ISSN 0730-0301 (print), 1557-7368 (electronic). URL http://www.acm.org/pubs/toc/Abstracts/0730-0301/230533.html.

Ganesan:1996:CSM

[3660] Ravikanth Ganesan, Kannan Govindarajan, and Min-You Wu. Comparing SIMD and MIMD programming modes. *Journal of Parallel and Distributed Computing*, 35(1):91–96, May 25, 1996. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL http://www.idealibrary.com/links/doi/10.1006/jpdc.1996.0071/production; http://www.idealibrary.com/links/doi/10.1006/jpdc.1996.0071/production/pdf.

Garg:1996:FTP

[3661] H. K. Garg and F. V. C. Mendis. On fault-tolerant polynomial residue number systems. In *Conference Record of the Thirtieth Asilomar Conference on Signals, Systems and Computers, 1996*, volume 1, pages 206–209. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Gibb:1996:FFI

[3662] S. Gibb, P. J. W. Graumann, and Laurence E. Turner. FIR filter implementation using bit-serial arithmetic and partial summation trees. In Luk [7899], pages 63–74. ISBN 0-8194-2234-7. LCCN

???? URL http://spiedigitallibrary.org/proceedings/resource/2/psisdg/2846/1.

Goldberg:1996:CA

[3663] David Goldberg. Computer arithmetic. In *Computer Architecture—A Quantitative Approach* [7895], chapter A, pages A–1–A–77. ISBN 1-55860-329-8. LCCN QA76.9.A73P377 1995. US$69.95.

Goldstine:1996:ENI

[3664] H. H. Goldstine and A. Goldstine. The Electronic Numerical Integrator and Computer (ENIAC). *IEEE Annals of the History of Computing*, 18(1):10–16, Spring 1996. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic). URL https://ieeexplore.ieee.org/iel4/85/10202/00476557.pdf. Reprint of 1946 technical report and [62].

Gudenberg:1996:HSI

[3665] J. W. Von Gudenberg. Hardware support for interval arithmetic. In Alefeld et al. [7892], pages 32–37. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Guedj:1996:EN

[3666] Denis Guedj. *L'empire des nombres*. Gallimard, Paris, France, 1996. ISBN 2-07-053373-5. 176 pp. LCCN ????

Gupta:1996:AAG

[3667] S. Gupta, J. Rajski, and J. Tyszer. Arithmetic additive generators of pseudo-exhaustive test patterns. *IEEE Transactions on Computers*, 45 (8):939–949, August 1996. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=536236.

Guyot:1996:STD

[3668] A. Guyot, M. Renaudin, B. El Hassan, and V. Levering. Self timed division and square-root extraction. In *Proceedings of the Ninth International Conference on VLSI Design, 1996*, pages 376–381. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Haller:1996:AFP

[3669] G. M. Haller and D. R. Freytag. Analog floating-point BiCMOS sampling chip and architecture of the BaBar CsI calorimeter front-end electronics system at the SLAC B-factory. *IEEE Transactions on Nuclear Science*, 43(3):1610–1614, June 1996. CODEN IRNSAM. ISSN 0018-9499 (print), 1558-1578 (electronic).

Hamacher:1996:CO

[3670] V. Carl Hamacher, Zvonko G. Vranesic, and Safwat G. Zaky. *Computer organization*. McGraw-Hill series in computer organization and architecture. McGraw-Hill, New York, NY, USA, fourth edition, 1996. ISBN 0-07-025883-X. xix + 555 pp. LCCN QA76.9.C643 H36 1996.

Hartwig:1996:RNA

[3671] F. Hartwig and A. Lacroix. Roundoff noise analysis on the basis of an improved floating point error model. In *IEEE International Symposium on Circuits and Systems: ISCAS '96, 'Connecting the World', 12–15 May 1996*, volume 2, pages 133–136. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Hauser:1996:HFE

[3672] John R. Hauser. Handling floating-point exceptions in numeric programs. *ACM Transactions on Programming Languages and Systems*, 18(2):139–174, March 1996. CODEN ATPSDT. ISSN 0164-0925 (print), 1558-4593 (electronic). URL http://www.acm.org/pubs/toc/Abstracts/0164-0925/227701.html.

Heck:1996:IM

[3673] André Heck. *Introduction to Maple*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., second edition, 1996. ISBN 0-387-94535-0 (hardcover), 1-4684-0484-9, 1-4684-0486-5. xx + 699 pp. LCCN QA155.7.E4H43 1993. US$39.00.

Hecker:1996:LGF

[3674] Chris Hecker. Let's get to the (floating) point. *Game Developer*, 2(??):19–24, February/March 1996. ISSN 1073-922X. URL http://chrishecker.com/images/f/fb/Gdmfp.pdf; https://www.gamasutra.com/php-bin/store.php?item_id=220&category=22&book=. accurate floating-point summation; splitting of floating-point numbers into high and low parts.

Heikes:1996:DFP

[3675] Craig Heikes and Glenn Colon-Bonet. A dual floating point coprocessor with an FMAC architecture. In Wuorinen [7903], pages 354–355. ISBN 0-7803-3137-0 (casebound), 0-7803-3136-2 (softbound), 0-7803-3138-9 (microfiche). LCCN TK7870 .I58 1996.

Heindl:1996:MVC

[3676] G. Heindl. A method for verified computing of inner and outer approximations of the interval hull of a tolerance polyhedron. In Alefeld et al. [7892], pages 207–213. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Heinrich:1996:AAF

[3677] Peter Heinrich. Algorithm alley: a fast integer square root. *Dr. Dobb's Journal of Software Tools*, 21(4):113–114, 130, April 1996. CODEN DDJOEB. ISSN 1044-789X.

Herzberger:1996:OCC

[3678] J. Herzberger. On the R-order of convergence of a class of simultaneous methods for the inclusions of polynomial roots. In Alefeld et al. [7892], pages 154–159. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Hickey:1996:FSP

[3679] Timothy J. Hickey and Qun Ju. Fast, sound, and precise narrowing of the exponential function. Technical report, Computer Science Department, Brandeis University, Waltham, MA, USA 02254, March 1996. URL `http://www.cs.brandeis.edu/~tim/Papers/eiianuia.ps.gz`.

Higham:1996:ASN

[3680] Nicholas J. Higham. *Accuracy and Stability of Numerical Algorithms*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1996. ISBN 0-89871-355-2 (paperback). xxviii + 688 pp. LCCN QA297.H53 1996. US$39.00. URL `http://www.ma.man.ac.uk/~higham/asna.html`.

Hong:1996:NMM

[3681] Seong-Min Hong, Sang-Yeop Oh, and Hyunsoo Yoon. New modular multiplication algorithms for fast modular exponentiation. *Lecture Notes in Computer Science*, 1070:166–??, 1996. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/1070/10700166.htm; http://link.springer-ny.com/link/service/series/0558/papers/1070/10700166.pdf`.

Hyvoenen:1996:SCE

[3682] E. Hyvoenen and S. De Pascale. Shared computations for efficient interval functions evaluation. In Alefeld et al. [7892], pages 38–44. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Inacio:1996:DDF

[3683] Christopher Inacio and Denise Ombres. The DSP decision: fixed point or floating? *IEEE Spectrum*, 33(9):72–74, September 1996. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

ISO:1996:TRF

[3684] ISO/IEC JTC1/SC22/WG5 — N1231. Technical report for floating-point exception handling. *ACM Fortran Forum*, 15(3):1–28, December 1996. CODEN ???? ISSN 1061-7264 (print), 1931-1311 (electronic). 7th October 1996.

Ito:1996:SRI

[3685] Masayuki Ito, Naofumi Takagi, and Shuzo Yajima. Square rooting by iterative multiply-additions. *Information Processing Letters*, 60(5):267–269, December 8, 1996. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Jayasuriya:1996:MAU

[3686] Kumara Jayasuriya. Multiprecision arithmetic using fast Hartley transforms. *Applied Mathematics and Computation*, 75(2–3):239–251, March 15, 1996. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL http://www.sciencedirect.com/science/article/pii/0096300396900673.

Jessani:1996:FPU

[3687] R. M. Jessani and C. H. Olson. The floating point unit of the PowerPC 603e microprocessor. *IBM Journal of Research and Development*, 40(5):559–566, September 1996. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.almaden.ibm.com/journal/rd40-5.html#four.

Jullien:1996:VDS

[3688] Graham A. Jullien. VLSI digital signal processing: Some arithmetic issues. In Luk [7899], pages 1–13. ISBN 0-8194-2234-7. LCCN ???? URL http://www.atips.ca/research/documents/ca/aa/1996_keynote.pdf.

Kahan:1996:BEC

[3689] W. Kahan. The baleful effect of computer benchmarks upon applied mathematics, physics, and chemistry. World-Wide Web document., 1996. URL http://www.cs.berkeley.edu/~wkahan/ieee754status/baleful.ps.

Kahan:1996:LNS

[3690] W. Kahan. Lecture notes on the status of IEEE Standard 754 for binary floating-point arithmetic. World-Wide Web document., 1996. URL `http://www.cs.berkeley.edu/~wkahan/ieee754status/ieee754.ps`.

Kahan:1996:WCY

[3691] W. Kahan. What can you learn about floating-point arithmetic in one hour? Postscript version accessible electronically at `http://http.cs.berkeley.edu/~wkahan/ieee754status.`, 1996. URL `http://www.cs.berkeley.edu/~wkahan/ieee754status/cs267fp.ps`.

Kalantari:1996:HOI

[3692] B. Kalantari and I. Kalantari. High order iterative methods for approximating square roots. *BIT Numerical Mathematics*, 36(2):395–399, June 1996. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.mai.liu.se/BIT/contents/bit36.html; http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=36&issue=2&spage=395`.

Kalliojarvi:1996:REB

[3693] K. Kalliojarvi and J. Astola. Roundoff errors in block-floating-point systems. *IEEE Transactions on Signal Processing*, 44(4):783–790, April 1996. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Kane:1996:PRA

[3694] Gerry Kane. *PA-RISC 2.0 Architecture*. Prentice-Hall PTR, Upper Saddle River, NJ 07458, USA, 1996. ISBN 0-13-182734-0. various pp. LCCN QA76.8.H48K36 1996. US$34.40. URL `http://devresource.hp.com/devresource/Docs/Refs/PA2_0/index.html; http://devresource.hp.com/devresource/Docs/Refs/PA2_0/updates/index.html`.

Katti:1996:NRA

[3695] Rajendra S. Katti. A new residue arithmetic error correction scheme. *IEEE Transactions on Computers*, 45(1):13–19, January 1996. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=481482`.

Kearfott:1996:OPI

[3696] R. B. Kearfott and X. Shi. Optimal preconditioners for interval Gauss–Seidel methods. In Alefeld et al. [7892], pages 173–178. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Kearfott:1996:TNS

[3697] R. B. Kearfott. Treating non-smooth functions as smooth functions in global optimization and nonlinear systems solvers. In Alefeld et al. [7892], pages 160–172. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Koeber:1996:IIF

[3698] M. Koeber. Inclusion of the inverse of a functions in n variables. In Alefeld et al. [7892], pages 179–185. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Kowaleski:1996:DEP

[3699] J. A. Kowaleski, G. M. Wolrich, T. C. Fischer, R. J. Dupcak, P. L. Kroesen, T. Pham, and A. Olesin. A dual execution pipelined floating-point CMOS processor. In Wuorinen [7903], pages 358–359. ISBN 0-7803-3137-0 (casebound), 0-7803-3136-2 (softbound), 0-7803-3138-9 (microfiche). LCCN TK7870 .I58 1996.

Kraemer:1996:CNI

[3700] W. Kraemer and S. Wedner. Computing narrow inclusions for Cauchy principal value integrals. In Alefeld et al. [7892], pages 45–51. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Kreinovich:1996:CCI

[3701] V. Kreinovich, A. Lakeyev, and J. Rohn. Computational complexity of interval algebraic problems: Some are feasible and some are computationally intractable — a survey. In Alefeld et al. [7892], pages 293–306. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Ley:1996:PDU

[3702] Eduardo Ley. On the peculiar distribution of the U.S. stock indexes' digits. *The American Statistician*, 50(4):311–313, November 1996. CODEN ASTAAJ. ISSN 0003-1305 (print), 1537-2731 (electronic). URL `http://www.jstor.org/stable/2684926`.

Li:1996:NNR

[3703] Yamin Li and Wanming Chu. A new non-restoring square root algorithm and its VLSI implementations. In *Proceedings of the IEEE International Conference on Computer Design: VLSI in Computers and Processors: ICCD '96*, pages 538–544. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Lions:1996:AFF

[3704] Jacques-Louis Lions, Mauro Balduccini, Yvan Choquer, Remy Hergott, Bernard Humbert, and Eric Lefort. Ariane 5 Flight 501 failure, report by the Inquiry Board. Technical report, European Space Agency, Paris, France, 1996. URL http://sunnyday.mit.edu/accidents/Ariane5accidentreport.html. From the foreword: "On 4 June 1996, the maiden flight of the Ariane 5 launcher ended in a failure. Only about 40 seconds after initiation of the flight sequence, at an altitude of about 3700 m, the launcher veered off its flight path, broke up and exploded. Engineers from the Ariane 5 project teams of CNES and Industry immediately started to investigate the failure." From the report: "The internal SRI software exception was caused during execution of a data conversion from 64-bit floating point to 16-bit signed integer value. The floating point number which was converted had a value greater than what could be represented by a 16-bit signed integer. This resulted in an Operand Error. The data conversion instructions (in Ada code) were not protected from causing an Operand Error, although other conversions of comparable variables in the same place in the code were protected.".

Lo:1996:CBC

[3705] Jien-Chung Lo, S. Thanawastien, and T. R. N. Rao. Correction to "Berger Check Prediction for Array Multipliers and Array Dividers". *IEEE Transactions on Computers*, 45(3):383, March 1996. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=485579. See [3188].

Louca:1996:IIS

[3706] L. Louca, T. A. Cook, and W. H. Johnson. Implementation of IEEE single precision floating point addition and multiplication on FPGAs. In Pocek and Arnold [7901], pages 107–116. ISBN 0-8186-7548-9. LCCN TK7895.G36 I35 1996. URL https://ieeexplore.ieee.org/servlet/opac?punumber=4230. IEEE catalog number 96TB100063.

Lozier:1996:EBL

[3707] Daniel W. Lozier and P. R. Turner. Error-bounding in level-index computer arithmetic. In Alefeld and Herzberger [7891], pages 138–145. ISBN 3-05-501696-3. ISSN 0138-3019. LCCN QA297 .I455 1995. URL http://math.nist.gov/acmd/Staff/DLozier/publications/oldenburg95.ps.Z.

Luther:1996:CAG

[3708] W. Luther and W. Otten. The complex arithmetic-geometric mean and multiple-precision matrix functions. In Alefeld et al. [7892], pages 52–58. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

MacDonald:1996:NSS

[3709] D. A. MacDonald. A note on the summation of slowly convergent alternating series. *BIT Numerical Mathematics*, 36(4):766–774, December 1996. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.mai.liu.se/BIT/contents/bit36.html; http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=36&issue=4&spage=766.

Macpherson:1996:RAP

[3710] George W. Macpherson. A reusable Ada package for scientific dimensional integrity. *ACM SIGADA Ada Letters*, 16(3):56–69, May/June 1996. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Maeder:1996:MPLa

[3711] Roman E. Maeder. The Mathematica programmer: Long integers: Basic arithmetic and data types. *Mathematica Journal*, 6(2):32–40, Spring 1996. CODEN ???? ISSN 1047-5974 (print), 1097-1610 (electronic). URL http://www.mathematica-journal.com/issue/v6i2/columns/maeder/index.html; http://www.mathematica-journal.com/issue/v6i2/columns/maeder/maeder62.pdf.

Maeder:1996:MPLb

[3712] Roman E. Maeder. The Mathematica programmer: Long integers: Efficient algorithms. *Mathematica Journal*, 6(3):37–43, Summer 1996. CODEN ???? ISSN 1047-5974 (print), 1097-1610 (electronic). URL http://www.mathematica-journal.com/issue/v6i3/columns/maeder/contents/63maeder.pdf; http://www.mathematica-journal.com/issue/v6i3/columns/maeder/index.html.

Makino:1996:MBF

[3713] H. Makino, H. Suzuki, H. Morinaka, Y. Nakase, K. Mashiko, and T. Sumi. A 286 MHz 64-b floating point multiplier with enhanced CG operation. *IEEE Journal of Solid-State Circuits*, 31(4):504–513, April 1996. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Manickavasagam:1996:ATI

[3714] SenthilKumar Manickavasagam. "$a + b$" arithmetic: theory and implementation. Thesis (M.S.), Electrical Engineering and Computer Science, Ohio University, Athens, OH, USA, 1996. xi + 152 pp.

Manning:1996:FS

[3715] Evan Manning. Floating-point summation. *C/C++ Users Journal*, 14 (9):51–??, September 1996. CODEN CCUJEX. ISSN 1075-2838.

Markov:1996:FIA

[3716] S. M. Markov. On the foundations of interval arithmetic. In Alefeld et al. [7892], pages 307–313. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Mayer:1996:SEI

[3717] G. Mayer. Success in epsilon-inflation. In Alefeld et al. [7892], pages 98–104. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Mikov:1996:LSA

[3718] Alexander I. Mikov. Large-scale addition of machine real numbers: Accuracy estimates. *Theoretical Computer Science*, 162(1):151–170, August 05, 1996. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/tcs/cas_sub/browse/browse.cgi?year=1996&volume=162&issue=1&aid=2194`.

Miner:1996:VIC

[3719] Paul S. Miner and James F. Leathrum, Jr. Verification of IEEE compliant subtractive division algorithms. In Srivas and Camilleri [7902], pages 64–78. ISBN 3-540-61937-2. LCCN TK7874.65 .F53 1996. URL `http://www.ece.odu.edu/~leathrum/Formal_Methods/computer_arithmetic/fmcad.ps`.

Moler:1996:CCF

[3720] Cleve B. Moler. Cleve's corner: Floating points: IEEE Standard unifies arithmetic model. Technical note, The MathWorks, Inc., 3 Apple Hill Drive, Natick, MA 01760-2098, USA, Fall 1996. 3 pp. URL `http://www.mathworks.com/company/newsletter/pdf/Fall96Cleve.pdf`.

Mraz:1996:ELB

[3721] F. Mraz. The exact lower bound of optimal values in interval LP. In Alefeld et al. [7892], pages 214–220. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Mrozek:1996:IPC

[3722] M. Mrozek. Inheritable properties and computer assisted proofs in dynamics. In Alefeld et al. [7892], pages 245–257. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Muller:1996:CES

[3723] Michael Müller, Christine Rüb, and Wolfgang Rülling. A circuit for exact summation of floating-point numbers. *Information Processing Letters*, 57(3):159–163, February 12, 1996. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Muller:1996:TER

[3724] Jean-Michel Muller and A. Tisserand. Towards exact rounding of the elementary functions. In Alefeld et al. [7892], pages 59–71. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Nakao:1996:GEB

[3725] M. T. Nakao, N. Yamamoto, and Y. Watanabe. Guaranteed error bounds for finite element solutions of the Stokes problem. In Alefeld et al. [7892], pages 258–264. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Nonnenmacher:1996:LCS

[3726] A. Nonnenmacher and D. A. Mlynski. Liquid crystal simulation using automatic differentiation and interval arithmetic. In Alefeld et al. [7892], pages 334–340. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Oberman:1996:DIH

[3727] Stuart Franklin Oberman. *Design Issues in High Performance Floating Point Arithmetic Units*. Thesis (Ph.D.), Department of Electrical Engineering, Stanford University, Stanford, CA, USA, November 1996. xiv + 151 pp. URL `ftp://umunhum.stanford.edu/tr/oberman.nov96.thesis.ps.Z`; `https://www.proquest.com/pqdtglobal/docview/304386888`.

Oberman:1996:FIR

[3728] Stuart F. Oberman and Michael J. Flynn. Fast IEEE rounding for division by functional iteration. Technical Report CSL-TR-96-700, Stanford University, Stanford, CA, USA, July 1996. v + 16 pp. URL http://i.stanford.edu/pub/cstr/reports/csl/tr/96/700/CSL-TR-96-700.pdf.

Oberman:1996:IDO

[3729] Stuart F. Oberman and Michael J. Flynn. Implementing division and other floating-point operations: a system perspective. In Alefeld et al. [7892], pages 18–24. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995. URL ftp://arith.stanford.edu/tr/scan_system.ps.Z.

Oberman:1996:RDL

[3730] S. F. Oberman and M. J. Flynn. Reducing division latency with reciprocal caches. *Reliable Computing = Nadezhnye vychisleniia*, 2(2): 147–153, April 1996. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL ftp://arith.stanford.edu/tr/scan_recip.ps.Z.

Oberman:1996:VLP

[3731] S. F. Oberman and M. J. Flynn. A variable latency pipelined floating-point adder. *Lecture Notes in Computer Science*, 1124:183–192, 1996. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL ftp://arith.stanford.edu/tr/fpadd_euro.ps.Z.

Oklobdzija:1996:MSO

[3732] V. G. Oklobdzija, D. Villeger, and S. S. Liu. A method for speed optimized partial product reduction and generation of fast parallel multipliers using an algorithmic approach. *IEEE Transactions on Computers*, 45(3):294–306, March 1996. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=485568.

Paar:1996:NAP

[3733] C. Paar. A new architecture for a parallel finite field multiplier with low complexity based on composite fields. *IEEE Transactions on Computers*, 45(7):856–861, July 1996. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=508323.

Parhami:1996:CHS

[3734] B. Parhami, S. Kawahito, M. Ishida, T. Nakamura, M. Kameyama, and T. Higuchi. Comments on “High-speed area-efficient multiplier design using multiple-valued current-mode circuits”. *IEEE Transactions on Computers*, 45(5):637–639, May 1996. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=509918. See [3357].

Park:1996:OHW

[3735] Edwards Park. The object at hand: What a difference the Difference Engine made: from Charles Babbage’s calculator emerged today’s computer. *Smithsonian*, 26(11):20–??, February 01, 1996. CODEN SMSNA5. ISSN 0037-7333 (print), 1930-5508 (electronic).

Park:1996:PAG

[3736] Taegeun Park. A parallel algorithm for global routing using an associative processor. *Journal of Parallel and Distributed Computing*, 38(1):51–62, October 10, 1996. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL http://www.idealibrary.com/links/doi/10.1006/jpdc.1996.0128/production; http://www.idealibrary.com/links/doi/10.1006/jpdc.1996.0128/production/pdf.

Petunin:1996:UMI

[3737] D. Petunin and A. Semenov. The use of multi-intervals in the UniCalc solver. In Alefeld et al. [7892], pages 91–97. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Plum:1996:ETP

[3738] M. Plum. Enclosure for two-point boundary value problems near bifurcation points. In Alefeld et al. [7892], pages 265–279. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Popova:1996:IOI

[3739] E. D. Popova. Interval operations involving NaNs. *Reliable Computing = Nadezhnye vychisleniia*, 2(2):161–166, June 1996. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

Posch:1996:DRN

[3740] K. C. Posch and R. Posch. Division in residue number systems involving length indicators. *Journal of Computational and Applied Mathematics*, 66(1–2):411–419, January 31, 1996. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/0377042795001646.

Price:1996:RA

[3741] David T. Price. Remark on Algorithm 715. *ACM Transactions on Mathematical Software*, 22(2):258, June 1996. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1996-22-2/p258-price/. See [3119].

Rao:1996:NHS

[3742] Vishwas M. Rao and Behrouz Nowrouzian. Novel high-speed bit-parallel multiply accumulate arithmetic architecture. In Luk [7899], pages 26–38. ISBN 0-8194-2234-7. LCCN ???? URL http://spiedigitallibrary.org/proceedings/resource/2/psisdg/2846/1.

Rao:1996:RTS

[3743] V. M. Rao and B. Nowrouzian. Rounding techniques for signed binary arithmetic. In *Canadian Conference on Electrical and Computer Engineering. 26–29 May 1996*, volume 1, pages 294–297. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Ratz:1996:BRS

[3744] D. Ratz. On branching rules in second-order branch-and-bound methods for global optimization. In Alefeld et al. [7892], pages 221–227. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Reid:1996:RFF

[3745] J. K. Reid. Remark on "Fast Floating-Point Processing in Common Lisp". *ACM Transactions on Mathematical Software*, 22(4):496–497, December 1996. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1996-22-4/p496-reid/. See [3493].

Rump:1996:DBR

[3746] Siegfried M. Rump. The distance between regularity and strong regularity. In Alefeld et al. [7892], pages 105–117. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Sarma:1996:HRT

[3747] D. Das Sarma and D. W. Matula. Hardware reciprocal table compression/decompression techniques. In Alefeld et al. [7892], pages

11–17. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Saunders:1996:TGF

[3748] Kevin Saunders. Third generation floating point DSP design. Report 800 XY/N-1, University of Bristol. Department of Aerospace Engineering, Bristol, UK, 1996.

Schatzman:1996:ADF

[3749] James C. Schatzman. Accuracy of the discrete Fourier transform and the fast Fourier transform. *SIAM Journal on Scientific Computing*, 17(5): 1150–1166, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/24702`.

Schulte:1996:HDI

[3750] M. J. Schulte, K. C. Bickerstaff, and E. E. Swartzlander, Jr. Hardware designs for interval multiplication. In ????, editor, *Proceedings of the II Workshop on Computer Arithmetic, Interval and Symbolic Computation, Recife, Brazil, August, 1996*, pages 85–87. ????, ????, 1996. ISBN ???? LCCN ????

Schulte:1996:PAS

[3751] M. J. Schulte and E. E. Swartzlander. A processor for accurate, self-validating computing. In Alefeld et al. [7892], pages 25–31. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Schwandt:1996:GCI

[3752] H. Schwandt. Globally convergent iterative domain decomposition methods for the parallel solution of a class of nonlinear systems of equations. In Alefeld et al. [7892], pages 280–286. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Schwarz:1996:HSA

[3753] Eric M. Schwarz and Michael J. Flynn. Hardware starting approximation method and its application to the square root operation. *IEEE Transactions on Computers*, 45(12):1356–1369, December 1996. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=545966`.

Sezgin:1996:SIR

[3754] F. Sezgin. Some improvements for a random number generator with single-precision floating-point arithmetic. *Computers and Geosciences*, 22(4):453–455, May 1996. CODEN CGEODT, CGOSDN. ISSN 0098-3004 (print), 1873-7803 (electronic).

Shary:1996:NAA

[3755] S. P. Shary. A new approach to the analysis of static systems under internal uncertainty. In Alefeld et al. [7892], pages 118–132. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Shewchuk:1996:APF

[3756] Jonathan Richard Shewchuk. Adaptive precision floating-point arithmetic and fast robust geometric predicates. Report CMU-CS-96-140, Department of Computer Science, Carnegie-Mellon University, Pittsburgh, PA, USA, 1996. 53 pp.

Shewchuk:1996:RAF

[3757] Jonathan Richard Shewchuk. Robust adaptive floating-point geometric predicates. In *Proceedings of the 12th Annual ACM Symposium on Computational Geometry*, pages 141–150. ACM Press, New York, NY 10036, USA, 1996. URL `http://www.cs.cmu.edu/afs/cs/project/quake/public/papers/robust-predicates.ps`.

Shewchuk:1996:TEQ

[3758] J. R. Shewchuk. Triangle: Engineering a 2D quality mesh generator and Delaunay triangulator. *Lecture Notes in Computer Science*, 1148: 203–222, 1996. CODEN LNCSD9. ISBN 3-540-61785-X (softcover), 3-540-70680-1 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). URL `https://link.springer.com/chapter/10.1007/BFb0014497`.

Shirayanagi:1996:FPG

[3759] Kiyoshi Shirayanagi. Floating point Gröbner bases. *Mathematics and Computers in Simulation*, 42(4–6):509–528, November 1996. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0378475496000274`.

Shokin:1996:IPI

[3760] Y. I. Shokin. On interval problems, interval algorithms and their computational complexity. In Alefeld et al. [7892], pages 314–328. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Sinclair:1996:ORS

[3761] R. Sinclair. Optimization of reciprocals and square roots on the i860 microprocessor. *International Journal of High Speed Computing*, 8(1): 57–64, 1996. CODEN IHSCEZ. ISSN 0129-0533.

Singer:1996:EAP

[3762] Benjamin Singer and George Saon. An efficient algorithm for parallel integer multiplication. *Journal of Network and Computer Applications*, 19(4):415–418, October 1996. CODEN JNCAF3. ISSN 1084-8045 (print), 1095-8592 (electronic). URL http://www.sciencedirect.com/science/article/pii/S1084804596900296.

Soderquist:1996:AFT

[3763] Peter Soderquist and Miriam Leeser. Area and performance tradeoffs in floating-point divide and square-root implementations. *ACM Computing Surveys*, 28(3):518–564, September 1996. CODEN CMSVAN. ISSN 0360-0300 (print), 1557-7341 (electronic).

Soderquist:1996:APT

[3764] Peter Soderquist and Miriam Leeser. Area and performance tradeoffs in floating-point divide and square-root implementations. *ACM Computing Surveys*, 28(3):518–564, September 1996. CODEN CMSVAN. ISSN 0360-0300 (print), 1557-7341 (electronic). URL http://www.acm.org/pubs/citations/journals/surveys/1996-28-3/p518-soderquist/.

Steele:1996:EL

[3765] Guy L. Steele Jr. and Richard P. Gabriel. The evolution of Lisp. In *History of Programming Languages II* [7893], pages 233–330. ISBN 0-201-89502-1. LCCN QA76.7 .H558 1996. Drawn from the Second ACM SIGPLAN History of Programming Languages Conference.

Stewart:1996:ANA

[3766] G. W. (Gilbert W.) Stewart. *Afternotes on numerical analysis: a series of lectures on elementary numerical analysis presented at the University of Maryland at College Park and recorded after the fact*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1996. ISBN 0-89871-362-5 (paperback). x + 200 pp. LCCN QA297 .S785 1996. URL http://www.loc.gov/catdir/enhancements/fy0726/95047768-d.html; http://www.loc.gov/catdir/enhancements/fy0726/95047768-t.html.

Suzuki:1996:LZA

[3767] H. Suzuki, H. Morinaka, H. Makino, Y. Nakase, K. Mashiko, and T. Sumi. Leading-zero anticipatory logic for high-speed floating point addition. *IEEE Journal of Solid-State Circuits*, 31(8):1157–1164, August 1996. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic). See comments [3877].

Tan:1996:MPF

[3768] Kien Beng Tan. A micro-power, floating point analog-to-digital converter. Thesis (M.S.), Department of Electrical Engineering, University of California, Los Angeles, Los Angeles, CA, USA, 1996. ???? pp.

Tatsaki:1996:AIC

[3769] A. Tatsaki. An adaptive image coder based on residue number system. In *Proceedings of the Third IEEE International Conference on Electronics, Circuits, and Systems, 1996. ICECS 96*, volume 2, pages 700–703. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. CODEN ???? ISSN ????

Trott:1996:AWL

[3770] Aaron Gregory Trott. The application of wavelets to lossless compression and progressive transmission of floating point data in three-dimensional curvilinear grids. M.S.E.E. thesis, Mississippi State University, Mississippi State, MS 39762, USA, 1996. 103 pp. URL `http://search.proquest.com/docview/304273691`.

Urano:1996:MAN

[3771] M. Urano and T. Taniguchi. Method and apparatus for normalization of a floating point binary number, April 30, 1996. U.S. Patent No. 5,513,362.

Vassilladis:1996:ARA

[3772] S. Vassilladis, S. Contofana, and K. Bertels. 2-1 addition and related arithmetic operations with threshold logic. *IEEE Transactions on Computers*, 45(9):1062–1067, September 1996. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=537130`.

Venners:1996:FPA

[3773] Bill Venners. Under the hood: Floating-point arithmetic. *JavaWorld: IDG's magazine for the Java community*, 1(9), November 1996. CODEN

???? ISSN 1091-8906. URL http://www.javaworld.com/javaworld/jw-10-1996/jw-10-hood.htm.

vonMatt:1996:RES

[3774] Urs von Matt and G. W. Stewart. Rounding errors in solving block Hessenberg systems. *Mathematics of Computation*, 65(213):115–135, January 1996. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.ams.org/jourcgi/jour-pbprocess?fn=110&arg1=S0025-5718-96-00667-9&u=/mcom/1996-65-213/.

Vrahatis:1996:GBM

[3775] M. N. Vrahatis. A generalized bisection method for large and imprecise problems. In Alefeld et al. [7892], pages 186–192. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Werner:1996:CIW

[3776] K. Werner. Calculations of the inverse Weierstrass functions in an arbitrary machine arithmetic. In Alefeld et al. [7892], pages 72–78. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Wiethoff:1996:PAE

[3777] A. Wiethoff. A parallel algorithm for enclosing all zeros of a nonlinear system of equations. In Alefeld et al. [7892], pages 193–199. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Williams:1996:TMF

[3778] K. B. Williams. Testing math functions: When requirements are tight, we must carefully examine all potential sources of error. Make sure your math library isn't the weak link in the chain. *C/C++ Users Journal*, 14 (12):49–54, 58–65, December 1996. CODEN CCUJEX. ISSN 1075-2838. Describes a package that extends the Cody-Waite-Plauger work on the ELEFUNT package for the testing of the elementary functions, including the inverse hyperbolic functions, cube root, and Bessel functions of the first and second kinds. The C++ package implements 192-bit extended precision versions of all of the functions, so that accurate results are available for comparison with the normal double-precision results.

Zachary:1996:ESD

[3779] Joseph L. Zachary. Eratosthenes: Significant digits and interval arithmetic. In *Introduction to scientific programming: computational problem solving using Maple and C* [7904], pages 29–43. ISBN 0-387-94630-6, 1-4612-7518-0 (print), 1-4612-2366-0 (electronic). LCCN QA76.6 .Z32 1996.

Zachary:1996:SHA

[3780] Joseph L. Zachary. Stairway to heaven: Accumulation of roundoff error. In *Introduction to scientific programming: computational problem solving using Maple and C* [7904], pages 45–61. ISBN 0-387-94630-6, 1-4612-7518-0 (print), 1-4612-2366-0 (electronic). LCCN QA76.6 .Z32 1996.

Zgliczynski:1996:RVC

[3781] P. Zgliczynski. Rigorous verification of chaos in the Roessler equations. In Alefeld et al. [7892], pages 287–292. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Al-Twaijry:1997:APO

[3782] Hesham Abdulaziz Al-Twaijry. *Area And Performance Optimized CMOS Multipliers*. Ph.D. thesis, Department of Electrical Engineering, Stanford University, Stanford, CA, USA, August 1997. ???? pp.

Allaart:1997:ISC

[3783] Pieter C. Allaart. An invariant-sum characterization of Benford's Law. *Journal of Applied Probability*, 34(1):288–291, March 1997. CODEN JPRBAM. ISSN 0021-9002 (print), 1475-6072 (electronic). URL `http://links.jstor.org/sici?sici=0021-9002%28199703%2934%3A1%3C288%3AAICOBL%3E2.0.CO%3B2-S&size=LARGE`.

Althaus:1997:MNF

[3784] Ernst Althaus and Kurt Mehlhorn. Maximum network flow with floating point arithmetic. Forschungsbericht MPI-I-97-1-022, Max-Planck-Institut für Informatik, Saarbrücken, Germany, 1997. 5 pp.

Anonymous:1997:BRPk

[3785] Anonymous. Book review: *Primes of the form $x^2 + ny^2$: Fermat, class field theory, and complex multiplication*: David A. Cox. John Wiley & Sons, New York. (1989). 351 pages. $49.95, £29.95. *Computers and Mathematics with Applications*, 34(10):141, November 1997. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0898122197902650`.

Anonymous:1997:SIS

[3786] Anonymous. SCAN-97 international symposium on scientific computing computer arithmetic and validated numerics. *Journal of Computational and Applied Mathematics*, 81(2):N13–N14, July 8, 1997. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042797900741`.

Aoki:1997:RCR

[3787] Takafumi Aoki, Hiroaki Amada, and Tatsuo Higuchi. Real/complex reconfigurable arithmetic using redundant complex number systems. In Lang et al. [7907], pages 200–207. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL `http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Aoki.pdf`. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Arnold:1997:ACT

[3788] Mark G. Arnold, Thomas A. Bailey, John R. Cowles, and Mark D. Winkel. Arithmetic co-transformations in the real and complex logarithmic number systems. In Lang et al. [7907], pages 190–199. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL `http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Arnold.pdf`. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Atkinson-Barr:1997:LEP

[3789] Martin Atkinson-Barr. Letter to the Editor: Pentium II math bug. *Dr. Dobb's Journal of Software Tools*, 22(10):10, October 1997. CODEN DDJOEB. ISSN 1044-789X. Identifies himself as the “Mr. X” cited in [3803], and provides more the background on the discovery of the Pentium FIST (floating-point to integer store) instruction.

Avnaim:1997:ESD

[3790] Francis Avnaim, Jean-Daniel Boissonnat, Olivier Devillers, Franco P. Preparata, and Mariette Yvinec. Evaluating signs of determinants using single-precision arithmetic. *Algorithmica*, 17(2):111–132, February 1997. CODEN ALGOEJ. ISSN 0178-4617 (print), 1432-0541 (electronic). URL `http://www.springerlink.com/link.asp?id=nlr883hde9w2av31; http://www.springerlink.com/openurl.asp?genre=article&eissn=1432-0541&volume=17&issue=2&spage=111; http://www.springerlink.com/openurl.asp?genre=article&issn=0178-4617&volume=17&issue=2&spage=111`.

Bajard:1997:RMM

[3791] Jean-Claude Bajard, Laurent-Stéphane Didier, and Peter Kornerup. An RNS Montgomery modular multiplication algorithm. In Lang et al. [7907], pages 234–239. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62

S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Bajard.pdf. A revised version published in IEEE Transactions on Computers, Vol.46(7), July 1998.

Baker:1997:LEP

[3792] Louis Baker. Letter to the Editor: Pentium II math bug. *Dr. Dobb's Journal of Software Tools*, 22(10):10, October 1997. CODEN DDJOEB. ISSN 1044-789X. Comments on the Ariane 5 missile failure mentioned in [3803].

Beaumont-Smith:1997:GBA

[3793] Andrew Beaumont-Smith and Neil Burgess. A GaAs 32-bit adder. In Lang et al. [7907], pages 10–17. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Beaumont_Smith.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Blackford:1997:PEN

[3794] L. S. Blackford, A. Cleary, A. Petitet, R. C. Whaley, J. Demmel, I. Dhillon, H. Ren, K. Stanley, J. Dongarra, and S. Hammarling. Practical experience in the numerical dangers of heterogeneous computing. *ACM Transactions on Mathematical Software*, 23(2):133–147, June 1997. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/citations/journals/toms/1997-23-2/p133-blackford/.

Blinn:1997:JBC

[3795] James F. Blinn. Jim Blinn's corner: Floating-point tricks. *IEEE Computer Graphics and Applications*, 17(4):80–84, July/August 1997. CODEN ICGADZ. ISSN 0272-1716 (print), 1558-1756 (electronic). Discusses use of IEEE 754 single-precision floating-point bit patterns as integers for implementations of fast, but low-accuracy, functions useful in computer graphics.

Bomar:1997:RNA

[3796] B. W. Bomar, L. M. Smith, and R. D. Joseph. Roundoff noise analysis of state-space digital filters implemented on floating-point digital signal processors. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 44(11):952–955, November 1997. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic).

Bshouty:1997:TBA

[3797] Nader H. Bshouty, Yishay Mansour, Baruch Schieber, and Prasoon Tiwari. A tight bound for approximating the square root. *Information Processing Letters*, 63(4):211–213, September 10, 1997. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Burgess:1997:SUR

[3798] Neil Burgess. Scaled and unscaled residue number system to binary conversion techniques using the core function. In Lang et al. [7907], pages 250–257. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL `http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Burgess.pdf`. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Callaway:1997:PDC

[3799] Thomas K. Callaway and Earl E. Swartzlander, Jr. Power-delay characteristics of CMOS multipliers. In Lang et al. [7907], pages 26–33. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL `http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Callaway.pdf`. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Cao:1997:HPH

[3800] Jun Cao and Belle W. Y. Wei. High-performance hardware for function generation. In Lang et al. [7907], pages 184–189. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL `http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Cao.pdf`. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Cena:1997:QCA

[3801] Gianluca Cena, Paolo Montuschi, Luigi Ciminiera, and Andrea Sanna. A Q-coder algorithm with carry free addition. In Lang et al. [7907], page 282. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL `http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Cena.pdf`. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Chen:1997:PEG

[3802] Yirng-An Chen and Randal E. Bryant. PBHD: an efficient graph representation for floating point circuit verification. Report CMU-CS-97-134, Department of Computer Science, Carnegie-Mellon University, Pittsburgh, PA, USA, 1997.

Collins:1997:IPI

[3803] Robert C. Collins. Inside the Pentium II math bug. *Dr. Dobb's Journal of Software Tools*, 22(8):52, 55–57, August 1997. CODEN DDJOEB. ISSN 1044-789X. See letters [3789, 3792].

Compagner:1997:RER

[3804] A. Compagner, A. S. Berdnikov, S. B. Turtia, and A. Larionov. Rounding errors in random number generators. *Computer Physics Communications*, 106(3):207–218, November 1997. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465597000702`.

Cuyt:1997:FPV

[3805] A. Cuyt. Floating-point versus symbolic computations in the QD-algorithm. *Journal of Symbolic Computation*, 24(6):695–703, December 1997. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic).

Daumas:1997:RPC

[3806] Marc Daumas and D. W. Matula. Recoders for partial compression and rounding. Technical Report 97-01, Laboratoire de l'Informatique du Parallèlisme, Lyon, France, 1997.

Daumas:1997:VRD

[3807] Marc Daumas and D. W. Matula. Validated roundings of dot products by sticky accumulation. *IEEE Transactions on Computers*, 46(5):623–629, May 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=589241`.

Dimitrov:1997:AME

[3808] V. S. Dimitrov, G. A. Jullien, and W. C. Miller. Algorithms for multi-exponentiation based on complex arithmetic. In Lang et al. [7907], pages 208–217. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL `http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Dimitrov_algorithms.pdf`. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Dimitrov:1997:ERN

[3809] V. Dimitrov, G. A. Jullien, and W. C. Miller. Eisenstein residue number system with applications to DSP. In *Proceedings of the 40th Midwest Symposium on Circuits and Systems, 1997*, volume 2, pages 675–678. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

Dimitrov:1997:TAD

[3810] V. S. Dimitrov, G. A. Jullien, and W. C. Miller. Theory and applications for a double-base number system. In Lang et al. [7907], pages 44–53. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL `http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Dimitrov_theory.pdf`. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Doring:1997:DAL

[3811] Andreas Döring and Wolfgang J. Paul. Decimal adjustment of long numbers in constant time. *Information Processing Letters*, 62(3):161–163, June 4, 1997. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Drmac:1997:IJR

[3812] Zlatko Drmač. Implementation of Jacobi rotations for accurate singular value computation in floating point arithmetic. *SIAM Journal on Scientific Computing*, 18(4):1200–1222, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/26509`.

Drolshagen:1997:PES

[3813] A. Drolshagen, H. Henkelmann, and W. Anheier. Processor elements for the standard cell implementation of residue number systems. In *IEEE International Conference on Application-Specific Systems, Architectures and Processors, Proceedings, 14–16 July 1997*, pages 116–123. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

EC:1997:IER

[3814] European Commission. *The Introduction of the Euro and the Rounding of Currency Amounts*. European Commission Directorate General II Economic and Financial Affairs, Brussels, Belgium, 1997. 29 pp.

Edelman:1997:MPD

[3815] Alan Edelman. The mathematics of the Pentium division bug. *SIAM Review*, 39(1):54–67, March 1997. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/29395; http://www-math.mit.edu/~edelman/homepage/papers/pentiumbug.pdf; http://www.siam.org/journals/sirev/sirev391.htm.

Even:1997:DIC

[3816] Guy Even and Wolfgang Paul. On the design of IEEE compliant floating point units. In Lang et al. [7907], pages 54–63. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Even.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Fitzpatrick:1997:EBE

[3817] P. Fitzpatrick. Extending backward error assertions to tolerance of large errors in floating point computations. *IEEE Transactions on Computers*, 46(4):505–510, April 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=588072.

Frougny:1997:FAS

[3818] Christiane Frougny. On-the-fly algorithms and sequential machines. In Lang et al. [7907], pages 260–265. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Frougny.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Garber:1997:NBB

[3819] Lee Garber. News briefs: Binary version could bring VRML into the mainstream. FCC jumps into Internet fray. Java and floating-point math. Intel to design NDRAM. battle over net telephony. vendors seek fast modems. US permits export of strong encryption. E-commerce nears $1 billion. chasing the blue light. personal E-mail use will soar. *Computer*, 30(4):25–27, April 1997. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Garjanov:1997:CRE

[3820] A. E. Garjanov. Controlled round-off error oscillations for initial value problem numerical solution. In *Proceedings of the 1st International*

Conference on Control of Oscillations and Chaos, 1997, volume 2, pages 333–334. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

Giachetti:1997:PRF

[3821] Ronald E. Giachetti and Robert E. Young. A parametric representation of fuzzy numbers and their arithmetic operators. *Fuzzy Sets and Systems*, 92(2):??, September 1, 1997. CODEN FSSYD8. ISSN 0165-0114 (print), 1872-6801 (electronic). URL `https://www.nist.gov/publications/parametric-representation-fuzzy-numbers-and-their-arithmetic-operators`.

Gosling:1997:ENC

[3822] James A. Gosling. The evolution of numerical computing in Java. World Wide Web document., 1997. URL `http://java.sun.com/people/jag/FP.html`.

Grosse:1997:RI

[3823] Eric Grosse. Real Inferno. In Boisvert [7905], pages 270–279. ISBN 0-412-80530-8. URL `ftp://cm.bell-labs.com/inferno/real.ps`.

Guedj:1997:NUL

[3824] Denis Guedj. *Numbers: The Universal Language*. Harry N. Abrams, Inc., New York, NY, USA, 1997. ISBN 0-8109-2845-0. 175 pp. LCCN QA141.G8413 1997. Translated from the French edition [3666] by Lory Frankel.

Hagihara:1997:FPD

[3825] Y. Hagihara, S. Inui, F. Okamoto, M. Nishida, T. Nakamura, and H. Yamada. Floating-point datapaths with online built-in self speed test. *IEEE Journal of Solid-State Circuits*, 32(3):444–449, March 1997. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Haller:1997:HIS

[3826] B. Haller, M. Streiff, U. Fleisch, and R. Zimmermann. Hardware implementation of a systolic antenna array signal processor based on CORDIC arithmetic. In *1997 IEEE International Conference on Acoustics, Speech, and Signal Processing*, volume 5, pages 4141–4144 (vol. 5). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997.

Hanson:1997:CII

[3827] David R. Hanson. *C Interfaces and Implementations: Techniques for Creating Reusable Software*. Addison-Wesley Professional Computing

Series. Addison-Wesley, Reading, MA, USA, 1997. ISBN 0-201-49841-3. xvii + 519 pp. LCCN QA76.73.C15H37 1997. URL http://www.cs.princeton.edu/software/cii/.

Hanson:1997:ECR

[3828] Kenton L. Hanson. Economical correctly rounded binary decimal conversion. Report ??, ????, ????, December 19, 1997. Cited in [4948, p. 134, reference 4], and reported there to be now inaccessible. Further queries in May 2022 to four search engines fail to find this document, or its institution and address.

Hanson:1997:MAD

[3829] Kenton L. Hanson. Method and apparatus for determining a precision of an intermediate arithmetic for converting values between a first numeric format and a second numeric format. US Patent 5652862, July 29, 1997. URL http://www.patentgenius.com/patent/5652862.html.

Harris:1997:SDA

[3830] David L. Harris, Stuart F. Oberman, and Mark A. Horowitz. SRT division architectures and implementations. In Lang et al. [7907], pages 18–25. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL ftp://arith.stanford.edu/tr/srtcircuits.ps.Z; http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Harris.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Harrison:1997:FPV

[3831] John Robert Harrison. Floating point verification in HOL Light: the exponential function. Technical Report 428, University of Cambridge Computer Laboratory, Cambridge, UK, June 1997. ii + 110 pp. URL http://www.cl.cam.ac.uk/users/jrh/papers/tang.ps.gz.

Harrison:1997:VAP

[3832] John Harrison. Verifying the accuracy of polynomial approximations in HOL. In Elsa L. Gunter and Amy Felty, editors, *Theorem Proving in Higher Order Logics: 10th International Conference, TPHOLs'97, Murray Hill, NJ, USA, August 19–22, 1997, Proceedings*, pages 137–152. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1997. ISBN 3-540-63379-0 (print), 3-540-69526-5 (electronic). LCCN QA76.9.A96 I577 1997.

Hasan:1997:DA

[3833] M. A. Hasan. Division-and-accumulation over GF(2^m). *IEEE Transactions on Computers*, 46(6):705–708, June 1997. CODEN

ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=600829.

Hekstra:1997:FRL

[3834] Gerber J. Hekstra and Ed F. A. Deprettere. Fast rotations: Low-cost arithmetic methods for orthonormal rotation. In Lang et al. [7907], pages 116–125. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Hekstra.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Hiasat:1997:DIR

[3835] Ahmad A. Hiasat and Hoda S. Abdel-Aty-Zohdy. Design and implementation of an RNS division algorithm. In Lang et al. [7907], pages 240–249. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Hiasat.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Hix:1997:CTV

[3836] Robert W. Hix. A comparison of two VHDL design environments for FPGA-based computer arithmetic. Thesis (M.S.), Tennessee Technological University, Cookeville, TN, USA, 1997. x + 301 pp.

Holmes:1997:CAP

[3837] W. Neville Holmes. Composite arithmetic: Proposal for a new standard. *Computer*, 30(3):65–73, March 1997. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). URL ftp://ftp.comp.utas.edu.au/pub/nholmes/ca/dsdf.ps;
ftp://ftp.comp.utas.edu.au/pub/nholmes/ca/dsrf.ps;
ftp://ftp.comp.utas.edu.au/pub/nholmes/ca/dssf.ps.

Irmay:1997:RBZ

[3838] Shragga Irmay. The relationship between Zipf's law and the distribution of first digits. *Journal of Applied Statistics*, 24(4):383–393, August 1, 1997. CODEN ???? ISSN 0266-4763 (print), 1360-0532 (electronic). URL http://www.catchword.co.uk/cgi-bin/cgi?ini=carfax&body=linker&reqidx=/catchword/carfax/13600532/v24n4/s2/p383.

Ito:1997:EIA

[3839] M. Ito, N. Takagi, and S. Yajima. Efficient initial approximation for multiplicative division and square root by a multiplication with operand modification. *IEEE Transactions on Computers*, 46(4):495–498, April 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=588066`.

Kahan:1997:JNL

[3840] W. Kahan. The John von Neumann lecture at the SIAM 45th annual meeting. World-Wide Web document., 1997. URL `http://www.cs.berkeley.edu/~wkahan/SIAMjvnl.ps`.

Kahan:1997:LNS

[3841] W. Kahan. Lecture notes on the status of IEEE Standard 754 for Binary Floating-Point Arithmetic. World-Wide Web document, October 1, 1997. URL `http://www.cs.berkeley.edu/~wkahan/ieee754status/IEEE754.PDF`.

Kahan:1997:RDI

[3842] W. Kahan and Melody Y. Ivory. Roundoff degrades an idealized cantilever. Technical report, Department of Mathematics and Department of Electrical Engineering and Computer Science, University of California, Berkeley, Berkeley, CA, USA, July 3, 1997. 11 pp. URL `http://www.cs.berkeley.edu/~wkahan/Cantilever.pdf`; `http://www.cs.berkeley.edu/~wkahan/Cantilever.ps`.

Kako:1997:PEF

[3843] Fujio Kako and Tateaki Sasaki. Proposal of "Effective floating-point number" for approximate algebraic computation. *SIGSAM Bulletin (ACM Special Interest Group on Symbolic and Algebraic Manipulation)*, 31(3):31, September 1997. CODEN SIGSBZ. ISSN 0163-5824 (print), 1557-9492 (electronic). Poster abstract only. Discusses fuzzy and interval floating-point arithmetic.

Kapur:1997:MVA

[3844] Deepak Kapur and M. Subramaniam. Mechanizing verification of arithmetic circuits: SRT division. *Lecture Notes in Computer Science*, 1346:103–??, 1997. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/1346/13460103.htm`; `http://link.springer-ny.com/link/service/series/0558/papers/1346/13460103.pdf`.

Karp:1997:HPD

[3845] Alan H. Karp and Peter Markstein. High-precision division and square root. *ACM Transactions on Mathematical Software*, 23(4):561–589, December 1997. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.acm.org/pubs/articles/journals/toms/forthcoming/a0-karp/a0-karp.ps; http://www.acm.org/pubs/citations/journals/toms/1997-23-4/p561-karp/.

Khinchin:1997:CF

[3846] Aleksandr Iakovlevich Khinchin. *Continued fractions*. Dover, New York, NY, USA, 1997. ISBN 0-486-69630-8 (paperback). xi + 95 pp. LCCN QA295 .K513 1997. URL http://www.loc.gov/catdir/description/dover032/97008056.html; http://www.loc.gov/catdir/toc/dover031/97008056.html.

King:1997:DDT

[3847] E. J. King and E. E. Swartzlander, Jr. Data-dependent truncation scheme for parallel multipliers. In Fargues and Hippenstiel [7906], pages 1178–1182. ISBN 0-8186-8316-3, 0-8186-8317-1 (casebound), 0-8186-8318-X (microfiche). LCCN TK454.2; TK 7885. URL ftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/; http://ieeexplore.ieee.org/servlet/opac?punumber=5559. Two volumes. IEEE order plan catalog number 97CB36163.

Kinoshita:1997:RAE

[3848] Eisuke Kinoshita and Ki-Ja Lee. A residue arithmetic extension for reliable scientific computation. *IEEE Transactions on Computers*, 46 (2):129–138, February 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=565587.

Koc:1997:FSE

[3849] Ç. K. Koç and T. Acar. Fast software exponentiation in GF(2^k). In Lang et al. [7907], pages 225–231. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Koc.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Kramer:1997:PWC

[3850] Walter Krämer. A priori worst-case error bounds for floating-point computations. In Lang et al. [7907], pages 64–73. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Kramer.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Kravchenko:1997:AEP

[3851] Yu. P. Kravchenko and M. A. Liberman. On the application of extended precision arithmetic to quantum mechanical calculations. *International Journal of Quantum Chemistry*, 62(6):593–601, ???? 1997. CODEN IJQCB2. ISSN 0020-7608 (print), 1097-461X (electronic). URL http://www3.interscience.wiley.com/cgi-bin/abstract?ID=42544; http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=42544&PLACEBO=IE.pdf.

Lang:1997:CVA

[3852] Tomás Lang and Elisardo Antelo. CORDIC vectoring with arbitrary target value. In Lang et al. [7907], pages 108–115. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Lang.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Lang:1997:FIS

[3853] Tomás Lang, Jean-Michel Muller, and Naofumi Takagi. Foreword: 13th IEEE Symposium on Computer Arithmetic, July 6–9, 1997, Asilomar, California, USA. In Lang et al. [7907], page viii. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_contents.pdf; http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_foreword.pdf; http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_preface.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Lee:1997:SSA

[3854] Choong Ho Lee, M. Kawamata, and T. Higuchi. State-space approach to roundoff error analysis of fractal image coding. In *Proceedings of 1997 IEEE International Symposium on Circuits and Systems: ISCAS '97, 9–12 June 1997*, volume 2, pages 1341–1344. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

Lee:1997:VDA

[3855] Inseop Lee and W. K. Jenkins. VLSI design for an adaptive equalizer using a residue number system architecture for magnetic channels. In *Proceedings of the 40th Midwest Symposium on Circuits and Systems, 1997*, volume 2, pages 782–785. IEEE Computer Society Press, 1109

Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

Lefevre:1997:TCR

[3856] Vincent Lefèvre, Jean-Michel Muller, and Arnaud Tisserand. Towards correctly rounded transcendentals. In Lang et al. [7907], pages 132–139. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Lefevre.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

LeLann:1997:AAF

[3857] Gérard Le Lann. An analysis of the Ariane 5 Flight 501 failure — a system engineering perspective. In *Proceedings of the International Conference and Workshop on Engineering of Computer-Based Systems*, pages 339–346. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. URL https://ieeexplore.ieee.org/document/581900/. From the article: "The SRI S/W exception was raised during a conversion from a 64-bit floating point number F to a 16-bit signed integer number. F had a value greater than what can be represented by a 16-bit signed integer, which caused an Operand Error (data conversion — in Ada code — was not protected, for the reason that a maximum workload target of 80% had been set for the SRI computer). ... The value of BH was much higher than expected because the early part of the trajectory of Ariane 5 differs from that of Ariane 4, which results in considerably higher horizontal velocity values.".

Li:1997:ISP

[3858] Yamin Li and Wanming Chu. Implementation of single precision floating point square root on FPGAs. In *Proceedings of the 5th Annual IEEE Symposium on FPGAs for Custom Computing Machines, 16–18 April 1997*, pages 226–232. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

Li:1997:PAI

[3859] Yamin Li and Wanming Chu. Parallel-array implementations of a non-restoring square root algorithm. In *Proceedings of the 1997 IEEE International Conference on Computer Design: VLSI in Computers and Processors: ICCD '97*, pages 690–695. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

Lin:1997:DOA

[3860] Ming-Bo Lin and A. Y. Oruc. The design of an optoelectronic arithmetic processor based on permutation networks. *IEEE Transactions on Computers*, 46(2):142–153, February 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=565589.

Lin:1997:HSN

[3861] Lei Lin. *High-speed nonlinear computer arithmetic: algorithms, VLSI design, and accuracy prediction*. Thesis (Ph.D.), University of South Florida, Tampa, FL, USA, 1997. xv + 204 pp.

Lu:1997:SMK

[3862] Chung-Chin Lu. A search of minimal key functions for normal basis multipliers. *IEEE Transactions on Computers*, 46(5):588–592, May 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=589230.

Lutz:1997:HAF

[3863] David R. Lutz and D. N. Jayasimha. The half-adder form and early branch condition resolution. In Lang et al. [7907], pages 266–273. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Lutz.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Matsubara:1997:LPZ

[3864] G. Matsubara and N. Ide. A low power zero-overhead self-timed division and square root unit combining a single-rail static circuit with a dual-rail dynamic circuit. In *Proceedings of the Third International Symposium on Advanced Research in Asynchronous Circuits and Systems, 7–10 April 1997*, pages 198–209. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

Matula:1997:PPF

[3865] David W. Matula and Asger Munk Nielsen. Pipelined packet-forwarding floating point: I. foundations and a rounder. In Lang et al. [7907], pages 140–147. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Matula.pdf. IEEE Computer

Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

McClain:1997:EC

[3866] Dylan Loeb McClain. The evolution of the calculator. *New York Times*, ??(??):D3, September 1, 1997. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL `http://search.proquest.com/docview/109786292`.

Michelucci:1997:LA

[3867] D. Michelucci and J.-M. Moreau. Lazy arithmetic. *IEEE Transactions on Computers*, 46(9):961–975, September 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=620478`.

Mizukami:1997:AFP

[3868] Etsuko Mizukami. The accuracy of floating point summations for CG-like methods. Master's Thesis, Department of Computer Science, Indiana University-Bloomington, Bloomington, IN, USA, 1997. v + 55 pp. URL `ftp://ftp.cs.indiana.edu/pub/techreports/TR486.pdf; ftp://ftp.cs.indiana.edu/pub/techreports/TR486.ps; ftp://ftp.cs.indiana.edu/pub/techreports/TR486.ps.Z; http://www.cs.indiana.edu/cgi-bin/techreports/TRNNN.cgi?trnum=TR486`. Also issued as Technical report 486.

MRaihi:1997:XFO

[3869] David M'Raïhi, David Naccache, Jacques Stern, and Serge Vaudenay. XMX: a firmware-oriented block cipher based on modular multiplications. *Lecture Notes in Computer Science*, 1267: 166–??, 1997. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/1267/12670166.htm; http://link.springer-ny.com/link/service/series/0558/papers/1267/12670166.pdf`.

Mukherjee:1997:DTM

[3870] N. Mukherjee, J. Rajski, and J. Tyszer. Design of testable multipliers for fixed-width data paths. *IEEE Transactions on Computers*, 46(7):795–810, July 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=599900`.

Muller:1997:EFA

[3871] Jean-Michel Muller. *Elementary Functions: Algorithms and Implementation*. Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, 1997. ISBN 0-8176-3990-X. xv + 204 pp. LCCN QA331.M866 1997. US$59.95. URL http://www.birkhauser.com/cgi-win/ISBN/0-8176-3990-X; http://www.ens-lyon.fr/~jmmuller/book_functions.html.

Nielsen:1997:PPF

[3872] Asger Munk Nielsen, David Matula, C. Lyu, and Guy Even. Pipelined packet-forwarding floating point: II. an adder. In Lang et al. [7907], pages 148–155. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Nielsen_Matula.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Nielsen:1997:RRR

[3873] Asger Munk Nielsen and Peter Kornerup. On radix representation of rings. In Lang et al. [7907], pages 34–43. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Nielsen.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Oberman:1997:DAI

[3874] S. F. Oberman and M. J. Flynn. Division algorithms and implementations. *IEEE Transactions on Computers*, 46(8):833–854, August 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL ftp://arith.stanford.edu/tr/divalgo_TOC.pdf; http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=609274.

Oberman:1997:DID

[3875] S. F. Oberman and M. J. Flynn. Design issues in division and other floating-point operations. *IEEE Transactions on Computers*, 46(2):154–161, February 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL ftp://arith.stanford.edu/tr/desissues_TOC.pdf; http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=565590.

Oberman:1997:SPD

[3876] Stuart F. Oberman, Hesham Al-Twaijry, and Michael J. Flynn. The SNAP project: Design of floating point arithmetic units. In Lang et al. [7907], pages 156–165. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL ftp://arith.stanford.edu/tr/snap13.ps.Z; http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Oberman.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Oklobdzija:1997:CLZ

[3877] V. Oklobdzija, H. Suzuki, H. Morinaka, H. Makino, Y. Nakase, K. Mashiko, and T. Sumi. Comments on "Leading-zero anticipatory logic for high-speed floating point addition" [with reply]. *IEEE Journal of Solid-State Circuits*, 32(2):292, February 1997. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic). See [3767].

Paar:1997:FAA

[3878] Christof Paar and Pedro Soria-Rodriguez. Fast arithmetic architectures for public-key algorithms over Galois fields $GF((2^n)^m)$. *Lecture Notes in Computer Science*, 1233:363–??, 1997. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1233/12330363.htm; http://link.springer-ny.com/link/service/series/0558/papers/1233/12330363.pdf.

Pan:1997:SPE

[3879] Victor Y. Pan. Solving a polynomial equation: Some history and recent progress. *SIAM Review*, 39(2):187–220, June 1997. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/28855.

Parker:1997:MAU

[3880] M. G. Parker and M. Benaissa. Modular arithmetic using low order redundant bases. *IEEE Transactions on Computers*, 46(5):611–616, May 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=589237.

Parker:1997:MCAa

[3881] Douglass Stott Parker. Monte Carlo arithmetic: exploiting randomness in floating-point arithmetic. Technical Report CSD 970002, Department of Computer Science, University of California, Los Angeles, Los Angeles, CA, USA, 1997. 86 pp. URL http://www.cs.ucla.edu/~stott/mca/CSD-970002.ps.gz.

Parker:1997:MCAb

[3882] Douglass Stott Parker, Paul R. Eggert, and Brad Pierce. Monte Carlo arithmetic: a framework for the statistical analysis of roundoff error. Technical report CSD-970014, Computer Science Department, University of California, Los Angeles, Los Angeles, CA 90095-1596, USA, March 30, 1997. 23 pp. URL http://fmdb.cs.ucla.edu/treports/970014.pdf; https://pdfs.semanticscholar.org/b728/afdb230aa1869f79bdc21ff7a6252d3be9ab.pdf.

Pierce:1997:ARF

[3883] Brad Pierce. *Applications of randomization to floating-point arithmetic and to linear systems solution*. Thesis (Ph.D.), Department of Computer Science, University of California, Los Angeles, Los Angeles, CA, USA, 1997.

Priest:1997:FTD

[3884] Douglas M. Priest. Fast table-driven algorithms for interval elementary functions. In Lang et al. [7907], pages 168–174. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Priest.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Rederlechner:1997:NCP

[3885] B. Rederlechner and J. Keller. A note on correctness proofs for overflow detection logic in adders for d-th complement numbers. *J.UCS: Journal of Universal Computer Science*, 3(10):1121–1125, October 28, 1997. CODEN ???? ISSN 0948-6968. URL http://medoc.springer.de:8000/jucs/jucs_3_10/a_note_on_correctness.

Reppy:1997:EAH

[3886] John H. Reppy et al. The Standard ML basis library. World-Wide Web document, October 1997. URL http://cm.bell-labs.com/cm/cs/what/smlnj/doc/basis/pages/real.html. To be published in/as [4793].

Rice:1997:MDB

[3887] Eric Rice and Richard Hughey. Multiprecision division on an 8-bit processor. In Lang et al. [7907], pages 74–81. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Rice.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Sanz-Gonzalez:1997:TBR

[3888] J. L. Sanz-Gonzalez. Tradeoff between roundoff and overflow errors in digital filter realizations. In *Acoustics, Speech, and Signal Processing, 1997. ICASSP-97., 1997 IEEE International Conference on. 21–24 April 1997*, volume 3, pages 2189–2192. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

Sarma:1997:FIR

[3889] Debjit Das Sarma and David W. Matula. Faithful interpolation in reciprocal tables. In Lang et al. [7907], pages 82–91. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Sarma.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Schulte:1997:AFA

[3890] M. J. Schulte and James E. Stine. Accurate function approximations by symmetric table lookup and addition. In Thiele et al. [7909], pages 144–153. ISBN 0-8186-7959-X, 0-8186-7960-3, 0-8186-7958-1. LCCN TK7874.6 .I57 1997. URL http://mesa.ece.wisc.edu/publications/cp_1997-02.pdf.

Schulte:1997:HSR

[3891] M. J. Schulte, J. E. Stine, and K. E. Wires. High-speed reciprocal approximations. In Fargues and Hippenstiel [7906], pages 1183–1187. ISBN 0-8186-8316-3, 0-8186-8317-1 (casebound), 0-8186-8318-X (microfiche). LCCN TK454.2; TK 7885. URL http://mesa.ece.wisc.edu/publications/cp_1997-03.pdf. Two volumes. IEEE order plan catalog number 97CB36163.

Schulte:1997:SBT

[3892] Michael J. Schulte and James E. Stine. Symmetric bipartite tables for accurate function approximation. In Lang et al. [7907], pages 175–183. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://mesa.ece.wisc.edu/publications/cp_1997-01.pdf; http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Schulte.pdf. IEEE

Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Schwarz:1997:CFP

[3893] E. M. Schwarz, L. Sigal, and T. J. McPherson. CMOS floating-point unit for the S/390 Parallel Enterprise Server G4. *IBM Journal of Research and Development*, 41(4/5):475–488, ???? 1997. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.almaden.ibm.com/journal/rd/414/schwarz.html.

Schwarz:1997:RCM

[3894] Eric M. Schwarz, Robert M. Averill III, and Leon J. Sigal. A radix-8 CMOS S/390 multiplier. In Lang et al. [7907], pages 2–9. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Schwarz.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Shewchuk:1997:APF

[3895] Jonathan Richard Shewchuk. Adaptive precision floating-point arithmetic and fast robust geometric predicates. *Discrete and Computational Geometry*, 18(3):305–363, 1997. CODEN DCGEER. ISSN 0179-5376 (print), 1432-0444 (electronic). URL http://www.cs.cmu.edu/~quake/robust.html.

Soderquist:1997:DSR

[3896] Peter Soderquist and Miriam Leeser. Division and square root: Choosing the right implementation: Exploring the major design choices for microprocessor implementations of floating-point division and square root. *IEEE Micro*, 17(4):56–66, July/August 1997. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic). URL http://pascal.computer.org/mi/books/mi1997/pdf/m4056.pdf.

Solinas:1997:IAA

[3897] Jerome A. Solinas. An improved algorithm for arithmetic on a family of elliptic curves. *Lecture Notes in Computer Science*, 1294:357–??, 1997. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1294/12940357.htm; http://link.springer-ny.com/link/service/series/0558/papers/1294/12940357.pdf.

Srinivas:1997:RDR

[3898] H. R. Srinivas, K. K. Parhi, and L. A. Montalvo. Radix 2 division with over-redundant quotient selection. *IEEE Transactions on Computers*, 46

(1):85–92, January 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=559806.

Stan:1997:SUC

[3899] Mircea R. Stan. Synchronous up/down counter with clock period independent of counter size. In Lang et al. [7907], pages 274–281. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Stan.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Stankovic:1997:ASM

[3900] M. Stanković, J. Madić, and P. Stanimirović. Addition, subtraction and multiplication of sequences of fractions by means of residue arithmetic and mathematical spectra. *Math. Balkanica (N.S.)*, 11(1–2):11–23, 1997. ISSN 0205-3217.

Stelling:1997:IMA

[3901] Paul F. Stelling and Voji. G. Oklobdzija. Implementing multiply-accumulate operation in multiplication time. In Lang et al. [7907], pages 99–107. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Stelling.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Strzebonski:1997:CFC

[3902] Adam Wojciech Strzeboński. Computing in the field of complex algebraic numbers. *Journal of Symbolic Computation*, 24(6):647–656, December 1997. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic).

Szabo:1997:REAa

[3903] T. Szabo and G. Horvath. A roundoff error analysis of the Oja's subspace rule. In *Acoustics, Speech, and Signal Processing, 1997. ICASSP-97., 1997 IEEE International Conference on. 21–24 April 1997*, volume 4, pages 3297–3300. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

Szabo:1997:REAb

[3904] T. Szabo and G. Horvath. Roundoff error analysis of the PCA networks. In *Instrumentation and Measurement Technology Conference, 1997.*

IMTC/97. Proceedings. 'Sensing, Processing, Networking'., IEEE. 19–21 May 1997, volume 1, pages 263–268. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

Taborn:1997:DSM

[3905] M. P. Taborn, S. M. Burchfiel, and D. T. Matheny. Denormalization system and method of operation, July 8, 1997. U.S. Patent No. 5,646,875.

Takagi:1997:GPO

[3906] Naofumi Takagi. Generating a power of an operand by a table look-up and a multiplication. In Lang et al. [7907], pages 126–131. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Takagi.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

TI:1997:TUG

[3907] Texas Instruments, Post Office box 655303, Dallas, TX 75265, USA. *TMS320C3x User's Guide*, 1997. URL http://www-s.ti.com/sc/psheets/spru031e/spru031e.pdf; http://www-s.ti.com/sc/psheets/spru031f/spru031f.pdf.

Tomabechi:1997:WOD

[3908] N. Tomabechi. WSI oriented design for noise-tolerant systems based on the residue number system. In *Proceedings of 1997 IEEE International Symposium on Circuits and Systems, ISCAS '97, 9–12 June 1997*, volume 4, pages 2733–2736. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

Tsai:1997:FPR

[3909] Chimin Tsai. Floating-point roundoff noises of first- and second-order sections in parallel form digital filters. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 44(9):774–779, September 1997. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic).

Turner:1997:FFR

[3910] Peter R. Turner. Fraction-free RNS algorithms for solving linear systems. In Lang et al. [7907], pages 218–224. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62

S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Turner.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Ueberhuber:1997:NCM

[3911] Christoph W. Ueberhuber. *Numerical Computation: Methods, Software, and Analysis*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1997. ISBN 3-540-62058-3 (vol. 1: softcover), 3-540-62057-5 (vol. 2: softcover), 3-642-59118-3 (e-book). xvi + 474 (vol. 1), xvi + 495 (vol. 2) pp. LCCN QA297 .U2413 1997. US$44.95 (vol. 1), US$49.95 (vol. 2).

Verschaeren:1997:NPF

[3912] Dennis Verschaeren, Annie Cuyt, and Brigitte Verdonk. On the need for predictable floating-point arithmetic in the programming languages Fortran 90 and C/C++. *ACM SIGPLAN Notices*, 32(3):57–64, March 1997. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Walter:1997:EUD

[3913] Colin D. Walter. Exponentiation using division chains. In Lang et al. [7907], pages 92–98. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. URL http://www.acsel-lab.com/arithmetic/arith13/papers/ARITH13_Walter.pdf. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Walter:1997:STT

[3914] C. D. Walter. Space/time trade-offs for higher radix modular multiplication using repeated addition. *IEEE Transactions on Computers*, 46(2):139–141, February 1997. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=565588.

Wang:1997:MSM

[3915] Shaoyun Wang, V. Piuri, and E. E. Swartzlander. Merged scaling multiplication CORDIC algorithm. In *1997 IEEE International Symposium on Circuits and Systems (ISCAS)*, volume 4, pages 2581–2584 (vol. 4). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997.

Wilkes:1997:AE

[3916] M. V. Wilkes. Arithmetic on the EDSAC. *IEEE Annals of the History of Computing*, 19(1):13–15, January/March 1997. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic). URL `https://ieeexplore.ieee.org/iel4/85/12228/00560726.pdf`.

Williams:1997:IPC

[3917] C. Williams. Intel's Pentium chip crisis: an ethical analysis. *IEEE Transactions on Professional Communication*, 40(1):13–19, March 1997. CODEN IEPCBU. ISSN 0361-1434 (print), 1558-1500 (electronic).

Woehr:1997:CWK

[3918] Jack Woehr. A conversation with William Kahan: How important is numerical accuracy? *Dr. Dobb's Journal of Software Tools*, 22(11): 18–20, 22, 24, 26, 30, 32, November 1997. CODEN DDJOEB. ISSN 1044-789X. Kahan, the father of the IEEE 754 floating-point standard, talks about floating-point arithmetic issues, and numerical deficiencies in Java.

Xue:1997:DPK

[3919] Jinyun Xue and Ruth Davis. A derivation and proof of Knuth's binary to decimal conversion program. *Software — Concepts and Tools*, 18(4): 149–156, 1997. CODEN SCOTE5. ISSN 0945-8115 (print), 1432-2188 (electronic).

Zeng:1997:REA

[3920] Bing Zeng. Roundoff error analysis of floating-point paraunitary filter banks realized in lattice structure. In *Proceedings of 1997 IEEE International Symposium on Circuits and Systems: ISCAS '97, 9–12 June 1997*, volume 4, pages 2405–2408. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. CODEN ???? ISSN ????

Aberbour:1998:PMF

[3921] M. Aberbour, A. Houelle, H. Mehrez, N. Vaucher, and A. Guyot. On portable macrocell FPU generators for division and square root operators complying to the full IEEE-754 standard. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 6(1):114–121, March 1998. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Aberth:1998:PNM

[3922] Oliver Aberth. *Precise numerical methods using C++*. Academic Press, New York, NY, USA, 1998. ISBN 0-12-041750-2. xiv + 238 pp.

LCCN QA76.73.C153 A32 1998. US$59.95. Contents: I. Introduction – II. Various Arithmetics – III. Solvable Problems and Nonsolvable Problems – IV. Computing Derivatives and Integrals – V. Finding Zeros of Real Functions – VI. Finding Zeros of Polynomials and Other Analytic Functions – VII. Problems of Linear Algebra – VIII. Optimization Problems – IX. Numerical Solution of Ordinary Differential Equations – X. The C++ System for Precise Computation.

Al-Twaijry:1998:SPB

[3923] H. A. Al-Twaijry, S. F. Oberman, S. T. Fu, and M. J. Flynn. The SNAP project: Building validated floating point. *J.UCS: Journal of Universal Computer Science*, 4(2):99–109, February 28, 1998. CODEN ???? ISSN 0948-6968. URL `http://medoc.springer.de:8000/jucs/jucs_4_2/the_snap_project_building`; `http://www.jucs.org/jucs_4_2/the_snap_project_building/Al_twaijry_H_A.pdf`.

Al-Twaijry:1998:TSE

[3924] H. A. Al-Twaijry and M. J. Flynn. Technology scaling effects on multipliers. *IEEE Transactions on Computers*, 47(11):1201–1215, November 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=736430`.

Althaus:1998:MNF

[3925] Ernst Althaus and Kurt Mehlhorn. Maximum network flow with floating point arithmetic. *Information Processing Letters*, 66(3):109–113, May 15, 1998. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Anonymous:1998:ANO

[3926] Anonymous. Announcements: New official Fortran technical reports; working group 5 documents; OpenGL Fortran 95 bindings; MPI module provides enhanced Fortran support; variable precision arithmetic; Fortran information sites; new Fortran compiler versions from Lahey and Fujitsu; downloadable advanced Fortran textbook; Fortran engineering textbook. *ACM Fortran Forum*, 17(3):1–2, December 1998. CODEN ???? ISSN 1061-7264 (print), 1931-1311 (electronic).

Anonymous:1998:PIS

[3927] Anonymous. Papers from the 13th IEEE Symposium on Computer Arithmetic. *IEEE Transactions on Computers*, 47(7):721, July 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=709371`.

Antelo:1998:CVH

[3928] E. Antelo, T. Lang, and J. D. Bruguera. Computation of $\sqrt{(x/d)}$ in a very high radix combined division/square-root unit with scaling and selection by rounding. *IEEE Transactions on Computers*, 47(2):152–161, February 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=663761.

Appel:1998:MCI

[3929] Andrew W. Appel. *Modern Compiler Implementation in ML*. Cambridge University Press, Cambridge, UK, 1998. ISBN 0-521-58274-1, 0-521-60764-7 (paperback). x + 538 pp. LCCN QA76.76.C65 A675 1998. URL http://proquest.safaribooksonline.com/9781107263826; http://www.loc.gov/catdir/description/cam028/97031091.html; http://www.loc.gov/catdir/toc/cam023/97031091.html.

Arnold:1998:ACT

[3930] M. G. Arnold, T. A. Bailey, J. R. Cowles, and M. D. Winkel. Arithmetic co-transformations in the real and complex logarithmic number systems. *IEEE Transactions on Computers*, 47(7):777–786, July 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=709377.

Bailey:1998:OEF

[3931] Daniel V. Bailey and Christof Paar. Optimal extension fields for fast arithmetic in public-key algorithms. *Lecture Notes in Computer Science*, 1462:472–??, 1998. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1462/14620472.htm; http://link.springer-ny.com/link/service/series/0558/papers/1462/14620472.pdf.

Bajard:1998:NED

[3932] Jean-Claude Bajard, Laurent-Stéphane Didier, and Jean-Michel Muller. A new Euclidean division algorithm for residue number systems. *Journal of VLSI Signal Processing*, 19(2):167–178, July 1998. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Bajard:1998:RMM

[3933] J.-C. Bajard, L.-S. Didier, and P. Kornerup. An RNS Montgomery modular multiplication algorithm. *IEEE Transactions on Computers*, 47(7):766–776, July 1998. CODEN ITCOB4. ISSN 0018-9340 (print),

1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=709376.

Bhardwaj:1998:RRN

[3934] M. Bhardwaj and B. Ljusanin. The Renaissance — a residue number system based vector co-processor for DSP dominated embedded ASICs. In *Conference Record of the Thirty-Second Asilomar Conference on Signals, Systems & Computers, 1998*, volume 1, pages 202–207. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. CODEN ???? ISSN ????

Bjorksten:1998:FFP

[3935] A. A. Bjorksten, J. D. G. Mikan, and M. S. Schmookler. Fast floating point results alignment apparatus, June 9, 1998. U.S. Patent No. 5,764,549.

Briggs:1998:DFP

[3936] Keith Briggs. Doubledouble floating point arithmetic. World-Wide Web document., 1998. URL http://web.archive.org/web/20000520034826/http://www-epidem.plantsci.cam.ac.uk/~kbriggs/doubledouble.html; http://web.archive.org/web/20000815202251/http://www-epidem.plantsci.cam.ac.uk/~kbriggs/doubledouble.html; http://web.archive.org/web/20001207115000/http://www-epidem.plantsci.cam.ac.uk/~kbriggs/doubledouble.html; http://web.archive.org/web/20010204072400/http://web.archive.org/web/20010204072400/http://www-epidem.plantsci.cam.ac.uk/~kbriggs/doubledouble.tgz; http://web.archive.org/web/20010204072400/http://www-epidem.plantsci.cam.ac.uk/~kbriggs/doubledouble.html; http://www-epidem.plantsci.cam.ac.uk/~kbriggs/doubledouble.html.

Bronnimann:1998:IAY

[3937] Hervé Brönnimann, Christoph Burnikel, and Sylvain Pion. Interval arithmetic yields efficient dynamic filters for computational geometry. In *Proc. 14th Annu. ACM Sympos. Comput. Geom. (1998)*, pages 165–174. ACM Press, New York, NY 10036, USA, 1998. URL citeseer.csail.mit.edu/onnimann98interval.html.

Chang:1998:HPD

[3938] Yun-Nan Chang and Keshab K. Parhi. High-performance digit-serial complex-number multiplier-accumulator. In IEEE [7917], pages 211–?? ISBN 0-8186-9099-2, 0-7803-5198-3, 0-8186-9101-8. LCCN ????

Chatterjee:1998:MMP

[3939] Siddhardtha Chatterjee. MPFUN++: a multiple precision floating point computation package in C++. World Wide Web document., 1998. URL `http://www.cs.unc.edu/Research/HARPOON/mpfun++/`.

Chen:1998:PCL

[3940] Chichyang Chen and Chih-Huan Yang. Pipelined computation of LNS addition/subtraction with very small lookup tables. In *Proceedings International Conference on Computer Design: VLSI in Computers and Processors: ICCD '98*, pages 292–297. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. CODEN ???? ISSN ????

Chen:1998:VFP

[3941] Yirng-An Chen and Randal E. Bryant. Verification of floating-point adders. Report CMU-CS-98-121, Department of Computer Science, Carnegie-Mellon University, Pittsburgh, PA, USA, 1998.

Cheon:1998:TEA

[3942] Jung Hee Cheon, S. M. Park, S. W. Park, and D. Kim. Two efficient algorithms for arithmetic of elliptic curves using Frobenius map. *Lecture Notes in Computer Science*, 1431:195–??, 1998. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Chren:1998:OHR

[3943] W. A. Chren. One-hot residue coding for low delay power product CMOS design. *IEEE Transactions on Circuits and Systems*, 45(3):303–313, March 1998. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Citron:1998:AMM

[3944] Daniel Citron, Dror Feitelson, and Larry Rudolph. Accelerating multi-media processing by implementing memoing in multiplication and division units. *ACM SIGPLAN Notices*, 33(11):252–261, November 1998. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL `http://www.acm.org:80/pubs/citations/proceedings/asplos/291069/p252-citron/`.

Collins:1998:PFB

[3945] Robert R. Collins. The Pentium F00F bug. *Dr. Dobb's Journal of Software Tools*, 23(5):62, 64–66, May 1998. CODEN DDJOEB. ISSN 1044-789X. URL `http://www.ddj.com/ftp/1998/1998_05/f00fbug.txt`; `http://www.ddj.com/ftp/1998/1998_05/f00fbug.zip`.

Cornea-Hasegan:1998:PIC

[3946] Marius Cornea-Hasegan. Proving the IEEE correctness of iterative floating-point square root, divide, and remainder algorithms. *Intel Technology Journal*, Q2:11, 1998. URL `http://developer.intel.com/technology/itj/q21998/articles/art_3.htm; http://developer.intel.com/technology/itj/q21998/pdf/ieee.pdf`.

Crenshaw:1998:ISR

[3947] Jack W. Crenshaw. Integer square roots. *Embedded Systems Programming*, 11(2):15–32, February 1998. CODEN EYPRE4. ISSN 1040-3272. URL `http://www.embedded.com/98/9802fe2.htm`.

Darcy:1998:APE

[3948] Joseph D. Darcy and William Kahan. Analysis of *Proposal for Extension to Java Floating Point Semantics, Revision 1.* Technical report, Java Grande Numerics Working Group, August 7, 1998. 18 pp. URL `http://www.sonic.net/~jddarcy/Research/jgrande.pdf`.

Darcy:1998:BAI

[3949] Joseph D. Darcy. Borneo 1.0: adding IEEE 754 floating point support to Java. Master of Science, Plan II, University of California, Berkeley, Dept. of Electrical Engineering and Computer Sciences, Berkeley, CA, USA, 1998. 131 pp. URL `http://www.sonic.net/~jddarcy/Borneo/borneo.pdf`.

Darcy:1998:EJF

[3950] Joseph D. Darcy. Evolving Java's floating point support: The good, the bad, and the ugly. In MacKay and Johnson [7920], page ?? LCCN TK 5105.5 .C36 1998. URL `http://www.sonic.net/~jddarcy/Research/cascon.pdf`. 31 slides.

Darcy:1998:WRI

[3951] Joseph D. Darcy. Writing robust IEEE recommended functions in "100 pure Java^{TM}". Report UCB/CSD-98-1009, University of California, Berkeley. Computer Science Division, Berkeley, CA, USA, August 1998. URL `http://sunsite.berkeley.edu/Dienst/UI/2.0/Describe/ncstrl.ucb/CSD-98-1009`.

Daumas:1998:ELM

[3952] Marc Daumas. Expansions: lightweight multiple precision arithmetic. In ????, editor, *Architecture and Arithmetic Support for Multimedia, Dagstuhl, Germany*, pages 14–?? ????, ????, 1998. ISBN ???? LCCN ????

Dimitrov:1998:AME

[3953] V. S. Dimitrov, G. A. Jullien, and W. C. Miller. An algorithm for modular exponentiation. *Information Processing Letters*, 66(3):155–159, May 15, 1998. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Dimitrov:1998:FRR

[3954] V. S. Dimitrov, G. A. Jullien, and W. C. Miller. A fast and robust RNS algorithm for evaluating signs of determinants. *Computers and Mathematics with Applications*, 35(8):9–14, April 1998. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0898122198000418`.

Dimitrov:1998:RNS

[3955] V. S. Dimitrov, G. A. Jullien, and W. C. Miller. A residue number system implementation of real orthogonal transforms. *IEEE Transactions on Signal Processing*, 46(3):563–570, March 1998. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=14431`.

Drolet:1998:NRE

[3956] G. Drolet. A new representation of elements of finite fields $GF(2^m)$ yielding small complexity arithmetic circuits. *IEEE Transactions on Computers*, 47(9):938–946, September 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=713313`.

Drolshagen:1998:RNA

[3957] A. Drolshagen, C. C. Sekhar, and W. Anheier. A residue number arithmetic based circuit for pipelined computation of autocorrelation coefficients of speech signal. In *Eleventh International Conference on VLSI Design, 1998. Proceedings*, pages 122–127. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. CODEN ???? ISSN ????

Dunay:1998:DFP

[3958] Rezso Dunay, Istvan Kollar, and Bernard Widrow. Dithering for floating-point number representation. In Holub and Smid [7914], pages 0–1–9–12. ISBN 80-01-01806-7. LCCN ???? URL `http://citeseer.nj.nec.com/cache/papers/cs/1878/ftp:zSzzSzftp.mit.bme.huzSzpubzSzstaffzSzkollarzSzpaperszSzditherws.ps.gz/`

dunay98dithering.ps.gz;
http://citeseer.nj.nec.com/dunay98dithering.html.

ECDG:1998:IER

[3959] European Commission Directorate General II. The introduction of the euro and the rounding of currency amounts. II/28/99-EN Euro Papers 22, European Commission, March 1998. 32 pp. DGII/C-4-SP(99) European Commission.

Emiris:1998:MAL

[3960] Ioannis Z. Emiris, Victor Y. Pan, and Yanqiang Yu. Modular arithmetic for linear algebra computations in the real field. *Journal of Symbolic Computation*, 26(1):71–87, July 1998. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic).

Ercegovac:1998:BSO

[3961] M. Ercegovac, D. Kirovski, G. Mustafa, and M. Potkonjak. Behavioral synthesis optimization using multiple precision arithmetic. In *Proceedings of the 1998 IEEE International Conference on Acoustics, Speech, and Signal Processing, 1998: ICASSP '98, 12–15 May 1998*, volume 5, pages 3113–3116. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. CODEN ???? ISSN ????

Fiore:1998:LR

[3962] P. D. Fiore. Lazy rounding. In *IEEE Workshop on Signal Processing Systems, 1988: SIPS 98*, pages 449–458. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. CODEN ???? ISSN ????

Garcia:1998:PHC

[3963] A. Garcia, U. Meyer-Baese, and F. Taylor. Pipelined hogenauer CIC filters using field-programmable logic and residue number system. In *Proceedings of the 1998 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 98, 12–15 May 1998*, volume 5, pages 3085–3088. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. CODEN ???? ISSN ????

Gordon:1998:CLF

[3964] Robert Gordon. A calculated look at fixed-point arithmetic. *Embedded Systems Programming*, 11(4):72–78, April 1998. CODEN EYPRE4. ISSN 1040-3272.

Grisoni-Busca:1998:LPF

[3965] Louisa Grisoni-Busca. *Low power floating point A/D converters for audio signals*. Dissertation, Univ. Neuchâtel, Neuchâtel, Switzerland, 1998. xii + 136 pp.

Grushin:1998:CMA

[3966] A. I. Grushin and E. S. Vlasenko. Computer methods and apparatus for eliminating leading non-significant digits in floating point computations, May 24, 1998. U.S. Patent No. 5,732,007.

Guo:1998:SAI

[3967] Jyh-Huei Guo and Chin-Liang Wang. Systolic array implementation of Euclid's algorithm for inversion and division in GF(2^m). *IEEE Transactions on Computers*, 47(10):1161–1167, October 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=729800.

Hars:1998:FCC

[3968] L. Hars. Fast calculation of common mathematical functions with floating-point DSPs. In Anonymous [7911], pages 521–525. LCCN TK5102.5. Two volumes.

Heckmann:1998:ABI

[3969] Reinhold Heckmann. The appearance of big integers in exact real arithmetic based on linear fractional transformations. *Lecture Notes in Computer Science*, 1378:172–??, 1998. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1378/13780172.htm; http://link.springer-ny.com/link/service/series/0558/papers/1378/13780172.pdf.

Hill:1998:FDP

[3970] Theodore P. Hill. The first digit phenomenon. *American Scientist*, 86(4): 358–363, July/August 1998. CODEN AMSCAC. ISSN 0003-0996 (print), 1545-2786 (electronic). URL http://people.math.gatech.edu/~hill/publications/PAPER%20PDFS/TheFirstDigitPhenomenonAmericanScientist1996.pdf; http://www.math.gatech.edu/~hill/publications/cv.dir/1st-dig.pdf.

Huertgen:1998:TFP

[3971] F. Huertgen, H. Meyr, and M. Willems. Transformation of floating-point into fixed-point algorithms by interpolation applying a statistical approach. In Anonymous [7911], pages 630–634. LCCN TK5102.5. Two volumes.

Hussein:1998:LPA

[3972] A. E. Hussein, M. A. Hasan, and M. I. Elmasry. A low power algorithm for division in residue number system (RNS). In *IEEE Canadian Conference on Electrical and Computer Engineering, 24–28 May 1998*, volume 1, pages 205–208. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. CODEN ???? ISSN ????

IBM:1998:DAI

[3973] IBM. Decimal arithmetic instructions. In *ESA/390 Principles of Operation*, chapter 8. IBM Corporation, San Jose, CA, USA, 1998.

IEC:1998:IITa

[3974] IEC. *ISO/ IEC/TR2 15580 (1998-12): Information technology — Programming languages — Fortran — Floating-point exception handling*. International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland. Telephone: +41 22 919 02 11. Telefax: +41 22 919 03 00. E-mail: `info@iec.ch`. URL: `http://www.iec.ch`, 1998. 27 pp. US$56.00. URL `http://www.iec.ch/cgi-bin/procgi.pl/www/iecwww.p?wwwlang=E&wwwprog=cat-det.p&wartnum=023454`.

ISO:1998:IITc

[3975] International Organization for Standardization. *ISO/IEC TR 15580:1998: Information technology — Programming languages — Fortran — Floating-point exception handling*. International Organization for Standardization, Geneva, Switzerland, 1998. ISBN ???? 27 pp. LCCN ???? CHF 104; US$72.00. URL `http://webstore.ansi.org/ansidocstore/product.asp?sku=ISO%2FIEC+TR+15580%3A1998`; `http://www.iso.ch/cate/d28230.html`. Available in English only.

Jessani:1998:CSD

[3976] R. M. Jessani and M. Putrino. Comparison of single- and dual-pass multiply-add fused floating-point units. *IEEE Transactions on Computers*, 47(9):927–937, September 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=713312`.

Kahan:1998:HJFa

[3977] W. Kahan and Joseph D. Darcy. How Java's floating-point hurts everyone everywhere. Technical report, Department of Mathematics and

Department of Electrical Engineering and Computer Science, University of California, Berkeley, Berkeley, CA, USA, June 18, 1998. 80 pp. URL `http://www.cs.berkeley.edu/~wkahan/JAVAhurt.pdf`; `http://www.cs.berkeley.edu/~wkahan/JAVAhurt.ps`.

Kahan:1998:HJFb

[3978] William Kahan. How Java's floating-point hurts everyone everywhere. In ACM [7910], page ?? ISBN ???? LCCN ???? URL `http://www.cs.ucsb.edu/conferences/java98/papers/javahurt.pdf`. Possibly unpublished, except electronically.

Kahan:1998:IPE

[3979] W. Kahan. The improbability of probabilistic error analyses for numerical computations. Technical report, Department of Mathematics and Department of Electrical Engineering and Computer Science, University of California, Berkeley, Berkeley, CA, USA, June 10, 1998. 34 pp. URL `http://www.cs.berkeley.edu/~wkahan/improber.pdf`.

Kelsey:1998:RRA

[3980] Richard Kelsey, William Clinger, and Jonathan Rees. Revised^5 report on the algorithmic language Scheme. *ACM SIGPLAN Notices*, 33(9):26–76, September 1998. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). With H. Abelson, N. I. Adams, IV, D. H. Bartley, G. Brooks, R. K. Dybvig, D. P. Friedman, R. Halstead, C. Hanson, C. T. Haynes, E. Kohlbecker, D. Oxley, K. M. Pitman, G. J. Rozas, G. L. Steele Jr., G. J. Sussman, and M. Wand.

Kiranon:1998:SRV

[3981] W. Kiranon and N. Kumprasert. Square-rooting and vector summation circuits using current conveyors. *Circuits, Devices and Systems, IEE Proceedings [see also IEE Proceedings G- Circuits, Devices and Systems]*, 145(2):139, April 1998. CODEN ???? ISSN ????

Knuth:1998:SA

[3982] Donald E. Knuth. *Seminumerical Algorithms*, volume 2 of *The Art of Computer Programming*. Addison-Wesley, Reading, MA, USA, third edition, 1998. ISBN 0-201-89684-2. xiii + 762 pp. LCCN QA76.6 .K64 1997. US$52.75. See section 4.2.4V, The Fraction Parts, pages 254–262, for a discussion of Benford's Law.

Koc:1998:LCB

[3983] C. K. Koc and B. Sunar. Low-complexity bit-parallel canonical and normal basis multipliers for a class of finite fields. *IEEE Transactions* *on Computers*, 47(3):353–356, March 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=660172.

Kramer:1998:PWC

[3984] W. Kramer. A priori worst case error bounds for floating-point computations. *IEEE Transactions on Computers*, 47(7):750–756, July 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=709374. See [3067].

Kuhlmann:1998:FLP

[3985] M. Kuhlmann and K. K. Parhi. Fast low-power shared division and square-root architecture. In *Proceedings of the 1998 International Conference on Computer Design: VLSI in Computers and Processors. ICCD '98*, pages 128–135. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. CODEN ???? ISSN ????

Kwak:1998:ILI

[3986] Jae-Hyuek Kwak and E. E. Swartzlander. An implementation of level-index arithmetic based on the low latency CORDIC system. In *Conference Record of Thirty-Second Asilomar Conference on Signals, Systems and Computers (Cat. No. 98CH36284)*, volume 1, pages 208–212 (vol. 1). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998.

Labrosse:1998:FPA

[3987] Jean J. Labrosse. Fixed-point arithmetic for embedded systems. *C/C++ Users Journal*, 16(2):??, February 1998. CODEN CCUJEX. ISSN 1075-2838.

Langer:1998:CFP

[3988] Steven H. Langer and Paul F. Dubois. A comparison of the floating-point performance of current computers. *Computers in Physics*, 12(4): 338–??, July 1998. CODEN CPHYE2. ISSN 0894-1866 (print), 1558-4208 (electronic). URL https://aip.scitation.org/doi/10.1063/1.168693.

Langlois:1998:RBR

[3989] Ph. Langlois and F. Nativel. Reduction and bounding of the rounding error in floating-point arithmetic. *Comptes Rendus des Séances de l'Académie des Sciences. Série I. Mathématique*, 327(??):781–786, 1998. CODEN CASMEI. ISSN 0249-6291.

Lee:1998:DRN

[3990] I. Lee and W. K. Jenkins. The design of residue number system arithmetic units for a VLSI adaptive equalizer. In *Proceedings of the 8th Great Lakes Symposium on VLSI, 1998*, pages 179–184. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. CODEN ???? ISSN ????

Lefevre:1998:TCR

[3991] Vincent Lefèvre, Jean-Michel Muller, and Arnaud Tisserand. Toward correctly rounded transcendentals. *IEEE Transactions on Computers*, 47(11):1235–1243, November 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Ligon:1998:REP

[3992] W. B. Ligon III, S. McMillan, G. Monn, K. Schoonover, F. Stivers, and K. D. Underwood. A re-evaluation of the practicality of floating-point operations on FPGAs. In Pocek and Arnold [7922], pages 206–215. ISBN 0-8186-8900-5, 0-8186-8902-1 (microfiche). ISSN 1082-3409. LCCN TK7895.G36 I33 1998. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5734`.

Looye:1998:MMF

[3993] A. Looye, G. Hekstra, and E. Deprettere. Multiport memory and floating-point CORDIC pipeline in Jacobium processing elements. In *1998 IEEE Workshop on Signal Processing Systems. SIPS 98. Design and Implementation (Cat. No. 98TH8374)*, pages 406–416. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998.

LPT:1998:SC

[3994] Log Point Technologies. Soft CoProcessor. World-Wide Web document., June 1998. URL `http://www.logpoint.com/`; `http://www.logpoint.com/prelimi.htm`. This product provides software emulation of a logarithmic floating-point representation. Programming support is provided by a drop-in module for the GNU C compiler, `gcc`, and user-callable library support is available for several commercial compilers.

Ma:1998:SAM

[3995] Yutai Ma. A simplified architecture for modulo $(2^n + 1)$ multiplication. *IEEE Transactions on Computers*, 47(3):333–337, March 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=660169`.

McCullough:1998:ARS

[3996] B. D. McCullough. Assessing the reliability of statistical software: Part I. *The American Statistician*, 52(4):358–366, November 1998. CODEN ASTAAJ. ISSN 0003-1305 (print), 1537-2731 (electronic). URL http://www.jstor.org/stable/2685442.

Mohan:1998:EFC

[3997] P. V. Ananda Mohan. Evaluation of fast conversion techniques for binary-residue number systems. *IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications*, 45(10):1107–1109, October 1998. CODEN ITCAEX. ISSN ???? URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=15711.

Montalvo:1998:NST

[3998] L. A. Montalvo, K. K. Parhi, and A. Guyot. New Svoboda–Tung division. *IEEE Transactions on Computers*, 47(9):1014–1020, September 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=713319.

Moore:1998:CMC

[3999] G. E. Moore. Cramming more components onto integrated circuits. *Proceedings of the IEEE*, 86(1):82–85, January 1998. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic).

Moore:1998:MCP

[4000] J. S. Moore, T. W. Lynch, and M. Kaufmann. A mechanically checked proof of the AMD5 K 86^{TM} floating-point division program. *IEEE Transactions on Computers*, 47(9):913–926, September 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=713311.

Murabayashi:1998:WBP

[4001] F. Murabayashi, T. Yamauchi, R. Yamagata, and T. Shimizu. A 400MHz 160-word $\times$ 64-bit 14-port floating-point register file macrocell for a superscalar RISC processor. In Huijsing et al. [7915], pages 440–443. ISBN 2-86332-235-4. LCCN TK7871.85 .E887 1998.

Naffziger:1998:MAB

[4002] S. D. Naffziger and R. G. Beraha. Method and apparatus for bounding alignment shifts to enable at speed denormalized result generation in an FMAC, May 26, 1998. U.S. Patent No. 5,757,687.

Nguyen:1998:MLS

[4003] Phong Nguyen. A Montgomery-like square root for the number field sieve. *Lecture Notes in Computer Science*, 1423:151–??, 1998. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/1423/14230151.htm`; `http://link.springer-ny.com/link/service/series/0558/papers/1423/14230151.pdf`.

Oberman:1998:ATK

[4004] Stuart Oberman, Fred Weber, Norbert Juffa, and Greg Favor. AMD 3DNow! technology and the K6-2 microprocessor. In IEEE [7916], pages 245–254. ISBN ???? LCCN ????

Oberman:1998:MCS

[4005] S. F. Oberman and M. J. Flynn. Minimizing the complexity of SRT tables. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 6(1):141–149, ???? 1998. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Oberman:1998:RML

[4006] S. F. Oberman and M. J. Flynn. Reducing the mean latency of floating-point addition. *Theoretical Computer Science*, 196(1-2):201–214, April 6, 1998. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Paar:1998:EMA

[4007] C. Paar, P. Fleischmann, and P. Roeise. Efficient multiplier architectures for Galois fields GF(2^{4n}). *IEEE Transactions on Computers*, 47(2):162–170, February 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=663762`.

Paul:1998:CBR

[4008] Wolfgang J. Paul and Peter-Michael Seidel. On the complexity of Booth recoding. In Chesneaux et al. [7912], pages 199–218. ISBN ???? LCCN ????

Paulus:1998:CRI

[4009] Sachar Paulus and Andreas Stein. Comparing real and imaginary arithmetics for divisor class groups of hyperelliptic curves. *Lecture Notes in Computer Science*, 1423:576–??, 1998. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/1423/14230576.htm`;

http://link.springer-ny.com/link/service/series/0558/papers/1423/14230576.pdf.

Pena:1998:CDI

[4010] J. Pena. Computing the distance to infeasibility: Theoretical and practical issues. Technical report, Center for Applied Mathematics, Cornell University, Ithaca, NY, USA, 1998.

Peuto:1998:ITM

[4011] Bernard L. Peuto and Leonard J. Shustek. An instruction timing model of CPU performance. In Sohi [7924], pages 152–163. ISBN 1-58113-058-9. ISSN 1063-6897. LCCN QA76.9.A73 S944 1998.

Rajski:1998:ABS

[4012] Janusz Rajski and Jerzy Tyszer. *Arithmetic built-in self-test for embedded systems*. Prentice-Hall PTR, Upper Saddle River, NJ 07458, USA, 1998. ISBN 0-13-756438-4. xii + 268 pp. LCCN TK7895.E42 R35 1998.

Rivolo:1998:CDR

[4013] M. T. Rivolo and A. Simi. Il calcolo delle radici quadrate e cubiche in Italia da Fibonacci a Bombelli. (Italian) [The calculation of square and cube roots in Italy from Fibonacci to Bombelli]. *Archive for History of Exact Sciences*, 52(2):161–193, February 1998. CODEN AHESAN. ISSN 0003-9519 (print), 1432-0657 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0003-9519&volume=52&issue=2&spage=161.

Russinoff:1998:MCPa

[4014] D. M. Russinoff. A mechanically-checked proof of IEEE compliance of a register-transfer-level specification of the AMD K7 floating-point division and square root instructions. World-Wide Web document., 1998. URL http://www.onr.com/user/russ/david/k7-div-sqrt.html. See journal article [4015].

Russinoff:1998:MCPb

[4015] David M. Russinoff. A mechanically checked proof of IEEE compliance of the floating point multiplication, division and square root algorithms of the AMD-K7^{TM} processor. *LMS Journal of Computation and Mathematics*, 1:148–200, 1998. CODEN ???? ISSN 1461-1570. URL http://www.lms.ac.uk/jcm/1/lms1998-001/; http://www.onr.com/user/russ/david/k7-div-sqrt.ps. Appendices A and B available to subscribers electronically (http://www.lms.ac.uk/jcm/1/lms98001/appendix-a/ and http://www.lms.ac.uk/jcm/1/lms98001/appendix-b/).

Sasaki:1998:ACE

[4016] Tateaki Sasaki and Satoshi Yamaguchi. An analysis of cancellation error in multivariate Hensel construction with floating-point number arithmetic. In Gloor [7913], pages 1–8. ISBN 1-58113-002-3. LCCN ???? URL `http://www.acm.org/pubs/citations/proceedings/issac/281508/p1-sasaki/`.

Sasaki:1998:CEM

[4017] Tateaki Sasaki and Tomoyuki Sato. Cancellation errors in multivariate resultant computation with floating-point numbers. *SIGSAM Bulletin (ACM Special Interest Group on Symbolic and Algebraic Manipulation)*, 32(4):13–20, December 1998. CODEN SIGSBZ. ISSN 0163-5824 (print), 1557-9492 (electronic).

Sastry:1998:EIF

[4018] S. Subramanya Sastry, Subbarao Palacharla, and James E. Smith. Exploiting idle floating-point resources for integer execution. *ACM SIGPLAN Notices*, 33(5):118–129, May 1998. CODEN SINODQ. ISBN 0-89791-987-4. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL `http://www.acm.org:80/pubs/citations/proceedings/pldi/277650/p118-sastry/`.

Seidel:1998:HHL

[4019] Peter-Michael Seidel. How to half [sic] the latency of IEEE compliant floating-point multiplication. In IEEE [7918], pages 329–332. ISBN 0-8186-8646-4, 0-8186-8647-2 (casebound), 0-8186-8648-0 (microfiche). LCCN QA76.5 .S97 1998; QA 76.5 .E9 1998. Two volumes. IEEE Computer Society Order Number PR08646.

Seidel:1998:HSR

[4020] P.-M. (Peter-Michael) Seidel. High-speed redundant reciprocal approximation. In *Proceedings of the 3rd Conference on Real Numbers and Computers (RNC3), Paris, April 1998*, pages 219–229. ????, ????, 1998. ISBN ???? LCCN ????

Severance:1998:IOM

[4021] C. Severance. An interview with the old man of floating-point: Reminiscences elicited from William Kahan. World-Wide Web document., 1998. URL `http://www.cs.berkeley.edu/~wkahan/ieee754status/754story.html`. A shortened version appears in [4022].

Severance:1998:SII

[4022] Charles Severance. Standards: IEEE 754: An interview with William Kahan. *Computer*, 31(3):114–115, March 1998. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). URL `http://pdf.computer.org/co/books/co1998/pdf/r3114.pdf`.

Simons:1998:IFP

[4023] N. R. S. Simons, G. E. Bridges, B. Ghosh, and M. Cuhaci. Investigation of floating-point round-off errors within time-domain electromagnetic field computations. In *1998. IEEE Antennas and Propagation Society International Symposium. 21–26 June 1998*, volume 1, pages 260–263. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. CODEN ???? ISSN ????

Skavantzos:1998:ERW

[4024] A. Skavantzos. An efficient residue to weighted converter for a new residue number system. In *Proceedings of the 8th Great Lakes Symposium on VLSI, 1998*, pages 185–191. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. CODEN ???? ISSN ????

Slabodkin:1998:SGL

[4025] G. Slabodkin. Software glitches leave Navy Smart Ship dead in the water. Web site, July 31, 1998. URL `https://www.rose-hulman.edu/class/cs/csse442/current/hw/homework6-story.pdf`.

Smith:1998:AMP

[4026] David M. Smith. Algorithm 786: Multiple-precision complex arithmetic and functions. *ACM Transactions on Mathematical Software*, 24(4):359–367, December 1998. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://www.acm.org:80/pubs/citations/journals/toms/1998-24-4/p359-smith/`. See also [3456, 1117, 1212, 1288].

Stelling:1998:OCP

[4027] P. F. Stelling, C. U. Martel, V. G. Oklobdzija, and R. Ravi. Optimal circuits for parallel multipliers. *IEEE Transactions on Computers*, 47 (3):273–285, March 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=660163`.

Stine:1998:CIFa

[4028] J. E. Stine and M. J. Schulte. A combined interval and floating point divider. In Matthews et al. [7921], pages 218–222. ISBN 0-7803-5148-7, 0-7803-5149-5, 0-7803-5150-9. LCCN TK5101.A1 A85 1998; TK454.2 .A8 1998. URL http://mesa.ece.wisc.edu/publications/cp_1998-02.pdf.

Stine:1998:CIFb

[4029] J. E. Stine and M. J. Schulte. A combined interval and floating point multiplier. In IEEE [7919], pages 208–213. ISBN 0-8186-8409-7, 0-8186-8411-9. LCCN TK7874 .G689 1998. URL http://mesa.ece.wisc.edu/publications/cp_1998-01.pdf.

Takagi:1998:PTL

[4030] N. Takagi. Powering by a table look-up and a multiplication with operand modification. *IEEE Transactions on Computers*, 47(11):1216–1222, November 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=736432.

Takashi:1998:FPN

[4031] Y. Takashi. Floating point number format with number system with base of 1000. *IBM Technical Disclosure Bulletin*, 01-98:609–610, January 1998. CODEN IBMTAA. ISSN 0018-8689.

Thorup:1998:FIS

[4032] M. Thorup. Floats, integers, and single source shortest paths. *Lecture Notes in Computer Science*, 1373:14–??, 1998. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Ulman:1998:HPF

[4033] Zenon D. Ulman and Maciej Czyzak. Highly parallel, fast scaling of numbers in nonredundant residue arithmetic. *IEEE Transactions on Signal Processing*, 46(2):487–496, 1998. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Upton:1998:RH

[4034] Graham Upton. Rounding halves. *Journal of Applied Statistics*, 25(6):811–816, December 1, 1998. CODEN ???? ISSN 0266-4763 (print), 1360-0532 (electronic). URL http://www.catchword.co.uk/cgi-bin/cgi?ini=carfax&body=linker&reqidx=/catchword/carfax/13600532/v25n6/s9/p811.

Vogt:1998:FPP

[4035] Christopher J. Vogt. Floating point performance of Common Lisp. *ACM SIGPLAN Notices*, 33(9):103–107, September 1998. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Walter:1998:EUD

[4036] C. D. Walter. Exponentiation using division chains. *IEEE Transactions on Computers*, 47(7):757–765, July 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=709375`.

Walters:1998:SFF

[4037] A. Walters and P. Athanas. A scaleable FIR filter using 32-bit floating-point complex arithmetic on a configurable computing machine. In Pocek and Arnold [7922], pages 333–334. ISBN 0-8186-8900-5, 0-8186-8902-1 (microfiche). ISSN 1082-3409. LCCN TK7895.G36 I33 1998. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5734`.

Wang:1998:CAP

[4038] Shaoyun Wang. *A CORDIC arithmetic processor*. Ph.D. thesis, The University of Texas at Austin, Austin, TX, USA, 1998. 136 pp. URL `https://login.ezproxy.lib.utah.edu/login?url=https://www.proquest.com/dissertations-theses/cordic-arithmetic-processor/docview/304459653/se-2`.

Wei:1998:RAC

[4039] Shugang Wei and Kensuke Shimizu. Residue arithmetic circuits based on signed-digit multi-valued arithmetic circuits. In Sasao and Werner [7923], pages 276–281. ISBN 0-8186-8371-6 (paperback), 0-8186-8372-4 (casebound), 0-8186-8373-2 (microfiche). ISSN 0195-623X. LCCN ???? URL `http://csdl.computer.org/dl/proceedings/ismvl/1998/8371/00/83710276.pdf`. IEEE catalog number 98CB36138.

Weiss:1998:FPM

[4040] S. Weiss and A. Goldstein. Floating point micropipeline performance. *Journal of Systems Architecture*, 45(1):15–29, October 1998. CODEN JSARFB. ISSN 1383-7621 (print), 1873-6165 (electronic).

Wu:1998:LCB

[4041] Huapeng Wu and M. A. Hasan. Low complexity bit-parallel multipliers for a class of finite fields. *IEEE Transactions on Computers*, 47(8):883–887, August 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956

(electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=707588.

Wu:1998:NLC

[4042] H. Wu, M. A. Hasan, and I. F. Blake. New low-complexity bit-parallel finite field multipliers using weakly dual bases. *IEEE Transactions on Computers*, 47(11):1223–1234, November 1998. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=736433.

Abbott:1999:ASS

[4043] P. H. Abbott, D. G. Brush, C. W. Clark III, C. J. Crone, J. R. Ehrman, G. W. Ewart, C. A. Goodrich, M. Hack, J. S. Kapernick, B. J. Minchau, W. C. Shepard, R. M. Smith, Sr., R. Tallman, S. Walkowiak, A. Watanabe, and W. R. White. Architecture and software support in IBM S/390 Parallel Enterprise Servers for IEEE floating-point arithmetic. *IBM Journal of Research and Development*, 43(5/6):723–760, September/November 1999. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/435/abbott.html. Besides important history of the development of the S/360 floating-point architecture, this paper has a good description of IBM's algorithm for exact decimal-to-binary conversion, complementing earlier ones [2658, 2563, 2604, 3631, 5019].

Agarwal:1999:SAM

[4044] Rames C. Agarwal, Fred G. Gustavson, and Martin S. Schmookler. Series approximation methods for divide and square root in the Power3^{TM} processor. In Koren and Kornerup [7932], pages 116–123. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-144.pdf; http://euler.ecs.umass.edu/paper/final/paper-144.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Agarwal.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Ait-Ameur:1999:RRE

[4045] Y. Ait-Ameur. Refinement of rational end-points real numbers by means of floating-point numbers. *Science of Computer Programming*, 33(2):133–162, February 1999. CODEN SCPGD4. ISSN 0167-6423 (print), 1872-7964 (electronic).

Allender:1999:BDA

[4046] Eric Allender, Andris Ambainis, David A. Mix Barrington, Samir Datta, and Huong LêThanh. Bounded depth arithmetic circuits: Counting and closure. *Lecture Notes in Computer Science*, 1644:149–??, 1999. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1644/16440149.htm; http://link.springer-ny.com/link/service/series/0558/papers/1644/16440149.pdf.

Anderson:1999:DAF

[4047] I. J. Anderson. A distillation algorithm for floating-point summation. *SIAM Journal on Scientific Computing*, 20(5):1797–1806, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/31420.

Anonymous:1999:SLH

[4048] Anonymous. Standard libraries for the Haskell 98 programming language. World-Wide Web document, February 1999. URL http://www.haskell.org/definition/haskell98-library.pdf.

Antelo:1999:VHR

[4049] E. Antelo, T. Lang, and J. D. Bruguera. Very-high radix CORDIC vectoring with scalings and selection by rounding. In *Proceedings 14th IEEE Symposium on Computer Arithmetic (Cat. No. 99CB36336)*, pages 204–213. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999.

Antelo:1999:VRC

[4050] Elisardo Antelo, Tomás Lang, and Javier D. Bruguera. Very-high radix CORDIC vectoring with scalings and selection by rounding. In Koren and Kornerup [7932], pages 204–213. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-154.pdf; http://euler.ecs.umass.edu/paper/final/paper-154.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Antelo.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Aoki:1999:RCA

[4051] Takafumi Aoki, Ken ichi Hoshi, and Tatsuo Higuchi. Redundant complex arithmetic and its application to complex multiplier design. In IEEE [7931], pages 200–207. ISBN 0-7695-0161-3, 0-7803-5684-5, 0-7695-0163-x. LCCN ????

Bach:1999:NTS

[4052] E. Bach and K. Huber. Note on taking square-roots modulo N. *IEEE Transactions on Information Theory*, 45(2):807–809, March 1999. CODEN IETTAW. ISSN 0018-9448 (print), 1557-9654 (electronic).

Batten:1999:IBO

[4053] D. Batten, S. Jinturkar, J. Glossner, M. Schulte, R. Peri, and P. D'arcy. Interactions between optimizations and a new type of DSP intrinsic function. In ????, editor, *Proceedings of the International Conference on Signal Processing Applications and Technologies, Orlando, Florida, November, 1999*. ????, ????, 1999. ISBN ???? LCCN ???? URL http://mesa.ece.wisc.edu/publications/cp_1999-09.pdf. Shortened version in [4054].

Batten:1999:IFB

[4054] D. Batten and P. D'arcy. Intrinsic functions boost compilers. *Electrical Engineering Times*, 1085:104, November 1999.

Beaumont-Smith:1999:RLI

[4055] A. Beaumont-Smith, N. Burgess, S. Lefrere, and C. C. Lim. Reduced latency IEEE floating-point standard adder architectures. In Koren and Kornerup [7932], pages 35–43. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-163.pdf; http://euler.ecs.umass.edu/paper/final/paper-163.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Beaumont_Smith.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Benschop:1999:MML

[4056] Nico Fritz Benschop. Multiplier for the multiplication of at least two figures in an original format. US Patent number 5,923,888., July 13, 1999. URL https://patents.google.com/patent/US5923888A.

Bhardwaj:1999:RCM

[4057] M. Bhardwaj, T. Srikanthan, and C. T. Clarke. A reverse converter for the 4-moduli superset $\{2^n - 1,\ 2^n,\ 2^n + 1,\ 2^(n + 1) + 1\}$. In Koren and Kornerup [7932], pages 168–175. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-137.pdf; http://euler.ecs.umass.edu/paper/final/paper-137.ps;

http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Bhardwaj.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Bhardwaj:1999:VCA

[4058] M. Bhardwaj, T. Srikanthan, and C. T. Clarke. VLSI costs of arithmetic parallelism: a residue reverse conversion perspective. In Koren and Kornerup [7932], pages 176–185. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-138.pdf; http://euler.ecs.umass.edu/paper/final/paper-138.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Bhardwaj_VLSI.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Blum:1999:MME

[4059] Thomas Blum and Christoph Paar. Montgomery modular exponentiation on reconfigurable hardware. In Koren and Kornerup [7932], pages 70–77. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-133.pdf; http://euler.ecs.umass.edu/paper/final/paper-133.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Blum.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Boldo:1999:CRE

[4060] Sylvie Boldo. Calcul rapide et exact de fonctions élémentaires en précision arbitraire par la moyenne arithmético-géométrique. (French) [rapid and exact computation of elementary functions in arbitrary precision by the arithmetic-geometric mean]. Report, INRIA, Projet Spaces, LORIA, Campus Scientifique, B.P. 239, 54506 Vandoeuvre-lès-Nancy Cedex, France, 1999. 29 pp. URL http://perso.ens-lyon.fr/sylvie.boldo/doc/mpfr.ps. Under the direction of Paul Zimmermann.

Brent:1999:CAP

[4061] Richard P. Brent. Computer arithmetic — a programmer's perspective. In Koren and Kornerup [7932], page 2. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/brentr.pdf; http://euler.ecs.umass.edu/paper/final/brentr.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Brent.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Bronnimann:1999:SDR

[4062] Herve Bronnimann, Ioannis Z. Emiris, Victor Y. Pan, and Sylvain Pion. Sign determination in residue number systems. *Theoretical Computer Science*, 210(1):173–197, January 06, 1999. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic). URL http://www.elsevier.com/cas/tree/store/tcs/sub/1999/210/1/2931.pdf.

Bui:1999:DSI

[4063] H. Bui and S. Tahar. Design and synthesis of an IEEE-754 exponential function. In *1999 IEEE Canadian Conference on Electrical and Computer Engineering, 9–12 May 1999*, volume 1, pages 450–455. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Burgess:1999:EIR

[4064] N. Burgess and S. Knowles. Efficient implementation of rounding units. In *Conference Record of the Thirty-Third Asilomar Conference on Signals, Systems, and Computers, 1999*, volume 2, pages 1489–1493. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Burgess:1999:FIS

[4065] Neil Burgess and Luigi Ciminiera. Fifteenth IEEE Symposium on Computer Arithmetic: Foreword. In Koren and Kornerup [7932], page ix. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_contents.pdf; http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_foreword.pdf; http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_preface.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Cappuccino:1999:HSS

[4066] G. Cappuccino, G. Cocorullo, P. Corsonello, and S. Perri. High speed self-timed pipelined datapath for square rooting. *Circuits, Devices and Systems, IEE Proceedings [see also IEE Proceedings G- Circuits, Devices and Systems]*, 146(1):16–22, February 1999. CODEN ???? ISSN ????

Chren:1999:DSM

[4067] W. A. Chren, Jr. Delta-sigma modulator with large OSR using the one-hot residue number system. *IEEE transactions on circuits and* *systems. 2, Analog and digital signal processing*, 46(8):1002–1008, August 1999. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=16972.

Christensen:1999:BFP

[4068] E. L. Christensen. Block floating point for radar data. *IEEE Transactions on Aerospace and Electronic Systems*, 35(1):308–318, January 1999. CODEN IEARAX. ISSN 0018-9251 (print), 1557-9603 (electronic).

Chung:1999:RAC

[4069] Sei-Jong Chung. Recursive algorithm with C++ program for floating-point arithmetic. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 31(2):28–30, June 1999. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

Cilio:1999:FPF

[4070] A. Cilio and H. Corporaal. Floating point to fixed point conversion of C code. *Lecture Notes in Computer Science*, 1575:229–243, 1999. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Clarke:1999:VSD

[4071] Edmund M. Clarke, Steven M. German, and Xudong Zhao. Verifying the SRT division algorithm using theorem proving techniques. *Formal Methods in System Design*, 14(1):7–44, January 1999. CODEN FMSDE6. ISSN 0925-9856 (print), 1572-8102 (electronic). URL http://www.wkap.nl/jrnltoc.htm/0925-9856; http://www.wkap.nl/oasis.htm/194806. Special issue on arithmetic circuits.

Clouser:1999:MSF

[4072] J. Clouser, M. Matson, R. Badeau, R. Dupcak, S. Samudrala, R. Allmon, and N. Fairbanks. A 600-MHz superscalar floating-point processor. *IEEE Journal of Solid-State Circuits*, 34(7):1026–1029, July 1999. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Coleman:1999:BLA

[4073] J. N. Coleman and E. I. Chester. A 32-bit logarithmic arithmetic unit and its performance compared to floating-point. In Koren and Kornerup [7932], pages 142–151. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-160.pdf; http://euler.ecs.umass.edu/paper/final/paper-160.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Coleman.pdf. IEEE

Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Collavizza:1999:CPC

[4074] H. Collavizza, F. Delobel, and M. Rueher. Comparing partial consistencies. *Reliable Computing = Nadezhnye vychisleniia*, 5(3):213–228, 1999. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

Connors:1999:SOF

[4075] Daniel A. Connors, Yoji Yamada, and Wen mei W. Hwu. A software-oriented floating-point format for enhancing automotive control systems. Report, Department of Electrical and Computer Engineering, The Coordinated Science Laboratory, University of Illinois, Urbana, IL 61801, USA, August 11, 1999. URL http://rogue.colorado.edu/draco/papers/case-98-float.pd. Updated version of paper presented at the *Workshop on Compiler and Architecture Support for Embedded Computing Systems (CASES98), December, 1998*.

Constales:1999:PSS

[4076] Denis Constales. Problems and solutions: Solutions: 10568. subtracting square roots repeatedly. *American Mathematical Monthly*, 106(2):167, February 1999. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Conway:1999:FCM

[4077] R. Conway and J. Nelson. Fast converter for 3 moduli RNS using new property of CRT. *IEEE Transactions on Computers*, 48(8):852–860, August 1999. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=795127.

Cornea-Hasegan:1999:CPO

[4078] Marius A. Cornea-Hasegan, Roger A. Golliver, and Peter Markstein. Correctness proofs outline for Newton–Raphson based floating-point divide and square root algorithms. In Koren and Kornerup [7932], pages 96–105. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-121.pdf; http://euler.ecs.umass.edu/paper/final/paper-121.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Cornea_Hasegan.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Cornea-Hasegan:1999:IFP

[4079] Marius Cornea-Hasegan and Bob Norin. IA-64 floating-point operations and the IEEE standard for binary floating-point arithmetic. *Intel Technology Journal*, Q4:16, November 22, 1999. ISSN 1535-766X. URL `http://developer.intel.com/technology/itj/q41999/articles/art_6.htm`; `http://developer.intel.com/technology/itj/q41999/pdf/ia64fpbf.pdf`; `http://gec.di.uminho.pt/discip/minf/ac0203/icca03/ia64fpbf1.pdf`.

Corsonello:1999:HPS

[4080] P. Corsonello and S. Perri. High performance square rooting circuit using hybrid radix-2 adders. *Electronics Letters*, 35(3):185–186, February 4, 1999. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Crandall:1999:VIM

[4081] Richard E. Crandall and Jason Klivington. Vector implementation of multiprecision arithmetic. Report, Advanced Computation Group, Apple Computer, Cupertino, CA, USA, October 25, 1999. 11 pp. URL `http://images.apple.com/acg/pdf/G4multiprecision.pdf`.

Cucker:1999:CED

[4082] Felipe Cucker and Steve Smale. Complexity estimates depending on condition and round-off error. *Journal of the Association for Computing Machinery*, 46(1):113–184, January 1999. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic). URL `http://www.acm.org:80/pubs/citations/journals/jacm/1999-46-1/p113-cucker/`.

Cuyt:1999:UR

[4083] Annie Cuyt, Peter Kuterna, Brigitte Verdonk, and Dennis Verschaeren. Underflow revisited. Technical report, University of Antwerp (UIA), Antwerp, Belgium, 1999. URL `ftp://wins.uia.ac.be/pub/preprints/99/underflow.ps`.

Darcy:1999:JEF

[4084] J. D. Darcy. Java's evolving floating-point support: The good, the bad, and the ugly. In Robert F. Enenkel, editor, *CASCON 1998 Workshop Report, Numerical Computing: Compiler and Library Support*, pages 2–10. IBM Center for Advanced Studies, Toronto, ON, Canada, 1999. URL `https://www-927.ibm.com/ibm/cas/publications/TR-74.165/n/numcomp6.pdf`. Technical report TR-74.165-n.

Daumas:1999:DFP

[4085] Marc Daumas and C. Finot. Division of floating point expansions with an application to the computation of a determinant. *J.UCS: Journal of Universal Computer Science*, 5(6):323–??, June 28, 1999. CODEN ???? ISSN 0948-6968. URL `http://www.jucs.org/jucs_5_6/division_of_floating_point`.

Daumas:1999:MFP

[4086] Marc Daumas. Multiplications of floating point expansions. In Koren and Kornerup [7932], pages 250–257. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL `http://euler.ecs.umass.edu/paper/final/paper-102.pdf; http://euler.ecs.umass.edu/paper/final/paper-102.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Daumas.pdf`. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Denise:1999:URG

[4087] A. Denise and P. Zimmermann. Uniform random generation of decomposable structures using floating-point arithmetic. *Theoretical Computer Science*, 218(2):233–248, May 26, 1999. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Dimitrov:1999:TAD

[4088] V. S. Dimitrov, G. A. Jullien, and W. C. Miller. Theory and applications for a double-base number system. *IEEE Transactions on Computers*, 48 (10):1098–1106, 1999. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Dimitrova:1999:VCF

[4089] N. S. Dimitrova and S. M. Markov. Verified computation of fast decreasing polynomials. *Reliable Computing = Nadezhnye vychisleniia*, 5(3):229–240, 1999. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

Dyke-Lewis:1999:MAP

[4090] M. D. V. Dyke-Lewis and W. Meeker. Method and apparatus for performing fast floating point operations, October 12, 1999. U.S. Patent No. 5,966,085.

Dyllong:1999:ADC

[4091] E. Dyllong, W. Luther, and W. Otten. An accurate distance-calculation algorithm for convex polyhedra. *Reliable Computing = Nadezhnye* *vychisleniia*, 5(3):241–253, 1999. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

ECDG:1999:IER

[4092] European Commission Directorate General II. *The Introduction of the Euro and the Rounding of Currency Amounts*. European Commission Directorate General II Economic and Financial Affairs, Brussels, Belgium, February 1999. 32 pp. II/28/99-EN Euro Papers No. 22. Earlier edition dated March 1998.

Edalat:1999:NIE

[4093] A. Edalat and M. Krznaric. Numerical integration with exact real arithmetic. *Lecture Notes in Computer Science*, 1644:90–??, 1999. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Ercegovac:1999:IGD

[4094] Miloš D. Ercegovac, Laurent Imbert, David W. Matula, Jean-Michel Muller, and Guoheng Wei. Improving Goldschmidt division, square root, and square root reciprocal. Research Report 99-41, Laboratoire de l'Informatique du Parallélisme, Lyon, France, September 1999. ii + 17 pp. URL https://inria.hal.science/inria-00072909/file/RR1999-41.pdf.

Ercegovac:1999:LPB

[4095] M. Ercegovac, D. Kirovski, and M. Potkonjak. Low-power behavioral synthesis optimization using multiple precision arithmetic. In *Proceedings of the 36th Design Automation Conference, 21–25 June 1999*, pages 568–573. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Even:1999:CTR

[4096] Guy Even and Peter-Michael Seidel. A comparison of three rounding algorithms for IEEE floating-point multiplication. In Koren and Kornerup [7932], pages 225–232. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-100.pdf; http://euler.ecs.umass.edu/paper/final/paper-100.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Even.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Eweda:1999:REA

[4097] E. Eweda, W. M. Younis, and S. H. El-Ramly. Roundoff error analysis of the tracking performance of the block LMS algorithm. In *Proceedings of the Sixteenth National Radio Science Conference 1999: NRSC '99*, pages C30/1–C30/9. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Farid:1999:RCA

[4098] T. Farid and D. Zerbino. Realization of complex arithmetic on cellular automata. *Lecture Notes in Computer Science*, 1662:479–??, 1999. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Fateman:1999:SEN

[4099] Richard J. Fateman. Symbolic execution and NaNs: diagnostic tools for tracking scientific computation. *SIGSAM Bulletin (ACM Special Interest Group on Symbolic and Algebraic Manipulation)*, 33(3):25–26, September 1999. CODEN SIGSBZ. ISSN 0163-5824 (print), 1557-9492 (electronic).

Fernandez:1999:NID

[4100] P. G. Fernandez, A. Garcia, J. Ramirez, L. Parrilla, and A. Lloris. A new implementation of the discrete cosine transform in the residue number system. In *Conference Record of the Thirty-Third Asilomar Conference on Signals, Systems, and Computers, 1999*, volume 2, pages 1302–1306. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Fiore:1999:PMU

[4101] P. D. Fiore. Parallel multiplication using fast sorting networks. *IEEE Transactions on Computers*, 48(6):640–645, June 1999. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=773800`.

Flynn:1999:FDA

[4102] Patrick Hung, Hossam Fahmy, Oskar Mencer, and Michael J. Flynn. Fast division algorithm with a small lookup table. In IEEE, editor, *Asilomar Conference on Signals, Systems, and Computers, California, Nov. 1999*, page ?? IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. URL `ftp://arith.stanford.edu/tr/asil99div.ps.gz`.

Freking:1999:MMM

[4103] W. L. Freking and K. K. Parhi. Montgomery modular multiplication and exponentiation in the residue number system. In *Conference Record of the*

Thirty-Third Asilomar Conference on Signals, Systems, and Computers, 1999, volume 2, pages 1312–1316. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Frommer:1999:VEB

[4104] A. Frommer and A. Weinberg. Verified error bounds for linear systems through the Lanczos process. *Reliable Computing = Nadezhnye vychisleniia*, 5(3):255–267, 1999. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

Garcia:1999:LSS

[4105] A. Garcia and A. Lloris. A look-up scheme for scaling in the RNS. *IEEE Transactions on Computers*, 48(7):748–751, July 1999. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=780883`.

Gay:1999:SAF

[4106] David M. Gay and Eric Grosse. Self-adapting Fortran 77 machine constants: Comment on Algorithm 528. *ACM Transactions on Mathematical Software*, 25(1):123–126, March 1999. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `http://cm.bell-labs.com/who/ehg/mach/d1mach.ps`; `http://www.acm.org/pubs/citations/journals/toms/cgi-bin/TOMSbibget?Gay:1999:SAF`; `http://www.acm.org/pubs/citations/journals/toms/cgi-bin/TOMScitation?Fox:1978:AFP`; `http://www.acm.org:80/pubs/citations/journals/toms/1999-25-1/p123-gay/`. See [1137].

German:1999:ISI

[4107] Steven M. German. Introduction to the special issue on verification of arithmetic hardware. *Formal Methods in System Design*, 14(1):5–6, January 1999. CODEN FMSDE6. ISSN 0925-9856 (print), 1572-8102 (electronic). URL `http://www.wkap.nl/jrnltoc.htm/0925-9856`; `http://www.wkap.nl/oasis.htm/194805`.

Gerwig:1999:FPU

[4108] Guenter Gerwig and Michael Kroener. Floating-point unit in standard cell design with 116 bit wide dataflow. In Koren and Kornerup [7932], pages 266–273. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL `http://euler.ecs.umass.edu/paper/final/paper-132.pdf`; `http://euler.ecs.umass.edu/paper/final/paper-132.ps`; `http://www.acsel-lab.com/`

arithmetic/arith14/papers/ARITH14_Gerwig.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Gizopoulos:1999:EBS

[4109] D. Gizopoulos, A. Paschalis, and Y. Zorian. An effective built-in self-test scheme for parallel multipliers. *IEEE Transactions on Computers*, 48(9): 936–950, September 1999. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=795222.

Gorshtein:1999:MAM

[4110] V. Y. Gorshtein and V. T. Khlobystov. Multiplication apparatus and methods which generate a shift amount by which the product of the significands is shifted for normalization or denormalization, October 5, 1999. U.S. Patent No. 5,963,461.

Gueron:1999:FFP

[4111] Shay Gueron. Flying in a floating (point) world. *International Journal of Computers for Mathematical Learning*, 4(2–3):225–234, May 1999. ISSN 1382-3892 (print), 1573-1766 (electronic). URL http://www.springerlink.com/content/j071k8608t578153/.

Gustavson:1999:FMA

[4112] Fred G. Gustavson, José E. Moreira, and Robert F. Enenk. The fused multiply-add instruction leads to algorithms for extended-precision floating point: applications to Java and high-performance computing. In ????, editor, *CASCON '99: Proceedings of the 1999 Conference of the Centre for Advanced Studies on Collaborative Research. November 8–11, 1999, Mississauga, Ontario, Canada*, page 4. IBM Corporation, San Jose, CA, USA, 1999. ISBN ???? LCCN ???? Dedicated to Cleve Moler on his 60th birthday.

Handlogten:1999:MAP

[4113] G. H. Handlogten. Method and apparatus to perform pipelined denormalization of floating-point results, August 24, 1999. U.S. Patent No. 5,943,249.

Harrison:1999:CTF

[4114] John Harrison, Ted Kubaska, Shane Story, and Ping Tak Peter Tang. The computation of transcendental functions on the IA-64 architecture. *Intel Technology Journal*, Q4:7, November 22,

1999. URL http://developer.intel.com/technology/itj/q41999/articles/art_5.htm; http://developer.intel.com/technology/itj/q41999/pdf/transendental.pdf.

Harrison:1999:MCT

[4115] John Harrison. A machine-checked theory of floating point arithmetic. *Lecture Notes in Computer Science*, 1690:113–130, 1999. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://www.cl.cam.ac.uk/users/jrh/papers/fparith.html; http://www.cl.cam.ac.uk/~jrh13/papers/fparith.pdf.

Hayashi:1999:SRR

[4116] Takao Hayashi. A set of rules for the root-extraction prescribed by the sixteenth-century Indian mathematicians, Nīlakaṇṭha Somastuvan and Śaṅkara Vāriyar. *Historia Scientiarum. Second Series. International Journal of the History of Science Society of Japan*, 9(2):135–153, November 1999. CODEN HISCDU. ISSN 0285-4821.

Heindl:1999:RIH

[4117] G. Heindl. A representation of the interval hull of a tolerance polyhedron describing inclusions of function values and slopes. *Reliable Computing = Nadezhnye vychisleniia*, 5(3):269–278, 1999. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

Hiasat:1999:SCV

[4118] Ahmad A. Hiasat and Hoda Abdel-Aty-Zohdy. Semi-custom VLSI design and implementation of a new efficient RNS division algorithm. *The Computer Journal*, 42(3):232–240, ???? 1999. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_42/Issue_03/420232.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_42/Issue_03/pdf/420232.pdf.

Hirn:1999:GBI

[4119] Ulrich Hirn. Groebner bases implementation using modular and floating point arithmetic. Dipl.-Arb., Technische Universität Graz, Graz, Austria, 1999. 87 pp.

Hormigo:1999:ISC

[4120] J. Hormigo, J. Villalba, and E. L. Zapata. Interval sine and cosine functions computation based on variable precision CORDIC algorithm. In Koren and Kornerup [7932], pages 186–193. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999.

URL http://euler.ecs.umass.edu/paper/final/paper-128.pdf; http://euler.ecs.umass.edu/paper/final/paper-128.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Hormigo.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Hung:1999:FDA

[4121] P. Hung, H. Fahmy, O. Mencer, and M. J. Flynn. Fast division algorithm with a small lookup table. In Matthews et al. [7934], pages 1465–1468. ISBN 0-7803-5700-0 (softbound), 0-7803-5701-9 (casebound), 0-7803-5702-7 (microfiche). LCCN TK5101.A1 A85 1999; TK454.2 .A8 1999.

Hyogo:1999:LVF

[4122] A. Hyogo, Y. Fukutomi, and K. Sekine. Low voltage four-quadrant analog multiplier using square-root circuit based on CMOS pair. In *Proceedings of the 1999 IEEE International Symposium on Circuits and Systems: ISCAS '99, 2 June 1999*, volume 2, pages 274–277. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Ide:1999:GFP

[4123] N. Ide, M. Hirano, Y. Endo, S. Yoshioka, H. Murakami, A. Kunimatsu, T. Sato, T. Kamei, T. Okada, and M. Suzuoki. 2.44 GFLOPS 300MHz floating-point vector processing unit for high performance 3D graphics computing. In Hosticka et al. [7928], pages 106–109. ISBN 2-86332-246-X. LCCN TK7871.85 .E887 1999.

Iordache:1999:ARS

[4124] Cristina Iordache and David W. Matula. Analysis of reciprocal and square root reciprocal instructions in the AMD K6-2 implementation of 3DNow! *Electronic Notes in Theoretical Computer Science*, 24:34–62, April 1999. CODEN ???? ISSN 1571-0661.

Iordache:1999:IPR

[4125] Cristina Iordache and David W. Matula. On infinitely precise rounding for division, square root, reciprocal and square root reciprocal. In Koren and Kornerup [7932], pages 233–240. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-164.pdf; http://euler.ecs.umass.edu/paper/final/paper-164.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Iordache.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Jamieson:1999:NRF

[4126] M. J. Jamieson. Notes: On rational function approximations to square roots. *American Mathematical Monthly*, 106(1):50–52, January 1999. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Jamieson:1999:RFA

[4127] M. J. Jamieson. On rational function approximations to square roots. *American Mathematical Monthly*, 106(1):50–52, 1999. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Jeong:1999:CPT

[4128] Cheol-Ho Jeong, Woo-Chan Park, Tack-Don Dan, and Shin-Dug Kim. Cost/performance trade-off in floating-point unit design for 3D geometry processor. In IEEE [7929], pages 104–107. ISBN 0-7803-5705-1. LCCN TK7874.6 .I32 1999. IEEE catalog number 99EX360.

Jones:1999:BAT

[4129] Douglas W. Jones. BCD arithmetic, a tutorial. Web tutorial., 1999. URL `http://homepage.cs.uiowa.edu/~jones/bcd/bcd.html`.

Jones:1999:BDC

[4130] Douglas W. Jones. Binary to decimal conversion in limited precision. Web tutorial., 1999. URL `http://homepage.cs.uiowa.edu/~jones/bcd/decimal.html`.

Jones:1999:MDT

[4131] Douglas W. Jones. Modulus without division, a tutorial. Web tutorial., 1999. URL `http://homepage.cs.uiowa.edu/~jones/bcd/mod.shtml`.

Jones:1999:RMT

[4132] Douglas W. Jones. Reciprocal multiplication, a tutorial. Web tutorial., 1999. URL `http://homepage.cs.uiowa.edu/~jones/bcd/divide.html`.

Jullien:1999:HDP

[4133] G. A. Jullien, V. S. Dimitrov, B. Li, W. C. Miller, A. Lee, and M. Ahmadi. A hybrid DBNS processor for DSP computation. In IEEE, editor, *Proceedings of the 1999 IEEE International Symposium on Circuits and Systems: ISCAS '99, May 30–June 2 1999, Orlando, Florida*, volume 1, pages 5–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN

0-7803-5471-0 (softbound), 0-7803-5472-9 (casebound), 0-7803-5473-7 (microfiche). LCCN TK7801 .I22 1999. IEEE catalog number 99CH36349.

Kahan:1999:SRD

[4134] W. Kahan. Square root without division. World-Wide Web document, February 23, 1999. URL `http://www.cs.berkeley.edu/~wkahan/ieee754status/reciprt.pdf`.

Kaplan:1999:JVA

[4135] Bonnie Kaplan. John V. Atanasoff (1903–1995) interview: August 10, 1972. *Computer Oral History Collection, Smithsonian Institution Press*, 1999. Article No. 17.

Kaplan:1999:NNH

[4136] Robert Kaplan. *The Nothing That Is: a Natural History of Zero*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 1999. ISBN 0-19-512842-7. xii + 225 pp. LCCN QA141 .K36 1999. US$22.00.

Karamcheti:1999:CLR

[4137] V. Karamcheti, C. Li, I. Pechtchanski, and C. Yap. A core library for robust numerical and geometric libraries. In ACM [7925], pages 351–359. ISBN 1-58113-068-6. LCCN ???? URL `http://www.cs.nyu.edu/exact`. ACM order number 429990.

Kern:1999:FVH

[4138] Christoph Kern and Mark R. Greenstreet. Formal verification in hardware design: a survey. *ACM Transactions on Design Automation of Electronic Systems.*, 4(2):123–193, April 1999. CODEN ATASFO. ISSN 1084-4309 (print), 1557-7309 (electronic). URL `http://www.acm.org/pubs/articles/journals/todaes/1999-4-2/p123-kern/p123-kern.pdf`; `http://www.acm.org/pubs/citations/journals/todaes/1999-4-2/p123-kern/`.

Knowles:1999:FA

[4139] Simon Knowles. A family of adders. In Koren and Kornerup [7932], pages 30–34. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL `http://euler.ecs.umass.edu/paper/final/paper-168.pdf`; `http://euler.ecs.umass.edu/paper/final/paper-168.ps`; `http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Knowles.pdf`. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Koren:1999:FIS

[4140] Israel Koren and Peter Kornerup. Fourteenth IEEE Symposium on Computer Arithmetic: Foreword. In *14th IEEE Symposium on Computer Arithmetic: proceedings: April 14–16, 1999, Adelaide, Australia* [7932], page viii. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_contents.pdf; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_foreword.pdf; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_preface.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Koren:1999:ITS

[4141] Israel Koren and Peter Kornerup. IEEE TC special issue on computer arithmetic — May 2000. World-Wide Web document., 1999. URL http://www.ecs.umass.edu/ece/koren/sp-issue/.

Kornerup:1999:NSC

[4142] Peter Kornerup. Necessary and sufficient conditions for parallel, constant time conversion and addition. In Koren and Kornerup [7932], pages 152–157. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-103.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Kornerup.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Krick:1999:AN

[4143] T. Krick, L. M. Pardo, and M. Sombra. Arithmetic Nullstellensätze. *SIGSAM Bulletin (ACM Special Interest Group on Symbolic and Algebraic Manipulation)*, 33(3):17, September 1999. CODEN SIGSBZ. ISSN 0163-5824 (print), 1557-9492 (electronic).

Lang:1999:VHR

[4144] T. Lang and P. Montuschi. Very high radix square root with prescaling and rounding and a combined division/square root unit. *IEEE Transactions on Computers*, 48(8):827–841, August 1999. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=795124.

Langlois:1999:WAL

[4145] Ph. Langlois and F. Nativel. When automatic linear correction of rounding errors is exact. *Comptes Rendus des Séances de l'Académie des Sciences. Série I. Mathématique*, 328(??):543–548, 1999. CODEN CASMEI. ISSN 0249-6291. See erratum, p. 829, in same volume.

Lee:1999:EFS

[4146] Sung-Woo Lee, Hyun-Sung Kim, Jung-Joon Kim, Tae-Geun Kim, and Kee-Young Yoo. Efficient fixed-size systolic arrays for the modular multiplication. *Lecture Notes in Computer Science*, 1627: 442–??, 1999. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1627/16270442.htm; http://link.springer-ny.com/link/service/series/0558/papers/1627/16270442.pdf.

Lee:1999:NAD

[4147] Chang-Hyi Lee and Jong-In Lim. A new aspect of dual basis for efficient field arithmetic. *Lecture Notes in Computer Science*, 1560: 12–28, 1999. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1560/15600012.htm; http://link.springer-ny.com/link/service/series/0558/papers/1560/15600012.pdf.

Lee:1999:STS

[4148] Young-Sang Lee, Jun-Woo Kang, Lee-Sup Kim, and Seung-Ho Hwang. Self-timed shared division and square-root implementation using full redundant signed digit numbers. In *6th International Conference on VLSI and CAD: ICVC '99*, pages 541–544. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Lefevre:1999:ACL

[4149] V. Lefèvre. An algorithm that computes a lower bound on the distance between a segment and $\mathbf{Z}^2$. In Csendes [7927], pages 203–212. ISBN 0-7923-6057-5. LCCN QA76.9.E94 D48 1999.

Lewis:1999:CLN

[4150] David Lewis. Complex logarithmic number system arithmetic using high-radix redundant CORDIC algorithms. In Koren and Kornerup [7932], pages 194–203. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-135.pdf; http://euler.ecs.umass.

edu/paper/final/paper-135.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Lewis.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Liao:1999:SDR

[4151] Yuyun Liao, Tom M. Hameenanttila, and David B. Roberts. US Patent 6,611,856B1, December 23, 1999. URL https://patents.google.com/patent/US6611856B1.

Liew:1999:SDR

[4152] T. H. Liew, L.-L. Yang, and L. Hanzo. Soft-decision redundant residue number system based error correction coding. In *VTC 1999 — Fall. IEEE VTS 50th Vehicular Technology Conference*, volume 5, pages 2546–2550. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Lopez:1999:IPF

[4153] D. Lopez, J. Llosa, E. Ayguade, and M. Valero. Impact on performance of fused multiply-add units in aggressive VLIW architectures. In Shiratori and Panda [7937], pages 22–29. ISBN 0-7695-0350-0, 0-7695-0352-7. ISSN 0190-3918. LCCN QA76.58 .I55 1999. URL https://ieeexplore.ieee.org/servlet/opac?punumber=6466. IEEE Computer Society Order Number PR00350.

Lue:1999:ADE

[4154] Jeng-Jong J. Lue and Dhananjay S. Phatak. Area $\times$ delay $(A \cdot T)$ efficient multipliers based on an intermediate hybrid signed-digit (HSD-1) representation. In Koren and Kornerup [7932], pages 216–224. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-159.pdf; http://euler.ecs.umass.edu/paper/final/paper-159.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Lue.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Mahesh:1999:IAE

[4155] M. N. Mahesh, S. Gupta, and M. Mehendale. Improving area efficiency of residue number system based implementation of DSP algorithms. In *Twelfth International Conference on VLSI Design, 1999. Proceedings*, pages 340–345. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

McCullough:1999:ARS

[4156] B. D. McCullough. Assessing the reliability of statistical software: Part II. *The American Statistician*, 53(2):149–159, May 1999. CODEN ASTAAJ. ISSN 0003-1305 (print), 1537-2731 (electronic). URL http://www.amstat.org/publications/tas/mccull.pdf; http://www.jstor.org/stable/2685736.

McCullough:1999:NRE

[4157] B. D. McCullough and H. D. Vinod. The numerical reliability of econometric software. *Journal of Economic Literature*, 37(2):633–665, June 1999. CODEN JECLB3. ISSN 0022-0515 (print), 1547-1101 (electronic). URL http://www.jstor.org/stable/2565215; https://www.aeaweb.org/articles?id=10.1257/jel.37.2.633.

McInerney:1999:HMC

[4158] S. McInerney and R. B. Reilly. Hybrid multiplier/CORDIC unit for online handwriting recognition. In *1999 IEEE International Conference on Acoustics, Speech, and Signal Processing. Proceedings. ICASSP99 (Cat. No. 99CH36258)*, volume 4, pages 1909–1912 (vol. 4). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999.

Montuschi:1999:BVH

[4159] Paolo Montuschi and Tomás Lang. Boosting very high radix division with prescaling and selection by rounding. In Koren and Kornerup [7932], pages 52–59. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-150.pdf; http://euler.ecs.umass.edu/paper/final/paper-150.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Montuschi.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Muller:1999:FRT

[4160] Jean-Michel Muller. A few results on table-based methods. *Reliable Computing = Nadezhnye vychisleniia*, 5(3):279–288, 1999. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

Muroi:1999:ESR

[4161] Kazuo Muroi. Extraction of square roots in Babylonian mathematics. *Historia Scientiarum. Second Series. International Journal of the History of Science Society of Japan*, 9(2):127–133, November 1999. CODEN HISCDU. ISSN 0285-4821.

Nannarelli:1999:LPDa

[4162] Alberto Nannarelli and Tomas Lang. Low-power division: Comparison among implementations of radix 4, 8 and 16. In Koren and Kornerup [7932], pages 60–69. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-158.pdf; http://euler.ecs.umass.edu/paper/final/paper-158.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Nannarelli.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Nannarelli:1999:LPDb

[4163] A. Nannarelli and T. Lang. Low-power divider. *IEEE Transactions on Computers*, 48(1):2–14, January 1999. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=743407.

Nannarelli:1999:LPR

[4164] Alberto Nannarelli and Tomas Lang. Low-power radix-4 combined division and square root. In *(ICCD '99) International Conference on Computer Design*, pages 236–242. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Nedialkov:1999:IHO

[4165] N. S. Nedialkov and K. R. Jackson. An interval hermite-obreschkoff method for computing rigorous bounds on the solution of an initial value problem for an ordinary differential equation. *Reliable Computing = Nadezhnye vychisleniia*, 5(3):289–310, 1999. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

Northrop:1999:GM

[4166] G. Northrop, R. Averill, K. Barkley, S. Carey, Y. Chan, Y. H. Chan, M. Check, D. Hoffman, W. Huott, B. Krumm, C. Krygowski, J. Liptay, M. Mayo, T. McNamara, T. McPherson, E. Schwarz, L. Sigal, T. Slegel, C. Webb, D. Webber, and P. Williams. 600MHz G5 S/390 microprocessor. In Wuorinen [7938], page ?? ISBN 0-7803-5126-6, 0-7803-5127-4, 0-7803-5128-2, 0-7803-5129-0. LCCN ???? IEEE catalog no. 99CH36278 and 99CB36278.

Oberman:1999:FPD

[4167] Stuart F. Oberman. Floating point division and square root algorithms and implementation in the AMD-K7^{TM} microprocessor. In Koren and Kornerup [7932], pages 106–115. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-139.pdf; http://euler.ecs.umass.edu/paper/final/paper-139.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Oberman.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

OLeary:1999:FVI

[4168] John O'Leary, Xudong Zhao, Rob Gerth, and Carl-Johan H. Seger. Formally verifying IEEE compliance of floating-point hardware. *Intel Technology Journal*, Q1:10, February 17, 1999. URL http://developer.intel.com/technology/itj/q11999/articles/art_5.htm; http://developer.intel.com/technology/itj/q11999/pdf/floating_point.pdf.

Paar:1999:FAP

[4169] C. Paar, P. Fleischmann, and P. Soria-Rodriguez. Fast arithmetic for public-key algorithms in Galois fields with composite exponents. *IEEE Transactions on Computers*, 48(10):1025–1034, October 1999. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=805153.

Paliouras:1999:MAR

[4170] V. Paliouras and T. Stouraitis. Multifunction architectures for RNS processors. *IEEE Transactions on Circuits and Systems*, 46(8):1041–1054, August 1999. CODEN ICSYBT. ISSN 0098-4094 (print), 1558-1276 (electronic).

Paliouras:1999:NHR

[4171] V. Paliouras and T. Stouraitis. Novel high-radix residue number system multipliers and adders. In *ISCAS '99. Proceedings of the 1999 IEEE International Symposium on Circuits and Systems, 2 June 1999*, volume 1, pages 451–454. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Parhami:1999:ALT

[4172] B. Parhami. Analysis of the lookup table size for square-rooting. In *Conference Record of the Thirty-Third Asilomar Conference on Signals, Systems, and Computers, 1999*, volume 2, pages 1327–1330. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Park:1999:FPM

[4173] W.-C. Park, T.-D. Han, S.-D. Kim, and S.-B. Yang. A floating point multiplier performing IEEE rounding and addition in parallel. *Journal of Systems Architecture*, 45(14):1195–1207, July 1999. CODEN JSARFB. ISSN 1383-7621 (print), 1873-6165 (electronic).

Parker:1999:SPA

[4174] D. Stott Parker. A semi-portable ANSI C implementation of Monte Carlo floating-point arithmetic. World-Wide Web document., 1999. URL `http://www.cs.ucla.edu/~stott/mca/MCAdemo.c`.

Parks:1999:NTT

[4175] Michael Parks. Number-theoretic test generation for directed rounding. In Koren and Kornerup [7932], pages 241–249. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL `http://euler.ecs.umass.edu/paper/final/paper-131.pdf; http://euler.ecs.umass.edu/paper/final/paper-131.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Parks.pdf`. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Phatak:1999:IVE

[4176] Dhananjay S. Phatak and I. Koren. Intermediate variable encodings that enable multiplexor-based implementations of two operand addition. In Koren and Kornerup [7932], pages 22–29. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL `http://euler.ecs.umass.edu/paper/final/paper-149.pdf; http://euler.ecs.umass.edu/paper/final/paper-149.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Phatak.pdf`. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Ralev:1999:RBF

[4177] K. R. Ralev and P. H. Bauer. Realization of block floating-point digital filters and application to block implementations. *IEEE Transactions on Signal Processing*, 47(4):1076–1086, April 1999. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Ruess:1999:MVS

[4178] Harald Ruess, Natarajan Shankar, and Mandayam K. Srivas. Modular verification of SRT division. *Formal Methods in System Design*, 14(1):45–73, January 1999. CODEN FMSDE6. ISSN 0925-9856 (print), 1572-8102 (electronic). URL http://www.wkap.nl/jrnltoc.htm/0925-9856; http://www.wkap.nl/oasis.htm/194807. Special issue on arithmetic circuits.

Rugina:1999:APD

[4179] Radu Rugina and Martin Rinard. Automatic parallelization of divide and conquer algorithms. *ACM SIGPLAN Notices*, 34(8):72–83, August 1999. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL http://www.acm.org/pubs/citations/proceedings/ppopp/301104/p72-rugina/.

Rump:1999:IIL

[4180] Siegfried M. Rump. INTLAB–INTerval LABoratory. In Csendes [7927], pages 77–104. ISBN 0-7923-6057-5. LCCN QA76.9.E94 D48 1999.

Russinoff:1999:MCP

[4181] David M. Russinoff. A mechanically checked proof of correctness of the AMD K5 floating point square root microcode. *Formal Methods in System Design*, 14(1):75–125, January 1999. CODEN FMSDE6. ISSN 0925-9856 (print), 1572-8102 (electronic). URL http://www.wkap.nl/jrnltoc.htm/0925-9856; http://www.wkap.nl/oasis.htm/194808; https://dl.acm.org/doi/abs/10.1023/A:1008669628911. Special issue on arithmetic circuits.

Saed:1999:ASA

[4182] Aryan Saed, Majid Ahmadi, and Graham A. Jullien. Arithmetic with signed analog digits. In Koren and Kornerup [7932], pages 134–141. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-140.pdf; http://euler.ecs.umass.edu/paper/final/paper-140.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Saed.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

SanGregory:1999:FLP

[4183] Samuel L. SanGregory, Charles Brothers, David Gallagher, and Raymond Siferd. A fast, low-power logarithm approximation with CMOS VLSI implementation. In IEEE, editor, *Proceedings of 1999 Midwest Symposium on Circuits and Systems: August 8–12, 1999, Corbett Center, New Mexico State University, Las Cruces, New Mexico*, pages 388–391. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN 0-7803-5491-5 (softbound), 0-7803-5492-3 (casebound), 0-7803-5493-1 (microfiche). LCCN TK3226

.M531 42nd 1999. URL https://digitalcommons.cedarville.edu/engineering_and_computer_science_presentations/13.

Scherer:1999:OTW

[4184] Alisa Scherer, Michael Golden, Norbert Juffa, Stephan Meier, Stuart Oberman, Hamid Partovi, and Fred Weber. An out-of-order three-way superscalar multimedia floating-point unit. In Wuorinen [7938], page ?? ISBN 0-7803-5126-6, 0-7803-5127-4, 0-7803-5128-2, 0-7803-5129-0. LCCN ???? IEEE catalog no. 99CH36278 and 99CB36278.

Schmookler:1999:LPH

[4185] Martin S. Schmookler, Michael Putrino, Charles Roth, Mukesh Sharma, Anh Mather, Jon Tyler, Huy Van Nguyen, Mydung N. Pham, and Jeff Lent. A low-power, high-speed implementation of a PowerPC[TM] microprocessor vector extension. In Koren and Kornerup [7932], pages 12–21. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-145.pdf; http://euler.ecs.umass.edu/paper/final/paper-145.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Schmookler.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Schulte:1999:AEF

[4186] M. Schulte and J. Stine. Approximating elementary functions with symmetric bipartite tables. *IEEE Transactions on Computers*, 48(8): 842–847, 1999. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://mesa.ece.wisc.edu/publications/cp_1999-10.pdf.

Schulte:1999:CSI

[4187] M. J. Schulte, A. Akkas, V. Zelov, and J. C. Burley. Compiler support for interval arithmetic. In *Proceedings of 16th IEEE Instrumentation and Measurement Technology Conference, Venice, Italy, May, 1999*, pages 1189–1193. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. URL http://home.ku.edu.tr/~ahakkas/publications/comp-supp.pdf; http://mesa.ece.wisc.edu/publications/cp_1999-04.pdf.

Schulte:1999:ESO

[4188] M. J. Schulte and K. E. Wires. Efficient second order approximations for reciprocals and square roots. In Luk [7933], pages 10–18. ISBN 0-8194-3293-8. LCCN TK5102.5 .A3325 1999; TK5102.5 .A3173 1999; TK5102.9

.A37 1999. URL http://mesa.ece.wisc.edu/publications/cp_1999-05.pdf.

Schulte:1999:HSI

[4189] Michael J. Schulte and Kent E. Wires. High-speed inverse square roots. In Koren and Kornerup [7932], pages 124–131. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-109.pdf; http://euler.ecs.umass.edu/paper/final/paper-109.ps; http://mesa.ece.wisc.edu/publications/cp_1999-03.pdf; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Schulte.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Schulte:1999:IEG

[4190] M. J. Schulte, V. A. Zelov, A. Akkas, and J. C. Burley. The interval-enhanced GNU Fortran compiler. In Csendes [7927], pages 311–322. ISBN 0-7923-6057-5. LCCN QA76.9.E94 D48 1999. URL http://mesa.ece.wisc.edu/publications/cp_1999-12.pdf.

Schulte:1999:RPD

[4191] M. J. Schulte, J. G. Jansen, and J. E. Stine. Reduced power dissipation through truncated multiplication. In Piuri [7936], pages 61–69. ISBN 0-7695-0019-6, 0-7695-0021-8. LCCN TK7874.66 .I34 1999. URL http://mesa.ece.wisc.edu/publications/cp_1999-01.pdf.

Schwarz:1999:GFPa

[4192] Eric M. Schwarz, Ronald M. Smith, and Christopher A. Krygowski. The S/390 G5 floating point unit supporting hex and binary architectures. In Koren and Kornerup [7932], pages 258–265. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://computer.org/proceedings/arith/0116/0116toc.htm; http://euler.ecs.umass.edu/paper/final/paper-112.pdf; http://euler.ecs.umass.edu/paper/final/paper-112.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Schwarz.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Schwarz:1999:GFPb

[4193] E. M. Schwarz and C. A. Krygowski. The S/390 G5 floating-point unit. *IBM Journal of Research and Development*, 43(5/6):707–721, September/November 1999. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/435/schwarz.html.

Schwarz:1999:MSE

[4194] E. M. Schwarz, B. Giamei, C. Krygowski, M. Check, and J. Liptay. Method and system for executing denormalized numbers, May 11, 1999. U.S. Patent No. 5,903,479.

Seidel:1999:HSR

[4195] Peter-Michael Seidel. High-speed redundant reciprocal approximation. *Integration, the VLSI journal*, 28(1):1–12, September 1999. CODEN IVJODL. ISSN 0167-9260 (print), 1872-7522 (electronic).

Shary:1999:OEG

[4196] S. P. Shary. Outer estimation of generalized solution sets to interval linear systems. *Reliable Computing = Nadezhnye vychisleniia*, 5(3): 323–335, 1999. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

Skavantzos:1999:GMR

[4197] A. Skavantzos and T. Stouraitis. Grouped-moduli residue number systems for fast signal processing. In *ISCAS '99. Proceedings of the 1999 IEEE International Symposium on Circuits and Systems, 2 June 1999*, volume 3, pages 478–483. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Skavantzos:1999:IIT

[4198] A. Skavantzos and M. Abdallah. Implementation issues of the two-level residue number system with pairs of conjugate moduli. *IEEE Transactions on Signal Processing*, 47(3):826–838, March 1999. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=16138.

Skavantzos:1999:NER

[4199] A. Skavantzos and Y. Wang. New efficient RNS-to-weighted decoders for conjugate-pair-moduli residue number systems. In *Conference Record of the Thirty-Third Asilomar Conference on Signals, Systems, and Computers, 1999*, volume 2, pages 1345–1350. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Skeel:1999:SIF

[4200] R. D. Skeel. Symplectic integration with floating-point arithmetic and other approximations. *Applied Numerical Mathematics*, 29(1):3–18, January 1999. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Stine:1999:STA

[4201] J. E. Stine and M. J. Schulte. The symmetric table addition method for accurate function approximation. *Journal of VLSI Signal Processing*, 21(2):167–177, June 1999. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic). URL http://mesa.ece.wisc.edu/publications/cp_1999-11.pdf.

Story:1999:NAI

[4202] Shane Story and Ping Tak Peter Tang. New algorithms for improved transcendental functions on IA-64. In Koren and Kornerup [7932], pages 4–11. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-118.pdf; http://euler.ecs.umass.edu/paper/final/paper-118.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Story.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Strzebonski:1999:RPD

[4203] A. Strzebonski. A real polynomial decision algorithm using arbitrary-precision floating point arithmetic. *Reliable Computing = Nadezhnye vychisleniia*, 5(3):337–346, 1999. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

Sunar:1999:MMA

[4204] B. Sunar and Ç. K. Koç. Mastrovito multiplier for all trinomials. *IEEE Transactions on Computers*, 48(5):522–527, May 1999. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Sutherland:1999:LEDk

[4205] Ivan Sutherland, Bob Sproull, and David Harris. *Logical Effort: Designing Fast CMOS Circuits*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, 1999. ISBN 1-55860-557-6. xv + 239 pp. LCCN TK7871.99.M44 S88 1999.

Suzuoki:1999:MBC

[4206] M. Suzuoki, K. Kutaragi, T. Hiroi, H. Magoshi, S. Okamoto, M. Oka, A. Ohba, Y. Yamamoto, M. Furuhashi, M. Tanaka, T. Yutaka, T. Okada, M. Nagamatsu, Y. Urakawa, M. Funyu, A. Kunimatsu, H. Goto, K. Hashimoto, N. Ide, H. Murakami, Y. Ohtaguro, and A. Aono. A microprocessor with a 128-bit CPU, ten floating-point MAC's, four floating-point dividers, and an MPEG-2 decoder. *IEEE Journal of Solid-State Circuits*, 34(11):1608–1618, November 1999. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Swartzlander:1999:TMA

[4207] E. E. Swartzlander, Jr. Truncated multiplication with approximate rounding. In *Conference Record of the Thirty-Third Asilomar Conference on Signals, Systems, and Computers, 1999*, volume 2, pages 1480–1483. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Takagi:1999:DRA

[4208] Naofumi Takagi and Seiji Kuwahara. Digit-recurrence algorithm for computing Euclidean norm of a 3-D vector. In Koren and Kornerup [7932], pages 86–95. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL `http://euler.ecs.umass.edu/paper/final/paper-142.pdf; http://euler.ecs.umass.edu/paper/final/paper-142.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Takagi.pdf`. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Tanskanen:1999:REF

[4209] J. M. A. Tanskanen and V. S. Dimitrov. Round-off error free fixed-point design of polynomial FIR predictors. In *Conference Record of the Thirty-Third Asilomar Conference on Signals, Systems, and Computers, 1999*, volume 2, pages 1317–1321. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Tenca:1999:DHR

[4210] Alexandre F. Tenca and Miloš D. Ercegovac. On the design of high-radix on-line division for long precision. In Koren and Kornerup [7932], pages 44–51. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL `http://euler.ecs.umass.edu/paper/final/paper-143.pdf; http://euler.ecs.umass.edu/paper/final/paper-143.ps; http://www.acsel-lab.com/`

arithmetic/arith14/papers/ARITH14_Tenca.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Thompson:1999:BPF

[4211] D. U. Thompson and B. A. Wooley. A 15-bit pipelined floating-point A/D converter. In Hosticka et al. [7928], pages 170–173. ISBN 2-86332-246-X. LCCN TK7871.85 .E887 1999.

Tisseur:1999:NMF

[4212] F. Tisseur. Newton's method in floating point arithmetic and iterative refinement of generalized eigenvalue problems. Numerical analysis report 346-XY/N-1, Manchester Centre for Computational Mathematics, Manchester, UK, August 1999.

Tropp:1999:HAI

[4213] Henry S. Tropp. Howard Aiken interview: February 26–27, 1973. *Computer Oral History Collection, Smithsonian Institution Press*, 1999. Article No. 1.

Tropp:1999:NRI

[4214] Henry S. Tropp and Jean Sammett. Nat Rochester interview: July 24, 1973. *Computer Oral History Collection, Smithsonian Institution Press*, 1999. Article No. 75.

Tsuji:1999:REO

[4215] K. Tsuji. Round-off error of optimal control problems in floating-point number systems. In Begehr et al. [7926], pages 929–944. ISBN 0-7923-6598-4, 0-7923-6754-5. LCCN QA299.6 .I58 1999.

Walter:1999:MTI

[4216] Colin D. Walter. Moduli for testing implementations of the RSA cryptosystem. In Koren and Kornerup [7932], pages 78–85. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://euler.ecs.umass.edu/paper/final/paper-130.pdf; http://euler.ecs.umass.edu/paper/final/paper-130.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Walter.pdf. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Watanabe:1999:NVM

[4217] Y. Watanabe, N. Yamamoto, and M. T. Nakao. A numerical verification method of solutions for the Navier–Stokes equations. *Reliable Computing*

= *Nadezhnye vychisleniia*, 5(3):347–357, 1999. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

Wires:1999:CUT

[4218] K. E. Wires, M. J. Schulte, L. P. Marquette, and P. I. Balzola. Combined unsigned and two's complement squarers. In Matthews et al. [7934], pages 1215–1219. ISBN 0-7803-5700-0 (softbound), 0-7803-5701-9 (casebound), 0-7803-5702-7 (microfiche). LCCN TK5101.A1 A85 1999; TK454.2 .A8 1999. URL http://mesa.ece.wisc.edu/publications/cp_1999-06.pdf.

Wong:1999:OFP

[4219] W. F. Wong. Optimizing floating point operations in Scheme. *Computer Languages*, 25(2):89–112, July 1999. CODEN COLADA. ISSN 0096-0551 (print), 1873-6742 (electronic). URL http://www.elsevier.nl/gej-ng/10/15/18/28/27/26/abstract.html; http://www.elsevier.nl/gej-ng/10/15/18/28/27/26/article.pdf.

Yadav:1999:PSF

[4220] N. Yadav, M. J. Schulte, and J. Glossner. Parallel saturating fractional arithmetic units. In Mazumder and Lomax [7935], pages 214–217. ISBN 0-7695-0104-4, 0-7695-0106-0. LCCN TK7874 .G689 1999. URL http://mesa.ece.wisc.edu/publications/cp_1999-02.pdf.

Yang:1999:CIS

[4221] D. X. D. Yang, A. E. Gamal, B. Fowler, and H. Tian. A 640×512 CMOS image sensor with ultrawide dynamic range floating-point pixel-level ADC. *IEEE Journal of Solid-State Circuits*, 34(12):1821–1834, December 1999. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Yang:1999:RNSa

[4222] Lie-Liang Yang and L. Hanzo. Residue number system arithmetic assisted M-ary modulation. *IEEE Communications Letters*, 3(2):28–30, February 1999. CODEN ICLEF6. ISSN ???? URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=16186.

Yang:1999:RNSb

[4223] Lie-Liang Yang and L. Hanzo. Residue number system based multiple code DS-CDMA systems. In *IEEE 49th Vehicular Technology Conference, 16–20 May 1999*, volume 2, pages 1450–1454. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Yang:1999:RST

[4224] Lie-Liang Yang and L. Hanzo. Ratio statistic test assisted residue number system based parallel communication schemes. In *IEEE 49th Vehicular Technology Conference. 16–20 May 1999*, volume 2, pages 894–898. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. CODEN ???? ISSN ????

Yap:1999:REI

[4225] C. Yap and K. Ouchi. Real/Expr: Implementation of exact computation. Web site, January 22, 1999. URL `https://cs.nyu.edu/exact/realexpr/`.

Yuan:1999:FPA

[4226] J. Yuan and J. Piper. Floating-point analog-to-digital converter. In IEEE [7930], pages 1385–1388. ISBN 0-7803-5682-9. LCCN TK7874 .I3236 1999. Three volumes.

Zimmermann:1999:EVI

[4227] Reto Zimmermann. Efficient VLSI implementation of modulo $(2^n \pm 1)$ addition and multiplication. In Koren and Kornerup [7932], pages 158–167. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL `http://euler.ecs.umass.edu/paper/final/paper-127.pdf; http://euler.ecs.umass.edu/paper/final/paper-127.ps; http://www.acsel-lab.com/arithmetic/arith14/papers/ARITH14_Zimmermann.pdf`. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Zimmermann:1999:KSR

[4228] Paul Zimmermann. Karatsuba square root. Research Report 3805, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, 1999. 8 pp. URL `ftp://ftp.inria.fr/INRIA/publication/publi-pdf/RR/RR-3805.pdf; ftp://ftp.inria.fr/INRIA/publication/publi-ps-gz/RR/RR-3805.ps.gz; http://www.inria.fr/rrrt/rr-3805.html`.

Ziv:1999:SUR

[4229] Abraham Ziv. Sharp ULP rounding error bound for the hypotenuse function. *Mathematics of Computation*, 68(227):1143–1148, July 1999. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/jourcgi/jour-pbprocess?fn=110&arg1=S0025-5718-99-01103-5&u=/mcom/1999-68-227/`.

FPS:19xx:R

[4230] *Record*, page various, 19xx. Floating Point Systems, Portland, OR, USA.

Intel:19xx:IAP

[4231] Intel. *Intel 8231A Arithmetic Processing Unit*. Intel Corp, San Jose, CA, USA, 19xx. URL `http://www.datasheetarchive.com/pdf-datasheets/Datasheets-14/DSA-276911.html`. From the datasheet (p. 3-5): "The mantissa is expressed as a 24-bit (fractional) value; the exponent is expressed as a two's complement 7-bit value having the range -64 to $+63$. The most significant bit is the sign of the mantissa ($0 =$ positive, $1 =$ negative), for a total of 32 bits. The binary point is assumed to be [to] the left of the most significant mantissa bit (bit 23). All floating-point data values must be normalized. Bit 23 must be equal to 1, except for the value zero, which is represented by all zeros. The range of values that can be represented in this format is $\pm(2.7^{-10} \ldots 9.2 \times 10^{18})$ and zero.".

Anonymous:2000:BRCd

[4232] Anonymous. Book review: *Computer arithmetic: Algorithms and hardware designs*: By Behrooz Parhami. Oxford University Press, New York. (2000). 490 pages. $85.00. *Computers and Mathematics with Applications*, 39(3–4):264, February 2000. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0898122100900518`.

Anonymous:2000:BRCg

[4233] Anonymous. Book review: *Computer arithmetic: Algorithms and hardware designs*: By Behrooz Parhami. Oxford University Press, New York. (2000). 490 pages. $85.00. *Computers and Mathematics with Applications*, 39(7–8):266, April 2000. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0898122100902955`.

Antelo:2000:VHRa

[4234] Elisardo Antelo, Tomás Lang, and Javier D. Bruguera. Very-high radix CORDIC rotation based on selection by rounding. *Journal of VLSI Signal Processing Systems for Signal, Image and Video Technology*, 25 (2):141–153, June 2000. ISSN 1387-5485 (print), 1573-0506 (electronic).

Antelo:2000:VHRb

[4235] E. Antelo, T. Lang, and J. D. Bruguera. Very-high radix circular CORDIC: Vectoring and unified rotation/vectoring. *IEEE Transactions* *on Computers*, 49(7):727–739, 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Arnold:2000:EAS

[4236] D. Arnold. The explosion of the Ariane 5. Some disasters attributable to bad numerical computing. Web site., August 23, 2000. URL `https://www-users.math.umn.edu/~arnold/disasters/ariane.html`.

Baidas:2000:HLF

[4237] Zaher A. Baidas. *High-level floating-point synthesis*. Thesis (Ph.D.), University of Southampton, Department of Electronics and Computer Science, Southampton, UK, 2000. 327 pp.

Batten:2000:NAD

[4238] D. Batten, S. Jinturkar, J. Glossner, M. Schulte, and P. D'arcy. A new approach to DSP intrinsic functions. In Sprague [7947], pages 2892–2901. ISBN 0-7695-0493-0, 0-7695-0494-9, 0-7695-0495-7. LCCN TA168 .H37 2000. URL `http://mesa.ece.wisc.edu/publications/cp_2000-01.pdf`.

Becker:2000:JSE

[4239] Pete Becker. The journeyman's shop: Error in floating-point calculations. *C/C++ Users Journal*, 18(7):73–??, July 2000. CODEN CCUJEX. ISSN 1075-2838.

Becker:2000:JSF

[4240] Pete Becker. The journeyman's shop: Floating-point basics. *C/C++ Users Journal*, 18(6):??, June 2000. CODEN CCUJEX. ISSN 1075-2838.

Becker:2000:JST

[4241] Pete Becker. The journeyman's shop: Trap handlers, sticky bits, and floating-point comparisons. *C/C++ Users Journal*, 18(12):54–??, December 2000. CODEN CCUJEX. ISSN 1075-2838.

Becker:2000:JSWb

[4242] Pete Becker. The journeyman's shop: When bad things happen to good numbers. *C/C++ Users Journal*, 18(10):54–??, October 2000. CODEN CCUJEX. ISSN 1075-2838.

Bekooij:2000:NAF

[4243] M. Bekooij, J. Huisken, and K. Nowak. Numerical accuracy of Fast Fourier Transforms with CORDIC arithmetic. *Journal of VLSI Signal Processing Systems for Signal, Image and Video Technology*, 25(2):187–193, June 2000. ISSN 1387-5485 (print), 1573-0506 (electronic).

Bertossi:2000:RNS

[4244] A. A. Bertossi and A. Mei. A residue number system on reconfigurable mesh with applications to prefix sums and approximate string matching. *IEEE Transactions on Parallel and Distributed Systems*, 11(11):1186–1199, November 2000. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=19224.

Boldo:2000:QDP

[4245] Sylvie Boldo. Quad double precision specification and proofs about the addition. Traineeship report – MIM2, University of California, Berkeley, and École Normale Supérieure de Lyon, Berkeley, CA, USA and 69364 Lyon Cedex 07, France, June/August 2000. 51 pp. URL http://perso.ens-lyon.fr/sylvie.boldo/doc/qd.ps. Under the direction of Jonathan Shewchuk.

Brooks:2000:VBC

[4246] David Brooks and Margaret Martonosi. Value-based clock gating and operation packing: dynamic strategies for improving processor power and performance. *ACM Transactions on Computer Systems*, 18(2):89–126, May 2000. CODEN ACSYEC. ISSN 0734-2071 (print), 1557-7333 (electronic). URL http://www.acm.org/pubs/citations/journals/tocs/2000-18-2/p89-brooks/.

Cardarilli:2000:RPD

[4247] G. C. Cardarilli, A. Nannarelli, and M. Re. Reducing power dissipation in FIR filters using the residue number system. In *Proceedings of the 43rd IEEE Midwest Symposium on Circuits and Systems, 2000*, volume 1, pages 320–323. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Chen:2000:PCV

[4248] Chichyang Chen, Rui-Lin Chen, and Chih-Huan Yang. Pipelined computation of very large word-length LNS addition/subtraction with polynomial hardware cost. *IEEE Transactions on Computers*, 49(7):716–726, July 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Cheng:2000:STC

[4249] F.-C. Cheng, S. H. Unger, and M. Theobald. Self-timed carry-lookahead adders. *IEEE Transactions on Computers*, 49(7):659–672, 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Cheng:2000:TID

[4250] Y.-T. Cheng. TMS320C60000 integer division. Application Report SPRA707, Texas Instruments, Post Office box 655303, Dallas, TX 75265, USA, October 2000. URL https://www.ti.com/lit/an/spra707/spra707.pdf.

Cherri:2000:PCC

[4251] A. K. Cherri and M. S. Alam. Parallel computation of complex elementary functions using quaternary signed-digit arithmetic. *Optics and Laser Technology*, 32(6):391–399, 2000. CODEN ???? ISSN 0030-3992.

Chu:2000:CPT

[4252] Wanming Chu and Yamin Li. Cost/performance tradeoff of n-select square root implementations. In *ACAC 2000: 5th Australasian Computer Architecture Conference*, pages 9–16. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Coleman:2000:AEL

[4253] J. N. Coleman, E. I. Chester, C. I. Softley, and J. Kadlec. Arithmetic on the European Logarithmic Microprocessor. *IEEE Transactions on Computers*, 49(7):702–715, July 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=863040. See corrections [4254].

Coleman:2000:CAE

[4254] J. N. Coleman, E. I. Chester, C. I. Softley, and J. Kadlec. Corrections to "Arithmetic on the European Logarithmic Microprocessor". *IEEE Transactions on Computers*, 49(10):1152, October 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=888057. See [4253].

Collins:2000:MFP

[4255] George E. Collins and Werner Krandick. Multiprecision floating point addition. In Traverso [7949], pages 71–77. ISBN 1-58113-218-2. LCCN QA76.95.I59 2000. URL http://www.acm.org/pubs/articles/proceedings/issac/345542/p71-collins/p71-collins.pdf; http://www.acm.org/pubs/citations/proceedings/issac/345542/p71-collins/. ACM order number 505000.

Constantinides:2000:MPR

[4256] G. A. Constantinides, P. Y. K. Cheung, and W. Luk. Multiple precision for resource minimization. In *IEEE Symposium on Field-Programmable Custom Computing Machines, 17–19 April 2000*, pages 307–308. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Cornea:2000:IDR

[4257] M. Cornea, C. Iordache, J. Harrison, and P. Markstein. Integer divide and remainder operations in the IA-64 architecture. In ????, editor, *Fourth conference on Real numbers and Computers, Schloß Dagstuhl, April 2000*, page ?? ????, ????, 2000. ISBN ???? LCCN ???? URL http://www.imada.sdu.dk/kornerup/RNC4/papers/p17.ps.

Corsonello:2000:PCB

[4258] P. Corsonello, S. Perri, and G. Cocorullo. Performance comparison between static and dynamic CMOS logic implementations of a pipelined square-rooting circuit. *Circuits, Devices and Systems, IEE Proceedings [see also IEE Proceedings G- Circuits, Devices and Systems]*, 147(6):347–355, December 2000. CODEN ???? ISSN ????

Costello:2000:BSLa

[4259] J. Costello and D. Al-Khalili. Behavioural synthesis of low power floating point CORDIC processors. In *ICECS 2000. 7th IEEE International Conference on Electronics, Circuits and Systems (Cat. No. 00EX445)*, volume 1, pages 506–509 (vol. 1). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000.

Costello:2000:BSLb

[4260] Joseph Patrick Costello. Behavioural synthesis of low-power floating point CORDIC processors. M.Eng. thesis, Royal Military College of Canada, Kingston, ON, Canada, 2000. 183 pp. URL https://login.ezproxy.lib.utah.edu/login?url=https://www.proquest.com/dissertations-theses/behavioural-synthesis-low-power-floating-point/docview/304678593/se-2.

DAmora:2000:RPD

[4261] A. D'Amora, A. Nannarelli, M. Re, and G. C. Cardarilli. Reducing power dissipation in complex digital filters by using the quadratic residue number system. In *Conference Record of the Thirty-Fourth Asilomar Conference on Signals, Systems and Computers, 2000*, volume 2, pages 879–883. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Daumas:2000:EIT

[4262] Marc Daumas and Claire Moreau-Finot. Exponential: implementation trade-offs for hundred bit precision. In ????, editor, *Real Numbers and Computers, Dagstuhl, Germany, 2000*, pages 61–74. ????, ????, 2000. ISBN ???? LCCN ????

Delves:2000:MUI

[4263] L. M. Delves. Making use of IEEE arithmetic facilities. *ACM Fortran Forum*, 19(3):9–12, December 2000. CODEN ???? ISSN 1061-7264 (print), 1931-1311 (electronic).

Drmac:2000:AQS

[4264] Zlatko Drmač and Elizabeth R. Jessup. On accurate quotient singular value computation in floating-point arithmetic. *SIAM Journal on Matrix Analysis and Applications*, 22(3):853–873, 2000. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Ercegovac:2000:IGD

[4265] Miloš D. Ercegovac, Laurent Imbert, David W. Matula, Jean-Michel Muller, and Guoheng Wei. Improving Goldschmidt division, square root, and square root reciprocal. *IEEE Transactions on Computers*, 49(7):759–763, July 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=863046`.

Ercegovac:2000:RSR

[4266] Miloš D. Ercegovac, Tomás Lang, Jean-Michel Muller, and Arnaud Tisserand. Reciprocation, square root, inverse square root, and some elementary functions using small multipliers. *IEEE Transactions on Computers*, 49(7):628–637, July 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=863031`.

Eskritt:2000:DDF

[4267] J. Eskritt, R. Muscedere, G. A. Jullien, V. S. Dimitrov, and W. C. Miller. A 2-digit DBNS filter architecture. In Magdy A. Bayoumi and Eby G. Friedman, editors, *SiPS 2000: 2000 IEEE Workshop on Signal Processing Systems: design and implementation: 11–13 October 2000: Lafayette, Louisiana*, pages 447–456. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. ISBN 0-7803-6488-0. LCCN TK7874 .S58 2000.

Even:2000:CTR

[4268] Guy Even and Peter-Michael Seidel. A comparison of three rounding algorithms for IEEE floating-point multiplication. *IEEE Transactions on Computers*, 49(7):638–650, July 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=863033.

Even:2000:DIC

[4269] Guy Even and Wolfgang J. Paul. On the design of IEEE compliant floating point units. *IEEE Transactions on Computers*, 49(5):398–413, May 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=859536.

Even:2000:DPI

[4270] Guy Even, Sylva M. Mueller, and Peter-Michael Seidel. A dual precision IEEE floating-point multiplier. *Integration, the VLSI journal*, 29(2):167–180, September 2000. CODEN IVJODL. ISSN 0167-9260 (print), 1872-7522 (electronic). URL https://www.sciencedirect.com/science/article/pii/S0167926000000067.

Ferguson:2000:IRM

[4271] M. I. Ferguson and M. D. Ercegovac. The IEEE rounding for multiplier with redundant operands. In *Conference Record of the Thirty-Fourth Asilomar Conference on Signals, Systems and Computers, 2000*, volume 2, pages 1334–1338. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Fernandez:2000:FRB

[4272] Pedro G. Fernández, Antonío García, Javier Ramírez, Luis Parrilla, and Antonío Lloris. Fast RNS-based DCT computation with fewer multiplication stages. In Anonymous [7940], pages 276–281. ISBN ???? LCCN ???? URL http://ditec.ugr.es/~grios/papers/dcis00_dct.pdf.

Fey:2000:DPA

[4273] Dietmar Fey and Marko Degenkolb. Digit pipelined arithmetic for 3-D massively parallel optoelectronic circuits. *The Journal of Supercomputing*, 16(3):177–196, July 2000. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL http://www.springerlink.com/openurl.asp?

genre=article&issn=0920-8542&volume=16&issue=3&spage=177; http://www.wkap.nl/oasis.htm/262637.

FigueroadelCid:2000:RFF

[4274] Samuel Figueroa del Cid. *A Rigorous Framework for Fully Supporting the IEEE Standard for Floating-Point Arithmetic in High-Level Programming Languages*. Ph.D. thesis, Department of Computer Science, New York University, New York, NY, USA, January 2000. 345 pp. URL http://www.cs.nyu.edu/csweb/Research/theses.html; http://www.cs.nyu.edu/csweb/Research/Theses/figueroa_sam.html; http://www.cs.nyu.edu/csweb/Research/Theses/figueroa_sam.pdf; http://www.cs.nyu.edu/csweb/Research/Theses/figueroa_sam.ps.gz; http://wwwlib.umi.com/dissertations/fullcit/9956669; http://wwwlib.umi.com/dissertations/preview/9956669.

Freking:2000:MMR

[4275] W. L. Freking and K. K. Parhi. Modular multiplication in the residue number system with application to massively-parallel public-key cryptography systems. In *Conference Record of the Thirty-Fourth Asilomar Conference on Signals, Systems and Computers, 2000*, volume 2, pages 1339–1343. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Fu:2000:CPO

[4276] Steve Fu. *Cost Performance Optimizations of Microprocessors*. Ph.D. thesis, Department of Electrical Engineering, Stanford University, Stanford, CA, USA, 2000. ???? pp.

Gallagher:2000:FTN

[4277] W. L. Gallagher and E. E. Swartzlander, Jr. Fault-tolerant Newton–Raphson and Goldschmidt dividers using time shared TMR. *IEEE Transactions on Computers*, 49(6):588–595, June 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=862218.

Gay:2000:SAC

[4278] David M. Gay. Symbolic-algebraic computations in a modeling language for mathematical programming. Technical Report 00-3-02, Computing Sciences Research Center, Bell Laboratories, Murray Hill, NJ, USA, July 2000.

Goldovsky:2000:DIL

[4279] A. Goldovsky, B. Patel, M. Schulte, R. Kolagotla, H. Srinivas, and G. Burns. Design and implementation of a 16 by 16 low power two's complement multiplier. In IEEE [7942], pages 345–348. ISBN 0-7803-5482-6, 0-7803-5483-4, 0-7803-5484-2. LCCN TK7801 .I22 2000. URL `http://mesa.ece.wisc.edu/publications/cp_2000-03.pdf`.

Groza:2000:FPA

[4280] V. Groza. Floating-point analog-to-digital converters with predictive auto-ranging. In IEEE [7943], pages 759–762. ISBN 0-7803-5891-0, 0-7803-5890-2, 0-7803-5892-9. ISSN 1091-5281. LCCN TK7878 .I3295 2000. Three volumes. IEEE catalog number 00CH3706.

Hanrot:2000:ML

[4281] Guillaume Hanrot, Vincent Lefèvre, Patrick Pélissier, Paul Zimmermann, Sylvie Boldo, David Daney, Mathieu Dutour, Emmanuel Jeandel, Laurent Fousse, Fabrice Rouillier, and Kevin Ryde. The MPFR library. World-Wide Web software project archive., 2000. URL `http://www.mpfr.org/`.

Hanrot:2000:SDS

[4282] Guillaume Hanrot, Michel Quercia, and Paul Zimmermann. Speeding up the division and square root of power series. Research Report 3973, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, July 17, 2000. 23 pp. URL `ftp://ftp.inria.fr/INRIA/publication/publi-ps-gz/RR/RR-3973.ps.gz`.

Harrison:2000:FPV

[4283] John Harrison. Floating point verification in HOL Light: The exponential function. *Formal Methods in System Design*, 16(3):271–305, 2000. CODEN FMSDE6. ISSN 0925-9856 (print), 1572-8102 (electronic).

Harrison:2000:FVF

[4284] John Harrison. Formal verification of floating point trigonometric functions. *Lecture Notes in Computer Science*, 1954:217–233, 2000. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/1954/19540217.htm; http://link.springer-ny.com/link/service/series/0558/papers/1954/19540217.pdf`.

Harrison:2000:FVI

[4285] John Harrison. Formal verification of IA-64 division algorithms. In Mark Aagaard and John Harrison, editors, *Theorem Proving in Higher Order Logics: 13th International Conference, TPHOLs 2000 Portland, OR, USA, August 14-18, 2000 Proceedings*, Lecture Notes in Computer Science, pages 233–251. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000. CODEN 1869. ISBN 3-540-44659-1 (e-book), 3-540-67863-8 (paper). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.A96 T655 2000.

Harrison:2000:HOM

[4286] John Harrison, Ted Kubaska, Bob Norin, Shane Story, and Ping Tak Peter Tang. Highly optimized mathematical functions for the IA-64 architectures. Technical report 245410-002, Intel Corporation, San Jose, CA, USA, April 2000. URL `ftp://download.intel.com/design/IA-64/Downloads/libm.pdf`.

Hasan:2000:FPI

[4287] M. A. Hasan, A. A. Hasan, and S. Rahman. Fixed point iterations for computing square roots and the matrix sign function of complex matrices. In *Proceedings of the 39th IEEE Conference on Decision and Control*, volume 5, pages 4253–4258. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Hasan:2000:LTB

[4288] M. A. Hasan. Look-up table-based large finite field multiplication in memory constrained cryptosystems. *IEEE Transactions on Computers*, 49(7):749–758, 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Hassibi:2000:ESR

[4289] B. Hassibi. An efficient square-root algorithm for BLAST. In *Proceedings. 2000 IEEE International Conference on Acoustics, Speech, and Signal Processing: ICASSP '00, 5–9 June 2000*, volume 2, pages II737–II740. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Hassibi:2000:FSR

[4290] B. Hassibi. A fast square-root implementation for BLAST. In *Conference Record of the Thirty-Fourth Asilomar Conference on Signals, Systems and Computers, 2000*, volume 2, pages 1255–1259. IEEE Computer

Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

He:2000:UAA

[4291] Yun He and Chris H. Q. Ding. Using accurate arithmetics to improve numerical reproducibility and stability in parallel applications. In Reynders and Veidenbaum [7946], pages 225–234. ISBN 1-58113-270-0. LCCN QA76.88 .I573 2000. URL `https://dl.acm.org/doi/abs/10.1145/335231.335253`.

Hiasat:2000:NES

[4292] A. A. Hiasat. New efficient structure for a modular multiplier for RNS. *IEEE Transactions on Computers*, 49(2):170–174, February 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=833113`.

Hida:2000:QDA

[4293] Yozo Hida, Xiaoye S. Li, and David H. Bailey. Quad-double arithmetic: Algorithms, implementation, and application. Technical report LBNL-46996, Lawrence Berkeley National Laboratory, 1 Cycloton Rd, Berkeley, CA 94720, October 30, 2000. 28 pp. URL `http://www.cs.berkeley.edu/~yozo/papers/LBNL-46996.ps.gz`.

Higuchi:2000:FAA

[4294] Akira Higuchi and Naofumi Takagi. A fast addition algorithm for elliptic curve arithmetic in GF($2n$) using projective coordinates. *Information Processing Letters*, 76(3):101–103, December 15, 2000. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic). URL `http://www.elsevier.nl/gej-ng/10/23/20/67/27/25/abstract.html`; `http://www.elsevier.nl/gej-ng/10/23/20/67/27/25/article.pdf`.

Hormigo:2000:HAVa

[4295] J. Hormigo, J. Villalba, and M. Schulte. A hardware algorithm for variable-precision division. In ????, editor, *Proceedings of the 4th Conference on Real Numbers and Computers, Dagstuhl, Germany, April, 2000*, pages 104–112. ????, ????, 2000. ISBN ???? LCCN ???? URL `http://mesa.ece.wisc.edu/publications/cp_2000-02.pdf`.

Hormigo:2000:HAVb

[4296] J. Hormigo, J. Villalba, and M. Schulte. A hardware algorithm for variable-precision logarithm. In Swartzlander et al. [7948], pages 215–

224. ISBN 0-7695-0716-6, 0-7695-0718-2. LCCN TK7874.6 .I572 2000. URL http://mesa.ece.wisc.edu/publications/cp_2000-04.pdf.

Ide:2000:GMF

[4297] Nobuhiro Ide, Masashi Hirano, Yukio Endo, Shin ichi Yoshioka, Hiroaki Murakami, Atsushi Kunimatsu, Toshinori Sato, Takayuki Kamei, Toyoshi Okada, and Masakazu Suzuoki. 2.44 GFLOPS 300-MHz floating-point vector-processing unit for high-performance 3-D graphics computing. *IEEE Journal of Solid-State Circuits*, 35(7):1025–1033, July 2000. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic). URL http://www.hwswworld.com/downloads/a7/1025ide.pdf.

Ifrah:2000:UHN

[4298] Georges Ifrah. *The Universal History of Numbers from Prehistory to the Invention of the Computer*. Wiley, New York, NY, USA, 2000. ISBN 0-471-37568-3. xxii + 633 pp. LCCN QA141.I3713 2000. US$39.95. Translated from the French edition, *Histoire universelle des chiffres*, by David Bellos, E. F. Harding, Sophie Wood, and Ian Monk.

Imajo:2000:CSB

[4299] Tetsuji Imajo, Tatsuki Miyake, Shinobu Sato, Toshiyuki Ito, Daisuke Yokotsuka, Yoshihide Tsujihata, and Shunsuke Uemura. COBOL Script: a business-oriented scripting language. In IEEE [7941], pages 231–?? ISBN 0-7695-0865-0. LCCN ????

Intel:2000:DSR

[4300] Intel. Divide, square root, and remainder algorithms for the Itanium architecture. Intel Software Development Products, July 2000. URL https://studylib.net/doc/7921762/divide--square-root-and-remainder-algorithms-for-the-ia-64.

Intel:2000:IPF

[4301] Intel Corporation, Santa Clara, CA, USA. *Itanium Processor Floating-point Software Assistance and Floating-point Exception Handling*, January 2000. URL http://cache-www.intel.com/cd/00/00/21/92/219290_fpswa_software.pdf.

ISO:2000:FSI

[4302] ISO/IEC JTC1/SC22/WG5. Information technology — programming languages — Fortran – floating-point exception handing (draft). World-Wide Web document., January 19, 2000. URL ftp://ftp.nag.co.uk/sc22wg5/N1351-N1400/N1378.pdf.

Joye:2000:OLR

[4303] M. Joye and S.-M. Yen. Optimal left-to-right binary signed-digit recoding. *IEEE Transactions on Computers*, 49(7):740–748, 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kahan:2000:MAA

[4304] W. Kahan. Miscalculating area and angles of a needle-like triangle. World-Wide Web lecture notes for introductory numerical analysis classes., March 24, 2000. URL `http://www.cs.berkeley.edu/~wkahan/Triangle.pdf`.

Kahan:2000:MVM

[4305] W. Kahan. Marketing versus mathematics and other ruminations on the design of floating-point arithmetic. Technical report, Mathematics Department and Electrical Engineering and Computer Science Department, University of California, Berkeley, Berkeley, CA, USA, August 27, 2000. 48 pp. URL `http://www.cs.berkeley.edu/~wkahan/MktgMath.pdf; http://www.cs.nyu.edu/cs/faculty/overton/book/docs/KahanTalk.pdf`.

Kahan:2000:RDFa

[4306] W. Kahan. Ruminations on the design of floating-point arithmetic. World-Wide Web document, April 25, 2000. URL `http://cs.nyu.edu/cs/faculty/overton/book/docs/KahanTalk.pdf`.

Kahan:2000:RDFb

[4307] W. Kahan. Marketing versus mathematics and other ruminations on the design of floating-point arithmetic. Technical report, Mathematics Department and Electrical Engineering and Computer Science Department, University of California, Berkeley, Berkeley, CA, USA, August 27, 2000. 48 pp. URL `http://www.cs.berkeley.edu/~wkahan/MktgMath.pdf; http://www.cs.nyu.edu/cs/faculty/overton/book/docs/KahanTalk.pdf`.

Kalampoukas:2000:HSP

[4308] L. Kalampoukas, D. Nikolos, C. Efstathiou, H. T. Vergos, and J. Kalamatianos. High-speed parallel-prefix modulo 2^{n-1} adders. *IEEE Transactions on Computers*, 49(7):673–680, 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kao:2000:LTA

[4309] Ming-Yang Kao and Jie Wang. Linear-time approximation algorithms for computing numerical summation with provably small errors. *SIAM*

Journal on Computing, 29(5):1568–1576, October 2000. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/34159`.

Kapur:2000:UIP

[4310] Deepak Kapur and Mahadevan Subramaniam. Using an induction prover for verifying arithmetic circuits. *International Journal on Software Tools for Technology Transfer: STTT*, 3(1):32–65, September 2000. CODEN ???? ISSN 1433-2779 (print), 1433-2787 (electronic).

Kawamura:2000:CRA

[4311] Shinichi Kawamura, Masanobu Koike, Fumihiko Sano, and Atsushi Shimbo. Cox-Rower architecture for fast parallel Montgomery multiplication. *Lecture Notes in Computer Science*, 1807:523–??, 2000. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/1807/18070523.htm; http://link.springer-ny.com/link/service/series/0558/papers/1807/18070523.pdf`.

Keller:2000:ARR

[4312] T. Keller, T. H. Liew, and Lajos Hanzo. Adaptive redundant residue number system coded multicarrier modulation. *IEEE Journal on Selected Areas in Communications*, 18(11):2292–2301, November 2000. CODEN ISACEM. ISSN 0733-8716 (print), 1558-0008 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=19376`.

Kim:2000:PSA

[4313] Hyun-Sung Kim, Sung-Woo Lee, and Kee-Young Yoo. Partitioned systolic architecture for modular multiplication in GF (2 m). *Information Processing Letters*, 76(3):135–139, December 15, 2000. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic). URL `http://www.elsevier.nl/gej-ng/10/23/20/67/27/30/abstract.html; http://www.elsevier.nl/gej-ng/10/23/20/67/27/30/article.pdf`.

Kobayashi:2000:HBF

[4314] Shiro Kobayashi and Gerhard P. Fettweis. A hierarchical block-floating-point arithmetic. *Journal of VLSI Signal Processing*, 24(1):19–30, February 2000. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Koren:2000:GEI

[4315] Israel Koren and Peter Kornerup. Guest Editors' introduction: Special issue on computer arithmetic. *IEEE Transactions on Computers*, 49(7): 625–627, July 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=863030.

Krishnan:2000:PEM

[4316] S. Krishnan, M. Foskey, T. Culver, J. Keyser, and D. Manocha. Precise: Efficient multiprecision evaluation of algebraic roots and predicates for reliable geometric computations. Technical Report TR00 008, Department of Computer Science, University of North Carolina, Chapel Hill, NC, USA, 2000. URL http://citeseer.nj.nec.com/krishnan00precise.html.

Kum:2000:ACO

[4317] Ki-Il Kum, Jiyang Kang, and Wonyong Sung. AUTOSCALER for C: an optimizing floating-point to integer C program converter for fixed-point digital signal processors. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 47(9):840–848, September 2000. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic).

Lee:2000:LSM

[4318] Keon-Jik Lee and Kee-Young Yoo. Linear systolic multiplier/squarer for fast exponentiation. *Information Processing Letters*, 76(3):105–111, December 15, 2000. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic). URL http://www.elsevier.nl/gej-ng/10/23/20/67/27/26/abstract.html; http://www.elsevier.nl/gej-ng/10/23/20/67/27/26/article.pdf.

Leemis:2000:SDS

[4319] Lawrence M. Leemis, Bruce W. Schmeiser, and Diane L. Evans. Survival distributions satisfying Benford's law. *The American Statistician*, 54(4): 236–??, November 2000. CODEN ASTAAJ. ISSN 0003-1305 (print), 1537-2731 (electronic). URL http://www.amstat.org/publications/tas/Leemis.htm.

Lefevre:2000:CRF

[4320] V. D. Lefevre and Jean-Michel Muller. Correctly rounded functions for better arithmetic. In *Conference Record of the Thirty-Fourth Asilomar Conference on Signals, Systems and Computers, 2000*, volume 2, pages 875–878. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Lefevre:2000:MAP

[4321] Vincent Lefèvre. *Moyens arithmétiques pour un calcul fiable. (French) [Arithmetic means for reliable calculation]*. Ph.D. dissertation, École Normale Supérieure de Lyon, Lyon, France, 2000. 148 pp. URL https://www.theses.fr/2000ENSL0142.

Liew:2000:IDR

[4322] T. H. Liew, L.-L. Yang, and L. Hanzo. Iterative decoding of redundant residue number system codes. In *VTC 2000-Spring Tokyo, IEEE 51st Vehicular Technology Conference Proceedings, 15–18 May 2000*, volume 1, pages 576–580. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Lin:2000:NBP

[4323] Rong Lin and James L. Schwing. A non-binary parallel arithmetic architecture. *Lecture Notes in Computer Science*, 1800:149–??, 2000. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1800/18000149.htm; http://link.springer-ny.com/link/service/series/0558/papers/1800/18000149.pdf.

Lopez:2000:HSS

[4324] Julio López and Ricardo Dahab. High-speed software multiplication in $\mathbf{f}_{2^m}$. *Lecture Notes in Computer Science*, 1977:203–??, 2000. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1977/19770203.htm; http://link.springer-ny.com/link/service/series/0558/papers/1977/19770203.pdf.

Luo:2000:API

[4325] Z. Luo and M. Martonosi. Accelerating pipelined integer and floating-point accumulations in configurable hardware with delayed addition techniques. *IEEE Transactions on Computers*, 49(3):208–218, March 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=841125.

Maclaren:2000:IEH

[4326] Nick Maclaren. IEEE 754 error handling and programming languages. Report, Cambridge University, Cambridge, UK, March 2000. 15 pp. URL http://grouper.ieee.org/groups/1788/email/pdfmPSi1DgZZf.pdf.

Madhukumar:2000:DPR

[4327] A. S. Madhukumar and F. Chin. Design and performance of residue number system based multicarrier CDMA in frequency-selective Rayleigh fading channels. In *Conference Record of the Thirty-Fourth Asilomar Conference on Signals, Systems and Computers, 2000*, volume 2, pages 884–888. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Madhukumar:2000:PRN

[4328] A. S. Madhukumar and F. Chin. Performance of a residue number system based DS–CDMA system over bursty communication channels. In *IEEE VTS-Fall VTC 2000. 52nd Vehicular Technology Conference, 2000*, volume 5, pages 2433–2440. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Madhukumar:2000:RNS

[4329] A. S. Madhukumar, F. Chin, and A. B. Premkumar. Residue number system based multicarrier CDMA for broadband mobile communication systems. In *Proceedings of the 43rd IEEE Midwest Symposium on Circuits and Systems 2000*, volume 2, pages 536–539. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Mahesh:2000:LPR

[4330] M. N. Mahesh and M. Mehendale. Low power realization of residue number system based FIR filters. In *Thirteenth International Conference on VLSI Design, 2000*, pages 30–33. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Markstein:2000:IEF

[4331] Peter Markstein. *IA-64 and Elementary Functions: Speed and Precision*. Hewlett–Packard professional books. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 2000. ISBN 0-13-018348-2. xix + 298 pp. LCCN QA76.9.A73 M365 2000. URL `http://www.markstein.org/`.

Maryska:2000:SCR

[4332] J. Maryska, M. Rozložník, and M. Tuma. Schur complement reduction in the mixed-hybrid approximation of Darcy's law: rounding error analysis. *Journal of Computational and Applied Mathematics*, 117(2):159–173, May 15, 2000. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042799003441.

McKenzie:2000:ACP

[4333] Pierre McKenzie, Heribert Vollmer, and Klaus W. Wagner. Arithmetic circuits and polynomial replacement systems. *Lecture Notes in Computer Science*, 1974:164–??, 2000. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1974/19740164.htm; http://link.springer-ny.com/link/service/series/0558/papers/1974/19740164.pdf.

Mencer:2000:RAU

[4334] Oskar Mencer. *Rational Arithmetic Units in Computer Systems*. Ph.D. thesis, Department of Electrical Engineering, Stanford University, Stanford, CA, USA, January 2000. ???? pp.

Moreira:2000:FMJ

[4335] José E. Moreira, Samuel P. Midkiff, and Manish Gupta. From flop to megaflops: Java for technical computing. *ACM Transactions on Programming Languages and Systems*, 22(2):265–295, March 2000. CODEN ATPSDT. ISSN 0164-0925 (print), 1558-4593 (electronic). URL http://www.acm.org/pubs/citations/journals/toplas/2000-22-2/p265-moreira/.

Mueller:2000:CAC

[4336] Silvia M. Mueller and Wolfgang J. Paul. *Computer Architecture: Complexity and Correctness*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2000. ISBN 3-540-67481-0. xiii + 553 pp. LCCN QA76.9.A73 M845 2000. URL http://www-wjp.cs.uni-sb.de/info/papers/#books.

Mulders:2000:SMD

[4337] Thom Mulders. On short multiplications and divisions. *Applicable algebra in engineering, communication and computing*, 11(1):69–88, August 2000. CODEN AAECEW. ISSN 0938-1279 (print), 1432-0622 (electronic). See note [4639].

Nielsen:2000:ICF

[4338] Asger Munk Nielsen, David W. Matula, Chung Nan Lyu, and Guy Even. An IEEE compliant floating-point adder that conforms with the pipeline packet-forwarding paradigm. *IEEE Transactions on Computers*, 49(1):

33–47, January 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=822562.

Oh:2000:ENB

[4339] Sangho Oh, Chang Han Kim, Jongin Lim, and Dong Hyeon Cheon. Efficient normal basis multipliers in composite fields. *IEEE Transactions on Computers*, 49(10):1133–1138, October 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=888054.

Paliouras:2000:FPP

[4340] Vassilis Paliouras, Konstantina Karagianni, and Thanos Stouraitis. A floating-point processor for fast and accurate sine/cosine evaluation. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 47(5):441–451, May 2000. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic).

Paliouras:2000:HRR

[4341] V. Paliouras and T. Stouraitis. High-radix residue number system forward and inverse converters. In *The 7th IEEE International Conference on Electronics, Circuits and Systems, 2000. ICECS 2000*, volume 2, pages 858–861. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Paliouras:2000:NHR

[4342] V. Paliouras and T. Stouraitis. Novel high-radix residue number system architectures. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 47(10):1059–1073, October 2000. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=18987.

Papakonstantinou:2000:IUF

[4343] Alexandros Papakonstantinou. Implementations of units for floating point arithmetic. Thesis (M.Sc.), Department of Electrical and Electronic Engineering, Imperial College, London, London, UK, 2000.

Parhami:2000:CAA

[4344] Behrooz Parhami. *Computer Arithmetic: Algorithms and Hardware Designs*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2000. ISBN 0-19-512583-5 (hardcover), 3-540-04907-X (print), 3-540-36246-0 (e-book). xx + 490 pp. LCCN QA76.9.C62P37 1999. US$85.00.

Parhami:2000:PER

[4345] B. Parhami. On producing exactly rounded results in digit-serial on-line arithmetic. In *Conference Record of the Thirty-Fourth Asilomar Conference on Signals, Systems and Computers, 2000*, volume 2, pages 889–893. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Park:2000:ESR

[4346] Woo-Chan Park, Tack-Don Han, and Shin-Dug Kim. Efficient simultaneous rounding method removing sticky-bit from critical path for floating point addition. In *Proceedings of the Second IEEE Asia Pacific Conference on ASICs 2000: AP-ASIC 2000*, pages 223–226. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Parker:2000:MCAa

[4347] D. Stott Parker, Brad Pierce, and Paul R. Eggert. Monte Carlo arithmetic: a framework for the statistical analysis of roundoff error. Technical Report CSD 970014, Department of Computer Science, University of California, Los Angeles, Los Angeles, CA, USA, March 2000. 18 pp. URL `http://www.cs.ucla.edu/~stott/mca/CSD-970014.ps.gz`.

Parker:2000:MCAb

[4348] D. Stott Parker, Brad Pierce, and Paul R. Eggert. Monte Carlo arithmetic: How to gamble with floating point and win. *Computing in Science and Engineering*, 2(4):58–68, July/August 2000. CODEN CSENFA. ISSN 1521-9615 (print), 1558-366X (electronic). URL `http://dlib.computer.org/cs/books/cs2000/pdf/c4058.pdf; http://www.computer.org/cse/cs1999/c4058abs.htm`.

Parks:2000:NTT

[4349] M. Parks. Number-theoretic test generation for directed rounding. *IEEE Transactions on Computers*, 49(7):651–658, July 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=863034`.

Philippsen:2000:CNJ

[4350] Michael Philippsen and Edwin Günthner. Complex numbers for Java. *Concurrency: Practice and Experience*, 12(6):477–491, May 2000. CODEN CPEXEI. ISSN 1040-3108 (print), 1096-9128 (electronic). URL http://www3.interscience.wiley.com/cgi-bin/abstract/72515730/START; http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=72515730&PLACEBO=IE.pdf.

Pillai:2000:LPA

[4351] R. V. Pillai, D. Al-Khalili, and A. J. Al-Khalili. Low power architecture for floating-point MAC fusion. *IEE Proceedings. Computers and Digital Techniques*, 147:288–296, 2000. CODEN ICDTEA. ISSN 1350-2387 (print), 1359-7027 (electronic).

Ploog:2000:MPB

[4352] H. Ploog and D. Timmermann. On multiple precision based Montgomery multiplication without precomputation of $N_0' = -N_0^{-1} \bmod W$. In *Proceedings of the 2000 International Conference on Computer Design*, pages 589–590. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Poitras:2000:EHF

[4353] Geoffrey Poitras. *The Early History of Financial Economics, 1478–1776: from Commercial Arithmetic to Life Annuities and Joint Stocks*. Edward Elgar, Cheltenham, UK, 2000. ISBN 1-84064-455-9. x + 522 pp. LCCN HG101 .P65 2000.

Premkumar:2000:CLB

[4354] A. B. Premkumar and M. Bhardwaj. Combinatorial logic based forward converters in residue number systems. In *The 2000 IEEE International Symposium on Circuits and Systems, Proceedings, ISCAS 2000 Geneva, 28–31 May 2000*, volume 5, pages 317–320. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Ramirez:2000:NAC

[4355] J. Ramirez, A. Garcia, P. G. Fernandez, L. Parrilla, and A. Lloris. A new architecture to compute the discrete cosine transform using the quadratic residue number system. In *Proceedings, ISCAS 2000 Geneva, The 2000 IEEE International Symposium on Circuits and Systems, 28–31 May 2000*, volume 5, pages 321–324. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Reyhani-Masoleh:2000:ENB

[4356] A. Reyhani-Masoleh and M. A. Hasan. On efficient normal basis multiplication. *Lecture Notes in Computer Science*, 1977:213–??,

2000. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1977/19770213.htm; http://link.springer-ny.com/link/service/series/0558/papers/1977/19770213.pdf.

Russinoff:2000:CSF

[4357] David M. Russinoff. A case study in formal verification of register-transfer logic with ACL2: The floating point adder of the AMD Athlon processor. *Lecture Notes in Computer Science*, 1954:3–36, 2000. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1954/19540003.htm; http://link.springer-ny.com/link/service/series/0558/papers/1954/19540003.pdf.

Savas:2000:MMI

[4358] E. Savas and Ç. K. Koç. The Montgomery modular inverse—revisited. *IEEE Transactions on Computers*, 49(7):763–766, July 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=863048.

Schulte:2000:CUT

[4359] M. Schulte, M. Gok, P. Balzola, and R. Brocato. Combined unsigned and two's complement saturating multipliers. In Luk [7944], pages 185–196. ISBN 0-8194-3761-1. LCCN TK5102.5 .A3325 2000; TK5102.9 .A382 2000; TK5102.9 .A38 2000. URL http://mesa.ece.wisc.edu/publications/cp_2000-05.pdf.

Schulte:2000:FVP

[4360] M. J. Schulte and E. E. Swartzlander, Jr. A family of variable-precision, interval arithmetic processors. *IEEE Transactions on Computers*, 49(5):387–398, May 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://mesa.ece.wisc.edu/publications/cp_2000-09.pdf; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=859535.

Schulte:2000:IMO

[4361] M. J. Schulte, P. I. Balzola, A. Akkas, and R. W. Brocato. Integer multiplication with overflow detection or saturation. *IEEE Transactions on Computers*, 49(7):681–691, July 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://home.ku.edu.tr/~ahakkas/publications/overflow.pdf; http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=863038; http://mesa.ece.wisc.edu/publications/cp_2000-08.pdf.

Schulte:2000:PSM

[4362] M. J. Schulte, P. I. Balzola, J. Ruan, and J. Glossner. Parallel saturating multioperand adders. In ACM [7939], pages 172–179. ISBN 1-58113-338-3. LCCN ???? URL `http://mesa.ece.wisc.edu/publications/cp_2000-06.pdf`.

Seidel:2000:DIC

[4363] Peter-Michael Seidel. *On the Design of IEEE Compliant Floating-point Units and their Quantitative Analysis*. Ph.D. thesis, Computer Science Department, University of Saarland, Saarbrücken, Germany, 2000. xii + 188 pp.

Seife:2000:ZBD

[4364] Charles Seife. *Zero: The Biography of a Dangerous Idea*. Viking, New York, NY, USA, 2000. ISBN 0-670-88457-X, 0-14-029647-6 (paperback). vi + 248 pp. LCCN QA141 .S45 2000.

Shin:2000:HSC

[4365] Kyung-Wook Shin and Heung-Woo Jeon. High-speed complex-number multiplications based on redundant binary representation of partial products. *International Journal of Electronics Theoretical & Experimental*, 87(6):683–702, June 2000. CODEN IJELA2. ISSN 1362-3060.

Sleijpen:2000:DER

[4366] Gerard L. G. Sleijpen, Henk A. van der Vorst, and Jan Modersitzki. Differences in the effects of rounding errors in Krylov solvers for symmetric indefinite linear systems. *SIAM Journal on Matrix Analysis and Applications*, 22(3):726–751 (electronic), 2000. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/32308`; `http://epubs.siam.org/sam-bin/dbq/toc/SIMAX/22/3`.

Swider:2000:FPR

[4367] Zbigniew Świder. Floating-point roundoff errors of second-order state-space digital filters. *Systems Sci.*, 26(1):67–81, 2000. CODEN SYSCDP. ISSN 0137-1223.

Takahashi:2000:IMP

[4368] D. Takahashi. Implementation of multiple-precision parallel division and square root on distributed-memory parallel computers. In *Proceedings* *of the 2000 International Workshops on Parallel Processing*, pages 229–235. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Talahmeh:2000:ADR

[4369] S. Talahmeh and P. Siy. Arithmetic division in RNS using Galois Field GF(p) . *Computers and Mathematics with Applications*, 39(5–6):227–238, March 2000. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

Tchoumatchenko:2000:FBS

[4370] V. Tchoumatchenko, T. Vassileva, and P. Gurov. A FPGA based square-root coprocessor. In *Proceedings of the 22nd EUROMICRO Conference EUROMICRO 96. 'Beyond 2000: Hardware and Software Design Strategies'*, pages 520–525. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Thimbleby:2000:CNB

[4371] Harold Thimbleby. Calculators are needlessly bad. *International Journal of Human-Computer Studies*, 52(6):1031–1069, June 2000. CODEN ???? ISSN ???? URL `http://www.sciencedirect.com/science/article/pii/S1071581999903415`.

Tommiska:2000:AEI

[4372] M. T. Tommiska. Area-efficient implementation of a fast square root algorithm. In *Proceedings of the 2000 Third IEEE International Caracas Conference on Devices, Circuits and Systems, 15–17 March 2000*, pages S18/1–S18/4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. CODEN ???? ISSN ????

Tong:2000:RPO

[4373] J. Y. F. Tong, D. Nagle, and R. A. Rutenbar. Reducing power by optimizing the necessary precision/range of floating-point arithmetic. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 8(3):273–286, June 2000. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Tsuji:2000:REO

[4374] Kumiko Tsuji. Round-off error of optimal control problems in floating-point number systems. In *Proceedings of the Second ISAAC Congress, Vol. 2 (Fukuoka, 1999)*, volume 8 of *Int. Soc. Anal. Appl. Comput.*, pages 929–944. Kluwer Acad. Publ., Dordrecht, 2000.

vanderKolk:2000:FPV

[4375] K. J. van der Kolk, J. A. Lee, and E. F. A. Deprettere. A floating point vectoring algorithm based on fast rotations. *Journal of VLSI Signal Processing*, 25(2):125–139, June 2000. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Wang:2000:NSA

[4376] Chin-Liang Wang and Jyh-Huei Guo. New systolic arrays for $C + AB^2$, inversion, and division in GF(2^{m}). *IEEE Transactions on Computers*, 49(10):1120–1125, October 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=888047`.

Wires:2000:VCT

[4377] K. E. Wires, M. J. Schulte, and J. E. Stine. Variable-correction truncated floating point multipliers. In Matthews et al. [7945], pages 1344–1348. ISBN 0-7803-6514-3 (softbound), 0-7803-6515-1 (casebound), 0-7803-6516-X (microfiche). LCCN TK5101.A1 A85 2000. URL `http://mesa.ece.wisc.edu/publications/cp_2000-07.pdf`.

Yang:2000:EPG

[4378] Chia-Lin Yang, B. Sano, and A. R. Lebeck. Exploiting parallelism in geometry processing with general purpose processors and floating-point SIMD instructions. *IEEE Transactions on Computers*, 49(9):934–946, September 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=869324`.

Yeh:2000:HSB

[4379] Wen-Chang Yeh and Chein-Wei Jen. High-speed Booth encoded parallel multiplier design. *IEEE Transactions on Computers*, 49(7):692–701, July 2000. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=863039`.

Zimmermann:2000:PGF

[4380] Paul Zimmermann. A proof of GMP fast division and square root implementations. Technical report, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, September 2000. 14 pp. URL `http://www.loria.fr/~zimmerma/papers/proof-div-sqrt.ps.gz`.

Akishita:2001:FSS

[4381] Toru Akishita. Fast simultaneous scalar multiplication on elliptic curve with Montgomery form. *Lecture Notes in Computer Science*, 2259: 255–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2259/22590255.htm`; `http://link.springer-ny.com/link/service/series/0558/papers/2259/22590255.pdf`.

Akkas:2001:ISE

[4382] Ahmet Akkas. *Instruction set enhancements for reliable computations*. Ph.D. thesis, Lehigh University, Bethlehem, PA, USA, 2001. 159 pp. URL `http://wwwlib.umi.com/dissertations/fullcit/3036247`; `http://wwwlib.umi.com/dissertations/preview/3036247`.

Alefeld:2001:SAM

[4383] Götz Alefeld, Jiři Rohn, Siegfried Rump, and Tetsuro Yamamoto, editors. *Symbolic algebraic methods and verification methods*. Springer mathematics. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001. ISBN 3-211-83593-8. ix + 266 pp. LCCN QA76.9.M35 S92 2001. US$69.95. URL `http://www.springer-ny.com/detail.tpl?cart=1020951627126096З&isbn=3211835938`.

Ammar:2001:SIC

[4384] A. Ammar, A. Al Kabbany, M. Youssef, and A. Amam. A secure image coding scheme using residue number system. In *NRSC 2001, Proceedings of the Eighteenth National Radio Science Conference, 27–29 March 2001*, volume 2, pages 399–405. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Aoki:2001:ECA

[4385] Kazumaro Aoki, Fumitaka Hoshino, Tetsutaro Kobayashi, and Hiroaki Oguro. Elliptic curve arithmetic using SIMD. *Lecture Notes in Computer Science*, 2200:235–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2200/22000235.htm`; `http://link.springer-ny.com/link/service/series/0558/papers/2200/22000235.pdf`.

Armando:2001:PEM

[4386] A. Armando and S. Ranise. A practical extension mechanism for decision procedures: the case study of universal Presburger arithmetic. *J.UCS:*

Journal of Universal Computer Science, 7(2):124–??, February 28, 2001. CODEN ???? ISSN 0948-6968. URL `http://www.jucs.org/jucs_7_2/a_practical_extension_mechanism`.

Arnold:2001:ACL

[4387] M. Arnold, T. Bailey, J. Cowles, and C. Walter. Analysis of complex LNS FFTs. In *2001 IEEE Workshop on Signal Processing Systems*, pages 58–69. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Arnold:2001:DFL

[4388] M. G. Arnold. Design of a faithful LNS interpolator. In *Proceedings of the Euromicro Symposium on Digital Systems, Design, 2001*, pages 336–345. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Arnold:2001:PLA

[4389] M. G. Arnold. A pipelined LNS ALU. In *Proceedings of the IEEE Computer Society Workshop on VLSI, 19–20 April 2001*, pages 155–161. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Arnold:2001:SMQ

[4390] M. G. Arnold and M. D. Winkel. A single-multiplier quadratic interpolator for LNS arithmetic. In IEEE [7957], pages 178–183. ISBN 0-7695-1200-3 (paperback), 0-7695-1202-X (microfiche). LCCN TK7885.A1 .I24 2001; TK 7885 .A1I24 2001.

Arnold:2001:UFR

[4391] Mark G. Arnold and Colin Walter. Unrestricted faithful rounding is good enough for some LNS applications. In Burgess and Ciminiera [7954], pages 237–246. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL `http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Arnold.pdf`. IEEE order no. PR01150.

Atlamazoglou:2001:ALP

[4392] P. E. Atlamazoglou, H. T. Anastassiu, and D. I. Kaklamani. Application of literate-programming principles for the description of a FORTRAN 90 extension to quaternion arithmetic. *IEEE Antennas and Propagation Magazine*, 43(4):104–114, August 2001. CODEN IAPMEZ. ISSN 1045-9243 (print), 1558-4143 (electronic).

Baidas:2001:FPB

[4393] Z. Baidas, A. D. Brown, and A. C. Williams. Floating-point behavioral synthesis. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 20(7):828–839, July 2001. CODEN ITCSDI. ISSN 0278-0070 (print), 1937-4151 (electronic).

Bajard:2001:MMB

[4394] Jean-Claude Bajard, Laurent-Stephane Didier, and Peter Kornerup. Modular multiplication and base extensions in residue number systems. In Burgess and Ciminiera [7954], pages 59–65. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Bajard.pdf. IEEE order no. PR01150.

Balzola:2001:DAP

[4395] P. I. Balzola, M. J. Schulte, J. Ruan, J. Glossner, and E. Hokenek. Design alternatives for parallel saturating multioperand adders. In IEEE [7957], pages 172–177. ISBN 0-7695-1200-3 (paperback), 0-7695-1202-X (microfiche). LCCN TK7885.A1 .I24 2001; TK 7885 .A1I24 2001. URL http://mesa.ece.wisc.edu/publications/cp_2001-06.pdf.

Barraud:2001:SAR

[4396] Alain Barraud, Suzanne Lesecq, and Nicolai Christov. From sensitivity analysis to random floating point arithmetics—application to Sylvester equations. In *Numerical analysis and its applications (Rousse, 2000)*, volume 1988 of *Lecture Notes in Computer Science*, pages 35–41. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001.

Bashagha:2001:NRS

[4397] A. E. Bashagha. Novel radix-2 k square root module. *Circuits, Devices and Systems, IEE Proceedings [see also IEE Proceedings G- Circuits, Devices and Systems]*, 148(4):190–196, August 2001. CODEN ???? ISSN ????

Beaumont-Smith:2001:PPA

[4398] Andrew Beaumont-Smith and Cheng-Chew Lim. Parallel prefix adder design. In Burgess and Ciminiera [7954], pages 218–228. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Beaumont_Smith.pdf. IEEE order no. PR01150.

Beebe:2001:IFP

[4399] Nelson H. F. Beebe. IEEE 754 floating-point test software. World-Wide Web document., December 1, 2001. URL `https://www.math.utah.edu/~beebe/software/ieee/`.

Berg:2001:FVV

[4400] Christoph Berg and Christian Jacobi. Formal verification of the VAMP floating point unit. *Lecture Notes in Computer Science*, 2144:325–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2144/21440325.htm; http://link.springer-ny.com/link/service/series/0558/papers/2144/21440325.pdf`.

Bickerstaff:2001:ACC

[4401] K'Andrea C. Bickerstaff, Earl E. Swartzlander, Jr., and Michael J. Schulte. Analysis of column compression multipliers. In Burgess and Ciminiera [7954], pages 33–39. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL `http://mesa.ece.wisc.edu/publications/cp_2001-02.pdf; http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Bickerstaff.pdf`. IEEE order no. PR01150.

Blanck:2001:ERA

[4402] Jens Blanck. Exact real arithmetic systems: Results of competition. *Lecture Notes in Computer Science*, 2064:389–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2064/20640389.htm; http://link.springer-ny.com/link/service/series/0558/papers/2064/20640389.pdf`.

Blum:2001:HRM

[4403] T. Blum and C. Paar. High-radix Montgomery modular exponentiation on reconfigurable hardware. *IEEE Transactions on Computers*, 50(7): 759–764, July 2001. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=936241`.

Boldo:2001:FAP

[4404] Sylvie Boldo. Formalisation, amélioration et preuves d'algorithmes en arithmétique flottante. (French) [formalization, improvement, and proofs of algorithms in floating-point arithmetic]. Master's thesis, École

Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, June 27, 2001. ix + 42 pp. URL `ftp://ftp.ens-lyon.fr/pub/LIP/Rapports/DEA/DEA2001/DEA2001-03.ps.Z`. Also issued as Report DEA No. 2001-03.

Boldo:2001:MVT

[4405] Sylvie Boldo and Marc Daumas. A mechanically validated technique for extending the available precision. In Matthews [7961], pages 1299–1303. ISBN 0-7803-7147-X (paperback), 0-7803-7148-8 (microfiche). LCCN ???? URL `http://perso.ens-lyon.fr/marc.daumas/SoftArith/BolDau01b.pdf`. Two volumes. IEEE catalog number 01CH37256.

Boldo:2001:PIA

[4406] Sylvie Boldo and Marc Daumas. Performances d'implantations de l'addition en précision quad-double sur différentes machines. (French) [performance of implantations of quad-double precision on different machines]. In ????, editor, *ASTI '2001/ SYMPA 7: 7ème Symposium en Architectures Nouvelles de Machines, La Villette, Paris, 24–27 avril, 2001*, page ?? ????, ????, 2001. ISBN ???? LCCN ???? URL `http://www.laria.u-picardie.fr/~cerin/paris2001.html`.

Breyer:2001:NGE

[4407] Laird Breyer, Gareth O. Roberts, and Jeffrey S. Rosenthal. A note on geometric ergodicity and floating-point roundoff error. *Statistics & Probability Letters*, 53(2):123–127, June 1, 2001. CODEN SPLTDC. ISSN 0167-7152 (print), 1879-2103 (electronic).

Briggs:2001:XER

[4408] Keith Briggs and Yannis Smaragdakis. XR — exact real arithmetic. World-Wide Web document and software package., March 01, 2001. URL `http://www.btexact.com/people/briggsk2/XR.html`. From the overview: "This is an implementation of exact (or constructive) real arithmetic, as an alternative to multiple-precision floating-point (MPFP). An important distinction is that in MPFP one sets the precision before starting a computation, and then one cannot be sure of the final result. Interval arithmetic is an improvement on this, but still not an ideal solution because if the final interval is larger than desired, there is no simple way to restart the computation at higher precision. By contrast, in XR no precision level is set in advance, and no computation takes place until a final request takes place for some output. Despite this, programming with XR is no different from MPFP, except for the declaration of critical variables as type 'XR'.

The main aim is to produce a usably efficient implementation, which can be easily interfaced with existing C++ code. This contrasts with previous implementations in functional languages (Haskell, Miranda etc.), which, although theoretically important, seem to be rather too slow for real use.

This code is designed as an add-on to Victor Shoup's arbitrary-precision arithmetic package NTL, and implements a new type XR, to complement NTL's ZZ and RR integer and real types.

Bruguera:2001:URC

[4409] Javier D. Bruguera and Tomás Lang. Using the reverse-carry approach for double-datapath floating-point addition. In Burgess and Ciminiera [7954], pages 203–210. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Bruguera.pdf. IEEE order no. PR01150.

Bryant:2001:VAC

[4410] Randal E. Bryant and Yirng-An Chen. Verification of arithmetic circuits using binary moment diagrams. *International Journal on Software Tools for Technology Transfer: STTT*, 3(2):137–155, May 2001. CODEN ???? ISSN 1433-2779 (print), 1433-2787 (electronic).

Burgess:2001:DIR

[4411] N. Burgess and C. Hinds. Design issues in radix-4 SRT square root & divide unit. In *Conference Record of the Thirty-Fifth Asilomar Conference on Signals, Systems and Computers, 2001*, volume 2, pages 1646–1650. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Busaba:2001:IZD

[4412] Fadi Y. Busaba, Christopher A. Krygowski, Wen H. Li, Eric M. Schwarz, and Steven R. Carlough. The IBM z900 decimal arithmetic unit. In Matthews [7961], pages 1335–1339. ISBN 0-7803-7147-X (paperback), 0-7803-7148-8 (microfiche). LCCN ???? Two volumes. IEEE catalog number 01CH37256.

Cao:2001:HPA

[4413] Jun Cao, Belle W. Y. Wei, and Jie Cheng. High-performance architectures for elementary function generation. In Burgess and Ciminiera [7954], pages 136–144. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Cao.pdf. IEEE order no. PR01150.

Chen:2001:ADF

[4414] Chichyang Chen, Liang-An Chen, and Jih-Ren Cheng. Architectural design of a fast floating-point multiplication-add fused unit using signed-digit addition. In IEEE [7956], pages 346–353. ISBN 0-7695-1239-9. LCCN TK7868.D5 E93 2001.

Coppersmith:2001:FSS

[4415] Don Coppersmith. Finding small solutions to small degree polynomials. *Lecture Notes in Computer Science*, 2146:20–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2146/21460020.htm; http://link.springer-ny.com/link/service/series/0558/papers/2146/21460020.pdf.

Cowlishaw:2001:DAJ

[4416] Mike Cowlishaw. Decimal arithmetic for java.math: JSR 13 public review draft. Technical Report Version 1.33, IBM UK Laboratories, Hursley, UK, July 16, 2001. iii + 60 pp. URL http://www2.hursley.ibm.com/jsr13/jsr13spec.pdf.

Cowlishaw:2001:DFP

[4417] Michael F. Cowlishaw, Eric M. Schwarz, Ronald M. Smith, and Charles F. Webb. A decimal floating-point specification. In Burgess and Ciminiera [7954], pages 147–154. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Cowlishaw.pdf; http://www2.hursley.ibm.com/decimal/arith15-foils.pdf. IEEE order no. PR01150.

Cuyt:2001:ARI

[4418] A. Cuyt, P. Kuterna, B. Verdonk, and J. Vervloet. Arithmos: a reliable integrated computational environment. World Wide Web document., 2001. URL http://win-www.uia.ac.be/u/cant/arithmos/index.html.

Cuyt:2001:REC

[4419] Annie Cuyt, Brigitte Verdonk, S. Becuwe, and Peter Kuterna. A remarkable example of catastrophic cancellation unraveled. *Computing: Archiv fur informatik und numerik*, 66(3):309–320, 2001. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL http://link.springer-ny.com/link/service/journals/00607/bibs/

1066003/10660309.htm; http://link.springer-ny.com/link/service/journals/00607/papers/1066003/10660309.pdf.

Darcy:2001:BLH

[4420] Joseph D. Darcy. Borneo language homepage. World Wide Web site., 2001. URL http://www.jddarcy.org/Borneo.

Darcy:2001:DLS

[4421] Joseph D. Darcy. Designing language support for IEEE 754. IEEE 754 Revision Committee meeting, October 18, 2001., 2001. URL http://grouper.ieee.org/groups/754/meeting-materials/2001-10-18-langdesign.pdf. 50 slides.

Darcy:2001:WEU

[4422] Joseph D. Darcy. What everybody using the Java^{TM} programming language should know about floating-point arithmetic. In Anonymous [7951], page ?? ISBN ???? LCCN ???? URL http://java.sun.com/people/darcy/JavaOne/2001/1789darcy.pdf. 51 slides.

Daumas:2001:CVP

[4423] Marc Daumas, Claire Moreau-Finot, and Laurent Thery. Computer validated proofs of a toolset for adaptable arithmetic. Research report 4095, Institut National de Recherche en Informatique et en Automatique, Le Chesnay, France, 2001.

Daumas:2001:GLF

[4424] Marc Daumas, Laurence Rideau, and Laurent Théry. A generic library for floating-point numbers and its application to exact computing. *Lecture Notes in Computer Science*, 2152:169–184, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2152/21520169.htm; http://link.springer-ny.com/link/service/series/0558/papers/2152/21520169.pdf; https://hal.archives-ouvertes.fr/hal-00157285.

deDinechin:2001:SIM

[4425] Florent de Dinechin and Arnaud Tisserand. Some improvements on multipartite table methods. In Burgess and Ciminiera [7954], pages 128–135. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Dinechin.pdf. IEEE order no. PR01150.

Defour:2001:CREa

[4426] David Defour, Florent de Dinechin, and Jean-Michel Muller. Correctly rounded exponential function in double precision arithmetic. Rapport de recherche RR-4231, INRIA Rhone-Alpes, ZIRST, 655 Avenue de l'Europe, Montbonnot, 38334 Saint Ismier cedex, France, July 2001. URL ftp://ftp.inria.fr/INRIA/publication/publi-pdf/RR/RR-4231.pdf; ftp://ftp.inria.fr/INRIA/publication/publi-ps-gz/RR/RR-4231.ps.gz; http://www.inria.fr/rrrt/rr-4231.html.

Defour:2001:CREb

[4427] David Defour, Florida de Dinechin, and Jean-Michel Muller. Correctly rounded exponential function in double precision arithmetic. In Luk [7960], pages 156–167. CODEN PSISDG. ISBN 0-8194-4188-0. ISSN 0277-786X (print), 1996-756X (electronic). LCCN TK5102.5 .A332 2001. URL http://bookstore.spie.org/index.cfm?fuseaction=DetailPaper&ProductId=448644&coden=PSISDG.

Defour:2001:NRRa

[4428] David Defour, Peter Kornerup, Jean-Michel Muller, and Nathalie Revol. A new range reduction algorithm. Research Report LIP RR 2001-33, INRIA RR-4267, LIP, École Normale Supérieure de Lyon, Lyon, France, 2001. 13 pp. URL ftp://ftp.ens-lyon.fr/pub/LIP/Rapports/RR/RR2001/RR2001-33.ps.Z; ftp://ftp.inria.fr/INRIA/publication/publi-pdf/RR/RR-4267.pdf; ftp://ftp.inria.fr/INRIA/publication/publi-ps-gz/RR/RR-4267.ps.gz; http://www.inria.fr/rrrt/rr-4267.html.

Defour:2001:NRRb

[4429] David Defour, Peter Kornerup, Jean-Michel Muller, and Nathalie Revol. A new range reduction algorithm. In Matthews [7961], page ?? ISBN 0-7803-7147-X (paperback), 0-7803-7148-8 (microfiche). LCCN ???? URL http://www.imada.sdu.dk/~kornerup/papers/RR2.pdf. Two volumes. IEEE catalog number 01CH37256.

DelRe:2001:IDF

[4430] A. Del Re, A. Nannarelli, and M. Re. Implementation of digital filters in carry-save residue number system. In *Conference Record of the Thirty-Fifth Asilomar Conference on Signals, Systems and Computers, 2001*, volume 2, pages 1309–1313. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Demmel:2001:CAF

[4431] J. Demmel, Ben Diament, W. Kahan, Plamen Koev, Ming Gu, Stan Eisenstat, Ivan Slapničar, Kresimir Veselić, and Zlatko Drmač. The complexity of accurate floating point computation and symbolic computing, or, can we do numerical linear algebra in polynomial time? Lecture slides, 2001. URL http://www.cs.berkeley.edu/~demmel/ISSAC2001_2.pdf.

Dhong:2001:ACR

[4432] Sang Hoo Dhong, Harm Peter Hofstee, Christian Jacobi, Silvia Melitta Mueller, and Hwa-Joon Oh. Apparatus for controlling rounding modes in single instruction multiple data (SIMD) floating-point units. US Patent 7447725, December 04, 2001. URL http://www.patentstorm.us/patents/7444367/fulltext.html.

Dickinson:2001:IRB

[4433] Patrick Dickinson. Instant replay: Building a game engine with reproducible behavior. Web site, July 13, 2001. URL https://www.gamedeveloper.com/design/instant-replay-building-a-game-engine-with-reproducible-behavior#close-modal.

Dimitrov:2001:UMD

[4434] V. S. Dimitrov, J. Eskritt, L. Imbert, G. A. Jullien, and W. C. Miller. The use of the multi-dimensional logarithmic number system in DSP applications. In Burgess and Ciminiera [7954], pages 247–256. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Dimitrov.pdf. IEEE order no. PR01150.

Drmac:2001:AQS

[4435] Zlatko Drmac and Elizabeth R. Jessup. On accurate quotient singular value computation in floating-point arithmetic. *SIAM Journal on Matrix Analysis and Applications*, 22(3):853–873, July 2001. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/31054.

Fernandez:2001:IOD

[4436] P. G. Fernandez, J. Ramirez, A. Garcia, L. Parrilla, and A. Lloris. Implementation of the one dimensional discrete cosine transform using the residue number system. In *The 8th IEEE International Conference on Electronics, Circuits and Systems, ICECS 2001*, volume 1, pages 433–436. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Finot-Moreau:2001:PAU

[4437] Claire Finot-Moreau. *Preuves et algorithmes utilisant l'arithmétique flottante normalisée IEEE*. Ph.D. thesis, École Normale Supérieure de Lyon, Lyon, France, July 2001.

Flynn:2001:ACA

[4438] Michael J. Flynn and Stuart F. Oberman. *Advanced computer arithmetic design*. Wiley, New York, NY, USA, 2001. ISBN 0-471-41209-0. xv + 325 pp. LCCN TK7895.A65 F59 2001.

Galan-Simon:2001:MLD

[4439] F. Javier Galán-Simón, Edgar Martínez-Moro, and Juan G. Tena-Ayuso. Majority-logic-decodable cyclic arithmetic-modular AN-codes in 1, 2, and L steps. *Lecture Notes in Computer Science*, 2260: 128–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2260/22600128.htm`; `http://link.springer-ny.com/link/service/series/0558/papers/2260/22600128.pdf`.

Gallant:2001:FPM

[4440] Robert P. Gallant, Robert J. Lambert, and Scott A. Vanstone. Faster point multiplication on elliptic curves with efficient endomorphisms. *Lecture Notes in Computer Science*, 2139:190–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2139/21390190.htm`; `http://link.springer-ny.com/link/service/series/0558/papers/2139/21390190.pdf`.

Gelbukh:2001:ZHL

[4441] Alexander Gelbukh and Grigori Sidorov. Zipf and Heaps Laws' coefficients depend on language. *Lecture Notes in Computer Science*, 2004:332–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2004/20040332.htm`; `http://link.springer-ny.com/link/service/series/0558/papers/2004/20040332.pdf`.

Gil:2001:SAT

[4442] Joseph (Yossi) Gil. Subtyping arithmetical types. *ACM SIGPLAN Notices*, 36(3):276–289, March 2001. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). URL `http://www.acm.org/pubs/articles/proceedings/plan/360204/p276-gil/p276-gil.pdf`; `http://www.acm.org/pubs/citations/proceedings/plan/360204/p276-gil/`.

Gok:2001:EIM

[4443] M. Gok, M. J. Schulte, and P. I. Balzola. Efficient integer multiplication overflow detection circuits. In Matthews [7961], pages 1661–1665. ISBN 0-7803-7147-X (paperback), 0-7803-7148-8 (microfiche). LCCN ???? URL http://mesa.ece.wisc.edu/publications/cp_2001-07.pdf. Two volumes. IEEE catalog number 01CH37256.

Goubault:2001:SAP

[4444] Eric Goubault. Static analyses of the precision of floating-point operations. *Lecture Notes in Computer Science*, 2126:234–259, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2126/21260234.htm; http://link.springer-ny.com/link/service/series/0558/papers/2126/21260234.pdf.

Gowland:2001:SEA

[4445] Paul Gowland and David Lester. A survey of exact arithmetic implementations. *Lecture Notes in Computer Science*, 2064:30–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2064/20640030.htm; http://link.springer-ny.com/link/service/series/0558/papers/2064/20640030.pdf.

Grossschadl:2001:BSU

[4446] J. Großschädl. A bit-serial unified multiplier architecture for finite fields GF(p) and GF(2^m). *Lecture Notes in Computer Science*, 2162: 202–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2162/21620202.htm; http://link.springer-ny.com/link/service/series/0558/papers/2162/21620202.pdf.

Groza:2001:HRF

[4447] V. Z. Groza. High-resolution floating-point ADC. *IEEE Transactions on Instrumentation and Measurement*, 50(6):1822–1829, December 2001. CODEN IEIMAO. ISSN 0018-9456 (print), 1557-9662 (electronic).

Gunther:2001:SAK

[4448] Christian Günther, Tanja Lange, and Andreas Stein. Speeding up the arithmetic on Koblitz curves of genus two. *Lecture Notes in Computer Science*, 2012:106–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2012/20120106.htm;

http://link.springer-ny.com/link/service/series/0558/papers/2012/20120106.pdf.

Hasan:2001:ECM

[4449] M. A. Hasan. Efficient computation of multiplicative inverses for cryptographic applications. In Burgess and Ciminiera [7954], pages 66–72. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Hasan.pdf. IEEE order no. PR01150.

Hayes:2001:TB

[4450] Brian Hayes. Third base. *American Scientist*, 89(6):490–495, November/December 2001. CODEN AMSCAC. ISSN 0003-0996 (print), 1545-2786 (electronic). URL http://www.americanscientist.org/content/AMSCI/AMSCI/ArticleAltFormat/20035214317_146.pdf.

He:2001:UAA

[4451] Yun He and Chris H. Q. Ding. Using accurate arithmetics to improve numerical reproducibility and stability in parallel applications. *The Journal of Supercomputing*, 18(3):259–277, March 2001. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0920-8542&volume=18&issue=3&spage=259; http://www.wkap.nl/oasis.htm/323815.

Hesse:2001:DUT

[4452] William Hesse. Division is in uniform TC^0. *Lecture Notes in Computer Science*, 2076:104–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2076/20760104.htm; http://link.springer-ny.com/link/service/series/0558/papers/2076/20760104.pdf.

Hida:2001:AQD

[4453] Yozo Hida, Xiaoye S. Li, and David H. Bailey. Algorithms for quad-double precision floating point arithmetic. In Burgess and Ciminiera [7954], pages 155–162. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Hida.pdf. IEEE order no. PR01150.

Hlavacs:2001:IAN

[4454] H. Hlavacs and C. W. Ueberhuber. Improving the accuracy of numerical integration. Technical report TR 2001-06, Aurora: Advanced Models, Applications and Software Systems for High Performance Computing, European Centre for Parallel Computing at Vienna Nordbergstraße 15/C/3, A-1090 Vienna, Austria, 2001. i + 14 pp. URL `ftp://ftp.vcpc.univie.ac.at/projects/aurora/reports/auroratr2001-06.ps.gz`; `http://citeseer.ist.psu.edu/hlavacs01improving.html`.

Hsu:2001:CAS

[4455] John Y. Hsu. *Computer Architecture: Software Aspects, Coding, Hardware*. CRC Press, 2000 N.W. Corporate Blvd., Boca Raton, FL 33431-9868, USA, 2001. ISBN 0-8493-1026-1, 1-351-83604-8, 1-4200-4110-X (e-book). 427 pp. LCCN A76.9.A73 H758 2001. US$89.95, UK£59.99.

Hur:2001:GRO

[4456] Namhyun Hur and James H. Davenport. A generic root operation for exact real arithmetic. *Lecture Notes in Computer Science*, 2064: 82–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2064/20640082.htm`; `http://link.springer-ny.com/link/service/series/0558/papers/2064/20640082.pdf`.

ISO:2001:IIIc

[4457] ISO. *ISO/IEC 10967-2: Information technology — Language independent arithmetic — Part 2: Elementary numerical functions*. International Organization for Standardization, Geneva, Switzerland, August 15, 2001. ISBN ???? x + 177 pp. LCCN ???? URL `http://standards.iso.org/ittf/PubliclyAvailableStandards/c024427_ISO_IEC_10967-2_2001(E).zip`; `http://www.iso.ch/cate/d24427.html`.

Jacobi:2001:FVT

[4458] Christian Jacobi. Formal verification of a theory of IEEE rounding. In Boulton and Jackson [7952], pages 239–254. ISBN 3-540-42525-X (paperback). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.A96 T655 2001. URL `http://www.informatics.ed.ac.uk/publications/online/0046/b239.pdf`.

Jamil:2001:CBN

[4459] T. Jamil. The complex binary number system. *IEEE Potentials*, 20 (5):39–41, December 2001. CODEN IEPTDF. ISSN 0278-6648 (print), 1558-1772 (electronic).

Jeong:2001:OIO

[4460] Cheol-Ho Jeong, Woo-Chan Park, Tack-Don Han, Sang-Woo Kim, and Moon-Key Lee. In-order issue out-of-order execution floating-point coprocessor for CalmRISC32. In Burgess and Ciminiera [7954], pages 195–202. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL `http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Jeong.pdf`. IEEE order no. PR01150.

Kahan:2001:NSF

[4461] W. Kahan. Names for standardized floating-point formats. Technical report, Mathematics Department and Electrical Engineering and Computer Science Department, University of California, Berkeley, Berkeley, CA, USA, May 17, 2001. 4 pp. URL `http://www.cs.berkeley.edu/~wkahan/ieee754status/Names.pdf`.

Kahan:2001:PDA

[4462] William Kahan. Pseudo-division algorithms for floating-point logarithms and exponentials. May 20, 2001. URL `https://ieeemilestones.ethw.org/w/images/3/30/Wk_pseudo_division_log_exp_may01.pdf`.

Kahan:2001:SFP

[4463] W. Kahan. SRTEST: a Fortran program to test any SRT divider's logic for quotient-digit selection. World-Wide Web document, August 6, 2001. URL `http://www.cs.berkeley.edu/~wkahan/srtest/`.

Kahan:2001:WVT

[4464] W. Kahan. What has the volume of a tetrahedron to do with computer programming languages? Technical report, Department of Mathematics and Department of Electrical Engineering and Computer Science, University of California, Berkeley, Berkeley, CA, USA, April 20, 2001. URL `http://www.cs.berkeley.edu/~wkahan/VtetLang.pdf`.

Kaivola:2001:PEL

[4465] Roope Kaivola and Katherine Kohatsu. Proof engineering in the large: Formal verification of Pentium(R)4 floating-point divider. *Lecture Notes* *in Computer Science*, 2144:196–211, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2144/21440196.htm; http://link.springer-ny.com/link/service/series/0558/papers/2144/21440196.pdf.

Kao:2001:MRE

[4466] Ming-Yang Kao and Jie Wang. Minimizing roundoff errors of prefix sums via dynamic construction of Huffman trees. *Theoretical Computer Science*, 262(1–2):101–115, July 6, 2001. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic). URL http://www.elsevier.nl/gej-ng/10/41/16/204/21/26/abstract.html; http://www.elsevier.nl/gej-ng/10/41/16/204/21/26/article.pdf.

Khachatrian:2001:FMI

[4467] Gurgen H. Khachatrian, Melsik K. Kuregian, Karen R. Ispiryan, and James L. Massey. Fast multiplication of integers for public-key applications. *Lecture Notes in Computer Science*, 2259:245–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2259/22590245.htm; http://link.springer-ny.com/link/service/series/0558/papers/2259/22590245.pdf.

Kim:2001:AEE

[4468] Hyun-Sung Kim and Kee-Young Yoo. Area efficient exponentiation using modular multiplier/squarer in GF(2^m). *Lecture Notes in Computer Science*, 2108:262–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2108/21080262.htm; http://link.springer-ny.com/link/service/series/0558/papers/2108/21080262.pdf.

King:2001:IIE

[4469] Brian King. An improved implementation of elliptic curves over GF (2) when using projective point arithmetic. *Lecture Notes in Computer Science*, 2259:134–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2259/22590134.htm; http://link.springer-ny.com/link/service/series/0558/papers/2259/22590134.pdf.

Kistermann:2001:CHU

[4470] Friedrich W. Kistermann. Calculators: How to use the Schickard calculator. *IEEE Annals of the History of Computing*, 23(1):80–85, January/March 2001. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic). URL http://dlib.computer.org/an/books/an2001/pdf/a1080.pdf.

Knowles:2001:FA

[4471] Simon Knowles. A family of adders. In Burgess and Ciminiera [7954], pages 277–284. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Knowles.pdf. IEEE order no. PR01150.

Koc-Sahan:2001:STA

[4472] N. Koc-Sahan, J. Schlessman, and M. J. Schulte. Symmetric table addition methods for neural network approximations. In Luk [7960], pages 126–133. CODEN PSISDG. ISBN 0-8194-4188-0. ISSN 0277-786X (print), 1996-756X (electronic). LCCN TK5102.5 .A332 2001. URL http://mesa.ece.wisc.edu/publications/cp_2001-03.pdf.

Kosaraju:2001:MAM

[4473] S. Rao Kosaraju. Mesh algorithms for multiplication and division. *Lecture Notes in Computer Science*, 2228:17–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2228/22280017.htm; http://link.springer-ny.com/link/service/series/0558/papers/2228/22280017.pdf.

Koy:2001:SLRb

[4474] Henrik Koy and Claus Peter Schnorr. Segment LLL-reduction with floating point orthogonalization. *Lecture Notes in Computer Science*, 2146:81–96, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2146/21460081.htm; http://link.springer-ny.com/link/service/series/0558/papers/2146/21460081.pdf.

Kramer:2001:AFE

[4475] Walter Krämer and Armin Bantle. Automatic forward error analysis for floating point algorithms. *Reliable Computing = Nadezhnye vychisleniia*, 7(4):321–340, 2001. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic).

Kreinovich:2001:INB

[4476] Vladik Kreinovich. Itanium's new basic operation of fused multiply-add: Theoretical explanation and theoretical challenge. *SIGACT News (ACM Special Interest Group on Automata and Computability Theory)*, 32(1):115–117, 2001. CODEN SIGNDM. ISSN 0163-5700 (print), 1943-5827 (electronic). URL http://www.cs.utep.edu/vladik/2000/tr00-42.pdf; http://www.cs.utep.edu/vladik/2000/tr00-42.ps.gz.

Krishnan:2001:PEM

[4477] Shankar Krishnan, Mark Foskey, Tim Culver, John Keyser, and Dinesh Manocha. PRECISE: efficient multiprecision evaluation of algebraic roots and predicates for reliable geometric computation. In ACM [7950], pages 274–283. ISBN 1-58113-357-X. LCCN ????

Lang:2001:BRZ

[4478] Tomás Lang and Jean-Michel Muller. Bounds on runs of zeros and ones for algebraic functions. In Burgess and Ciminiera [7954], pages 13–22. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Lang.pdf. IEEE order no. PR01150.

Lang:2001:CRR

[4479] Tomás Lang and Elisardo Antelo. Correctly rounded reciprocal square-root by digit recurrence and radix-4 implementation. In Burgess and Ciminiera [7954], pages 83–93. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Lang_Antelo.pdf. IEEE order no. PR01150.

Langlois:2001:ALC

[4480] Philippe Langlois. Automatic linear correction of rounding errors. *BIT Numerical Mathematics*, 41(3):515–539, June 2001. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=41&issue=3&spage=515.

Laurent:2001:UFV

[4481] O. Laurent, P. Michel, and V. Wiels. Using formal verification techniques to reduce simulation and test effort. In Oliveira and Zave [7962], pages 465–477. CODEN LNCSD9. ISBN 3-540-41791-5 (softcover). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.76.D47 I593

2001; QA267.A1 L43 no.2021. URL `http://link.springer.de/link/service/series/0558/papers/2021/20210465.pdf`.

Lee:2001:BPS

[4482] Chiou-Yng Lee, Erl-Huei Lu, and Jau-Yien Lee. Bit-parallel systolic modular multipliers for a class of GF(2^{m}). In Burgess and Ciminiera [7954], pages 51–58. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL `http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Chiou_Yng.pdf`. IEEE order no. PR01150.

Lee:2001:CAP

[4483] Ruby B. Lee. Computer arithmetic — a processor architect's perspective. In Burgess and Ciminiera [7954], pages 3–4. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL `http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Lee.pdf`. IEEE order no. PR01150.

Lee:2001:DLS

[4484] Won-Ho Lee, Keon-Jik Lee, and Kee-Young Yoo. Design of a linear systolic array for computing modular multiplication and squaring in $\mathbf{GF}(2^m)$. *Computers and Mathematics with Applications*, 42(1–2):231–240, July 2001. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S089812210100147X`.

Lefevre:2001:WCC

[4485] Vincent Lefèvre and Jean-Michel Muller. Worst cases for correct rounding of the elementary functions in double precision. In Burgess and Ciminiera [7954], pages 111–118. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL `http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Lefevre.pdf`. IEEE order no. PR01150.

Lemieux:2001:FPM

[4486] Joe Lemieux. Fixed-point math in C. *Embedded Systems Programming*, 14(1):??, April 2001. CODEN EYPRE4. ISSN 1040-3272. URL `http://www.embedded.com/story/OEG20010311S0022`.

Leone:2001:NLC

[4487] M. Leone. A new low complexity parallel multiplier for a class of finite fields. *Lecture Notes in Computer Science*, 2162:160–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2162/21620160.htm; http://link.springer-ny.com/link/service/series/0558/papers/2162/21620160.pdf.

Lester:2001:ECF

[4488] David Lester. Effective continued fractions. In Burgess and Ciminiera [7954], pages 163–172. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Lester.pdf. IEEE order no. PR01150.

Li:2001:LLF

[4489] Ren-Cang Li, Peter Markstein, Jon P. Okada, and James W. Thomas. The libm library and floating-point arithmetic for HP-UX on Itanium. Technical report, Hewlett–Packard Company, Palo Alto, CA, USA, April 2001. ?? pp. URL http://h21007.www2.hp.com/dspp/ddl/ddl_Download_File_TRX/1,1249,942,00.pdf; http://h21007.www2.hp.com/dspp/tech/tech_TechDocumentDetailPage_IDX/1,1701,981,00.html.

Li:2001:PMM

[4490] Keqin Li and V. Y. Pan. Parallel matrix multiplication on a linear array with a reconfigurable pipelined bus system. *IEEE Transactions on Computers*, 50(5):519–525, May 2001. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=926164.

Lippert:2001:HSM

[4491] Th. Lippert, N. Petkov, P. Palazzari, and K. Schilling. Hypersystolic matrix multiplication. *Parallel Computing*, 27(6):737–759, May 2001. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL http://www.elsevier.nl/gej-ng/10/35/21/47/30/23/abstract.html; http://www.elsevier.nl/gej-ng/10/35/21/47/30/23/article.pdf.

Madhukumar:2001:EMH

[4492] A. S. Madhukumar and F. Chin. An efficient method for high-rate data transmission using residue number system based DS–CDMA. In *12th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, 2001*, volume 1, pages C–1–C–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Madhukumar:2001:IBE

[4493] A. S. Madhukumar and F. Chin. Improving bandwidth efficiency for a residue number system based DS–CDMA system. In *VTC 2001 Fall. IEEE VTS 54th Vehicular Technology Conference*, volume 1, pages 247–251. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Madhukumar:2001:IIR

[4494] A. S. Madhukumar and F. Chin. Incorporating incremental redundancy and link adaptation in communication systems using residue number systems. In *VTC 2001 Fall. IEEE VTS 54th Vehicular Technology Conference*, volume 4, pages 2272–2276. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Matula:2001:ITL

[4495] David W. Matula. Improved table lookup algorithms for postscaled division. In Burgess and Ciminiera [7954], pages 101–110. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL `http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Matula.pdf`. IEEE order no. PR01150.

McFearin:2001:GAH

[4496] Lee D. McFearin and David W. Matula. Generation and analysis of hard to round cases for binary floating point division. In Burgess and Ciminiera [7954], pages 119–127. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL `http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_McFearin.pdf`. IEEE order no. PR01150.

Michel:2001:SCF

[4497] Claude Michel, Michel Rueher, and Yahia Lebbah. Solving constraints over floating-point numbers. *Lecture Notes in Computer Science*, 2239: 524–538, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2239/22390524.htm`; `http://link.springer-ny.com/link/service/series/0558/papers/2239/22390524.pdf`.

Mobley:2001:ICW

[4498] Byron Paul Mobley. *The ingenuity of common workmen: and the invention of the computer*. Ph.D. thesis, Department of History, Iowa State University, Ames, IA, USA, 2001. 301 pp.

Moller:2001:SEC

[4499] Bodo Möller. Securing elliptic curve point multiplication against side-channel attacks. *Lecture Notes in Computer Science*, 2200:324–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2200/22000324.htm; http://link.springer-ny.com/link/service/series/0558/papers/2200/22000324.pdf.

Montuschi:2001:BVH

[4500] P. Montuschi and T. Lang. Boosting very-high radix division with prescaling and selection by rounding. *IEEE Transactions on Computers*, 50(1):13–27, January 2001. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=902750.

Morioka:2001:TEV

[4501] Sumio Morioka, Yasunao Katayama, and Toshiyuki Yamane. Towards efficient verification of arithmetic algorithms over Galois fields $GF(2^m)$. *Lecture Notes in Computer Science*, 2102:465–477, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2102/21020465.htm; http://link.springer-ny.com/link/service/series/0558/papers/2102/21020465.pdf.

MRaihi:2001:ACR

[4502] David M'Raïhi, David Naccache, and Michael Tunstall. Asymmetric currency rounding. *Lecture Notes in Computer Science*, 1962:192–201, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1962/19620192.htm; http://link.springer-ny.com/link/service/series/0558/papers/1962/19620192.pdf.

Muller:2001:IEA

[4503] Norbert Th. Müller. The iRRAM: Exact arithmetic in C++. *Lecture Notes in Computer Science*, 2064:222–252, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2064/20640222.htm; http://link.springer-ny.com/link/service/series/0558/papers/2064/20640222.pdf.

Naini:2001:GHS

[4504] Ajay Naini, Atul Dhablania, Warren James, and Debjit Das Sarma. 1-GHz HAL SPARC64(R) dual floating point unit with RAS features.

In Burgess and Ciminiera [7954], pages 173–183. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Naini.pdf. IEEE order no. PR01150.

Nakamura:2001:AAA

[4505] Yoshimasa Nakamura. Algorithms associated with arithmetic, geometric and harmonic means and integrable systems. *Journal of Computational and Applied Mathematics*, 131(1–2):161–174, June 1, 2001. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042700003162.

Nannarelli:2001:TBR

[4506] A. Nannarelli, M. Re, and G. C. Cardarilli. Tradeoffs between residue number system and traditional FIR filters. In *ISCAS 2001, The 2001 IEEE International Symposium on Circuits and Systems, 6–9 May 2001*, volume 2, pages 305–308. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Ning:2001:ESI

[4507] Peng Ning and Yiqun Lisa Yin. Efficient software implementation for finite field multiplication in normal basis. *Lecture Notes in Computer Science*, 2229:177–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2229/22290177.htm; http://link.springer-ny.com/link/service/series/0558/papers/2229/22290177.pdf.

Nozaki:2001:IRA

[4508] H. Nozaki, M. Motoyama, A. Shimbo, and S. Kawamura. Implementation of RSA algorithm based on RNS Montgomery multiplication. *Lecture Notes in Computer Science*, 2162:364–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2162/21620364.htm; http://link.springer-ny.com/link/service/series/0558/papers/2162/21620364.pdf.

Oishi:2001:FEM

[4509] Shin'ichi Oishi. Fast enclosure of matrix eigenvalues and singular values via rounding mode controlled computation. *Linear Algebra and its Applications*, 324 (1–3):133–146, February 15, 2001. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.elsevier.nl/gej-ng/10/30/19/144/24/32/abstract.html; http://www.elsevier.nl/gej-ng/10/30/19/144/24/32/article.pdf.

Okeya:2001:EEC

[4510] K. Okeya and K. Sakurai. Efficient elliptic curve cryptosystems from a scalar multiplication algorithm with recovery of the y-coordinate on a Montgomery-form elliptic curve. *Lecture Notes in Computer Science*, 2162:126–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2162/21620126.htm; http://link.springer-ny.com/link/service/series/0558/papers/2162/21620126.pdf.

Overton:2001:NCI

[4511] Michael L. Overton. *Numerical Computing with IEEE Floating Point Arithmetic, Including One Theorem, One Rule of Thumb, and One Hundred and One Exercises*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2001. ISBN 0-89871-482-6 (hardcover), 0-89871-571-7 (paperback), 0-89871-807-4 (ebook). xiv + 104 pp. LCCN QA76.9.M35 O94 2001. US$40.00. URL http://www.cs.nyu.edu/cs/faculty/overton/book/; http://www.siam.org/catalog/mcc07/ot76.htm.

Paliouras:2001:LPP

[4512] V. Paliouras and T. Stouraitis. Low-power properties of the logarithmic number system. In Burgess and Ciminiera [7954], pages 229–236. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Paliouras.pdf. IEEE order no. PR01150.

Park:2001:ADI

[4513] Young-Ho Park, Sangtae Jeong, Chang Han Kim, and Jongin Lim. An alternate decomposition of an integer for faster point multiplication on certain elliptic curves. *Lecture Notes in Computer Science*, 2274:323–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2274/22740323.htm; http://link.springer-ny.com/link/service/series/0558/papers/2274/22740323.pdf.

Park:2001:IMM

[4514] Young-Ho Park, Sangho Oh, Sangjin Lee, Jongin Lim, and Maenghee Sung. An improved method of multiplication on certain elliptic curves. *Lecture Notes in Computer Science*, 2274:310–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2274/22740310.htm; http://link.springer-ny.com/link/service/series/0558/papers/2274/22740310.pdf.

Phillips:2001:MMM

[4515] B. Phillips. Modular multiplication in the Montgomery residue number system. In *Conference Record of the Thirty-Fifth Asilomar Conference on Signals, Systems and Computers, 2001*, volume 2, pages 1637–1640. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Phillips:2001:MRN

[4516] B. J. Phillips. Montgomery residue number systems. *Electronics Letters*, 37(21):1286–1287, October 11, 2001. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=20889.

Phillips:2001:OSL

[4517] Braden Phillips. Optimised squaring of long integers using precomputed partial products. In Burgess and Ciminiera [7954], pages 73–82. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Phillips.pdf. IEEE order no. PR01150.

Pietronero:2001:EUD

[4518] L. Pietronero, E. Tosatti, V. Tosatti, and A. Vespignani. Explaining the uneven distribution of numbers in nature: the laws of Benford and Zipf. *Physica A*, 293(??):297–304, ???? 2001. CODEN PHYADX. ISSN 0378-4371 (print), 1873-2119 (electronic).

Pillai:2001:LPA

[4519] R. V. K. Pillai, D. Al-Khalili, A. J. Al-Khalili, and S. Y. A. Shah. A low power approach to floating point adder design for DSP applications. *Journal of VLSI Signal Processing*, 27(3):195–213, March 2001. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Pineiro:2001:FPC

[4520] J. A. Piñeiro, J. D. Bruguera, and J.-M. Muller. Faithful powering computation using table look-up and a fused accumulation tree. In Burgess and Ciminiera [7954], pages 40–50. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001.

US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Pineiro.pdf. IEEE order no. PR01150.

Rajagopal:2001:LAD

[4521] Sridhar Rajagopal and Joseph R. Cavallaro. On-line arithmetic for detection in digital communication receivers. In Burgess and Ciminiera [7954], pages 257–265. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Rajagopal.pdf. IEEE order no. PR01150.

Ralston:2001:FCN

[4522] Anthony Ralston and Philip Rabinowitz. *A first course in numerical analysis*. Dover, New York, NY, USA, second edition, 2001. ISBN 0-486-41454-X (paperback). xviii + 556 + 50 pp. LCCN QA297 .R3 2001. URL http://www.loc.gov/catdir/description/dover032/00064343.html; http://www.loc.gov/catdir/toc/dover031/00064343.html.

Rejeb:2001:IDR

[4523] B. Rejeb, H. Henkelmann, and W. Anheier. Integer division in residue number system. In *The 8th IEEE International Conference on Electronics, Circuits and Systems, ICECS 2001*, volume 1, pages 259–262. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Reyhani-Masoleh:2001:FNB

[4524] Arash Reyhani-Masoleh and M. Anwar Hasan. Fast normal basis multiplication using general purpose processors. *Lecture Notes in Computer Science*, 2259:230–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2259/22590230.htm; http://link.springer-ny.com/link/service/series/0558/papers/2259/22590230.pdf.

Rinfret:2001:BSI

[4525] Denis Rinfret, Patrick O'Neil, and Elizabeth O'Neil. Bit-sliced index arithmetic. *SIGMOD Record (ACM Special Interest Group on Management of Data)*, 30(2):47–57, June 2001. CODEN SRECD8. ISSN 0163-5808 (print), 1943-5835 (electronic).

Ring:2001:MPA

[4526] Michael C. Ring. MAPM, A portable arbitrary precision math library in C. *C/C++ Users Journal*, 19(11):??, November 2001. CODEN CCUJEX. ISSN 1075-2838.

Rudra:2001:ERE

[4527] A. Rudra, P. K. Dubey, C. S. Jutla, V. Kumar, J. R. Rao, and P. Rohatgi. Efficient Rijndael encryption implementation with composite field arithmetic. *Lecture Notes in Computer Science*, 2162:171–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2162/21620171.htm; http://link.springer-ny.com/link/service/series/0558/papers/2162/21620171.pdf.

Rugina:2001:RUD

[4528] Radu Rugina and Martin Rinard. Recursion unrolling for divide and conquer programs. *Lecture Notes in Computer Science*, 2017:34–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2017/20170034.htm; http://link.springer-ny.com/link/service/series/0558/papers/2017/20170034.pdf.

Rump:2001:RPS

[4529] Siegfried M. Rump. Rigorous and portable standard functions. *BIT Numerical Mathematics*, 41(3):540–562, June 2001. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=41&issue=3&spage=540.

Sakai:2001:PMS

[4530] Yasuyuki Sakai and Kouichi Sakurai. On the power of multidoubling in speeding up elliptic scalar multiplication. *Lecture Notes in Computer Science*, 2259:268–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2259/22590268.htm; http://link.springer-ny.com/link/service/series/0558/papers/2259/22590268.pdf.

Savas:2001:SUM

[4531] Erkay Savas, Alexandre F. Tenca, and Çetin K. Koç. A scalable and unified multiplier architecture for finite fields GF(p) and GF($2m$). *Lecture Notes in Computer Science*, 1965:277–??,

2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1965/19650277.htm; http://link.springer-ny.com/link/service/series/0558/papers/1965/19650277.pdf.

Schmookler:2001:LZA

[4532] Martin S. Schmookler and Kevin J. Nowka. Leading zero anticipation and detection — a comparison of methods. In Burgess and Ciminiera [7954], pages 7–12. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Schmookler.pdf. IEEE order no. PR01150.

Schonfelder:2001:VPA

[4533] J. L. Schonfelder. Variable precision arithmetic: a Fortran 95 module. *ACM Fortran Forum*, 20(3):2–11, December 2001. CODEN ???? ISSN 1061-7264 (print), 1931-1311 (electronic).

Seidel:2001:BMR

[4534] Peter-Michael Seidel, Lee D. McFearin, and David W. Matula. Binary multiplication radix-32 and radix-256. In Burgess and Ciminiera [7954], pages 23–32. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Seidel.pdf. IEEE order no. PR01150.

Seidel:2001:DFI

[4535] Peter-Michael Seidel and Guy Even. On the design of fast IEEE floating-point adders. In Burgess and Ciminiera [7954], pages 184–194. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Seidel_Even.pdf. IEEE order no. PR01150.

Seidel:2001:EAB

[4536] Peter-Michael Seidel. Exact arithmetic based on floating-point numbers. In Krämer and von Gudenberg [7958], pages 123–?? ISBN 0-306-46706-2. LCCN ???? 09.00 EUR / 95.00 USD / 66.50 GBP. URL http://www.wkap.nl/prod/b/0-306-46706-2. Scan 2000, the GAMM–IMACS International Symposium on Scientific Computing, Computer Arithmetic, and Validated Numerics and Interval 2000, the International Conference on Interval Methods in Science and Engineering were jointly held in Karlsruhe, September 19–22, 2000.

Smith:2001:AFS

[4537] David M. Smith. Algorithm 814: Fortran 90 software for floating-point multiple precision arithmetic, gamma and related functions. *ACM Transactions on Mathematical Software*, 27(4):377–387, December 2001. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Steele:2001:SMFa

[4538] Guy L. Steele Jr. System and method for floating-point computation. US Patent 6327604, December 04, 2001. URL `http://www.patentstorm.us/patents/6327604/fulltext.html`.

Steele:2001:SMFb

[4539] Guy L. Steele Jr. System and method for floating-point computation. US Patent 6289365, September 11, 2001. URL `http://www.patentstorm.us/patents/6289365/fulltext.html`.

Stine:2001:CIH

[4540] J. E. Stine and M. J. Schulte. A case for interval hardware on superscalar processors. In Krämer and von Gudenberg [7958], pages 53–68. ISBN 0-306-46706-2. LCCN ???? 09.00 EUR / 95.00 USD / 66.50 GBP. URL `http://www.wkap.nl/prod/b/0-306-46706-2`. Scan 2000, the GAMM–IMACS International Symposium on Scientific Computing, Computer Arithmetic, and Validated Numerics and Interval 2000, the International Conference on Interval Methods in Science and Engineering were jointly held in Karlsruhe, September 19–22, 2000.

Stine:2001:DIA

[4541] James Edward Stine, Jr. *Design issues for accurate and reliable arithmetic*. Ph.D. thesis, Lehigh University, Bethlehem, PA, USA, 2001. URL `http://wwwlib.umi.com/dissertations/fullcit/9995540; http://wwwlib.umi.com/dissertations/preview/9995540`.

Stoffel:2001:VIM

[4542] Dominik Stoffel and Wolfgang Kunz. Verification of integer multipliers on the arithmetic bit level. In IEEE [7955], pages 183–189. ISBN 0-7803-7249-2. LCCN ????

Sun:2001:NSM

[4543] Fangyu Sun and Peter Kosmol. A new simultaneous method of fourth order for finding complex zeros in circular interval arithmetic. *Journal of Computational and Applied Mathematics*, 130(1–2):293–307, May 1, 2001. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042799003751.

Sunar:2001:EON

[4544] B. Sunar and C. K. Koc. An efficient optimal normal basis type II multiplier. *IEEE Transactions on Computers*, 50(1):83–87, January 2001. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=902754.

Takagi:2001:HAC

[4545] Naofumi Takagi. A hardware algorithm for computing reciprocal square root. In Burgess and Ciminiera [7954], pages 94–100. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Takagi.pdf. IEEE order no. PR01150.

Tasche:2001:WAC

[4546] Manfred
Tasche and Hansmartin Zeuner. Worst and average case roundoff error analysis for FFT. *BIT Numerical Mathematics*, 41(3):563–581, June 2001. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=41&issue=3&spage=563.

Tenca:2001:DRL

[4547] Alexandre F. Tenca and Syed Ubaid Hussaini. A design of radix-2 on-line division using LSA organization. In Burgess and Ciminiera [7954], pages 266–276. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Tenca.pdf. IEEE order no. PR01150.

Tenca:2001:HRD

[4548] A. F. Tenca, G. Todorov, and Ç.K. Koç. High-radix design of a scalable modular multiplier. *Lecture Notes in Computer Science*, 2162: 185–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2162/21620185.htm; http://link.springer-ny.com/link/service/series/0558/papers/2162/21620185.pdf.

Thompson:2001:BPC

[4549] D. U. Thompson and B. A. Wooley. A 15-b pipelined CMOS floating-point A/D converter. *IEEE Journal of Solid-State Circuits*, 36(2):299–303, February 2001. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

TI:2001:TTPa

[4550] Texas Instruments, Post Office box 655303, Dallas, TX 75265, USA. *TI-89/TI-92 Plus Sierra C Assembler Reference Manual, Beta Version .02*, 2001. 322 pp.

TI:2001:TTPb

[4551] Texas Instruments, Post Office box 655303, Dallas, TX 75265, USA. *TI-89/TI-92 Plus Developers Guide, Beta Version .02*, 2001. 1356 pp.

Tisseur:2001:NMF

[4552] Françoise Tisseur. Newton's method in floating point arithmetic and iterative refinement of generalized eigenvalue problems. *SIAM Journal on Matrix Analysis and Applications*, 22(4):1038–1057, ???? 2001. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Trichina:2001:SAM

[4553] Elena Trichina and Alex Tiountchik. Scalable algorithm for Montgomery multiplication and its implementation on the coarse-grain reconfigurable chip. *Lecture Notes in Computer Science*, 2020:235–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2020/20200235.htm; http://link.springer-ny.com/link/service/series/0558/papers/2020/20200235.pdf.

Um:2001:OAC

[4554] Junhyung Um and Taewhan Kim. An optimal allocation of carry-save-adders in arithmetic circuits. *IEEE Transactions on Computers*, 50(3):215–233, March 2001. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=910813.

Verdonk:2001:PRIa

[4555] Brigitte Verdonk, Annie Cuyt, and Dennis Verschaeren. A precision- and range-independent tool for testing floating-point arithmetic I: Basic operations, square root, and remainder. *ACM Transactions on Mathematical Software*, 27(1):92–118, March 2001. CODEN ACMSCU.

ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.win.ua.ac.be/~cant/ieeecc754.html.

Verdonk:2001:PRIb

[4556] Brigitte Verdonk, Annie Cuyt, and Dennis Verschaeren. A precision- and range-independent tool for testing floating-point arithmetic II: conversions. *ACM Transactions on Mathematical Software*, 27(1):119–140, March 2001. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://www.win.ua.ac.be/~cant/ieeecc754.html.

Vergos:2001:HSP

[4557] H. T. Vergos, C. Efstathiou, and D. Nikolos. High speed parallel-prefix modulo 2^{n+1} adders for diminished-one operands. In Burgess and Ciminiera [7954], pages 211–217. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. URL http://www.acsel-lab.com/arithmetic/arith15/papers/ARITH15_Vergos.pdf. IEEE order no. PR01150.

Visavakul:2001:DSS

[4558] Chakkapas Visavakul, Peter Y. K. Cheung, and Wayne Luk. A digit-serial structure for reconfigurable multipliers. *Lecture Notes in Computer Science*, 2147:565–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2147/21470565.htm; http://link.springer-ny.com/link/service/series/0558/papers/2147/21470565.pdf.

Walter:2001:DIH

[4559] Colin D. Walter. Data integrity in hardware for modular arithmetic. *Lecture Notes in Computer Science*, 1965:204–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1965/19650204.htm; http://link.springer-ny.com/link/service/series/0558/papers/1965/19650204.pdf.

Walter:2001:PBM

[4560] Colin D. Walter. Precise bounds for Montgomery modular multiplication and some potentially insecure RSA moduli. *Lecture Notes in Computer Science*, 2271:30–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2271/22710030.htm; http://link.springer-ny.com/link/service/series/0558/papers/2271/22710030.pdf.

Walters:2001:CUT

[4561] E. G. Walters, J. Schlessman, and M. J. Schulte. Combined unsigned and two's complement hybrid squarers. In Matthews [7961], pages 861–866. ISBN 0-7803-7147-X (paperback), 0-7803-7148-8 (microfiche). LCCN ???? URL `http://mesa.ece.wisc.edu/publications/cp_2001-08.pdf`. Two volumes. IEEE catalog number 01CH37256.

Wang:2001:LPF

[4562] Wei Wang, M. N. S. Swamy, and M. O. Ahmad. Low power FIR filter FPGA implementation based on distributed arithmetic and residue number system. In *MWSCAS 2001, Proceedings of the 44th IEEE 2001 Midwest Symposium on Circuits and Systems*, volume 1, pages 102–105. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Wires:2001:FRR

[4563] K. E. Wires, M. J. Schulte, and D. McCarley. FPGA resource reduction through truncated multiplication. In Brebner and Woods [7953], pages 574–583. CODEN LNCSD9. ISBN 3-540-42499-7 (softcover). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN TK7895.G36 I48 2001; QA267.A1 L43 no.2147. URL `http://mesa.ece.wisc.edu/publications/cp_2001-04.pdf`.

Wirthlin:2001:ECC

[4564] Michael J. Wirthlin and Brian McMurtrey. Efficient constant coefficient multiplication using advanced FPGA architectures. *Lecture Notes in Computer Science*, 2147:555–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2147/21470555.htm; http://link.springer-ny.com/link/service/series/0558/papers/2147/21470555.pdf`.

Wright:2001:EFP

[4565] Stephen J. Wright. Effects of finite-precision arithmetic on interior-point methods for nonlinear programming. *SIAM Journal on Optimization*, 12(1):36–78, May/October 2001. CODEN SJOPE8. ISSN 1052-6234 (print), 1095-7189 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/34743`.

Wu:2001:MMSa

[4566] Huapeng Wu. Montgomery multiplier and squarer in GF(2^m). *Lecture Notes in Computer Science*, 1965:264–276, 2001. CODEN LNCSD9.

ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1965/19650264.htm; http://link.springer-ny.com/link/service/series/0558/papers/1965/19650264.pdf.

Yamauchi:2001:AOO

[4567] Tsukasa Yamauchi, Shogo Nakaya, Takeshi Inuo, and Nobuki Kajihara. Arithmetic operation oriented reconfigurable chip: RHW. *Lecture Notes in Computer Science*, 2147:618–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2147/21470618.htm; http://link.springer-ny.com/link/service/series/0558/papers/2147/21470618.pdf.

Yang:2001:LCB

[4568] Yi Yang, Chunyan Wang, M. Omair Ahmad, and M. N. S. Swamy. An on-line CORDIC based 2-d IDCT implementation using distributed arithmetic. In *Proceedings of the Sixth International Symposium on Signal Processing and its Applications (Cat. No. 01EX467)*, volume 1, pages 296–299. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001.

Yang:2001:MDD

[4569] Lie-Liang Yang and L. Hanzo. Minimum-distance decoding of redundant residue number system codes. In *ICC 2001. IEEE International Conference on Communications. 11–14 June 2001*, volume 10, pages 2975–2979. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Yang:2001:RRN

[4570] Lie-Liang Yang and L. Hanzo. Redundant residue number system based error correction codes. In *VTC 2001 Fall. IEEE VTS 54th Vehicular Technology Conference*, volume 3, pages 1472–1476. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. CODEN ???? ISSN ????

Yeh:2001:RAO

[4571] Thomas Y. Yeh and Hong Wang. Redundant arithmetic optimizations (research note). *Lecture Notes in Computer Science*, 1900:984–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/1900/19000984.htm; http://link.springer-ny.com/link/service/series/0558/papers/1900/19000984.pdf.

Yu:2001:DID

[4572] Sungwook Yu and E. E. Swartzlander, Jr. DCT implementation with distributed arithmetic. *IEEE Transactions on Computers*, 50(9):985–991, September 2001. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=954513.

Zhang:2001:FSM

[4573] Fangguo Zhang, Futai Zhang, and Yumin Wang. Fast scalar multiplication on the Jacobian of a family of hyperelliptic curves. *Lecture Notes in Computer Science*, 2229:74–??, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2229/22290074.htm; http://link.springer-ny.com/link/service/series/0558/papers/2229/22290074.pdf.

Zhang:2001:NCP

[4574] Hong Zhang. Numerical condition of polynomials in different forms. *Electronic Transactions on Numerical Analysis*, 12:66–87, 2001. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL http://etna.mcs.kent.edu/vol.12.2001/pp66-87.dir/pp66-87.pdf.

Zheng:2001:ARE

[4575] Liang Zheng, Shen Xu-Bang, and Peng Zuo-Hui. The application of redundant encoding in iterative implementation of division and square root. In Tang et al. [7963], pages 603–606. ISBN 0-7803-6677-8, 7-900081-59-3. LCCN TK7874.6 .I55 2001; TK7874.6 .I64 2001.

Zielke:2001:GLL

[4576] G. Zielke and V. Drygalla. Genaue Lösung Linearer Gleichungssysteme. (German) [exact solution of linear sets of equations]. *Mitteilungen der Gesellschaft f*
ür Angewandte Mathematik und Mechanik, 26(??):7–107, 2001. CODEN ???? ISSN 0936-7195.

Zimmermann:2001:AAC

[4577] Paul Zimmermann. De l'algorithmique à l'arithmétique via le calcul formel. (French) [From algorithmics to arithmetic via symbolic calculation]. Technical report, Département de formation doctorale en informatique. École doctorale IAEM Lorraine, UFR STMIA, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, November 2001. 43 pp. URL http://www.loria.fr/~zimmerma/papers/hdr.ps.gz.

Zimmermann:2001:APA

[4578] Paul Zimmermann. Arithmétique en précision arbitraire. (French) [arbitrary-precision arithmetic]. Research Report 4272, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, September 29, 2001. 25 pp. URL http://www.loria.fr/~zimmerma/papers/RR4272.ps.gz.

Ziv:2001:APM

[4579] Abraham Ziv, Moshe Olshansky, Ealan Henis, and Anna Reitman. Accurate portable mathematical library (IBM APMathLib). World-Wide Web document, December 20, 2001. URL ftp://www-126.ibm.com/pub/mathlib/mathlib12.20.2001.tar.gz; http://oss.software.ibm.com/mathlib/.

Agarwal:2002:FPN

[4580] R. C. Agarwal, R. F. Enenkel, F. G. Gustavson, A. Kothari, and M. Zubair. Fast pseudorandom-number generators with modulus 2^k or 2^{k-1} using fused multiply–add. *IBM Journal of Research and Development*, 46(1):97–116, January 2002. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/461/agarwal.html; http://www.research.ibm.com/journal/rd/461/agarwal.pdf.

Akbarpour:2002:FCS

[4581] Behzad Akbarpour, Abdelkader Dekdouk, and Sofiène Tahar. Formalization of cadence SPW fixed-point arithmetic in HOL. *Lecture Notes in Computer Science*, 2335: 185–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2335/23350185.htm; http://link.springer-ny.com/link/service/series/0558/papers/2335/23350185.pdf.

Akkas:2002:CIF

[4582] A. Akkas. A combined interval and floating-point comparator/selector. In *IEEE 13th International Conference on Application-specific Systems, Architectures, and Processors, San Jose, USA, July, 2002*, pages 208–217. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. URL http://home.ku.edu.tr/~ahakkas/publications/comparator.pdf.

Akkas:2002:ISE

[4583] Ahmet Akkas. *Instruction Set Enhancements for Reliable Computations*. Ph.D. thesis, Lehigh University, Bethlehem, PA, USA, 2002. 159

pp. URL http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&res_dat=xri:pqdiss&rft_dat=xri:pqdiss:3036247.

Alvarez:2002:IRF

[4584] C. Alvarez, J. Corbal, E. Salami, and M. Valero. Initial results on fuzzy floating point computation for multimedia processors. *IEEE Computer Architecture Letters*, 1(1):1, January 2002. CODEN ???? ISSN 1556-6056 (print), 1556-6064 (electronic).

Anonymous:2002:AIVf

[4585] Anonymous. Author index volume 279 (2002). *Theoretical Computer Science*, 279(1-2):97, May 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Anonymous:2002:OFP

[4586] Anonymous. OpenVMS floating-point arithmetic on the Itanium architecture. Technical report, Hewlett–Packard Corporation, Palo Alto, CA, USA, September 2002. URL http://sysdoc.doors.ch/HP/openvms_ipf_floating_point_wp.pdf.

ARM:2002:VVF

[4587] ARM Limited, Sunnyvale, CA, USA. *VFP9-S Vector Floating-point Coprocessor (r0p2) Technical Reference Manual*, 2002. xvi + 156 pp. URL http://www.arm.com/pdfs/VFP-S_Vector_Floating_Point_Tech_Manual.pdf.

Arnold:2002:AOS

[4588] M. G. Arnold. Avoiding oddification to simplify MPEG-1 decoding with LNS. In *2002 IEEE Workshop on Multimedia Signal Processing*, pages 125–129. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. CODEN ???? ISSN ????

Arnold:2002:ICL

[4589] M. G. Arnold. Improved cotransformation for LNS subtraction. In *IEEE International Symposium on Circuits and Systems: ISCAS 2002, 26–29 May 2002*, volume 2, pages II–752–II–755. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. CODEN ???? ISSN ????

Arnold:2002:LNS

[4590] Mark Gordon Arnold. *Logarithmic Number Systems for MPEG and Multimedia Applications*. Ph.D. thesis, University of Manchester,

Manchester, UK, April 2002. xiv + 358 pp. URL https://www.proquest.com/pqdtglobal/docview/2780144113.

Arnold:2002:RPC

[4591] Mark G. Arnold. Reduced power consumption for MPEG decoding with LNS. In Schulte [7976], pages 65–75. ISBN 0-7695-1712-9 (paperback), 0-7695-1713-7 (casebound), 0-7695-1714-5 (microfiche). LCCN TK7874.6. URL http://www.cse.lehigh.edu/~asap/; https://ieeexplore.ieee.org/servlet/opac?punumber=8009. IEEE catalog number PR01712.

Bailey:2002:AAP

[4592] David H. Bailey, Yozo Hida, Xiaoye S. Li, and Brandon Thompson. ARPREC: An arbitrary precision computation package. Technical Report LBNL-53651, Lawrence Berkeley National Laboratory, Berkeley, CA, USA, September 2002. URL https://pubarchive.lbl.gov/islandora/object/ir:121949.

Bailey:2002:HPC

[4593] David H. Bailey, David Broadhurst, Yozo Hida, Xiaoye S. Li, and Brandon Thompson. High performance computing meets experimental mathematics. In IEEE [7971], page ?? ISBN 0-7695-1524-X. LCCN ???? URL http://www.sc-2002.org/paperpdfs/pap.pap124.pdf.

Barrio:2002:REB

[4594] Roberto Barrio. Rounding error bounds for the Clenshaw and Forsythe algorithms for the evaluation of orthogonal polynomial series. *Journal of Computational and Applied Mathematics*, 138(2):185–204, January 15, 2002. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S037704270100382X.

Belanovic:2002:LPF

[4595] Pavle Belanovic and Miriam Leeser. A library of parameterized floating-point modules and their use. *Lecture Notes in Computer Science*, 2438: 657–666, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2438/24380657.htm; http://link.springer-ny.com/link/service/series/0558/papers/2438/24380657.pdf.

Bertot:2002:PGS

[4596] Yves Bertot, Nicolas Magaud, and Paul Zimmermann. A proof of GMP square root. *Journal of Automated Reasoning*, 29(3–4):225–252, September 2002. CODEN JAREEW. ISSN 0168-7433 (print), 1573-0670 (electronic). URL `https://link.springer.com/article/10.1023/A:1021987403425`.

Beuchat:2002:SMB

[4597] Jean-Luc Beuchat and Arnaud Tisserand. Small multiplier-based multiplication and division operators for virtex-II devices. *Lecture Notes in Computer Science*, 2438:513–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2438/24380513.htm; http://link.springer-ny.com/link/service/series/0558/papers/2438/24380513.pdf`.

Blackford:2002:USB

[4598] L. Susan Blackford, James Demmel, Jack Dongarra, Iain Duff, Sven Hammarling, Greg Henry, Michael Heroux, Linda Kaufman, Andrew Lumsdaine, Antoine Petitet, Roldan Pozo, Karin Remington, and R. Clint Whaley. An updated set of Basic Linear Algebra Subprograms (BLAS). *ACM Transactions on Mathematical Software*, 28(2):135–151, June 2002. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Boldo:2002:FRF

[4599] Sylvie Boldo and Marc Daumas. Faithful rounding without fused multiply and accumulate. In *10th IMACS-GAMM International Symposium on Scientific Computing, Computer Arithmetic and Validated Numerics, SCAN-2002, September 24–27, Paris, France*, page ?? ????, ????, 2002. ISBN ???? LCCN ???? URL `http://scan2002.lip6.fr/abstracts/boldo.pdf`.

Boldo:2002:IAO

[4600] Sylvie Boldo. Introduction à l'arithmètique des ordinateurs. (French) [introduction to computer arithmetic]. World-Wide Web document, 2002. URL `http://perso.ens-lyon.fr/sylvie.boldo/doc/FetM.ps`. Presented in 2002 at the "Forum des jeunes mathèmaticiennes et des jeunes informaticiennes".

Boldo:2002:NSC

[4601] Sylvie Boldo and Marc Daumas. Necessary and sufficient conditions for exact floating point operations. Research Report 2002-44, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, November 2002. URL `ftp://ftp.inria.fr/INRIA/publication/publi-pdf/RR/RR-4644.pdf`.

Boldo:2002:PSVa

[4602] Sylvie Boldo and Marc Daumas. Properties of the subtraction valid for any floating point system. Research Report 2002-23, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, June 2002. URL ftp://ftp.ens-lyon.fr/pub/LIP/Rapports/RR/RR2002/RR2002-23.ps.gz; ftp://ftp.inria.fr/INRIA/publication/publi-pdf/RR/RR-4473.pdf.

Boldo:2002:PSVb

[4603] Sylvie Boldo and Marc Daumas. Properties of the subtraction valid for any floating point system. In Rance Cleaveland and Hubert Garavel, editors, *7th International ERCIM Workshop on Formal Methods for Industrial Critical Systems (FMICS 02): University of Málaga, Spain July 12–13, 2002*, pages 137–149. Universidad de Málaga, Spain, Málaga, Spain, 2002. ISBN ???? LCCN ???? URL http://www.inrialpes.fr/vasy/fmics/workshop-7/proceedings.pdf. Available as Technical Report ITI-2002-5, Dpto. de Lenguajes y Ciencias de la Computación, Universidad de Málaga, Spain.

Cardarilli:2002:RNS

[4604] G. C. Cardarilli, A. Del Re, A. Nannarelli, and M. Re. Residue number system reconfigurable datapath. In *ISCAS 2002, IEEE International Symposium on Circuits and Systems, 26–29 May 2002*, volume 2, pages II–756–II–759. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. CODEN ???? ISSN ????

Chesneaux:2002:FRN

[4605] Jean-Marie Chesneaux, Christiane Frougny, and Jean-Michel Muller. Foreword: Real numbers. *Theoretical Computer Science*, 279(1-2):1–2, May 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Chiricescu:2002:MM

[4606] Silviu Chiricescu, Michael Schuette, Robin Glinton, and Herman Schmit. Morphable multipliers. *Lecture Notes in Computer Science*, 2438:647–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2438/24380647.htm; http://link.springer-ny.com/link/service/series/0558/papers/2438/24380647.pdf.

Chotin:2002:FPU

[4607] R. Chotin and H. Mehrez. A floating-point unit using stochastic arithmetic compliant with the IEEE-754 standard. In *9th International*

Conference on Electronics, Circuits and Systems, 2002, volume 2, pages 603–606. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. CODEN ???? ISSN ????

Col:2002:ALC

[4608] Marie-Andrée Jacob-Da Col. About local configurations in arithmetic planes. *Theoretical Computer Science*, 283(1):183–201, June 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Conway:2002:NOH

[4609] Richard Conway, Thomas Conway, and John Nelson. New one-hot RNS structures for high-speed signal processing. In Luk [7973], pages 381–392. ISBN 0-8194-4558-4. LCCN TK5102.5 .A3324 2002. URL http://bookstore.spie.org/index.cfm?fuseaction=DetailPaper&ProductId=452053.

Conway:2002:SRI

[4610] T. Conway. Static register implementation for one hot residue number systems. *Electronics Letters*, 38(2):63–64, January 17, 2002. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=21138.

Cornea:2002:SCI

[4611] Marius Cornea, John Harrison, and Ping Tak Peter Tang. *Scientific computing on Itanium-based systems*. Intel Corporation, Santa Clara, CA, USA, 2002. ISBN 0-9712887-7-1. xvii + 406 pp. LCCN QA76.8.I83 C67 2002. US$69.95. URL http://www.intel.com/intelpress/sum_scientific.htm.

Cowlishaw:2002:DPD

[4612] Michael F. Cowlishaw. Densely packed decimal encoding. *IEE Proceedings. Computers and Digital Techniques*, 149(3):102–104, 2002. CODEN ICDTEA. ISSN 1350-2387 (print), 1359-7027 (electronic).

Cowlishaw:2002:TB

[4613] M. F. Cowlishaw. The 'telco' benchmark. World-Wide Web document., 2002. URL http://www2.hursley.ibm.com/decimal/telco.html.

Crandall:2002:OPF

[4614] R. E. Crandall and J. Papadopoulos. Octuple-precision floating point on Apple G4. Report, Advanced Computation Group, Apple Computer, Cupertino, CA, USA, May 8, 2002. 8 pp. URL http://images.apple.com/acg/pdf/oct3a.pdf.

Daumas:2002:ASN

[4615] Marc Daumas and Philippe Langlois. Additive symmetries: the non-negative case. *Theoretical Computer Science*, 291(2):143–157, November 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

deDinechin:2002:MTJ

[4616] Florent de Dinechin and Jérémie Detrey. Multipartite tables in JBits for the evaluation of functions on FPGA's. In IEEE [7969], pages 154–160. ISBN 0-7695-1573-8 (paperback), 0-7695-1574-6 (casebound), 0-7695-1575-4 (microfiche). ISSN 1530-2075. LCCN QA76.58 .I583 2002. URL `http://www.ens-lyon.fr/LIP/Arenaire/News/JBits/`. IEEE Computer Society Order Number PR01573.

Defour:2002:SCSa

[4617] David Defour and Florent de Dinechin. Software carry-save for fast multiple-precision algorithms. Research Report 2002-08, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, February 2002. 12 pp. URL `ftp://ftp.ens-lyon.fr/pub/LIP/Rapports/RR/RR2002/RR2002-08.ps.gz`; `http://www.ens-lyon.fr/LIP/Arenaire/Ware/SCSLib/`.

Defour:2002:SCSb

[4618] David Defour and Florent de Dinechin. Software carry-save for fast multiple-precision algorithms. In Cohen et al. [7966], pages 29–39. ISBN 981-238-048-5. LCCN QA76.95 .I5654 2002.

Demmel:2002:AEA

[4619] J. Demmel and P. Koev. Accurate and efficient algorithms for floating point computation. In Li [7972], page 16. ISBN 7-04-008690-5 (three volumes), 7-900135-82-0 (CD-ROM). LCCN QA1 .I82 2002. URL `http://math.mit.edu/~plamen/files/ICIAM_main.pdf`.

Demmel:2002:AFP

[4620] James Demmel and Yozo Hida. Accurate floating-point summation. Report, Computer Science Division and Mathematics Department, University of California, Berkeley, Berkeley, CA, USA, May 8, 2002. URL `http://www.cs.berkeley.edu/~demmel/AccurateSummation.pdf`; `http://www.cs.berkeley.edu/~demmel/AccurateSummation.ps`.

Demmel:2002:CAF

[4621] J. Demmel, Plamen Koev, and Ben Diament. The complexity of accurate floating point computation. In Li [7972], pages 672 (vol. 1) + 832 (vol.

2) + 968 (vol. 3). ISBN 7-04-008690-5 (three volumes), 7-900135-82-0 (CD-ROM). LCCN QA1 .I82 2002. URL `http://www.cs.berkeley.edu/~demmel/ICM_final.pdf; http://www.fernuni-hagen.de/MATHPHYS/veselic/abstracts/abs_demmel.html`.

Devillers:2002:FPE

[4622] Olivier Devillers and Philippe Guigue. Finite precision elementary geometric constructions. Technical report RR 4559, Unité de recherche INRIA Sophia Antipolis, 2004, route des Lucioles, BP 93, 06902 Sophia Antipolis Cédex, France, September 2002. 17 pp. URL `http://www-sop.inria.fr/rapports/sophia/RR-4559.html`.

Dido:2002:FFP

[4623] J. Dido, N. Geraudie, L. Loiseau, O. Payeur, Y. Savaria, and D. Poirier. A flexible floating-point format for optimizing data-paths and operators in FPGA based DSPs. In Trimberger and Schlag [7977], pages 50–55. ISBN 1-58113-452-5. LCCN TK7895.G36 A36 2002. URL `http://portal.acm.org/toc.cfm?id=503048`. ACM order number 480020.

Elia:2002:ISC

[4624] M. Elia and M. Leone. On the inherent space complexity of fast parallel multipliers for GF(2^m). *IEEE Transactions on Computers*, 51(3):346–351, March 2002. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=990131`.

Erle:2002:PSD

[4625] Mark A. Erle, Michael J. Schulte, and J. G. Linebarger. Potential speedup with decimal floating-point hardware. In Matthews [7974], pages 1073–1077. ISBN 0-7803-7576-9. LCCN TK5102.5 A78 2002. UK£265.00. URL `http://mesa.ece.wisc.edu/publications/cp_2002-05.pdf`. Two volumes. IEEE catalog number 02CH37387.

Etiemble:2002:CAH

[4626] Daniel Etiemble. Computer arithmetic and hardware: "off the shelf" microprocessors versus "custom hardware". *Theoretical Computer Science*, 279(1–2):3–27, May 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Gaffar:2002:ACF

[4627] Altaf Abdul Gaffar, Wayne Luk, Peter Y. K. Cheung, Nabeel Shirazi, and James Hwang. Automating customisation of floating-point designs. *Lecture Notes in Computer Science*, 2438:523–??,

2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2438/24380523.htm; http://link.springer-ny.com/link/service/series/0558/papers/2438/24380523.pdf.

Galbraith:2002:ASC

[4628] S. D. Galbraith, S. M. Paulus, and N. P. Smart. Arithmetic on superelliptic curves. *Mathematics of Computation*, 71(237):393–405, January 2002. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.ams.org/journal-getitem?pii=S0025-5718-00-01297-7; http://www.ams.org/mcom/2002-71-237/S0025-5718-00-01297-7/S0025-5718-00-01297-7.dvi; http://www.ams.org/mcom/2002-71-237/S0025-5718-00-01297-7/S0025-5718-00-01297-7.pdf; http://www.ams.org/mcom/2002-71-237/S0025-5718-00-01297-7/S0025-5718-00-01297-7.ps; http://www.ams.org/mcom/2002-71-237/S0025-5718-00-01297-7/S0025-5718-00-01297-7.tex.

Garcia:2002:CBB

[4629] E. Garcia and M. J. Schulte. A combined 16-bit binary and dual Galois field multiplier. In IEEE [7970], pages 63–68. ISBN 0-7803-7587-4. LCCN TK7874 .V5637 2002. URL http://mesa.ece.wisc.edu/publications/cp_2002-04.pdf.

Geiselmann:2002:NRE

[4630] W. Geiselmann, J. Muller-Quade, and R. Steinwandt. On "A new representation of elements of finite fields $GF(2^m)$ yielding small complexity arithmetic circuits". *IEEE Transactions on Computers*, 51 (12):1460–1461, December 2002. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1146713.

Glossner:2002:JED

[4631] C. John Glossner, Michael Schulte, and Stamatis Vassiliadis. A Java-enabled DSP. *Lecture Notes in Computer Science*, 2268:307–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2268/22680307.htm; http://link.springer-ny.com/link/service/series/0558/papers/2268/22680307.pdf; http://mesa.ece.wisc.edu/publications/cp_2002-01.pdf.

Goldberg:2002:CA

[4632] David Goldberg. Computer arithmetic. In *Computer Architecture—A Quantitative Approach* [7967], chapter H, pages H–1–H–74. ISBN 1-

55860-596-7. LCCN ???? US$89.95. URL http://books.elsevier.com/companions/1558605967/appendices/1558605967-appendix-h.pdf. The complete Appendix H is not in the printed book; it is available only at the book's Web site: http://www.mkp.com/CA3.

Gonzalez:2002:NME

[4633] Daniel González, Antonio García, Graham A. Jullien, Javier Ramírez, Luis Parrilla, and Antonio Lloris. A new methodology for efficient synchronization of RNS-based VLSI systems. *Lecture Notes in Computer Science*, 2451:188–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2451/24510188.htm; http://link.springer-ny.com/link/service/series/0558/papers/2451/24510188.pdf.

Gottwald:2002:NBL

[4634] G. A. Gottwald and M. Nicol. On the nature of Benford's Law. *Physica A*, 303(??):387–396, ???? 2002. CODEN PHYADX. ISSN 0378-4371 (print), 1873-2119 (electronic).

Goubault:2002:APF

[4635] Eric Goubault, Matthieu Martel, and Sylvie Putot. Asserting the precision of floating-point computations: a simple abstract interpreter. *Lecture Notes in Computer Science*, 2305:209–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2305/23050209.htm; http://link.springer-ny.com/link/service/series/0558/papers/2305/23050209.pdf.

Guo:2002:RIB

[4636] Linfeng Guo and Yan Meng. Round-up of integer bit allocation. *Electronics Letters*, 38(10):466–467, May 9, 2002. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Hamacher:2002:CO

[4637] V. Carl Hamacher, Zvonko G. Vranesic, and Safwat G. Zaky. *Computer organization*. McGraw-Hill series in computer organization and architecture. McGraw-Hill, New York, NY, USA, fifth edition, 2002. ISBN 0-07-232086-9. xx + 805 pp. LCCN QA76.9.C643 .H36 2002.

Hanrot:2002:DRF

[4638] G. Hanrot, J. Rivat, G. Tenenbaum, and P. Zimmermann. Density results on floating-point invertible numbers. *Theoretical Computer Science*, 291

(2):135–141, November 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Hanrot:2002:LNM

[4639] G. Hanrot and P. Zimmermann. A long note on Mulders' short product. Technical Report RR-4654, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, November 2002. 12 pp. See [4337].

Heckmann:2002:CLF

[4640] Reinhold Heckmann. Contractivity of linear fractional transformations. *Theoretical Computer Science*, 279(1-2):65–82, May 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Helms:2002:IPM

[4641] D. Helms, E. Schmidt, A. Schulz, A. Stammermann, and W. Nebel. An improved power macro-model for arithmetic datapath components. *Lecture Notes in Computer Science*, 2451:16–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2451/24510016.htm; http://link.springer-ny.com/link/service/series/0558/papers/2451/24510016.pdf`.

Hertling:2002:LBR

[4642] Peter Hertling. A lower bound for range enclosure in interval arithmetic. *Theoretical Computer Science*, 279(1-2):83–95, May 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Hiasat:2002:HSR

[4643] A. A. Hiasat. High-speed and reduced-area modular adder structures for RNS. *IEEE Transactions on Computers*, 51(1):84–89, January 2002. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=980018`.

Higham:2002:ASN

[4644] Nicholas J. Higham. *Accuracy and Stability of Numerical Algorithms*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, second edition, 2002. ISBN 0-89871-521-0 (hardcover), 0-89871-802-3 (e-book). xxx + 680 pp. LCCN QA297 .H53 2002.

Hitchcock:2002:NEC

[4645] Yvonne Hitchcock and Paul Montague. A new elliptic curve scalar multiplication algorithm to resist simple power analysis. *Lecture Notes in Computer Science*, 2384:214–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2384/23840214.htm; http://link.springer-ny.com/link/service/series/0558/papers/2384/23840214.pdf`.

Hoenninger:2002:FPD

[4646] J. C. Hoenninger III, L. E. Crooks, and M. Arakawa. A floating-point digital receiver for MRI. *IEEE Transactions on Biomedical Engineering*, 49(7):689–693, July 2002. CODEN IEBEAX. ISSN 0018-9294 (print), 1558-2531 (electronic).

Honda:2002:DFT

[4647] M. Honda, H. Harada, and M. Fujise. Design of fault-tolerant digital filters based on redundant residue number arithmetic for over-the-air reconfiguration in software radio communication systems. In *VTC Spring 2002, IEEE 55th Vehicular Technology Conference, 6–9 May 2002*, volume 1, pages 280–284. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. CODEN ???? ISSN ????

Hug:2002:DBP

[4648] Hubert Hug and Rainer Schuler. DNA-based parallel computation of simple arithmetic. *Lecture Notes in Computer Science*, 2340:321–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2340/23400321.htm; http://link.springer-ny.com/link/service/series/0558/papers/2340/23400321.pdf`.

Ide:2002:GTE

[4649] Nobuhiro Ide, Atsushi Kunimatsu, and Maki Ueno. Graphic translate engine, floating point arithmetic unit and floating point multiply-add calculation unit. US Patent 6,388,672, May 14, 2002. URL `https://patents.google.com/patent/US6388672B1`.

Iso:2002:NCI

[4650] Yuusuke Iso and Hiroshi Fujiwara. Numerical computations for ill-conditioned problems by multiple-precision systems. In Babuška et al. [7964], pages 185–194. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358. LCCN QA808.2 .I59 2000. URL http://link.springer.com/content/pdf/10.1007/978-3-642-56288-4_13.

Jacobi:2002:FVF

[4651] Christian Jacobi. *Formal verification of a fully IEEE compliant floating point unit*. Ph.D. thesis, Universität Saarbrücken Fakultät 6 — Naturwissenschaftlich-Technische Fakultät I. Fachrichtung 6.2 — Informatik, Saarbrücken, Germany, 2002.

Kahan:2002:FPC

[4652] W. Kahan. Fclass: a proposed classification of standard floating-point operands. World-Wide Web document, March 23, 2002. URL http://www.cs.berkeley.edu/~wkahan/ieee754status/Fclass.pdf.

Kim:2002:BSA

[4653] Hyun-Sung Kim and Kee-Young Yoo. Bit-serial AOP arithmetic architectures over GF(2^m). *Lecture Notes in Computer Science*, 2437: 303–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer.de/link/service/series/0558/bibs/2437/24370303.htm; http://link.springer.de/link/service/series/0558/papers/2437/24370303.pdf.

Kim:2002:IDS

[4654] Nam-Yeun Kim, Dae-Ghon Kho, and Kee-Young Yoo. Inversion/division systolic architecture for public-key cryptosystems in GF(2^m) . *Lecture Notes in Computer Science*, 2433:289–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2433/24330289.htm; http://link.springer-ny.com/link/service/series/0558/papers/2433/24330289.pdf.

Koren:2002:CAA

[4655] Israel Koren. *Computer Arithmetic Algorithms*. A. K. Peters, Ltd., Natick, MA, USA, second edition, 2002. ISBN 1-56881-160-8 (hardcover), 1-4398-6371-7 (e-book). xv + 281 pp. LCCN QA76.9.C62 K67.

Kornerup:2002:PRN

[4656] Peter Kornerup, Jean-Claude Bajard, Christiane Frougny, and Jean-Michel Muller. Preface: Real numbers and computers. *Theoretical Computer Science*, 291(2):133–134, November 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Koutroumpezis:2002:ADR

[4657] G. Koutroumpezis, K. Tatas, D. Soudris, S. Blionas, K. Masselos, and A. Thanailakis. Architecture design of a reconfigurable multiplier for flexible coarse-grain implementations. *Lecture Notes in Computer Science*, 2438:1027–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2438/24381027.htm; http://link.springer-ny.com/link/service/series/0558/papers/2438/24381027.pdf.

Krygowski:2002:FPM

[4658] C. A. Krygowski and E. M. Schwarz. Floating-point multiplier for denormalized inputs, September 5, 2002. U.S. Patent Application No. 2002/0124037 A1.

Ku:2002:NPA

[4659] Kyo-Min Ku, Kyeoung-Ju Ha, Hyun-Sung Kim, and Kee-Young Yoo. New parallel architecture for modular multiplication and squaring based on cellular automata. *Lecture Notes in Computer Science*, 2367:359–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2367/23670359.htm; http://link.springer-ny.com/link/service/series/0558/papers/2367/23670359.pdf.

Kulisch:2002:AAD

[4660] U. Kulisch. *Advanced Arithmetic for the Digital Computer: Design of Arithmetic Units*. Springer, Wien / New York, 2002. ISBN 3-211-83870-8. xii + 141 pp. LCCN QA76.9.C62 K85 2002. EUR 25.00. URL http://www.springer.at/main/book.jsp?bookID=3-211-83870-8&categoryID=10.

Kulisch:2002:RNZ

[4661] Ulrich Kulisch. Rounding near zero. In Peter Kornerup, Jean-Claude Bajard, Christiane Frougny, and Jean-Michel Muller, editors, *4th Real Numbers and Computers Conference, Dagstuhl, Germany, 2000*, volume 291(2) of *Theoretical Computer Science*, pages 23–29. Elsevier, Amsterdam, The Netherlands, January 5, 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Kwon:2002:EBS

[4662] Soonhak Kwon and Heuisu Ryu. Efficient bit serial multiplication using optimal normal bases of type II in $GF(2^m)$. *Lecture Notes in*

Computer Science, 2433:300–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2433/24330300.htm; http://link.springer-ny.com/link/service/series/0558/papers/2433/24330300.pdf.

Lang:2002:FPF

[4663] T. Lang and J. Bruguera. Floating-point fused multiply-add with reduced latency. In IEEE [7968], pages 145–150. ISBN 0-7695-1700-5 (paperback), 0-7695-1701-3 (casebound), 0-7695-1702-1 (microfiche). LCCN TK7888.3 .I25 2002. URL http://csdl.computer.org/dl/proceedings/iccd/2002/1700/00/17000145.pdf. IEEE catalog number PR01700.

Lee:2002:DSS

[4664] Keon-Jik Lee, Kee-Won Kim, and Kee-Young Yoo. Digit-serial-in-serial-out systolic multiplier for Montgomery algorithm. *Information Processing Letters*, 82(2):65–71, April 30, 2002. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic). URL http://www.elsevier.com/gej-ng/10/23/20/86/33/27/abstract.html.

Lee:2002:PFP

[4665] B. Lee and N. Burgess. Parameterisable floating-point operations on FPGA. In Matthews [7974], pages 1064–1068. ISBN 0-7803-7576-9. LCCN TK5102.5 A78 2002. UK£265.00. Two volumes. IEEE catalog number 02CH37387.

Leeser:2002:LPH

[4666] Miriam Leeser. A library of parameterized hardware modules for floating point arithmetic and its use. Technical report, Department of Electrical and Computer Engineering, Northeastern University, Boston, MA, USA, 2002. 28 pp. Presented at High Performance Embedded Computing (HPEC) Workshop (6th) held in Lexington, MA on 24–26 September 2002.

Leong:2002:IMM

[4667] P. C. Leong, E. C. Tan, and P. C. Tan. An iterative modular multiplication algorithm. *Computers and Mathematics with Applications*, 44(1–2):175–180, July 2002. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0898122102001384.

Lester:2002:CAF

[4668] David Lester, Scott Chambers, and Heoi Lee Lu. A constructive algorithm for finding the exact roots of polynomials with computable real coefficients. *Theoretical Computer Science*, 279(1-2):51–64, May 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Lester:2002:UPV

[4669] David Lester and Paul Gowland. Using PVS to validate the algorithms of an exact arithmetic. *Theoretical Computer Science*, 291(2):203–218, November 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Li:2002:DIT

[4670] Xiaoye S. Li, James W. Demmel, David H. Bailey, Greg Henry, Yozo Hida, Jimmy Iskandar, William Kahan, Suh Y. Kang, Anil Kapur, Michael C. Martin, Brandon J. Thompson, Teresa Tung, and Daniel J. Yoo. Design, implementation and testing of extended and mixed precision BLAS. *ACM Transactions on Mathematical Software*, 28(2):152–205, June 2002. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://crd.lbl.gov/~xiaoye/XBLAS/.

Li:2002:LLF

[4671] Ren-Cang Li, Peter Markstein, Jon P. Okada, and James W. Thomas. The libm library and floating-point arithmetic for HP-UX on Itanium-2. Technical report, Hewlett–Packard Corporation, Palo Alto, CA, USA, 2002. ?? pp. URL ????.

Liddicoat:2002:HPA

[4672] Albert Austin Liddicoat. *High-performance arithmetic for division and the elementary functions*. Ph.D. thesis, Stanford University, Stanford, CA, USA, 2002. 141 pp. URL http://wwwlib.umi.com/dissertations/fullcit/3040035; http://wwwlib.umi.com/dissertations/preview/3040035.

Lienhart:2002:UFP

[4673] G. Lienhart, A. Kugel, and R. Manner. Using floating-point arithmetic on FPGAs to accelerate scientific N-body simulations. In Pocek and Arnold [7975], pages 182–191. ISBN 0-7695-1801-X. ISSN 1082-3409. LCCN TK7895.G36 I36 2002. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8168.

Loh:2002:RER

[4674] Eugene Loh and G. William Walster. Rump's example revisited. *Reliable Computing = Nadezhnye vychisleniia*, 8(3):245–248, June 2002. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL http://link.springer.com/article/10.1023/A%3A1015569431383/; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=8&issue=3&spage=245; http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=8&issue=3&spage=245-248.

Lund:2002:MUC

[4675] T. Lund, M. Aguirre, and A. Torralba. Making use of CORDICs and distributed arithmetic to produce a field-programmable fuzzy logic controller in an FPGA. In *IEEE 2002 28th Annual Conference of the Industrial Electronics Society. IECON 02*, volume 4, pages 3205–3208. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002.

Lutz:2002:BGB

[4676] Michael J. Lutz. Bookshelf: Getting the bugs out [Debugging: The 9 Indispensable Rules for Finding Even the Most Elusive Software and Hardware Problems]; saving time with arithmetic and logic [Hacker's Delight]; probability and computing [Probability and Statistics with Reliability, Queuing and Computer Science Applications, 2nd edition]; graphics toolbox [Guide to Graphics Software Tools]. *Computer*, 35 (12):117, December 2002. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). URL http://csdl.computer.org/dl/mags/co/2002/12/rz117.htm; http://csdl.computer.org/dl/mags/co/2002/12/rz117.pdf.

Madhukumar:2002:RNS

[4677] A. S. Madhukumar and F. Chin. Residue number system-based multicarrier CDMA system for high-speed broadband wireless access. *IEEE Transactions on Broadcasting*, 48(1):46–52, March 2002. CODEN IETBAC. ISSN ???? URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=21407.

Matousek:2002:LNS

[4678] Rudolf Matousek, Milan Tichý, Zdenek Pohl, Jirí Kadlec, Chris Softley, and Nick Coleman. Logarithmic number system and floating-point arithmetics on FPGA. *Lecture Notes in Computer Science*, 2438:175–188, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2438/24380627.htm; http://link.springer-ny.com/link/service/series/0558/papers/2438/24380627.pdf.

Matula:2002:PTP

[4679] David W. Matula and Lee D. McFearin. A $p \times p$ bit fraction model of binary floating point division and extremal rounding cases. *Theoretical Computer Science*, 291(2):159–182, November 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

McCluskey:2002:MLF

[4680] Glen McCluskey. Math library functions in C9X. *;login:*, 27(2):9–13, April 2002. CODEN LOGNEM. ISSN 1044-6397 (print), 2169-9364 (electronic).

McIlhenny:2002:CNL

[4681] Robert Dean McIlhenny. *Complex Number On-line Arithmetic for Reconfigurable Hardware: Algorithms, Implementations, and Application*. Ph.D. dissertation, Computer Science Department, University of California, Los Angeles, Los Angeles, CA, USA, 2002. xiv + 182 pp.

Messine:2002:EAA

[4682] F. Messine. Extentions [sic] of affine arithmetic: Application to unconstrained global optimization. *J.UCS: Journal of Universal Computer Science*, 8(11):992–??, November 28, 2002. CODEN ???? ISSN 0948-6968. URL http://www.jucs.org/jucs_8_11/extentions_of_affine_arithmetic.

Molina:2002:BLA

[4683] M. C. Molina, J. M. Mendias, and R. Hermida. Bit-level allocation of multiple-precision specifications. In *Proceedings of the Euromicro Symposium on Digital System Design*, pages 385–392. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. CODEN ???? ISSN ????

Molina:2002:HLS

[4684] M. C. Molina, J. M. Mendias, and R. Hermida. High-level synthesis of multiple-precision circuits independent of data-objects length. In *Proceedings of the 39th Design Automation Conference, 10–14 June 2002*, pages 612–615. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. CODEN ???? ISSN ????

Molina:2002:MPC

[4685] M. C. Molina, J. M. Mendias, and R. Hermida. Multiple-precision circuits allocation independent of data-objects length. In *Proceedings of the*

Design, Automation and Test in Europe Conference and Exhibition, 4–8 March 2002, pages 909–913. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. CODEN ???? ISSN ????

Moller:2002:PEC

[4686] Bodo Möller. Parallelizable elliptic curve point multiplication method with resistance against side-channel attacks. *Lecture Notes in Computer Science*, 2433:402–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2433/24330402.htm; http://link.springer-ny.com/link/service/series/0558/papers/2433/24330402.pdf`.

Motegi:2002:EGG

[4687] Makoto Motegi, Naofumi Homma, Takafumi Aoki, and Tatsuo Higuchi. Evolutionary graph generation system and its application to bit-serial arithmetic circuit synthesis. *Lecture Notes in Computer Science*, 2439:831–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer.de/link/service/series/0558/bibs/2439/24390831.htm; http://link.springer.de/link/service/series/0558/papers/2439/24390831.pdf`.

Okeya:2002:FSM

[4688] Katsuyuki Okeya, Kunihiko Miyazaki, and Kouichi Sakurai. A fast scalar multiplication method with randomized projective coordinates on a Montgomery-form elliptic curve secure against side channel attacks. *Lecture Notes in Computer Science*, 2288:428–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2288/22880428.htm; http://link.springer-ny.com/link/service/series/0558/papers/2288/22880428.pdf`.

Overton:2002:CNC

[4689] Michael L. Overton. *Cómputo numérico con aritmética de punto flotante IEEE*, volume 19 of *Aportaciones Matemáticas: Textos [Mathematical Contributions: Texts]*. Sociedad Matemática Mexicana, México, 2002. ISBN 970-32-0086-9. xii + 123 pp. Con un teorema, una regla empírica y ciento un ejercicios. [Including one theorem, one rule of thumb and one hundred and one exercises], Translated from the 2001 English original by Alejandro Casares Maldonado.

Paliouras:2002:LPC

[4690] V. Paliouras, A. Skavantzos, and T. Stouraitis. Low power convolvers using the Polynomial Residue Number System. In *ISCAS 2002, IEEE International Symposium on Circuits and Systems, 26–29 May 2002*, volume 2, pages II–748–II–751. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. CODEN ???? ISSN ????

Paliouras:2002:OLO

[4691] V. Paliouras. Optimization of LNS operations for embedded signal processing applications. In *IEEE International Symposium on Circuits and Systems: ISCAS 2002, 26–29 May 2002*, volume 2, pages II–744–II–747. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. CODEN ???? ISSN ????

Park:2002:SPM

[4692] Young-Ho Park, Sangtae Jeong, and Jongin Lim. Speeding up point multiplication on hyperelliptic curves with efficiently-computable endomorphisms. *Lecture Notes in Computer Science*, 2332:197–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2332/23320197.htm; http://link.springer-ny.com/link/service/series/0558/papers/2332/23320197.pdf.

Paul:2002:BB

[4693] Wolfgang J. Paul and Peter-Michael Seidel. To Booth or not to Booth? *Integration, the VLSI journal*, 32(1–2):5–40, November 2002. CODEN IVJODL. ISSN 0167-9260 (print), 1872-7522 (electronic). URL https://www.sciencedirect.com/science/article/pii/S0167926002000408.

Pillmeier:2002:DAB

[4694] M. R. Pillmeier and M. J. Schulte. Design alternatives for barrel shifters and rotators. In Luk [7973], pages 436–447. ISBN 0-8194-4558-4. LCCN TK5102.5 .A3324 2002. URL http://mesa.ece.wisc.edu/publications/cp_2002-02.pdf.

Pineiro:2002:HRL

[4695] J.-A. Pineiro, M. D. Ercegovac, and J. D. Bruguera. High-radix logarithm with selection by rounding. In *Application-Specific Systems, Architectures and Processors, 2002. Proceedings. The IEEE International Conference on. 17–19 July 2002*, pages 101–110. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. CODEN ???? ISSN ????

Pineiro:2002:HSD

[4696] J. A. Piñeiro and J. D. Bruguera. High-speed double precision computation of reciprocal, division, square root, and inverse square root. *IEEE Transactions on Computers*, 51(12):1377–1388, December 2002. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1146704.

Puchta:2002:RNN

[4697] Jan-Christoph Puchta. Representation of numbers with negative digits and multiplication of small integers. *Fibonacci Quarterly*, 40(1):66–67, February 2002. CODEN FIBQAU. ISSN 0015-0517. URL http://www.fq.math.ca/Scanned/40-1/puchta1.pdf.

Ramasubramanian:2002:ACL

[4698] Narasimhan Ramasubramanian, Ram Subramanian, and Santosh Pande. Automatic compilation of loops to exploit operator parallelism on configurable arithmetic logic units. *IEEE Transactions on Parallel and Distributed Systems*, 13(1):45–66, January 2002. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic). URL http://dlib.computer.org/td/books/td2002/pdf/l0045.pdf; http://www.computer.org/tpds/td2001/l0045abs.htm.

Ramirez:2002:FRF

[4699] J. Ramírez, A. García, U. Meyer-Baese, and A. Lloris. Fast RNS FPL-based communications receiver design and implementation. *Lecture Notes in Computer Science*, 2438:472–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2438/24380472.htm; http://link.springer-ny.com/link/service/series/0558/papers/2438/24380472.pdf.

Reid-Green:2002:TEA

[4700] Keith S. Reid-Green. Three early algorithms: [Bresenham's line-drawing algorithm; a square-root algorithm; Machin's algorithm: computation of π]. *IEEE Annals of the History of Computing*, 24(4):10–13, October 2002. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic). URL http://csdl.computer.org/dl/mags/an/2002/04/a4010.htm; http://csdl.computer.org/dl/mags/an/2002/04/a4010.pdf; http://csdl.computer.org/dl/mags/an/2002/04/a4010abs.htm.

Revol:2002:MAPa

[4701] N. Revol and F. Rouillier. Motivations for an arbitrary precision interval arithmetic and the MPFI Library. Report, Laboratoire ANO, University of Lille and CNRS/ENSL/INRIA Project Arenaire LIP, École Normale Supérieure de Lyon, France, Project Spaces, LORIA/INRIA/LIP 6, France, April 17, 2002. 6 pp. URL http://pauillac.inria.fr/cdrom/www/mpfi/ValidC02.pdf.

Revol:2002:MAPb

[4702] Nathalie Revol and Fabrice Rouillier. Motivations for an arbitrary precision interval arithmetic and the MPFI Library. In R. Baker Kearfott, editor, *SIAM Workshop on Validated Computing 2002, Toronto, Canada, May 23–25, 2002: extended abstracts*, page ?? Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2002. ISBN ???? LCCN QA76.76.R44 W67 2002.

Reyhani-Masoleh:2002:NCM

[4703] A. Reyhani-Masoleh and M. A. Hasan. A new construction of Massey–Omura parallel multiplier over GF(2^m). *IEEE Transactions on Computers*, 51(5):511–520, May 2002. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1004590.

Roesler:2002:NOH

[4704] Eric Roesler and Brent Nelson. Novel optimizations for hardware floating-point units in a modern FPGA architecture. *Lecture Notes in Computer Science*, 2438:637–646, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2438/24380637.htm; http://link.springer-ny.com/link/service/series/0558/papers/2438/24380637.pdf.

Saed:2002:NSC

[4705] A. Saed, M. Ahmadi, and G. A. Jullien. A number system with continuous valued digits and modulo arithmetic. *IEEE Transactions on Computers*, 51(11):1294–1305, November 2002. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1047754.

Sahin:2002:FFP

[4706] Ibrahim Sahin, Clay S. Gloster, and Christopher Doss. Feasibility of floating-point arithmetic in reconfigurable computing systems. In

Vladimirova and Katz [7978], page ?? LCCN ???? URL http://klabs.org/richcontent/MAPLDCon00/Abstracts/sahin_a.txt.

Sakai:2002:AES

[4707] Yasuyuki Sakai and Kouichi Sakurai. Algorithms for efficient simultaneous elliptic scalar multiplication with reduced joint Hamming weight representation of scalars. *Lecture Notes in Computer Science*, 2433:484–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2433/24330484.htm; http://link.springer-ny.com/link/service/series/0558/papers/2433/24330484.pdf.

Sawada:2002:FVD

[4708] J. Sawada. Formal verification of divide and square root algorithms using series calculation. In Borrione [7965], pages 31–49. ISBN ???? LCCN ???? URL http://www.cs.utexas.edu/users/moore/acl2/workshop-2002/.

Sawada:2002:MVS

[4709] Jun Sawada and Ruben Gamboa. Mechanical verification of a square root algorithm using Taylor's theorem. *Lecture Notes in Computer Science*, 2517:274–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer.de/link/service/series/0558/bibs/2517/25170274.htm; http://link.springer.de/link/service/series/0558/papers/2517/25170274.pdf.

Schwarz:2002:MIE

[4710] E. M. Schwarz, M. A. Check, C.-L. K. Shum, T. Koehler, S. B. Swaney, J. D. MacDougall, and C. A. Krygowski. The microarchitecture of the IBM eServer z900 processor. *IBM Journal of Research and Development*, 46(4/5):381–395, ???? 2002. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/464/schwarz.html; http://www.research.ibm.com/journal/rd/464/schwarz.pdf.

Serebrenik:2002:TLP

[4711] Alexander Serebrenik and Danny De Schreye. On termination of logic programs with floating point computations. *Lecture Notes in Computer Science*, 2477:151–164, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2477/24770151.htm; http://link.springer-ny.com/link/service/series/0558/papers/2477/24770151.pdf.

Shi:2002:SMF

[4712] Changchun Shi. Statistical method for floating-point to fixed-point conversion. Master of Science, Plan II, Department of Electrical Engineering and Computer Sciences, University of California, Berkeley, Berkeley, CA, USA, 2002. x + 131 pp.

Soudris:2002:FAB

[4713] D. Soudris, M. Dasygenis, K. Mitroglou, K. Tatas, and A. Thanailakis. A full adder based methodology for scaling operation in residue number system. In *9th International Conference on Electronics, Circuits and Systems, 2002*, volume 3, pages 891–894. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. CODEN ???? ISSN ????

Spiteri:2002:PPA

[4714] Pierre Spiteri, Jean-Claude Miellou, and Didier El Baz. Perturbation of parallel asynchronous linear iterations by floating point errors. *Electronic Transactions on Numerical Analysis*, 13:38–55, 2002. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL `http://etna.mcs.kent.edu/vol.13.2002/pp38-55.dir/pp38-55.pdf`.

Stakhov:2002:BTP

[4715] Alexey Stakhov. Brousentsov's ternary principle, Bergman's number system and ternary mirror-symmetrical arithmetic. *The Computer Journal*, 45(2):221–236, ???? 2002. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://www3.oup.co.uk/computer_journal/hdb/Volume_45/Issue_02/450221.sgm.abs.html`; `http://www3.oup.co.uk/computer_journal/hdb/Volume_45/Issue_02/pdf/450221.pdf`.

Steele:2002:SMF

[4716] Guy L. Steele Jr. System and method for floating-point computation. US Patent 6356927, March 12, 2002. URL `http://www.patentstorm.us/patents/6356927/fulltext.html`.

Stehle:2002:WCL

[4717] Damien Stehlé, Vincent Lefèvre, and Paul Zimmermann. Worst cases and lattice reduction. Research report, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, October 15, 2002. 10 pp. URL `http://www.loria.fr/~zimmerma/papers/wclr.ps.gz`.

Stoianov:2002:AAB

[4718] Ivilin Stoianov, Marco Zorzi, Suzanna Becker, and Carlo Umilta. Associative arithmetic with Boltzmann machines: The role of number representations. *Lecture Notes in Computer Science*, 2415:277–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2415/24150277.htm; http://link.springer-ny.com/link/service/series/0558/papers/2415/24150277.pdf.

Sun:2002:BJP

[4719] Sun Microsystems. *BigDecimal (Java 2 Platform SE v1.4.0)*. Sun Microsystems, Mountain View, CA, USA, 2002. 17 pp. URL http://java.sun/com/products.

TI:2002:TFL

[4720] Texas Instruments, Dallas, TX, USA. *TMS320C67x FastRTS Library Programmer's Reference (SPRU100A)*, October 2002. URL http://focus.ti.com/lit/ug/spru100a/spru100a.pdf. The FastRTS library is a collection of 26 optimized floating-point math functions for the TMS320C67x device. This source code library includes C-callable (ANSI-C-language compatible) optimized versions of the floating-point math functions included in previous run-time-support libraries.

Tornaria:2002:SRM

[4721] Gonzalo Tornaría. Square roots modulo *p*. *Lecture Notes in Computer Science*, 2286:430–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer-ny.com/link/service/series/0558/bibs/2286/22860430.htm; http://link.springer-ny.com/link/service/series/0558/papers/2286/22860430.pdf.

Turner:2002:RPS

[4722] Peter R. Turner. Residue polynomial systems. *Theoretical Computer Science*, 279(1-2):29–49, May 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

vanEmden:2002:NDI

[4723] M. H. van Emden. New developments in interval arithmetic and their implications for floating-point standardization. *arXiv.org*, ??(??):1–12, October 16, 2002. CODEN ???? ISSN ???? URL http://arxiv.org/abs/cs/0210015.

Walters:2002:DTU

[4724] E. G. Walters and M. J. Schulte. Design tradeoffs using truncated multipliers in FIR filter implementations. In Luk [7973], pages 357–368. ISBN 0-8194-4558-4. LCCN TK5102.5 .A3324 2002. URL http://mesa.ece.wisc.edu/publications/cp_2002-03.pdf.

Winkler:2002:SVU

[4725] Jürgen F. H. Winkler. A safe variant of the unsafe integer arithmetic of Java^{TM}. *Software—Practice and Experience*, 32(7):669–701, June 2002. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic). URL http://www3.interscience.wiley.com/cgi-bin/abstract/94515736/START; http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=94515736&PLACEBO=IE.pdf.

Wu:2002:BPF

[4726] Huapeng Wu. Bit-parallel finite field multiplier and squarer using polynomial basis. *IEEE Transactions on Computers*, 51(7):750–758, July 2002. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1017695.

Wu:2002:FFM

[4727] Huapeng Wu, M. A. Hasan, I. F. Blake, and Shuhong Gao. Finite field multiplier using redundant representation. *IEEE Transactions on Computers*, 51(11):1306–1316, November 2002. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1047755.

Wu:2002:MMS

[4728] Huapeng Wu. Montgomery multiplier and squarer for a class of finite fields. *IEEE Transactions on Computers*, 51(5):521–529, May 2002. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1004591.

Yang:2002:DAB

[4729] Yi Yang. A distributed arithmetic-based CORDIC algorithm and its use in the FPGA implementation of the 2-D IDCT. M.A.Sc. thesis, Concordia University, Montreal, QC, Canada, 2002. 90 pp. URL https://login.ezproxy.lib.utah.edu/login?url=https://www.proquest.com/dissertations-theses/distributed-arithmetic-based-cordic-algorithm-use/docview/305477205/se-2.

Yang:2002:RNSa

[4730] Lie-Liang Yang and L. Hanzo. A residue number system based parallel communication scheme using orthogonal signaling. II. Multipath fading channels. *IEEE Transactions on Vehicular Technology*, 51(6):1547–1559, November 2002. CODEN ITUTAB. ISSN 0018-9545 (print), 1939-9359 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=26382`.

Yang:2002:RNSb

[4731] Lie-Liang Yang and L. Hanzo. A residue number system based parallel communication scheme using orthogonal signaling. I. System outline. *IEEE Transactions on Vehicular Technology*, 51(6):1534–1546, November 2002. CODEN ITUTAB. ISSN 0018-9545 (print), 1939-9359 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=26382`.

Yang:2002:RNSc

[4732] Lie-Liang Yang and L. Hanzo. Residue number system assisted fast frequency-hopped synchronous ultra-wideband spread-spectrum multiple-access: a design alternative to impulse radio. *IEEE Journal on Selected Areas in Communications*, 20(9):1652–1663, December 2002. CODEN ISACEM. ISSN 0733-8716 (print), 1558-0008 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=24076`.

Yen:2002:RSR

[4733] Sung-Ming Yen, Seungjoo Kim, Seongan Lim, and Sangjae Moon. RSA speedup with residue number system immune against hardware fault cryptanalysis. *Lecture Notes in Computer Science*, 2288:397–??, 2002. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2288/22880397.htm`; `http://link.springer-ny.com/link/service/series/0558/papers/2288/22880397.pdf`.

Ziv:2002:SGM

[4734] Abraham Ziv and Laurent Fournier. Solving the generalized mask constraint for test generation of binary floating point add operation. *Theoretical Computer Science*, 291(2):183–201, November 2002. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Abed:2003:VIL

[4735] K. H. Abed and R. E. Siferd. VLSI implementation of a low-power antilogarithmic converter. *IEEE Transactions on Computers*, 52(9):

1221–1228, September 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1228517.

Agou:2003:SPR

[4736] Simon Joseph Agou, Marc Deléglise, and Jean-Louis Nicolas. Short polynomial representations for square roots modulo *p*. *Designs, Codes, and Cryptography*, 28(1):33–44, January 2003. CODEN DCCREC. ISSN 0925-1022 (print), 1573-7586 (electronic). URL http://ipsapp007.kluweronline.com/content/getfile/4630/45/2/abstract.htm; http://ipsapp007.kluweronline.com/content/getfile/4630/45/2/fulltext.pdf.

Aharoni:2003:FTG

[4737] Merav Aharoni, Sigal Asaf, Laurent Fournier, Anatoly Koifman, and Raviv Nagel. FPgen — a test generation framework for datapath floating-point verification. In *Proceedings of the Eighth IEEE International High-Level Design Validation and Test Workshop, 12–14 November, 2003 (HLDVT03)*, pages 17–22. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, November 2003. ISBN 0-7803-8236-6. LCCN QA76.76.V47 I35 2003; TK7895.M5 I34 2003. URL http://www.haifa.ibm.com/projects/verification/fpgen; https://ieeexplore.ieee.org/servlet/opac?punumber=8873; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1252469; https://www.research.ibm.com/haifa/projects/verification/fpgen/ieeets.html.

Akkas:2003:QPD

[4738] A. Akkas and M. J. Schulte. A quadruple precision and dual double precision floating-point multiplier. In *Proceedings of the 2003 Euromicro Symposium on Digital System Design, Antalya, Turkey, September 2003*, pages 76–81. ????, ????, 2003. URL http://home.ku.edu.tr/~ahakkas/publications/quadruple_multiplier.pdf; http://mesa.ece.wisc.edu/publications/cp_2003-07.pdf.

Al-Radadi:2003:RSD

[4739] E. Al-Radadi and P. Siy. RNS: sign detector based on Chinese Remainder Theorem II (CRT II). *Computers and Mathematics with Applications*, 46(10–11):1559–1570, November/December 2003. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/S089812210390191X.

Altman:2003:RAN

[4740] Micah Altman and Michael P. McDonald. Replication with attention to numerical accuracy. *Political Analysis*, 11(3):302–307, Summer 2003. ISSN 1047-1987 (print), 1476-4989 (electronic).

Ammar:2003:NDH

[4741] A. Ammar, A. S. S. El-Kabbany, M. I. Youssef, and A. Emam. A novel data hiding technique using residue number system. In *NRSC 2003, Proceedings of the Twentieth National Radio Science Conference, 18–20 March 2003*, pages C15–1–12. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. CODEN ???? ISSN ????

Anonymous:2003:AI

[4742] Anonymous. Author index. In Bajard and Schulte [7980], page 281. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.dec.usc.es/arith16/; https://ieeexplore.ieee.org/servlet/opac?punumber=8582. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Anonymous:2003:FFP

[4743] Anonymous. Fast floating-point arithmetic emulation on the Blackfin processor platform. Engineer To Engineer Note EE-185, Analog Devices, ????, May 26, 2003. URL http://www.analog.com/UploadedFiles/Application_Notes/47485184002118EE185.pdf.

Anonymous:2003:RHP

[4744] Anonymous. Recently heard Pentium jokes. World Wide Web document, October 20, 2003. URL http://web.archive.org/web/20031020012234/http://www-pcd.stanford.edu/cousins/pentium.html; http://www-pcd.stanford.edu/cousins/pentium.html.

Arciniega:2003:REN

[4745] Armando Arciniega and Edward Allen. Rounding error in numerical solution of stochastic differential equations. *Stochastic Analysis and Applications*, 21(2):281–300, January 2003. CODEN SAAPDA. ISSN 0736-2994 (print), 1532-9356 (electronic). URL https://www.researchgate.net/publication/266011553_Rounding_Error_in_Numerical_Solution_of_Stochastic_Differential_Equations.

Arnold:2003:FFT

[4746] M. Arnold, T. Bailey, J. Cowles, and C. Walter. Fast Fourier Transforms using the complex logarithmic number system. *Journal of VLSI Signal Processing*, 33(3):325–335, March 2003. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Arnold:2003:ILN

[4747] Mark G. Arnold, Jesus Garcia, and Michael J. Schulte. The interval logarithmic number system. In Bajard and Schulte [7980], pages 253–261. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://mesa.ece.wisc.edu/publications/cp_2003-01.pdf; http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Arnold.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Bajard:2003:EMG

[4748] J.-C. Bajard, L. Imbert, C. Nègre, and T. Plantard. Efficient multiplication in $\mathrm{GF}(\mathrm{p_k})$ for elliptic curve cryptography. In Bajard and Schulte [7980], pages 181–187. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Bajard.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Bajard:2003:FII

[4749] Jean-Claude Bajard and Michael Schulte. Foreword: 16th IEEE International Symposium on Computer Arithmetic. In Bajard and Schulte [7980], page viii. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_contents.pdf; http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_foreword.pdf; http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_preface.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Barrio:2003:NEL

[4750] Roberto Barrio, B. Melendo, and S. Serrano. On the numerical evaluation of linear recurrences. *Journal of Computational and Applied Mathematics*, 150(1):71–86, January 1, 2003. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042702005654.

Barrio:2003:URE

[4751] Roberto Barrio. A unified rounding error bound for polynomial evaluation. *Advances in Computational Mathematics*, 19(4):385–399, November 2003. CODEN ACMHEX. ISSN 1019-7168 (print), 1572-9044 (electronic). URL http://link.springer.com/article/10.1023/A:1024203520270.

Bertoni:2003:EAA

[4752] Guido Bertoni, Jorge Guajardo, Sandeep Kumar, Gerardo Orlando, Christof Paar, and Thomas Wollinger. Efficient $GF(p^m)$ arithmetic architectures for cryptographic applications. *Lecture Notes in Computer Science*, 2612:158–175, 2003. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Boldo:2003:FPC

[4753] Sylvie Boldo, Marc Daumas, and Laurent Théry. Formal proofs and computations in finite precision arithmetic. In Thérèse Hardin and Renaud Rioboo, editors, *CALCULEMUS-2003: 11th Symposium on the Integration of Symbolic Computation and Mechanized Reasoning: September 10–12, 2003, Roma, Italy*, pages 101–111. ????, ????, 2003. ISBN ???? LCCN ???? URL http://ftp.lip6.fr/lip6/reports/2003/lip6.2003.010.pdf.

Boldo:2003:RCT

[4754] Sylvie Boldo and Marc Daumas. Representable correcting terms for possibly underflowing floating point operations. In Bajard and Schulte [7980], pages 79–86. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://csdl.computer.org/comp/proceedings/arith/2003/1894/00/1894toc.htm; http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Boldo.pdf; http://www.dec.usc.es/arith16/papers/paper-156.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Boldo:2003:STQ

[4755] Sylvie Boldo and Marc Daumas. A simple test qualifying the accuracy of Horner's rule for polynomials. Research Report 2003-01, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, January 2003. 41 pp. URL ftp://ftp.ens-lyon.fr/pub/LIP/Rapports/RR/RR2003/RR2003-01.ps.gz; ftp://ftp.inria.fr/INRIA/publication/publi-pdf/RR/RR-4707.pdf.

Boullis:2003:SOH

[4756] Nicolas Boullis and Arnaud Tisserand. Some optimizations of hardware multiplication by constant matrices. In Bajard and Schulte [7980], pages 20–27. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Boullis.pdf`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Brisebarre:2003:FTP

[4757] Nicolas Brisebarre and Jean-Michel Muller. Finding the "truncated" polynomial that is closest to a function. Research Report 4787, INRIA Rhone-Alpes, ZIRST, 655 Avenue de l'Europe, Montbonnot, 38334 Saint Ismier cedex, France, 2003. URL `ftp://ftp.inria.fr/INRIA/publication/publi-pdf/RR/RR-4787.pdf`; `ftp://ftp.inria.fr/INRIA/publication/publi-ps-gz/RR/RR-4787.ps.gz`; `http://arxiv.org/pdf/cs.MS/0307009`; `http://www.inria.fr/rrrt/rr-4787.html`.

Brown:2003:DPA

[4758] Walter E. Brown. A [DRAFT] proposal to add mathematical special functions to the C++ Standard Library. World-Wide Web document, January 3, 2003. URL `http://home.fnal.gov/~wb/N0000.html`.

Burgess:2003:SRN

[4759] Neil Burgess. Scaling an RNS number using the core function. In Bajard and Schulte [7980], pages 262–269. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Burgess.pdf`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Cao:2003:DHS

[4760] Bin Cao, T. Srikanthan, and Chip-Hong Chang. Design of a high speed reverse converter for a new 4-moduli set residue number system. In *ISCAS '03, Proceedings of the 2003 International Symposium on Circuits and Systems, 25–28 May 2003*, volume 4, pages IV–520–IV–523. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. CODEN ???? ISSN ????

Chaudhuri:2003:DAO

[4761] Ranjan Chaudhuri. Do the arithmetic operations really execute in constant time? *SIGCSE Bulletin*

(ACM Special Interest Group on Computer Science Education), 35(2): 43–44, June 2003. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Misc/DBLP/2003.bib.

Chaves:2003:RRD

[4762] R. Chaves and L. Sousa. RDSP: a RISC DSP based on residue number system. In *Proceedings. Euromicro Symposium on Digital System Design, 2003*, pages 128–135. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. CODEN ???? ISBN 0-7695-2003-0. ISSN ????

Chen:2003:PIC

[4763] Chichyang Chen and Rui-Lin Chen. Performance-improved computation of very large word-length LNS addition/subtraction using signed-digit arithmetic. In *Proceedings of the IEEE International Conference on Application-Specific Systems, Architectures, and Processors, 24–26 June 2003*, pages 337–347. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. CODEN ???? ISSN ????

Chevallier-Mames:2003:FDS

[4764] Benoît Chevallier-Mames, Marc Joye, and Pascal Paillierinst. Faster double-size modular multiplication from Euclidean multipliers. *Lecture Notes in Computer Science*, 2779:214–227, 2003. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Ciet:2003:PFI

[4765] M. Ciet, M. Neve, E. Peeters, and J.-J. Quisquater. Parallel FPGA implementation of RSA with residue number systems — can side-channel threats be avoided? In *MWSCAS '03. Proceedings of the 46th IEEE International Midwest Symposium on Circuits and Systems*, volume 2, pages 806–810. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. CODEN ???? ISSN ????

Constantinides:2003:BRB

[4766] George A. Constantinides. Book review: *Computer Arithmetic Algorithms*, by Israel Koren. A. K. Peters. *SIGACT News (ACM Special Interest Group on Automata and Computability Theory)*, 34(3):13–15, September 2003. CODEN SIGNDM. ISSN 0163-5700 (print), 1943-5827 (electronic). See [3178, 4655].

Constantinides:2003:SSA

[4767] G. A. Constantinides, P. Y. K. Cheung, and W. Luk. Synthesis of saturation arithmetic architectures. *ACM Transactions on Design Automation of Electronic Systems.*, 8(3):334–354, July 2003. CODEN ATASFO. ISSN 1084-4309 (print), 1557-7309 (electronic).

Conway:2003:NCB

[4768] R. Conway and J. Nelson. New CRT-based RNS converter using restricted moduli set. *IEEE Transactions on Computers*, 52(5):572–578, May 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1197124.

Cornea:2003:DSR

[4769] M. Cornea, J. Harrison, C. Iordache, B. Norin, and S. Story. Division, square root and remainder algorithms for the Intel Itanium architecture. Report, Intel Corporation, Santa Clara, CA, USA, November 2003.

Cotofana:2003:CAR

[4770] Sorin Cotofana, Casper Lageweg, and Stamatis Vassiliadis. On computing addition related arithmetic operations via controlled transport of charge. In Bajard and Schulte [7980], pages 245–252. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Cotofana.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Cowlishaw:2003:DAE

[4771] Mike Cowlishaw. Decimal arithmetic encoding strawman 4d. Report Version 0.96, IBM UK Laboratories, Hursley, UK, February 21, 2003. URL http://www2.hursley.ibm.com/decimal/decbits.pdf.

Cowlishaw:2003:DFP

[4772] Michael F. Cowlishaw. Decimal floating-point: algorism for computers. In Bajard and Schulte [7980], pages 104–111. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Cowlishaw.pdf; http://www.dec.usc.es/arith16/papers/paper-107.pdf; http://www2.hursley.ibm.com/decimal/IEEE-cowlishaw-arith16.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Daneshbeh:2003:UBS

[4773] Amir.K. Daneshbeh and M. A. Hasan. A unidirectional bit serial systolic architecture for double-basis division over GF(2^m). In Bajard and Schulte [7980], pages 174–180. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Daneshbeh.pdf`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Daumas:2003:FRR

[4774] Marc Daumas and David W. Matula. Further reducing the redundancy of a notation over a minimally redundant digit set. *Journal of VLSI Signal Processing*, 33(1–2):7–18, January 2003. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Defour:2003:FEA

[4775] David Defour. *Fonctions Élémentaires: Algorithmes et Implémentations Efficaces pour l'Arrondi Correct en Double Précision. (French) [Elementary Functions: Efficient Algorithms and Implementations for Correct Rounding in Double Precision]*. PhD thesis, L'École Normale Supérieure de Lyon, Lyon, France, September 9, 2003. viii + 133 pp. URL `http://gala.univ-perp.fr/ddefour/research/thesis_dd.pdf`; `http://www.ens-lyon.fr/LIP/Pub/Rapports/PhD/PhD2003/PhD2003-01.ps.gz`; `https://theses.hal.science/tel-00006022v1`.

Demmel:2003:AEF

[4776] James Demmel and Yozo Hida. Accurate and efficient floating point summation. *SIAM Journal on Scientific Computing*, 25(4):1214–1248, December 5, 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/40762`.

Demmel:2003:CAF

[4777] James Demmel. The complexity of accurate floating point computation. *arXiv.org*, ??(??):??, May 1, 2003. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/math/0305004`. Published in Proceedings of the ICM, Beijing 2002, vol. 3, 697–706.

Deshmukh:2003:HPS

[4778] R. G. Deshmukh and Hatim Ghazi Zaini. High performance signal processing through computational enhancement and hardware integration. Technical report, Florida Institute of Technology, Melbourne, FL, USA, 2003. 320 pp. Order Number AAI3099386.

Detrey:2003:VLL

[4779] Jérémie Detrey and Florent de Dinechim. A VHDL library of LNS operators. In Matthews [7988], pages 2227–2231. ISBN 0-7803-8104-1. LCCN ???? URL http://perso.ens-lyon.fr/jeremie.detrey/FPLibrary/; http://perso.ens-lyon.fr/jeremie.detrey/publications/DetDin2003:asilomar.pdf. IEEE catalog number 03CH37493.

DiBrino:2003:FPP

[4780] M. DiBrino and F. Karim. Floating-point pipeline with leading zeros anticipator circuit. US Patent 6542915, April 2003.

Ercegovac:2003:CDP

[4781] Miloš Ercegovac and Jean-Michel Muller. Complex division with prescaling of operands. In Deprettere [7982], pages 304–314. ISBN 0-7695-1992-X. ISSN 1063-6862. LCCN TK7874.6 .I58 2003. IEEE Computer Society Order Number PR01992.

Ercegovac:2003:DRA

[4782] M. D. Ercegovac and Jean-Michel Muller. Digit-recurrence algorithms for division and square root with limited precision primitives. In *Conference Record of the Thirty-Seventh Asilomar Conference on Signals, Systems and Computers, 2003*, volume 2, pages 1440–1444. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. CODEN ???? ISSN ????

Erdem:2003:LRV

[4783] Serdar S. Erdem and Çetin K. Koç. A less recursive variant of Karatsuba–Ofman algorithm for multiplying operands of size a power of two. In Bajard and Schulte [7980], pages 28–35. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Erdem.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Erle:2003:DMC

[4784] M. A. Erle and M. J. Schulte. Decimal multiplication via carry-save addition. In Deprettere [7982], pages 348–358. ISBN 0-7695-1992-X.

ISSN 1063-6862. LCCN TK7874.6 .I58 2003. URL http://mesa.ece.wisc.edu/publications/cp_2003-03.pdf. IEEE Computer Society Order Number PR01992.

Even:2003:PEA

[4785] Guy Even, Peter-Michael Seidel, and Warren E. Ferguson. A parametric error analysis of Goldschmidt's division algorithm. In Bajard and Schulte [7980], pages 165–171. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Even.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Even:2003:PMD

[4786] Guy Even and Peter-Michael Seidel. Pipelined multiplicative division with IEEE rounding. In *Proceedings of the 21st International Conference on Computer Design*, pages 240–245. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. CODEN ???? ISBN 0-7695-2025-1. ISSN 1063-6404.

Fahmy:2003:CRF

[4787] Hossam A. H. Fahmy and Michael J. Flynn. The case for a redundant format in floating point arithmetic. In Bajard and Schulte [7980], pages 95–102. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Fahmy.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Fahmy:2003:RDF

[4788] Hossam A. H. Fahmy. *A redundant digit floating point system*. Ph.D. dissertation, Department of Computer Science, Stanford University, Stanford, CA, USA, November 2003. 146 pp. URL http://wwwlib.umi.com/dissertations/fullcit/3090583.

Fang:2003:FPE

[4789] Claire Fang Fang, Tsuhan Chen, and Rob A. Rutenbar. Floating-point error analysis based on affine arithmetic. In IEEE [7984], pages 561–564. ISBN 0-7803-7663-3. LCCN TK7882.S65 I16 2003. URL http://amp.ece.cmu.edu/Publication/Fang/icassp2003_fang.pdf. IEEE catalog number 03CH37404.

Fernandez:2003:FPA

[4790] José-Jesús Fernández, Inmaculada García, and Ester M. Garzón. Floating point arithmetic teaching for computational science. *Future Generation Computer Systems*, 19(8):1321–1334, November 2003. CODEN FGSEVI. ISSN 0167-739X (print), 1872-7115 (electronic).

Fousse:2003:AST

[4791] L. Fousse and P. Zimmermann. Accurate summation: Towards a simpler and formal proof. In Anonymous [7979], pages 97–108. ISBN ???? LCCN ????

Frougny:2003:LMR

[4792] Christiane Frougny and Athasit Surarerks. On-line multiplication in real and complex base. In Bajard and Schulte [7980], pages 212–219. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Frougny.pdf`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Gansner:2003:SMB

[4793] Emden R. Gansner and John H. Reppy. *The Standard ML Basis Manual*. Cambridge University Press, Cambridge, UK, 2003. ISBN ???? ???? pp. LCCN ????

Gavrilova:2003:ESC

[4794] M. L. Gavrilova. An explicit solution for computing the Euclidean d-dimensional Voronoi diagram of spheres in a floating-point arithmetic. In *Computational science and its applications—ICCSA 2003. Part III*, volume 2669 of *Lecture Notes in Computer Science*, pages 827–835. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2003.

Geddes:2003:EFH

[4795] Keith O. Geddes and Wei Wei Zheng. Exploiting fast hardware floating point in high precision computation. In Senda [7989], pages 111–118. ISBN 1-58113-641-2. LCCN QA76.95. ACM order number 505030.

Geiselmann:2003:RRD

[4796] W. Geiselmann and R. Steinwandt. A redundant representation of $GF(q^n)$ for designing arithmetic circuits. *IEEE Transactions on*

Computers, 52(7):848–853, July 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1214334.

Gerwig:2003:HPF

[4797] Guenter Gerwig, Holger Wetter, Eric M. Schwarz, and Juergen Haess. High performance floating-point unit with 116 bit wide divider. In Bajard and Schulte [7980], pages 87–94. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Gerwig.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Goldberg:2003:WEC

[4798] David Goldberg. What every computer scientist should know about floating-point
arithmetic. Oracle Web site., 2003. URL https://docs.oracle.com/cd/E19060-01/stud8.compiler/817-0932/ncg_goldberg.html. This is a reprint of [2760] with a new section, *Differences Among IEEE 754 Implementations*, by Doug Priest.

Grabmeier:2003:CAH

[4799] Johannes Grabmeier, Erich Kaltofen, and Volker Weispfenning, editors. *Computer algebra handbook: foundations, applications, systems*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2003. ISBN 3-540-65466-6. xx + 637 pp. LCCN QA155.7.E4 C64954 2003. URL http://www.springer.com/sgw/cda/frontpage/0,11855,1-102-22-1477871-0,00.html. Includes CD-ROM.

Grossschadl:2003:ASL

[4800] Johann Großschädl. Architectural support for long integer modulo arithmetic on RISC-based Smart Cards. *The International Journal of High Performance Computing Applications*, 17(2):135–146, Summer 2003. CODEN IHPCFL. ISSN 1094-3420 (print), 1741-2846 (electronic).

Hanrot:2003:DRF

[4801] G. Hanrot, J. Rivat, G. Tenenbaum, and P. Zimmermann. Density results on floating-point invertible numbers. *Theoretical Computer Science*, 291 (2):135–141, 2003. CODEN TCSDIQ. ISSN 0304-3975 (print), 1879-2294 (electronic). Real numbers and computers (Schloss Dagstuhl, 2000).

Harrison:2003:FVS

[4802] John Harrison. Formal verification of square root algorithms. *Formal Methods in System Design*, 22(2):143–153, March 2003. CODEN FMSDE6. ISSN 0925-9856 (print), 1572-8102 (electronic). URL https://dl.acm.org/doi/abs/10.1023/A:1022973506233.

Harrison:2003:ICC

[4803] John Harrison. Isolating critical cases for reciprocals using integer factorization. In Bajard and Schulte [7980], pages 148–157. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Harrison.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Holmes:2003:PTC

[4804] Neville Holmes. The profession: Truth and clarity in arithmetic. *Computer*, 36(2):108, 106–107, February 2003. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). URL http://csdl.computer.org/dl/mags/co/2003/02/r2108.htm; http://csdl.computer.org/dl/mags/co/2003/02/r2108.pdf.

Huang:2003:HPL

[4805] Zhijun Huang and Miloš D. Ercegovac. High-performance left-to-right array multiplier design. In Bajard and Schulte [7980], pages 4–11. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Huang.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Intel:2003:DSR

[4806] Intel. Divide, square root, and remainder algorithms for the Itanium architecture. Intel Software Development Products, December 18, 2003. URL http://www.intel.com/cd/software/products/asmo-na/eng/219863.htm.

Intel:2003:NID

[4807] Intel. Non-IEEE division, square root, reciprocal, and reciprocal square root algorithms for the Intel Itanium architecture. Intel Software Development Products, December 18, 2003. URL http://www.intel.com/cd/software/products/asmo-na/eng/219864.htm.

Iordache:2003:OFP

[4808] Cristina Iordache and Ping Tak Peter Tang. An overview of floating-point support and math library on the Intel XScale architecture. In Bajard and Schulte [7980], pages 122–128. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Iordache.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Kaihara:2003:VAM

[4809] Marcelo E. Kaihara and Naofumi Takagi. A VLSI algorithm for modular multiplication/division. In Bajard and Schulte [7980], pages 220–227. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Kaihara.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Kaivola:2003:PEL

[4810] Roope Kaivola and Katherine Kohatsu. Proof engineering in the large: formal verification of Pentium(R)4 floating-point divider. *International Journal on Software Tools for Technology Transfer: STTT*, 4(3):323–334, May 2003. CODEN ???? ISSN 1433-2779 (print), 1433-2787 (electronic).

Katti:2003:LCM

[4811] R. Katti and J. Brennan. Low complexity multiplication in a finite field using ring representation. *IEEE Transactions on Computers*, 52(4):418–427, April 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1190583.

Koren:2003:SCA

[4812] Israel Koren, Yaron Koren, and Bejoy G. Oomman. Saturating counters: application and design alternatives. In Bajard and Schulte [7980], pages 228–235. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Koren.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Kornerup:2003:RSQ

[4813] Peter Kornerup. Revisiting SRT quotient digit selection. In Bajard and Schulte [7980], pages 38–45. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Kornerup.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Krithivasan:2003:MAM

[4814] S. Krithivasan and M. J. Schulte. Multiplier architectures for media processing. In Matthews [7988], pages 2193–2197. ISBN 0-7803-8104-1. LCCN ???? URL http://mesa.ece.wisc.edu/publications/cp_2003-08.pdf. IEEE catalog number 03CH37493.

Kwon:2003:LCL

[4815] Soonhak Kwon. A low complexity and a low latency bit parallel systolic multiplier over $GF(2^m)$ using an optimal normal basis of type II. In Bajard and Schulte [7980], pages 196–202. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Kwon.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Lang:2003:RRS

[4816] Tomás Lang and Elisardo Antelo. Radix-4 reciprocal square-root and its combination with division and square root. *IEEE Transactions on Computers*, 52(9):1100–1114, September 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1228508.

Lee:2003:DPL

[4817] B. Lee and N. Burgess. A dual-path logarithmic number system addition/subtraction scheme for FPGA. In Cheung et al. [7981], pages 808–817. CODEN LNCSD9. ISBN 3-540-40822-3 (softcover). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN TK7895.G36 I48 2003. URL http://link.springer-ny.com/link/service/series/0558/tocs/t2778.htm; http://www.springerlink.com/openurl.asp?genre=issue&issn=0302-9743&volume=2778; http://www.springerlink.com/openurl.asp?genre=volume&id=doi:10.1007/b12007.

Lefevre:2003:FRR

[4818] Vincent Lefèvre and Jean-Michel Muller. On-the-fly range reduction. *Journal of VLSI Signal Processing*, 33(1–2):31–35, January 2003. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Lefevre:2003:TMD

[4819] Vincent Lefèvre and Jean-Michel Muller. The Table Maker's Dilemma: our search for worst cases. World-Wide Web software project archive., October 28, 2003. URL `http://perso.ens-lyon.fr/jean-michel.muller/Intro-to-TMD.htm`.

Lefevre:2003:WCC

[4820] Vincent Lefèvre and Jean-Michel Muller. Worst cases for correct rounding for the elementary functions in double precision. Technical report, INRIA, Projet Spaces, LORIA, Campus Scientifique, B.P. 239, 54506 Vandoeuvre-lès-Nancy Cedex, France, August 14, 2003. URL `http://perso.ens-lyon.fr/jean-michel.muller/TMDworstcases.pdf`.

Li:2003:TEA

[4821] Ren-Cang Li, Sylvie Boldo, and Marc Daumas. Theorems on efficient argument reductions. In Bajard and Schulte [7980], pages 129–136. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://csdl.computer.org/comp/proceedings/arith/2003/1894/00/1894toc.htm`; `http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Li.pdf`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Liu:2003:FPC

[4822] Z. Liu, K. Dickson, and J. V. McCanny. A floating-point CORDIC based SVD processor. In *Proceedings IEEE International Conference on Application-Specific Systems, Architectures, and Processors. ASAP 2003*, pages 194–203. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003.

Mamidi:2003:AGC

[4823] S. Mamidi, M. Senthilvelan, M. J. Schulte, and S. Krithivasan. Automated generation of configurable media processors. In Matthews [7988], pages 339–343. ISBN 0-7803-8104-1. LCCN ???? URL `http://mesa.ece.wisc.edu/publications/cp_2003-09.pdf`. IEEE catalog number 03CH37493.

Markstein:2003:ASC

[4824] Peter Markstein. Accelerating sine and cosine evaluation with compiler assistance. In Bajard and Schulte [7980], pages 137–140. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Markstein.pdf`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Markstein:2003:FQP

[4825] Peter Markstein. A fast quad precision elementary function library for Itanium. In Anonymous [7979], pages 5–12. ISBN ???? LCCN ????

Matula:2003:BFM

[4826] David W. Matula and Lee D. McFearin. A $p \times p$ bit fraction model of binary floating point division and extremal rounding cases. *Theoretical Computer Science*, 291(2):159–182, 2003. CODEN TCSDIQ. ISSN 0304-3975 (print), 1879-2294 (electronic). Real numbers and computers (Schloss Dagstuhl, 2000).

Matula:2003:CAA

[4827] David W. Matula. Computer arithmetic — an algorithm engineer's perspective. In Bajard and Schulte [7980], page 2. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Matula_keynote.pdf`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Matula:2003:PID

[4828] David W. Matula and Alex Fit-Florea. Prescaled integer division. In Bajard and Schulte [7980], pages 63–68. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Matula.pdf`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

McCann:2003:SDA

[4829] Mark McCann and Nicholas Pippenger. SRT division algorithms as dynamical systems. In Bajard and Schulte [7980], pages 46–53. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6

.S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_McCann.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Montgomery:2003:FEC

[4830] Peter L. Montgomery Kirsten Eisenträger, Kristin Lauter. Fast elliptic curve arithmetic and improved Weil pairing evaluation. *Lecture Notes in Computer Science*, 2612:343–354, 2003. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Muller:2003:SRS

[4831] Jean-Michel Muller. "Partially rounded" small-order approximations for accurate, hardware-oriented, table-based methods. In Bajard and Schulte [7980], pages 114–121. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Muller.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Nannarelli:2003:PDT

[4832] A. Nannarelli, G. C. Cardarilli, and M. Re. Power-delay tradeoffs in residue number system. In *ISCAS '03, Proceedings of the 2003 International Symposium on Circuits and Systems, 25–28 May 2003*, volume 5, pages V–413–V–416. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. CODEN ???? ISSN ????

Nievergelt:2003:SFM

[4833] Yves Nievergelt. Scalar fused multiply-add instructions produce floating-point matrix arithmetic provably accurate to the penultimate digit. *ACM Transactions on Mathematical Software*, 29(1):27–48, March 2003. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Okeya:2003:WNM

[4834] Katsuyuki Okeya and Tsuyoshi Takagi. The width-w NAF method provides small memory and fast elliptic scalar multiplications secure against side channel attacks. *Lecture Notes in Computer Science*, 2612:328–342, 2003. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Oklobdzija:2003:EDE

[4835] Vojin G. Oklobdzija, Bart R. Zeydel, Hoang Dao, Sanu Mathew, and Ram Krishnamurthy. Energy-delay estimation technique for high-performance microprocessor VLSI adders. In Bajard and Schulte [7980], pages 272–279. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Oklobdzija.pdf`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Oklobdzija:2003:TDP

[4836] V. G. Oklobdzija and R. Krishnamurthy. Tutorial: Design of power efficient VLSI arithmetic: speed and power trade-offs. In Bajard and Schulte [7980], page 280. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.dec.usc.es/arith16/; https://ieeexplore.ieee.org/servlet/opac?punumber=8582`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

ORourke:2003:ANM

[4837] C. O'Rourke and B. Sunar. Achieving NTRU with Montgomery multiplication. *IEEE Transactions on Computers*, 52(4):440–448, April 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1190585`.

Parhami:2003:TUB

[4838] B. Parhami. Tight upper bounds on the minimum precision required of the divisor and the partial remainder in high-radix division. *IEEE Transactions on Computers*, 52(11):1509–1514, November 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1244949`.

Paschalakis:2003:DPF

[4839] S. Paschalakis and P. Lee. Double precision floating-point arithmetic on FPGAs. In IEEE [7985], pages 352–358. ISBN 0-7803-8320-6. LCCN TK7895.G36 I143 2003. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8988`.

Percival:2003:RMM

[4840] Colin Percival. Rapid multiplication modulo the sum and difference of highly composite numbers. *Mathematics of Computation*, 72(241):387–

395, January 2003. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.ams.org/journal-getitem?pii=S0025-5718-02-01419-9; http://www.ams.org/mcom/2003-72-241/S0025-5718-02-01419-9/S0025-5718-02-01419-9.dvi; http://www.ams.org/mcom/2003-72-241/S0025-5718-02-01419-9/S0025-5718-02-01419-9.pdf; http://www.ams.org/mcom/2003-72-241/S0025-5718-02-01419-9/S0025-5718-02-01419-9.ps; http://www.ams.org/mcom/2003-72-241/S0025-5718-02-01419-9/S0025-5718-02-01419-9.tex.

Phillips:2003:SRR

[4841] B. Phillips. Scaling and reduction in the residue number system with pairs of conjugate moduli. In *Conference Record of the Thirty-Seventh Asilomar Conference on Signals, Systems and Computers, 2003*, volume 2, pages 2247–2251. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. CODEN ???? ISSN ????

Pineiro:2003:HRI

[4842] J.-A. Piñeiro, M. D. Ercegovac, and J. D. Bruguera. High-radix iterative algorithm for powering computation. In Bajard and Schulte [7980], pages 204–211. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Pineiro.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Pineiro:2003:LHR

[4843] J.-A. Pineiro, J. D. Bruguera, and M. D. Ercegovac. On-line high-radix exponential with selection by rounding. In *2003. ISCAS '03. Proceedings of the 2003 International Symposium on Circuits and Systems. 25–28 May 2003*, volume 4, pages IV–121–IV–124. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. CODEN ???? ISSN ????

Reyhani-Masoleh:2003:EMB

[4844] A. Reyhani-Masoleh and M. A. Hasan. Efficient multiplication beyond optimal normal bases. *IEEE Transactions on Computers*, 52(4):428–439, April 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1190584.

Reyhani-Masoleh:2003:FNB

[4845] A. Reyhani-Masoleh and M. A. Hasan. Fast normal basis multiplication using general purpose processors. *IEEE Transactions on Computers*, 52 (11):1379–1390, November 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1244936`.

Reyhani-Masoleh:2003:LCB

[4846] Arash Reyhani-Masoleh and M. Anwar Hasan. On low complexity bit parallel polynomial basis multipliers. *Lecture Notes in Computer Science*, 2779:189–202, 2003. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Reyhani-Masoleh:2003:LCS

[4847] Arash Reyhani-Masoleh and M. Anwar Hasan. Low complexity sequential normal basis multipliers over $GF(2^m)$. In Bajard and Schulte [7980], pages 188–195. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Reyhani-Masoleh.pdf`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Rice:2003:NIS

[4848] Eric Rice and Richard Hughey. A new iterative structure for hardware division: the parallel paths algorithm. In Bajard and Schulte [7980], pages 54–62. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Rice.pdf`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Rodriguez-Henriquez:2003:PMB

[4849] F. Rodriguez-Henriquez and Ç. K. Koç. Parallel multipliers based on special irreducible pentanomials. *IEEE Transactions on Computers*, 52 (12):1535–1542, December 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1252850`.

Schonfelder:2003:VPA

[4850] J. L. Schonfelder. Variable precision arithmetic: a Fortran 95 module. *Scientific Programming*, 11(1):67–76, 2003. CODEN SCIPEV. ISSN 1058-9244 (print), 1875-919X (electronic).

Schulte:2003:CMS

[4851] M. J. Schulte, L. P. Marquette, S. Krithivasan, E. G. Walters, and J. Glossner. Combined multiplication and sum of squares units. In Deprettere [7982], pages 204–214. ISBN 0-7695-1992-X. ISSN 1063-6862. LCCN TK7874.6 .I58 2003. URL http://mesa.ece.wisc.edu/publications/cp_2003-02.pdf. IEEE Computer Society Order Number PR01992.

Schwarz:2003:HID

[4852] Eric M. Schwarz, Martin Schmookler, and Son Dao Trong. Hardware implementations of denormalized numbers. In Bajard and Schulte [7980], pages 70–78. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Schwarz.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Schwarz:2003:PRI

[4853] E. Schwarz. Panel: Revisions to the IEEE 754 standard for floating-point arithmetic. In Bajard and Schulte [7980], page 112. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.dec.usc.es/arith16/; https://ieeexplore.ieee.org/servlet/opac?punumber=8582. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Seidel:2003:MPI

[4854] Peter-Michael Seidel. Multiple path IEEE floating-point fused multiply-add. In *2003 IEEE International Symposium on Micro-NanoMechatronics and Human Science*, volume 3, pages 1359–1362. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. ISBN ???? LCCN ????

Senthilvelan:2003:FAL

[4855] M. Senthilvelan and M. J. Schulte. A flexible arithmetic and logic unit for multimedia processing. In Luk [7987], pages 520–528. ISBN 0-8194-5078-2. LCCN TK5102.5 .A3322 2003; TK5102.5 .A3325 2003; TK5102.9 .A38 2003; TK5102.5; TS510 .S63; TK5102.5 .A3173 2003eb. URL http://mesa.ece.wisc.edu/publications/cp_2003-05.pdf.

Sheldon:2003:SRI

[4856] Jeffrey Sheldon, Walter Lee, Ben Greenwald, and Saman Amarasinghe. Strength reduction of integer division and modulo operations. In

Dietz [7983], pages 254–273. CODEN LNCSD9. ISBN 3-540-04029-3 (paperback). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.58 .W656 2001. URL http://www.springerlink.com/link.asp?id=3hfwyuyjxkf23nd2; http://www.springerlink.com/openurl.asp?genre=article&issn=0302-9743&volume=2624&spage=254. The 14th workshop on Languages and Compilers for Parallel Computing, LCPC 2001, was organized and hosted by the Electrical and Computer Engineering Department of the University of Kentucky, Lexington, KY, USA.

Singer:2003:REP

[4857] Sanja Singer and Saša Singer. Rounding error and perturbation bounds for the symplectic QR factorization. *Linear Algebra and its Applications*, 358(1–3):255–279, January 1, 2003. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.elsevier.nl/gej-ng/10/30/19/207/25/39/abstract.html; http://www.sciencedirect.com/science?_ob=GatewayURL&_origin=SOCJLA&_urlversion=4&_method=citationSearch&_version=1&_piikey=S002437950200263X&_volkey=00243795%23358%23255&_refkey=Singer%232003%23255%23279&md5=d630d009cc24a902e31bc6f9537af08c.

Smith:2003:UMP

[4858] David M. Smith. Using multiple-precision arithmetic. *Computing in Science and Engineering*, 5(4):88–93, July/August 2003. CODEN CSENFA. ISSN 1521-9615 (print), 1558-366X (electronic). URL http://csdl.computer.org/dl/mags/cs/2003/04/c4088.htm; http://csdl.computer.org/dl/mags/cs/2003/04/c4088.pdf.

Sofroniou:2003:IFR

[4859] Mark Sofroniou and Giulia Spaletta. Increment formulations for rounding error reduction in the numerical solution of structured differential systems. *Future Generation Computer Systems*, 19(3):375–383, April 2003. CODEN FGSEVI. ISSN 0167-739X (print), 1872-7115 (electronic).

Stehle:2003:WCL

[4860] Damien Stehlé, Vincent Lefèvre, and Paul Zimmermann. Worst cases and lattice reduction. In Bajard and Schulte [7980], pages 142–147. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Stehle.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Sun:2003:NAF

[4861] Haiping Sun and Minglun Gao. A novel architecture for floating-point multiply-add-fused operation. In IEEE [8003], pages 1675–1679. ISBN 0-7803-8185-8. LCCN TK5102.9 .J65 2003. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9074`. IEEE catalog number 03EX758.

Suvakovic:2003:EEA

[4862] Dusan Suvakovic and C. André T. Salama. Energy efficient adiabatic multiplier-accumulator design. *Journal of VLSI Signal Processing*, 33 (1):83–103, January 2003. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Swider:2003:EEF

[4863] Zbigniew Świder. Errors of elementary floating-point operations in control algorithms. *Arch. Control Sci.*, 13(49)(4):505–526, 2003. ISSN 0004-072X.

Tan:2003:MPF

[4864] Dimitri Tan, Albert Danysh, and Michael Liebelt. Multiple-precision fixed-point vector multiply-accumulator using shared segmentation. In Bajard and Schulte [7980], pages 12–19. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Tan.pdf`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Tenca:2003:SAM

[4865] A. F. Tenca and C. K. Koc. A scalable architecture for modular multiplication based on Montgomery's algorithm. *IEEE Transactions on Computers*, 52(9):1215–1221, September 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1228516`.

Thomas:2003:IMF

[4866] James W. Thomas. Inlining of mathematical functions in HP-UX for Itanium 2. In IEEE [7986], pages 135–144. ISBN 0-7695-1913-X. LCCN ???? ACM Order No. 530033.

Vergos:2003:DRA

[4867] H. T. Vergos, D. Nikolos, M. Bellos, and C. Efstathiou. Deterministic BIST for RNS adders. *IEEE Transactions on Computers*, 52(7):896–906, July 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956

(electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1214338.

Wahid:2003:EFA

[4868] K. A. Wahid, V. S. Dimitrov, and G. A. Jullien. Error-free arithmetic for discrete wavelet transforms using algebraic integers. In Bajard and Schulte [7980], pages 238–244. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL http://www.acsel-lab.com/arithmetic/arith16/papers/ARITH16_Jullien.pdf. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Walters:2003:UTM

[4869] E. Walters III, M. G. Arnold, and M. J. Schulte. Using truncated multipliers in DCT and IDCT hardware accelerators. In Luk [7987], pages 573–584. ISBN 0-8194-5078-2. LCCN TK5102.5 .A3322 2003; TK5102.5 .A3325 2003; TK5102.9 .A38 2003; TK5102.5; TS510 .S63; TK5102.5 .A3173 2003eb. URL http://mesa.ece.wisc.edu/publications/cp_2003-06.pdf.

Wang:2003:TDF

[4870] Xiaojun Wang and B. E. Nelson. Tradeoffs of designing floating-point division and square root on Virtex FPGAs. In *FCCM 2003: 11th Annual IEEE Symposium on Field-Programmable Custom Computing Machines, 9–11 April 2003*, pages 195–203. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. CODEN ???? ISSN ????

Warren:2003:DLD

[4871] Henry S. Warren. The distribution of leading digits. In *Hacker's delight* [7990], chapter 15.3, pages 264–267. ISBN 0-201-91465-4. LCCN QA76.6 .W375 2003. URL http://www.awprofessional.com/bookstore/product.asp?isbn=0201914654; http://www.hackersdelight.org/; http://www.hackersdelight.org/hackerTOC.pdf; http://www.informit.com/content/images/chap3_0201914654/elementLinks/0201914654.pdf. While this book does not specifically address computational aspects of floating-point arithmetic (apart from the nine-page Chapter 15), it has extensive coverage of, and clever algorithms for, integer arithmetic operations that are fundamental for implementing hardware floating-arithmetic and software multiple-precision arithmetic.

Wei:2003:REE

[4872] Musheng Wei and Qiaohua Liu. Roundoff error estimates of the modified Gram–Schmidt algorithm with column pivoting. *BIT Numerical Mathematics*, 43(3):627–645, September 2003. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=43&issue=3&spage=627.

Yan:2003:NSA

[4873] Z. Yan and D. V. Sarwate. New systolic architectures for inversion and division in GF(2^{m}). *IEEE Transactions on Computers*, 52(11):1514–1519, November 2003. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1244950.

Zhang:2003:DRV

[4874] Chang N. Zhang and Hua Li. Design of reconfigurable VLSI architecture for hybrid arithmetic in $GF(2^m)$. *The Computer Journal*, 46(4):449–460, July 2003. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://www3.oup.co.uk/computer_journal/hdb/Volume_46/Issue_04/460449.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_46/Issue_04/pdf/460449.pdf.

Zielke:2003:GLL

[4875] Gerhard Zielke and Volker Drygalla. Genaue Lösung linearer Gleichungssysteme. (German) [Exact solution of linear systems of equations]. *Mitteilungen der Gesellschaft f ür Angewandte Mathematik und Mechanik*, 26(??):7–107, ???? 2003. ISSN 0936-7195. URL http://www.wiley-vch.de/publish/en/journals/alphabeticIndex/2250/.

Ziv:2003:SGM

[4876] Abraham Ziv and Laurent Fournier. Solving the generalized mask constraint for test generation of binary floating point add operation. *Theoretical Computer Science*, 291(2):183–201, January 27, 2003. CODEN TCSDIQ. ISSN 0304-3975 (print), 1879-2294 (electronic). Real numbers and computers (Schloss Dagstuhl, 2000).

Ziv:2003:SRC

[4877] Abraham Ziv, Merav Aharoni, and Sigal Asaf. Solving range constraints for binary floating-point instructions. In Bajard and Schulte [7980], pages 158–164. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.dec.usc.es/arith16/; https://ieeexplore.ieee.org/servlet/opac?punumber=8582`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Abbasbandy:2004:USA

[4878] S. Abbasbandy and M. A. Fariborzi Araghi. The use of the stochastic arithmetic to estimate the value of interpolation polynomial with optimal degree. *Applied Numerical Mathematics*, 50(3–4):279–290, September 2004. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0168927404000066`.

Akutin:2004:HOM

[4879] Yuri Akutin, Cristina Anderson, Marius Cornea, Alexey Ershov, Eugeny Gladkov, Evgeny Gvozdev, Bob Hanek, John Harrison, Alexander Isaev, Andrey Kolesov, Alexey Kovalev, Elena Luneva, Sergey Maidanov, Andrey Naraikin, Bob Norin, Pavel Shelepugin, Vladimir Sorokin, Shane Story, and Ping Tak Peter Tang. Highly optimized mathematical functions for the IA-64 architecture. Application note 245410-011, Intel Corporation, Santa Clara, CA, USA, December 16, 2004. 14 pp. URL `ftp://download.intel.com/software/opensource/numerics/libm.pdf; http://www.intel.com/cd/software/products/asmo-na/eng/219868.htm; http://www.intel.com/cd/software/products/asmo-na/eng/219871.htm?prn=y`.

Altman:2004:NIS

[4880] Micah Altman, Jeff Gill, and Michael McDonald. *Numerical Issues in Statistical Computing for the Social Scientist*. Wiley, New York, NY, USA, 2004. ISBN 0-471-23633-0, 0-471-47574-2 (e-book), 0-471-47576-9 (e-book). xv + 323 pp. LCCN QA276.4 .A398 2004.

Assimakopoulos:2004:IRM

[4881] C. Assimakopoulos and F.-N. Pavlidou. Integrated rounding method for real number bit distribution over DMT systems. *Electronics Letters*, 40 (19):1235–1236, September 16, 2004. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Astola:2004:FAE

[4882] J. T. Astola, K. Egiazarian, M. Stanković, and R. S. Stanković. Fibonacci arithmetic expressions. *Automation and Remote Control*, 65(6):842–

856, June 2004. CODEN AURCAT. ISSN 0005-1179 (print), 1608-3032 (electronic).

Avot-Chotin:2004:HID

[4883] Roselyne Avot-Chotin and Habib Mehrez. Hardware implementation of discrete stochastic arithmetic. *Numerical Algorithms*, 37(1–4):21–33, December 2004. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL http://ipsapp009.kluweronline.com/IPS/content/ext/x/J/5058/I/58/A/3/abstract.htm.

Bachega:2004:HPS

[4884] L. Bachega, Siddhartha Chatterjee, K. A. Dockser, J. A. Gunnels, Manish Gupta, F. G. Gustavson, C. A. Lapkowski, G. K. Liu, M. P. Mendell, C. D. Wait, and T. J. C. Ward. A high-performance SIMD floating point unit for BlueGene/L: architecture, compilation, and algorithm design. In *PACT 2004. Proceedings. 13th International Conference on Parallel Architecture and Compilation Techniques, 29 Sept.–3 Oct. 2004*, pages 85–96. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Bajard:2004:FRI

[4885] J.-C. Bajard and L. Imbert. A full RNS implementation of RSA. *IEEE Transactions on Computers*, 53(6):769–774, June 2004. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1288551.

Bernstein:2004:FPA

[4886] Daniel J. Bernstein. Floating-point arithmetic and message authentication, September 18, 2004. URL https://cr.yp.to/antiforgery/hash127-20040918.pdf. To be incorporated into the author's *High-Speed Cryptography* book. [As of 13 May 2024, this book seems not to have been published.].

Bernstein:2004:RRH

[4887] Daniel J. Bernstein. Removing redundancy in high-precision Newton iteration. Technical report, Department of Mathematics, Statistics, and Computer Science (M/C 249), The University of Illinois at Chicago, Chicago, IL 60607-7045, March 9, 2004. 2 pp. URL http://cr.yp.to/fastnewton.html; http://cr.yp.to/fastnewton/fastnewton-20040309.pdf. See also [4950].

Bernstein:2004:SRT

[4888] Daniel J. Bernstein. Scaled remainder trees. Report, University of Sydney, Sydney, NSW, Australia, April 20, 2004. URL http://cr.yp.to/arith/scaledmod-20040820.pdf. Draft for *Mathematics of Computation*, but never published in that journal.

Bertin:2004:FPL

[4889] C. Bertin, Nicolas Brisebarre, B. Dupont de Dinechin, C.-P. Jeannerod, C. Monat, Jean-Michel Muller, S. Raina, and A. Tisserand. A floating-point library for integer processors. Research Report RR2004-37, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, July 2004. 2 + 11 pp. URL http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-37.ps.gz.

Beuchat:2004:FMM

[4890] Jean-Luc Beuchat. A family of modulo $(2^n + 1)$ multipliers. Research Report RR2004-39, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, 2004. 2 + 13 pp. URL http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-39.ps.gz.

Boggs:2004:MIP

[4891] Darrell Boggs, Aravindh Baktha, Jason Hawkins, Deborah T. Marr, J. Alan Miller, Patrice Roussel, Ronak Singhal, Bret Toll, and K. S. Venkatraman. The microarchitecture of the Intel(R) Pentium(R) 4 processor on 90nm technology. *Intel Technology Journal*, 8(1):1–17, February 2004. URL http://developer.intel.com/technology/itj/2004/volume08issue01/foreword.htm.

Boldo:2004:BGB

[4892] Sylvie Boldo. Bridging the gap between formal specification and bit-level floating-point arithmetic. In Frougny et al. [7991], pages 22–36. ISSN 0944-0488. URL http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_04_boldo.pdf. Forschungsbericht Nr. 04-8.

Boldo:2004:PFA

[4893] Sylvie Boldo. *Preuves formelles en arithmétiques à virgule flottante. (French) [Formal proofs in floating-point arithmetic]*. Ph.D. thesis, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, November 2004. ???? pp.

Boldo:2004:PTC

[4894] Sylvie Boldo and Marc Daumas. Properties of two's complement floating point notations. *International Journal on Software Tools for Technology*

Transfer: STTT, 5(2–3):237–246, March 2004. CODEN ???? ISSN 1433-2779 (print), 1433-2787 (electronic). URL http://perso.ens-lyon.fr/marc.daumas/SoftArith/BolDau04a.pdf.

Boldo:2004:STQ

[4895] Sylvie Boldo and Marc Daumas. A simple test qualifying the accuracy of Horner's rule for polynomials. *Numerical Algorithms*, 37(1–4):45–60, December 2004. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). SCAN2002 International Conference (Guest Editors: Rene Alt and Jean-Luc Lamotte).

Boldo:2004:WDR

[4896] Sylvie Boldo and Guillaume Melquiond. When double rounding is odd. Research Report RR2004-48, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, November 2004. 2 + 7 pp. URL http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-48.pdf; https://inria.hal.science/inria-00070603v2/file/BolMel.pdf.

Brisebarre:2004:ACR

[4897] Nicolas Brisebarre, Jean-Michel Muller, and Saurabh Kumar Raina. Accelerating correctly rounded floating-point division when the divisor is known in advance. *IEEE Transactions on Computers*, 53(8):1069–1072, August 2004. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1306999.

Brisebarre:2004:CRM

[4898] Nicolas Brisebarre and Jean-Michel Muller. Correctly rounded multiplication by arbitrary precision constants. Research Report RR2004-44, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, October 2004. 2 + 14 pp. URL http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-44.pdf.

Bruguera:2004:DDF

[4899] Javier D. Bruguera and Tomás Lang. Double-datapath floating-point multiply-add fused: latency reduction for floating-point addition. Report, Grupo de Arquitectura de Computadores, Universidad de Santiago de Compostela, Edificio Monte de la Condesa, Campus Sur, 15782 Santiago de Compostela, Spain, 2004. 24 pp. URL http://www-gpaa.dec.usc.es/arquivos/articulos/2004/gac2004-i03.ps; http://www.ac.usc.es/arquivos/articulos/2004/gac2004-i03.ps.

Busaba:2004:DFP

[4900] Fadi Busaba, Timothy Slegel, Steven Carlough, Christopher Krygowski, and John G. Rell. The design of the fixed point unit for the z990 microprocessor. In ACM [7993], pages 364–367. ISBN 1-58113-853-9. LCCN ????

Cagnard:2004:ABF

[4901] B. Cagnard and P. Simonnet. Automata, Borel functions and real numbers in Pisot base. In Frougny et al. [7991], pages 37–54. ISSN 0944-0488. URL http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_05_cagnard.pdf. Forschungsbericht Nr. 04-8.

Cao:2004:DRB

[4902] B. Cao, T. Srikanthan, and Chip-Hong Chang. Design of residue-to-binary converter for a new 5-moduli superset residue number system. In *ISCAS '04, Proceedings of the 2004 International Symposium on Circuits and Systems, 23–26 May 2004*, volume 2, pages II–841–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. CODEN ???? ISSN ????

Cardarilli:2004:LPI

[4903] G. C. Cardarilli, A. Del Re, A. Nannarelli, and M. Re. Low-power implementation of polyphase filters in Quadratic Residue Number system. In *ISCAS '04, Proceedings of the 2004 International Symposium on Circuits and Systems, 23–26 May 2004*, volume 2, pages II–725–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. CODEN ???? ISSN ????

Chakraborty:2004:GAL

[4904] M. Chakraborty and A. Mitra. The gradient adaptive lattice algorithm in block floating point format. In *Proceedings. (ICASSP '04). IEEE International Conference on Acoustics, Speech, and Signal Processing, 17–21 May 2004*, volume 2, pages II–849–II–852. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Chirca:2004:SLP

[4905] K. Chirca, M. Schulte, J. Glossner, S. Mamidi, and S. Vassiliadis. A static low-power, high-performance 32-bit carry skip adder. In Selvaraj [8005], pages 615–619. ISBN 0-7695-2203-3. LCCN QA76.9.S88 E97 2004; QA76.9.S88. URL http://mesa.ece.wisc.edu/publications/cp_2004-12.pdf.

Clinger:2004:HRF

[4906] William D. Clinger. How to read floating point numbers accurately. *ACM SIGPLAN Notices*, 39(4):360–371, April 2004. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Clinger:2004:RHR

[4907] William D. Clinger. Retrospective: How to read floating point numbers accurately. *ACM SIGPLAN Notices*, 39(4):360–371, April 2004. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). Best of PLDI 1979–1999. Reprint of, and retrospective on, [2563].

Cowlishaw:2004:FFE

[4908] Mike Cowlishaw, Joshua Bloch, and Joseph D. Darcy. Fixed, floating, and exact computation in Java's *BigDecimal*: Calculations just got easier. *Dr. Dobb's Journal of Software Tools*, 29(7):22, 24, 26–27, July 2004. CODEN DDJOEB. ISSN 1044-789X.

Croot:2004:ACC

[4909] Ernie Croot, Ren-Cang Li, and H. J. Hui June Zhu. The *abc* conjecture and correctly rounded reciprocal square roots. *Theoretical Computer Science*, 315(2–3):405–417, May 6, 2004. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Daumas:2004:GFCa

[4910] Marc Daumas and Guillaume Melquiond. Generating formally certified bounds on values and round-off errors. Research Report RR2004-36, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, July 2004. 2 + 24 pp. URL `http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-36.ps.gz`.

Daumas:2004:GFCb

[4911] Marc Daumas and Guillaume Melquiond. Generating formally certified bounds on values and round-off errors. In Frougny et al. [7991], pages 55–70. ISSN 0944-0488. URL `http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_06_daumas.pdf`. Forschungsbericht Nr. 04-8.

deDinechin:2004:C

[4912] Florent de Dinechin. crlibm. World-Wide Web software project archive., April 16, 2004. URL `http://lipforge.ens-lyon.fr/projects/crlibm/`.

deDinechin:2004:FCR

[4913] Florent de Dinechin, David Defour, and Christoph Lauter. Fast correct rounding of elementary functions in double precision using double-extended arithmetic. Research Report RR2004-10, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, March 2004. 2 + 12 pp. URL http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-10.pdf.

deDinechin:2004:PCR

[4914] Florent de Dinechin, Catherine Loirat, and Jean-Michel Muller. A proven correctly rounded logarithm in double-precision. In Frougny et al. [7991], pages 71–85. ISSN 0944-0488. URL http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_07_dinechin.pdf. Forschungsbericht Nr. 04-8.

deDinechin:2004:TPU

[4915] Florent de Dinechin and Nicolas Gast. Towards the post-ultimate libm. Research Report RR2004-47, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, November 2004. URL http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-47.pdf.

deFigueiredo:2004:AAC

[4916] Luiz Henrique de Figueiredo and Jorge Stolfi. Affine arithmetic: Concepts and applications. *Numerical Algorithms*, 37(1–4):147–158, December 2004. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL http://ipsapp009.kluweronline.com/IPS/content/ext/x/J/5058/I/58/A/10/abstract.htm.

Defour:2004:PSM

[4917] David Defour, Guillaume Hanrot, Vincent Lefèvre, Jean-Michel Muller, Nathalie Revol, and Paul Zimmermann. Proposal for a standardization of mathematical function implementation in floating-point arithmetic. *Numerical Algorithms*, 37(1–4):367–375, December 2004. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL http://ipsapp009.kluweronline.com/IPS/content/ext/x/J/5058/I/58/A/30/abstract.htm; http://perso.ens-lyon.fr/jean-michel.muller/NumAlg04.pdf; http://www.loria.fr/~zimmerma/papers/PropStandFunctions.pdf.

DelRe:2004:TAG

[4918] A. Del Re, A. Nannaelli, and M. Re. A tool for automatic generation of RTL-level VHDL description of RNS FIR filters. In *Proc. Design Auto.*

Test Europe (DATE), Vol. 1, Feb. 2004, page ?? ????, ????, 2004. ISBN ???? LCCN ????

Demmel:2004:AEA

[4919] James Demmel and Plamen Koev. Accurate and efficient algorithms for floating point computation. In Hill and Moore [7998], pages 73–88. ISBN 0-89871-559-8. LCCN QA7 .A6665 2004; QA7 .A67 2004; QA1 .I57 2004.

Demmel:2004:FAF

[4920] James
Demmel and Yozo Hida. Fast and accurate floating point summation with application to computational geometry. *Numerical Algorithms*, 37(1–4): 101–112, December 2004. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://ipsapp009.kluweronline.com/IPS/content/ext/x/J/5058/I/58/A/6/abstract.htm`.

Detrey:2004:SOF

[4921] Jérémie Detrey and Florent de Dinechin. Second order function approximation with a single small multiplication. Research Report RR2004-13, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, March 2004. 2 + 8 pp. URL `http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-13.ps.gz`.

Detrey:2004:TBP

[4922] Jérémie Detrey and Florent de Dinechin. Table-based polynomials for fast hardware function evaluation. Research Report November 2004, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, 2004. 2 + 11 pp. URL `http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-52.ps.gz`.

Detrey:2004:TUC

[4923] Jérémie Detrey and Florent de Dinechin. A tool for unbiased comparison between logarithmic and floating-point arithmetic. Research Report RR2004-31, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, June 2004. 2 + 16 pp. URL `http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-31.ps.gz`.

Doss:2004:FBI

[4924] C. C. Doss and R. L. Riley, Jr. FPGA-based implementation of a robust IEEE-754 exponential unit. In *FCCM 2004. 12th Annual IEEE Symposium on Field-Programmable Custom Computing Machines, 20–23 April 2004*, pages 229–238. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. CODEN ???? ISSN ????

Efstathiou:2004:MBM

[4925] C. Efstathiou, H. T. Vergos, and D. Nikolos. Modified Booth modulo $2^n - 1$ multipliers. *IEEE Transactions on Computers*, 53(3):370–374, March 2004. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1261842.

Egner:2004:CTN

[4926] Sebastian Egner, Richard A. Kelsey, and Michael Sperber. Cleaning up the tower: Numbers in Scheme. In ????, editor, *Fifth Workshop on Scheme and Functional Programming. September 22, 2004, Snowbird, Utah, USA*, page 13. ????, ????, September 22, 2004. ISBN ???? LCCN ???? URL http://www-pu.informatik.uni-tuebingen.de/users/sperber/papers/numerical-tower.pdf.

ElHajji:2004:SIL

[4927] Said El Hajji, Nathalie Revol, and Paul Van Dooren. Special issue on Linear Algebra and Arithmetic, Proceedings of the ALA'01 Conference held in Rabat, Morocco on May 28–31, 2001. *Journal of Computational and Applied Mathematics*, 162(1):ix–x, January 1, 2004. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042703007428.

Ercegovac:2004:CSRa

[4928] Miloš Ercegovac and Jean-Michel Muller. Complex square root with operand prescaling. Research Report RR2004-42, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, September 2004. 2 + 12 pp. URL http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-42.pdf.

Ercegovac:2004:CSRb

[4929] Miloš Ercegovac and Jean-Michel Muller. Complex square root with operand prescaling. In *Proceedings of the 15th IEEE International Conference on Application-Specific Systems, Architectures and Processors, 2004*, pages 52–62. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. CODEN ???? ISBN 0-7695-2226-2. ISSN 1063-6862.

Ercegovac:2004:DA

[4930] Miloš Dragutin Ercegovac and Tomás Lang. *Digital Arithmetic*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, 2004. ISBN 1-55860-798-6. xxv + 709 pp. LCCN QA76.9.C62 E72 2004.

US$89.95, UK£59.95. URL ftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/; http://www.loc.gov/catdir/description/els031/2002114337.html; http://www.loc.gov/catdir/toc/els031/2002114337.html.

Ercegovac:2004:DCD

[4931] Miloš Ercegovac and Jean-Michel Muller. Design of a complex divider. In Luk [8004], pages 51–59. ISBN 0-8194-5497-4. ISSN 0277-786X (print), 1996-756X (electronic). LCCN TK5102.5 .A3173 2004; TK5102.5 .A3322 2004.

Fousse:2004:AST

[4932] Laurent Fousse and Paul Zimmermann. Accurate summation: Towards a simpler and formal proof. Technical report, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, September 6, 2004. 11 pp. URL http://www.loria.fr/~zimmerma/papers/rnc5.pdf.

Fousse:2004:CPE

[4933] L. Fousse and S. Schmitt. A comparison of polynomial evaluation schemes. In Frougny et al. [7991], pages 86–102. ISSN 0944-0488. URL http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_08_fousse.pdf. Forschungsbericht Nr. 04-8.

Fousse:2004:FPD

[4934] Laurent Fousse and Paul Zimmermann. A formal proof of Demmel and Hida's accurate summation algorithm. Technical report, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, January 2004. 12 pp. URL http://www.loria.fr/~zimmerma/papers/tcs.ps.gz.

Frougny:2004:ICR

[4935] Christiane Frougny. Introduction: [6th conference on real numbers and computers]. In Frougny et al. [7991], pages 1–4. ISSN 0944-0488. URL http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_00_intro.pdf. Forschungsbericht Nr. 04-8.

Fuchssteiner:2004:ILN

[4936] Benno Fuchssteiner. Invited lecture: New ideas and results for solving differential equations symbolically [abstract only]. In Frougny et al. [7991], page 5. ISSN 0944-0488. URL http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_01_fuchssteiner.pdf. Forschungsbericht Nr. 04-8.

Gaffar:2004:UBW

[4937] A. A. Gaffar, O. Mencer, and W. Luk. Unifying bit-width optimisation for fixed-point and floating-point designs. In *FCCM 2004. 12th Annual IEEE Symposium on Field-Programmable Custom Computing Machines, 20–23 April 2004*, pages 79–88. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Gebali:2004:EAF

[4938] Fayez Gebali and Mohamed Watheq El-Kharashi. ERL: an algorithm for fast evaluation of exponential, reciprocal, and logarithmic functions. In Wahdan [8007], pages 269–272. IEEE catalog number 04EX893.

Gemignani:2004:REA

[4939] Luca Gemignani and Grazia Lotti. Rounding error analysis in solving M-matrix linear systems of block Hessenberg form. *Numerical Algorithms*, 36(2):157–168, June 2004. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL http://ipsapp009.kluweronline.com/IPS/content/ext/x/J/5058/I/54/A/4/abstract.htm.

Gerwig:2004:IEZ

[4940] G. Gerwig, H. Wetter, E. M. Schwarz, J. Haess, C. A. Krygowski, B. M. Fleischer, and M. Kroener. The IBM eServer z990 floating-point unit. *IBM Journal of Research and Development*, 48(3/4):311–322, ???? 2004. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/483/gerwig.html; http://www.research.ibm.com/journal/rd/483/gerwig.pdf.

Geyer:2004:DFD

[4941] Christina Lynn Geyer and Patricia Pepple Williamson. Detecting fraud in data sets using Benford's Law. *Communications in Statistics: Simulation and Computation*, B33(1):229–246, ???? 2004. CODEN CSSCDB. ISSN 0361-0918.

Gok:2004:DSP

[4942] M. Gok, M. J. Schulte, and S. Krithivasan. Designs for subword-parallel multiplications and dot product operations. In ????, editor, *Proceedings of the Workshop on Application Specific Processors, Stockholm, Sweden, August, 2004*, pages 27–31. ????, ????, 2004. ISBN ???? LCCN ????

Govindu:2004:AHP

[4943] Gokul Govindu, L. Zhuo, S. Choi, and V. Prasanna. Analysis of high-performance floating-point arithmetic on FPGAs. In *Proceedings.*

18th International Parallel and Distributed Processing Symposium, 26–30 April 2004, page 149. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Govindu:2004:HPE

[4944] G. Govindu, S. Choi, V. Prasanna, V. Daga, S. Gangadharpalli, and V. Sridhar. A high-performance and energy-efficient architecture for floating-point based LU decomposition on FPGAs. In *Proceedings. 18th International Parallel and Distributed Processing Symposium, 26–30 April 2004*, page 149. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Graillat:2004:CRC

[4945] Stef Graillat and Philippe Langlois. A comparison of real and complex pseudozero sets for polynomials with real coefficients. In Frougny et al. [7991], pages 103–112. ISSN 0944-0488. URL `http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_09_graillat.pdf`. Forschungsbericht Nr. 04-8.

Granlund:2004:GMG

[4946] Torbjörn Granlund, Gunnar Sjödin, Hans Riesel, Richard Stallman, Brian Beuning, Doug Lea, John Amanatides, Paul Zimmermann, Ken Weber, Per Bothner, Joachim Hollman, Bennet Yee, Andreas Schwab, Robert Harley, David Seal, Robert Harley, Torsten Ekedahl, Paul Zimmermann, Linus Nordberg, Kent Boortz, Kevin Ryde, Steve Root, Gerardo Ballabio, and Hans Thorsen. *GNU MP: The GNU Multiple Precision Arithmetic Library*. Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA, Tel: (617) 876-3296, version 4.1.4 edition, September 21, 2004. iv + 127 pp. URL `ftp://ftp.gnu.org/gnu/gmp/gmp-4.1.4.tar.gz; http://www.swox.se/gmp/`. GNUP MP development began in 1991. Earler versions are 1.0 (8-Aug-1991), 2.0 (24-Apr-1996), 3.0 (17-Apr-2000), and 4.0 (1-Dec-2001).

Groza:2004:DIS

[4947] V. Groza, M. Debski, and D. Ionescu. Design and implementation of a self-calibrating floating-point analog-to-digital converter. In *IMTC 04. Proceedings of the 21st IEEE Instrumentation and Measurement Technology Conference, 18–20 May 2004*, volume 1, pages 707–710. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Hack:2004:IPR

[4948] Michel Hack. On intermediate precision required for correctly-rounding decimal-to-binary floating-point conversion. In Frougny et al. [7991], pages 113–134. ISSN 0944-0488. URL `http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_10_hack.pdf`. Forschungsbericht Nr. 04-8.

Hanrot:2004:MPA

[4949] Guillaume Hanrot, Michel Quercia, and Paul Zimmermann. The middle product algorithm I. speeding up the division and square root of power series. *Applicable algebra in engineering, communication and computing*, 14(6):415–438, March 2004. CODEN AAECEW. ISSN 0938-1279 (print), 1432-0622 (electronic). URL `http://springerlink.metapress.com/content/57p2fta5k71085wm/fulltext.pdf`.

Hanrot:2004:NIR

[4950] Guillaume Hanrot and Paul Zimmermann. Newton iteration revisited. Technical report, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, March 2004. 2 pp. URL `http://www.loria.fr/~zimmerma/papers/fastnewton.ps.gz`. See [4887].

Herbst:2004:RWS

[4951] Klaus-Dieter Herbst. Rezension: *Wilhelm Schickard — Briefwechsel* von Friedrich Seck. *Berichte zur Wissenschaftsgeschichte*, 27(4):315–317, December 2004. CODEN BEWID8. ISSN 0170-6233 (print), 1522-2365 (electronic).

Hiasat:2004:SFR

[4952] Ahmad A. Hiasat. A suggestion for a fast residue multiplier for a family of moduli of the form $(2n - (2p \pm 1))$. *The Computer Journal*, 47(1):93–??, January 2004. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://www3.oup.co.uk/computer_journal/hdb/Volume_47/Issue_01/470093.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_47/Issue_01/pdf/470093.pdf`.

Hormigo:2004:CPV

[4953] Javier Hormigo, Julio Villalba, and Emilio L. Zapata. CORDIC processor for variable-precision interval arithmetic. *Journal of VLSI Signal Processing*, 37(1):21–39, May 2004. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

IBM:2004:ZAP

[4954] IBM. *z/Architecture Principles of Operation*. IBM Corporation, Department 55JA Mail Station P384, 2455 South Road Poughkeepsie, NY, 12601-5400, USA, fourth edition, May 2004. xxvi + 1124 pp. URL http://publibz.boulder.ibm.com/cgi-bin/bookmgr_OS390/download/DZ9ZR003.pdf. IBM order number SA22-7832-03.

Jeong:2004:CEP

[4955] Jong-Chul Jeong, Woo-Chan Park, Woong Jeong, Tack-Don Han, and Moon-Key Lee. A cost-effective pipelined divider with a small lookup table. *IEEE Transactions on Computers*, 53(4):489–495, April 2004. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1268407.

Kahan:2004:CFP

[4956] W. Kahan. On the cost of floating-point computation without extra-precise arithmetic. World-Wide Web document, November 20, 2004. URL http://www.cs.berkeley.edu/~wkahan/Qdrtcs.pdf. See [5581] for a proof of this algorithm for accurate computation of the discriminant needed for the solution of quadratic equations.

Kahan:2004:HFM

[4957] W. Kahan. How futile are mindless assessments of roundoff in floating-point computation? World-Wide Web document, November 1, 2004. URL http://www.cs.berkeley.edu/~wkahan/Mind1ess.pdf; http://www.cs.berkeley.edu/~wkahan/Mindless.pdf.

Kahan:2004:SSR

[4958] W. Kahan. 128 squares of 128 square roots. World-Wide Web document, January 29, 2004. URL http://www.cs.berkeley.edu/~wkahan/Math128/SqSqrts.pdf. Lecture notes for Math 128.

Kahn:2004:CEA

[4959] Ken Kahn. The child-engineering of arithmetic in ToonTalk. In Druin et al. [7997], pages 141–142. ISBN 1-58113-791-5. LCCN QA76.9.H85 C746 2004.

Kenney:2004:HFD

[4960] R. D. Kenney, M. J. Schulte, and M. A. Erle. A high-frequency decimal multiplier. In IEEE [7999], pages 26–29. ISBN 0-7695-2231-9. LCCN TK7888.4 .I23 2004. UK£121.00. URL http://mesa.ece.wisc.edu/publications/cp_2004-05.pdf.

Kenney:2004:MDA

[4961] Robert D. Kenney, Michael J. Schulte, and Mark A. Erle. Multioperand decimal addition. In Smailagic and Bayoumi [8006], pages 251–253. ISBN 0-7695-2097-9. LCCN TK7874 .I122 2004. URL `http://mesa.ece.wisc.edu/publications/cp_2004-07.pdf`. IEEE Computer Society order number P2097.

Kim:2004:AAA

[4962] Hyun-Sung Kim and Kee-Young Yoo. AOP arithmetic architectures over $GF(2^m)$. *Applied Mathematics and Computation*, 158(1):7–18, October 25, 2004. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Ko:2004:CCF

[4963] Sangho Ko and Robert R. Bitmead. Covariance calculation for floating-point state-space realizations. *IEEE Transactions on Signal Processing*, 52(12):3370–3377, December 2004. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Kobayashi:2004:SHC

[4964] S. Kobayashi, I. Kozuka, W. H. Tang, and D. Landmann. A software/hardware codesigned hands free system on a "resizable" block-floating-point DSP. In IEEE [8001], pages V–149–V–152. ISBN 0-7803-8484-9. LCCN TK7882.S65 I61 2004. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9248`. IEEE Catalog Number: 04CH37568.

Kornerup:2004:RCN

[4965] Peter Kornerup and Jean-Michel Muller. RN-coding of numbers: definition and some properties. Research Report RR2004-43, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, September 2004. 2 + 9 pp. URL `http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-43.pdf`.

Krithivasan:2004:SPM

[4966] S. Krithivasan, M. J. Schulte, and J. Glossner. A subword-parallel multiplication and sum-of-squares unit. In Smailagic and Bayoumi [8006], pages 273–274. ISBN 0-7695-2097-9. LCCN TK7874 .I122 2004. URL `http://mesa.ece.wisc.edu/publications/cp_2004-03.pdf`. IEEE Computer Society order number P2097.

Krueger:2004:DLI

[4967] S. D. Krueger and Peter-Michael Seidel. Design of an on-line IEEE floating-point addition unit for FPGAs. In *FCCM 2004. 12th Annual*

IEEE Symposium on Field-Programmable Custom Computing Machines, 20–23 April 2004, pages 239–246. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Kucukkabak:2004:DIR

[4968] U. Kucukkabak and A. Akkas. Design and implementation of reciprocal unit using table look-up and Newton–Raphson iteration. In Henry Selvaraj, editor, *DSD 2004: Euromicro Symposium on Digital System Design: Architectures, Methods and Tools. Rennes, France, August 31–September 2, 2004*, pages 249–253. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. ISBN 0-7695-2203-3. LCCN QA76.9.S88 E97 2004; TK7868.D5 E93 2004.

Kwon:2004:SMI

[4969] Taek-Jun Kwon, Joong-Seok Moon, J. Sondeen, and J. Draper. A 0.18 /spl μ /m implementation of a floating-point unit for a processing-in-memory system. In *ISCAS '04. Proceedings of the 2004 International Symposium on Circuits and Systems, 23–26 May 2004*, volume 2, pages II–453–II–456. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Lang:2004:FPM

[4970] T. Lang and J. D. Bruguera. Floating-point multiply-add-fused with reduced latency. *IEEE Transactions on Computers*, 53(8):988–1003, August 2004. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.ac.usc.es/arquivos/articulos/2004/gac2004-j06.ps; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1306992.

Lefevre:2004:AFF

[4971] Vincent Lefèvre and Paul Zimmermann. Arithmétique flottante. (French) [Floating-point arithmetic]. Technical report, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, February 2004. 60 pp. URL ftp://ftp.inria.fr/INRIA/publication/publi-pdf/RR/RR-5105.pdf; ftp://ftp.inria.fr/INRIA/publication/publi-ps-gz/RR/RR-5105.ps.gz.

Lefevre:2004:GMP

[4972] Vincent Lefèvre. The generic multiple-precision floating-point addition with exact rounding (as in the MPFR library). In Frougny et al. [7991], pages 135–145. ISSN 0944-0488. URL http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_11_lefevre.pdf. Forschungsbericht Nr. 04-8.

Leyva:2004:GHS

[4973] G. Leyva, G. Caffarena, C. Carreras, and O. Nieto-Taladriz. A generator of high-speed floating-point modules. In *FCCM 2004. 12th Annual IEEE Symposium on Field-Programmable Custom Computing Machines, 20–23 April 2004*, pages 306–307. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Lin:2004:SFP

[4974] Hung-Yueh Lin, Tay-Jyi Lin, Chie-Min Chao, Yen-Chin Liao, Chih-Wei Liu, and Chein-Wei Jen. Static floating-point unit with implicit exponent tracking for embedded DSP. In *ISCAS '04. Proceedings of the 2004 International Symposium on Circuits and Systems, 23–26 May 2004*, volume 2, pages II–821–II–824. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Lu:2004:ALC

[4975] Mi Lu. *Arithmetic and logic in computer systems*, volume 169 of *iley Series in Microwave and Optical Engineering*. Wiley-Interscience, New York, NY, USA, 2004. ISBN 0-471-46945-9 (cloth). xxi + 246 pp. LCCN QA76.9.C62 L8 2004. URL http://www.loc.gov/catdir/bios/wiley046/2003062036.html; http://www.loc.gov/catdir/description/wiley041/2003062036.html; http://www.loc.gov/catdir/toc/wiley041/2003062036.html.

Lutz:2004:NFP

[4976] D. R. Lutz and C. N. Hinds. A new floating-point architecture for wireless 3D graphics. In *Conference Record of the Thirty-Eighth Asilomar Conference on Signals, Systems and Computers, Nov. 7–10, 2004*, volume 2, pages 1879–1883. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Madhukumar:2004:EAR

[4977] A. S. Madhukumar and F. Chin. Enhanced architecture for residue number system-based CDMA for high-rate data transmission. *IEEE Transactions on Wireless Communications*, 3(5):1363–1368, September 2004. CODEN ITWCAX. ISSN 1536-1276 (print), 1558-2248 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=29589.

Marcus:2004:FSS

[4978] G. Marcus, P. Hinojosa, A. Avila, and J. Nolazco-Flores. A fully synthesizable single-precision, floating-point adder/subtractor and multiplier in VHDL for general and educational use. In *Proceedings of the Fifth IEEE International Caracas Conference on Devices, Circuits and Systems, November 3–5, 2004*, volume 1, pages 319–323. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Markov:2004:SAA

[4979] Svetoslav Markov and Rene Alt. Stochastic arithmetic: Addition and multiplication by scalars. *Applied Numerical Mathematics*, 50(3–4):475–488, September 2004. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Markov:2004:SAS

[4980] Svetoslav Markov, Rene Alt, and Jean-Luc Lamotte. Stochastic arithmetic: *s*-spaces and some applications. *Numerical Algorithms*, 37(1–4):275–284, December 2004. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://ipsapp009.kluweronline.com/IPS/content/ext/x/J/5058/I/58/A/22/abstract.htm`.

Markstein:2004:SDS

[4981] Peter Markstein. Software division and square root using Goldschmidt's algorithms. In Frougny et al. [7991], pages 146–157. ISSN 0944-0488. URL `http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_12_markstein.pdf`. Forschungsbericht Nr. 04-8.

McIvor:2004:IMM

[4982] C. McIvor, M. McLoone, and J. V. McCanny. Improved Montgomery modular inverse algorithm. *Electronics Letters*, 40(18):1110–1112, September 2, 2004. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL `https://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=1335002`.

McKenzie:2004:ACP

[4983] Pierre McKenzie, Heribert Vollmer, and Klaus W. Wagner. Arithmetic circuits and polynomial replacement systems. *SIAM Journal on Computing*, 33(6):1513–1531, December 2004. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/39207`.

McLaughlin:2004:NFM

[4984] Philip B. McLaughlin, Jr. New frameworks for Montgomery's modular multiplication method. *Mathematics of Computation*, 73(246):899–906, April 2004. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.ams.org/mcom/2004-73-246/S0025-5718-03-01543-6/home.html; http://www.ams.org/mcom/2004-73-246/S0025-5718-03-01543-6/S0025-5718-03-01543-6.dvi; http://www.ams.org/mcom/2004-73-246/S0025-5718-03-01543-6/S0025-5718-03-01543-6.pdf; http://www.ams.org/mcom/2004-73-246/S0025-5718-03-01543-6/S0025-5718-03-01543-6.ps; http://www.ams.org/mcom/2004-73-246/S0025-5718-03-01543-6/S0025-5718-03-01543-6.tex.

Mitra:2004:NAB

[4985] A. Mitra and M. Chakraborty. The NLMS algorithm in block floating-point format. *IEEE Signal Processing Letters*, 11(3):301–304, March 2004. CODEN ISPLEM. ISSN 1070-9908 (print), 1558-2361 (electronic).

MPFRTeam:2004:MMP

[4986] The MPFR Team. *MPFR: The Multiple Precision Floating-Point Reliable Library: Edition 2.1.0: November 2004*, 2004. ii + 35 pp. URL http://www.mpfr.org/mpfr-current/mpfr.pdf.

Muller:2004:CSR

[4987] Siguna Müller. On the computation of square roots in finite fields. *Designs, Codes, and Cryptography*, 31(3):301–312, March 2004. CODEN DCCREC. ISSN 0925-1022 (print), 1573-7586 (electronic). URL http://ipsapp008.kluweronline.com/IPS/content/ext/x/J/4630/I/61/A/8/abstract.htm.

Muller:2004:DCS

[4988] Jean-Michel Muller, A. Tisserand, B. Dupont de Dinechin, and C. Monat. Division by constant for the ST100 DSP microprocessor. Research Report RR2004-45, École Normale Supérieure de Lyon, 69364 Lyon Cedex 07, France, October 2004. 2 + 10 pp. URL http://www.ens-lyon.fr/LIP/Pub/Rapports/RR/RR2004/RR2004-45.ps.gz.

Nguyen:2004:LDL

[4989] P. Nguyen and D. Stehle. Low-dimensional lattice basis reduction revisited (extended abstract). *Lecture Notes in Computer Science*, 3076: 338–357, 2004. CODEN LNCSD9. ISBN 3-540-22156-5. ISSN 0302-9743 (print), 1611-3349 (electronic).

Nievergelt:2004:AAP

[4990] Yves Nievergelt. Analysis and applications of Priest's distillation. *ACM Transactions on Mathematical Software*, 30(4):402–433, December 2004. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Ogasawara:2004:OPO

[4991] Takeshi Ogasawara, Hideaki Komatsu, and Toshio Nakatani. Optimizing precision overhead for x86 processors. *Software—Practice and Experience*, 34(9):875–893, July 25, 2004. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Ogita:2004:ASDa

[4992] Takeshi
Ogita, Siegfried M. Rump, and Shin'ichi Oishi. Accurate sum and dot product. Technical Report 04.1, Forschungsschwerpunkt Informations- und Kommunikationstechnik, Technical University Hamburg-Harburg, Hamburg, Germany, 2004. 4 pp.

Ogita:2004:ASDb

[4993] Takeshi Ogita, Siegfried M. Rump, and Shin'ichi Oishi. Accurate sum and dot product with applications. In IEEE [8002], pages 152–155. ISBN 0-7803-8636-1. LCCN TJ212.2 .I32495 2004. URL `http://citeseer.ist.psu.edu/cache/papers/cs2/255/http:zSzzSzwww.oishi.info.waseda.ac.jpzSz~ogitazSzdoczSzsum040921.pdf/accurate-sum-and-dot.pdf`; `http://www.ti3.tu-harburg.de/paper/rump/OgRuOi04a.pdf`. IEEE Catalog Number 04TH8770.

Olausson:2004:RFP

[4994] M. Olausson, A. Ehliar, J. Eilert, and D. Liu. Reduced floating point for MPEG1/2 layer III decoding. In *ISCAS '04. Proceedings of the 2004 International Symposium on Circuits and Systems, 23–26 May 2004*, volume 5, pages V–209–V–212. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Ortiz:2004:SPI

[4995] I. Ortiz and M. Jimenez. Scalable pipeline insertion in floating-point division and square root units. In *MWSCAS '04. The 2004 47th Midwest Symposium on Circuits and Systems. 25–28 July 2004*, volume 2, pages II–225–II–228. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. CODEN ???? ISSN ????

Pace:2004:ERL

[4996] L. Pace, A. Salvan, and L. Ventura. The effects of rounding on likelihood procedures. *Journal of Applied Statistics*, 31(1):29–48, January 2004. CODEN ???? ISSN 0266-4763 (print), 1360-0532 (electronic).

Page:2004:PCA

[4997] D. Page and N. P. Smart. Parallel cryptographic arithmetic using a redundant Montgomery representation. *IEEE Transactions on Computers*, 53(11):1474–1482, November 2004. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1336767.

Paul:2004:SMR

[4998] L. J. Paul, P. H. Bauer, C. Lorand, and K. Premaratne. Stabilizing mantissa rates in feedback systems with floating-point quantization. In *MWSCAS '04. The 2004 47th Midwest Symposium on Circuits and Systems, 25–28 July 2004*, volume 2, pages II–501–II–504. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Petkovic:2004:GCS

[4999] M. S. Petković and L. Rancić. On the guaranteed convergence of the square-root iteration method. *Journal of Computational and Applied Mathematics*, 170(1):169–179, September 1, 2004. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042704000184.

Pineiro:2004:AAL

[5000] J. A. Piñeiro, M. D. Ercegovac, and J. D. Bruguera. Algorithm and architecture for logarithm, exponential and powering computation. *IEEE Transactions on Computers*, 53(9):1085–1096, 2004. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://www.ac.usc.es/arquivos/articulos/2004/gac2004-j05.ps.

Plouffe:2004:ILS

[5001] Simon Plouffe. Invited lecture: A survey of integer relations algorithms and rational numbers [abstract only]. In Frougny et al. [7991]. ISSN 0944-0488. URL http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_02_plouffe.pdf. Forschungsbericht Nr. 04-8.

Priest:2004:ESC

[5002] Douglas M. Priest. Efficient scaling for complex division. *ACM Transactions on Mathematical Software*, 30(4):389–401, December 2004. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Putot:2004:SAB

[5003] Sylvie Putot, Eric Goubault, and Matthieu Martel. Static analysis-based validation of floating-point computations. *Lecture Notes in Computer Science*, 2991:306–313, 2004. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://www.springeronline.com/3-540-21260-4.

Quach:2004:SIR

[5004] N. T. Quach, N. Takagi, and M. J. Flynn. Systematic IEEE rounding method for high-speed floating-point multipliers. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 12(5):511–521, May 2004. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Radecka:2004:DVT

[5005] K. Radecka and Z. Zilic. Design verification by test vectors and arithmetic transform universal test set. *IEEE Transactions on Computers*, 53(5):628–640, May 2004. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1275301.

Rettinger:2004:FAJ

[5006] R. Rettinger. A fast algorithm for Julia sets of hyperbolic rational functions. In Frougny et al. [7991], pages 158–171. ISSN 0944-0488. URL http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_13_rettinger.pdf. Forschungsbericht Nr. 04-8.

Reyhani-Masoleh:2004:EDS

[5007] Arash Reyhani-Masoleh and M. Anwar Hasan. Efficient digit-serial normal basis multipliers over binary extension fields. *ACM Transactions on Embedded Computing Systems*, 3(3):575–592, August 2004. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic).

Reyhani-Masoleh:2004:LCB

[5008] A. Reyhani-Masoleh and M. A. Hasan. Low complexity bit parallel architectures for polynomial basis multiplication over GF(2^m). *IEEE Transactions on Computers*, 53(8):945–959, August 2004. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1306989.

Riley:2004:HAE

[5009] Joseph Riley and Michael J. Schulte. A hardware accelerator for elliptic curve cryptography over GF(2^m). *International Journal of Computer Research*, ??(??):??, 2004. ISSN 1535-6698. URL `http://mesa.ece.wisc.edu/publications/cp_2004-10.pdf`. Special Issue on Cryptographic Hardware and Embedded Systems.

Roy:2004:ACF

[5010] S. Roy and P. Banerjee. An algorithm for converting floating-point computations to fixed-point in MATLAB based FPGA design. In *Proceedings. 41st Design Automation Conference, June 7–11, 2004*, pages 484–487. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Sadaghdar:2004:BFP

[5011] M. Sadaghdar, K. Iniewski, and M. Syrzycki. 11-bit floating-point pipelined analog to digital converter in 0.18μ m CMOS. In *Canadian Conference on Electrical and Computer Engineering, 2–5 May 2004*, volume 3, pages 1503–1506. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Schimmler:2004:BSF

[5012] Manfred Schimmler, Bertil Schmidt, and Hans-Werner Lang. A bit-serial floating-point unit for a massively parallel system on a chip. *Parallel Algorithms and Applications*, 19(2-3):79–95, 2004. CODEN PAAPEC. ISSN 1063-7192.

Schirra:2004:ILR

[5013] Stefan Schirra. Invited lecture: Real numbers and robustness in computational geometry. In Frougny et al. [7991], pages 7–21. ISSN 0944-0488. URL `http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_03_schirra.pdf`. Forschungsbericht Nr. 04-8.

Schulte:2004:DED

[5014] Michael J. Schulte and Eric Schwarz. Design exploration for decimal floating-point arithmetic IBM university partnership program proposal. Technical report, University of Wisconsin-Madison and IBM Systems and Technology Group, Madison, WI, USA, March 11, 2004. 4 pp. URL `http://domino.research.ibm.com/acas/w3www_acas.nsf/images/proposals_04.05/%24FILE/schulte.pdf`.

Schulte:2004:LPC

[5015] M. J. Schulte, K. Chirca, J. Glossner, H. Wang, S. Mamidi, P. I. Balzola, and S. Vassiliadis. A low-power carry skip adder with fast saturation. In IEEE [8000], pages 269–279. ISBN 0-7695-2226-2. LCCN TK7874.6 .I58 2004. URL http://mesa.ece.wisc.edu/publications/cp_2004-11.pdf.

Seidel:2004:DOI

[5016] Peter-Michael Seidel and Guy Even. Delay-optimized implementation of IEEE floating-point addition. *IEEE Transactions on Computers*, 53 (2):97–113, February 2004. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1261822.

Seidel:2004:LIF

[5017] Peter-Michael Seidel. On-line IEEE floating-point multiplication and division for reduced power dissipation. In *Conference Record of the Thirty-Eighth Asilomar Conference on Signals, Systems and Computers, Nov. 7–10, 2004*, volume 1, pages 498–502. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Shi:2004:FPF

[5018] Changchun Shi and R. W. Brodersen. Floating-point to fixed-point conversion with decision errors due to quantization. In IEEE [8001], pages V–41–V–44. ISBN 0-7803-8484-9. LCCN TK7882.S65 I61 2004. URL https://ieeexplore.ieee.org/servlet/opac?punumber=9248. IEEE Catalog Number: 04CH37568.

Steele:2004:RHP

[5019] Guy L. Steele Jr. and Jon L. White. Retrospective: How to print floating-point numbers accurately. *ACM SIGPLAN Notices*, 39(4):372–389, April 2004. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). Best of PLDI 1979–1999. Reprint of, and retrospective on, [2658].

Stehle:2004:ARR

[5020] Damien Stehlé. *Algorithmique de la réduction de réseaux et application à la recherche de pires cas pour l'arrondi de fonctions mathématiques. (French) [Algorithmics of network reduction and application to the search for worst cases for rounding of mathematical functions]*. Doctorat de l'Université Henri Poincaré — Nancy 1 (spécialité informatique), Université Henri Poincaré — Nancy, Nancy, France, 2004. xvi + 252 pp. URL https://theses.hal.science/tel-01748080/.

Stehle:2004:GAT

[5021] D. Stehlé and P. Zimmermann. Gal's accurate tables method revisited. World-Wide Web document, 2004. URL http://www.loria.fr/~stehle/downloads/2x-double.txt; http://www.loria.fr/~stehle/downloads/sincos-double.txt; http://www.loria.fr/~stehle/IMPROVEDGAL.html.

Stine:2004:DCA

[5022] James E. Stine. *Digital computer arithmetic datapath design using Verilog HDL*. Kluwer Academic Publishers Group, Norwell, MA, USA, and Dordrecht, The Netherlands, 2004. ISBN 1-4020-7710-6. xi + 180 pp. LCCN TK7868.D5 S75 2004. URL http://www.loc.gov/catdir/enhancements/fy0820/2003064036-d.html; http://www.loc.gov/catdir/enhancements/fy0820/2003064036-t.html.

Sun:2004:LBR

[5023] Sun Microsystems, Inc. Libmcr 0.9 beta: a reference correctly-rounded library of basic double-precision transcendental elementary functions. World-Wide Web software project archive, 2004. URL http://www.sun.com/download/products.xml?id=41797765.

Sunar:2004:GMC

[5024] B. Sunar. A generalized method for constructing subquadratic complexity GF(2^k) multipliers. *IEEE Transactions on Computers*, 53(9): 1097–1105, September 2004. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Sypniewski:2004:IAU

[5025] M. Sypniewski and W. K. Gwarek. On the influence of arithmetic underflow rounding standard on the speed of FDTD modeling. In *2004 IEEE MTT-S International Microwave Symposium Digest. 6–11 June 2004*, volume 3, pages 1795–1798. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. CODEN ???? ISSN ????

Tadaki:2004:ECH

[5026] Kohtaro Tadaki. An extension of chaitin's halting probability Ω to measurement operator in infinite dimensional quantum system. In Frougny et al. [7991], pages 172–191. ISSN 0944-0488.

URL http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_14_tadaki.pdf. Forschungsbericht Nr. 04-8.

Thomas:2004:LLF

[5027] James W. Thomas, Jon P. Okada, Peter Markstein, and Ren-Cang Li. The Libm library and floating-point arithmetic in HP-UX for Itanium-based systems: Updated for HP-UX 11i v2. Technical report, Hewlett–Packard Company, Palo Alto, CA, USA, December 3, 2004. 26 pp. URL http://h21007.www2.hp.com/dspp/ddl/ddl_Download_File_TRX/1,1249,942,00.pdf.

Thompson:2004:BDF

[5028] J. Thompson, N. Karra, and M. J. Schulte. A 64-bit decimal floating-point adder. In *Proceedings. IEEE Computer Society Annual Symposium on VLSI, 19–20 February 2004*, pages 297–298. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. URL http://mesa.ece.wisc.edu/publications/cp_2004-08.pdf.

TI:2004:TUG

[5029] Texas Instruments, Post Office box 655303, Dallas, TX 75265, USA. *TMS320C3x User's Guide*, 2004. 770 pp. URL http://www-s.ti.com/sc/psheets/spru031f/spru031f.pdf. Literature Number: SPRU031F 2558539-9761 revision L March 2004.

Tsoi:2004:ALA

[5030] K. H. Tsoi, C. H. Ho, H. C. Yeung, and P. H. W. Leong. An arithmetic library and its application to the N-body problem. In Arnold [7996], pages 68–78. ISBN 0-7695-2230-0. LCCN ???? URL http://www.cse.cuhk.edu.hk/~phwl/mt/public/archives/papers/cast_fccm04.pdf.

Underwood:2004:CGC

[5031] K. D. Underwood and K. S. Hemmert. Closing the gap: CPU and FPGA trends in sustainable floating-point BLAS performance. In *FCCM 2004. 12th Annual IEEE Symposium on Field-Programmable Custom Computing Machines, 20–23 April 2004*, pages 219–228. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Underwood:2004:FVC

[5032] Keith D. Underwood. FPGAs vs. CPUs: Trends in peak floating-point performance. In ACM [7992], pages 171–180. ISBN 1-58113-829-6. LCCN

TK7895.G36 A26 2004. URL http://portal.acm.org/toc.cfm?id=968280. ACM order number 480040.

Vignes:2004:DSA

[5033] Jean Vignes. Discrete stochastic arithmetic for validating results of numerical software. *Numerical Algorithms*, 37(1–4):377–390, December 2004. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL http://ipsapp009.kluweronline.com/IPS/content/ext/x/J/5058/I/58/A/31/abstract.htm.

vonzurGathen:2004:FAG

[5034] J. Joachim von zur Gathen and Michael Nöcker. Fast arithmetic with general Gauß periods. *Theoretical Computer Science*, 315(2–3):419–452, May 6, 2004. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Voronenko:2004:AGI

[5035] Y. Voronenko and M. Puschel. Automatic generation of implementations for DSP transforms on fused multiply-add architectures. In IEEE [8001], pages V–101–V–104. ISBN 0-7803-8484-9. LCCN TK7882.S65 I61 2004. URL https://ieeexplore.ieee.org/servlet/opac?punumber=9248. IEEE Catalog Number: 04CH37568.

Walters:2004:TSC

[5036] E. G. Walters, M. J. Schulte, and M. G. Arnold. Truncated squarers with constant and variable correction. In Luk [8004], pages viii + 464. ISBN 0-8194-5497-4. ISSN 0277-786X (print), 1996-756X (electronic). LCCN TK5102.5 .A3173 2004; TK5102.5 .A3322 2004. URL http://mesa.ece.wisc.edu/publications/cp_2004-14.pdf.

Wang:2004:DFP

[5037] Liang-Kai Wang and M. J. Schulte. Decimal floating-point division using Newton–Raphson iteration. In *Proceedings. 15th IEEE International Conference on Application-Specific Systems, Architectures and Processors, 27–29 Sept. 2004*, pages 84–95. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. URL http://mesa.ece.wisc.edu/publications/cp_2004-06.pdf.

Weaver:2004:MFD

[5038] B. J. Weaver, Y. V. Zakharov, and T. C. Tozer. Multiplication-free division of complex numbers. In Anonymous [7995], pages 211–214. ISBN ???? LCCN ????

Wu:2004:HSL

[5039] Chien-Hsing Wu, Chien-Ming Wu, Ming-Der Shieh, and Yin-Tsung Hwang. High-speed, low-complexity systolic designs of novel iterative division algorithms in GF(2^m). *IEEE Transactions on Computers*, 53 (3):375–380, March 2004. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1261843`.

Wu:2004:ORF

[5040] Jun Wu, Sheng Chen, James F. Whidborne, and Jian Chu. Optimal realizations of floating-point implemented digital controllers with finite word length considerations. *International Journal of Control*, 77(5): 427–440, 2004. CODEN IJCOAZ. ISSN 0020-7179 (print), 1366-5820 (electronic).

Yang:2004:EEP

[5041] Xiao Yang, S. K. Valia, M. J. Schulte, and R. B. Lee. Exploration and evaluation of PLX floating-point instructions and implementations for 3D graphics. In *Conference Record of the Thirty-Eighth Asilomar Conference on Signals, Systems and Computers, Nov. 7–10, 2004*, volume 2, pages 1873–1878. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. URL `http://mesa.ece.wisc.edu/publications/cp_2004-18.pdf`.

Yang:2004:PFE

[5042] Xiao Yang and R. B. Lee. PLX FP: an efficient floating-point instruction set for 3D graphics. In *ICME '04. 2004 IEEE International Conference on Multimedia and Expo, 27–30 June 2004*, volume 1, pages 137–140. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Yoon:2004:IPT

[5043] Han-Ul Yoon, Kyoung-Taik Park, and Kwee-Bo Sim. Improvement of processing time using residue number system and sorting network in controller design. In *IECON 2004, 30th Annual Conference of IEEE Industrial Electronics Society*, volume 3, pages 2046–2051. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. CODEN ???? ISSN ????

Zhang:2004:PBL

[5044] W. Zhang, G. A. Jullien, and V. S. Dimitrov. A programmable base 2D-LNS MAC with self-generated look-up tables. In *Proceedings of the 2004*

International Symposium on Circuits and Systems: ISCAS '04, 23–26 May 2004, volume 2, pages II–789–92. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. CODEN ???? ISSN ????

Zheng:2004:HRN

[5045] Xizhong Zheng. On the hierarchy of Δ_2^0-real numbers. In Frougny et al. [7991], pages 192–215. ISSN 0944-0488. URL `http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6_15_zheng.pdf`. Forschungsbericht Nr. 04-8.

Zhu:2004:ISR

[5046] Hufei Zhu, Zhongding Lei, and F. P. S. Chin. An improved square-root algorithm for BLAST. *IEEE Signal Processing Letters*, 11(9):772–775, September 2004. CODEN ISPLEM. ISSN 1070-9908 (print), 1558-2361 (electronic).

Zhuo:2004:SMA

[5047] L. Zhuo and V. K. Prasanna. Scalable and modular algorithms for floating-point matrix multiplication on FPGAs. In *Proceedings. 18th International Parallel and Distributed Processing Symposium, 26–30 April 2004*, page 92. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004.

Zimmerman:2004:DCI

[5048] T. Zimmerman and J. R. Hoff. The design of a charge-integrating modified floating-point ADC chip. *IEEE Journal of Solid-State Circuits*, 39(6):895–905, June 2004. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Abdallah:2005:MRN

[5049] M. Abdallah and A. Skavantzos. On MultiModuli residue number systems with moduli of forms r^a, $r^b - 1$, $r^c + 1$. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 52(7):1253–1266, July 2005. CODEN ???? ISSN ???? URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=32002`.

Abtahi:2005:CFR

[5050] M. Abtahi and P. Siy. Core function of an RNS number with no ambiguity. *Computers and Mathematics with Applications*, 50(3–4):459–470, August 2005. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0898122105002890`.

Adharapurapu:2005:LSO

[5051] Pavan Adharapurapu and Miloš Ercegovac. A linear-system operator based scheme for evaluation of multinomials. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL `http://arith17.polito.it/final/paper-178.pdf`.

Aharoni:2005:SCI

[5052] Merav Aharoni, Sigal Asaf, Ron Maharik, Ilan Nehama, Ilya Nikulshin, and Abraham Ziv. Solving constraints on the invisible bits of the intermediate result for floating-point verification. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL `http://arith17.polito.it/final/paper-136.pdf`.

Alvarez:2005:FMF

[5053] C. Alvarez, J. Corbal, and M. Valero. Fuzzy memoization for floating-point multimedia applications. *IEEE Transactions on Computers*, 54(7): 922–927, July 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1432675`.

Anonymous:2005:HAP

[5054] Anonymous. How to avoid performance penalties for gradual-underflow behavior. World-Wide Web document, 2005. URL `http://www.intel.com/cd/ids/developer/asmo-na/eng/dc/pentium4/knowledgebase/90575.htm`.

Anonymous:2005:TMF

[5055] Anonymous. Test of mathematical functions of the Standard C Library. World-Wide Web software project archive, June 2005. URL `http://www.vinc17.org/research/testlibm/`.

Antelo:2005:DRD

[5056] E. Antelo, T. Lang, P. Montuschi, and A. Nannarelli. Digit-recurrence dividers with reduced logical depth. *IEEE Transactions on Computers*, 54(7):837–851, July 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1432667`.

Antelo:2005:LLD

[5057] Elisardo Antelo, Tomás Lang, Paolo Montuschi, and Alberto Nannarelli. Low latency digit-recurrence reciprocal and square-root reciprocal algorithm and architecture. In Montuschi and Schwarz [8020], page ??

ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-116.pdf.

Antelo:2005:LLP

[5058] Elisardo Antelo and Julio Villalba. Low latency pipelined circular CORDIC. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-132.pdf.

Arnold:2005:BIR

[5059] M. G. Arnold and J. Ruan. Bipartite implementation of the residue logarithmic number system. In Luk [8019], page ?? CODEN PSISDG. ISBN ???? ISSN 0277-786X (print), 1996-756X (electronic). LCCN ???? Accepted for publication.

Arnold:2005:RLN

[5060] Mark Arnold. The residue logarithmic number system: Theory and implementation. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-163.pdf; http://www.cse.lehigh.edu/~caar/rlns.pdf.

Bailey:2005:DFDa

[5061] David H. Bailey. DDFUN90: Fortran-90 double-double package. World-Wide Web site with software archives., March 11, 2005. URL http://crd.lbl.gov/~dhbailey/mpdist/; http://crd.lbl.gov/~dhbailey/mpdist/ddfun90.tar.gz.

Bailey:2005:DFDb

[5062] David H. Bailey. DSFUN90: Fortran-90 double-single package. World-Wide Web site with software archives., March 11, 2005. URL http://crd.lbl.gov/~dhbailey/mpdist/; http://crd.lbl.gov/~dhbailey/mpdist/dsfun90.tar.gz.

Bailey:2005:HPF

[5063] David H. Bailey. High-precision floating-point arithmetic in scientific computation. *Computing in Science and Engineering*, 7(3):54–61, May/June 2005. CODEN CSENFA. ISSN 1521-9615 (print), 1558-366X (electronic). URL http://csdl.computer.org/comp/mags/cs/2005/03/c3054abs.htm; http://csdl.computer.org/dl/mags/cs/2005/03/c3054.pdf.

Bailey:2005:QDD

[5064] David H. Bailey. QD: double-double and quad double package. World-Wide Web site with software archives., August 24, 2005. URL `http://crd.lbl.gov/~dhbailey/mpdist/`; `http://crd.lbl.gov/~dhbailey/mpdist/qd.tar.gz`.

Bajard:2005:AOP

[5065] Jean-Claude Bajard, Laurent Imbert, and Thomas Plantard. Arithmetic operations in the polynomial modular number system. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL `http://arith17.polito.it/final/paper-168.pdf`.

Bajard:2005:PMM

[5066] Jean-Claude Bajard, Laurent Imbert, and Graham Jullien. Parallel Montgomery multiplication in $\mathrm{GF}(2^{\mathrm{k}})$ using trinomial residue arithmetic. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL `http://arith17.polito.it/final/paper-169.pdf`.

Beebe:2005:MPA

[5067] Nelson H. F. Beebe. Multiple-precision arithmetic FAQ. World-Wide Web frequently-asked question document., September 2005. URL `https://www.math.utah.edu/faq/mp/`. This report is updated frequently.

Beuchat:2005:MAR

[5068] Jean-Luc Beuchat and Jean-Michel Muller. Multiplication algorithms for radix-2 RN-codings and two's complement numbers. In Stamatis Vassiliadis, Nikitas J. Dimopoulos, and Sanjay Vishnu Rajopadhye, editors, *Proceedings of the 16th IEEE International Conference on Application-Specific Systems, Architectures, and Processors (ASAP 2005), 23–25 July 2005, Samos, Greece*, pages 303–308. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN 0-7695-2407-9. ISSN 1063-6862. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=10334`.

Blanck:2005:EEC

[5069] J. Blanck. Efficient exact computation of iterated maps. *Journal of Logic and Algebraic Programming*, 64(1):41–59, July 2005. ISSN 1567-8326 (print), 1873-5940 (electronic).

Boehm:2005:CRJ

[5070] Hans-J. Boehm. The constructive reals as a Java Library. *Journal of Logic and Algebraic Programming*, 64(1):3–11, July 2005. ISSN

1567-8326 (print), 1873-5940 (electronic). URL https://www.sciencedirect.com/science/article/pii/S1567832604000736.

Boldo:2005:SFC

[5071] Sylvie Boldo and Jean-Michel Muller. Some functions computable with a fused-mac. In Montuschi and Schwarz [8020], pages 52–58. ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-106.pdf.

Bowman:2005:AVS

[5072] K. O. Bowman and L. R. Shenton. The asymptotic variance and skewness of maximum likelihood estimators using Maple. *Journal of Statistical Computation and Simulation*, 75(12):975–986, 2005. CODEN JSCSAJ. ISSN 0094-9655 (print), 1026-7778 (electronic), 1563-5163.

Brisebarre:2005:CRM

[5073] Nicolas Brisebarre and Jean-Michel Muller. Correctly rounded multiplication by arbitrary precision constants. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-122.pdf.

Brisebarre:2005:NRR

[5074] Nicolas Brisebarre, David Defour, Peter Kornerup, Jean-Michel Muller, and Nathalie Revol. A new range-reduction algorithm. *IEEE Transactions on Computers*, 54(3):331–339, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://csdl.computer.org/comp/trans/tc/2005/03/t0331abs.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0331.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0331.pdf; http://ieeexplore.ieee.org/iel5/12/30205/01388197.pdf; http://ieeexplore.ieee.org/xpls/abs_all.jsp?isnumber=30205; http://ieeexplore.ieee.org/xpls/references.jsp?arnumber=1388197.

Bruguera:2005:FPF

[5075] Javier Bruguera and Tomás Lang. Floating-point fused multiply-add: Reduced latency for floating-point addition. In Montuschi and Schwarz [8020], pages 42–51. ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-102.pdf.

Burgess:2005:PRI

[5076] N. Burgess. Prenormalization rounding in IEEE floating-point operations using a flagged prefix adder. *IEEE Transactions on Very Large Scale*

Integration (VLSI) Systems, 13(2):266–277, February 2005. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Chakraborty:2005:BFP

[5077] M. Chakraborty and A. Mitra. A block floating-point realization of the gradient adaptive lattice filter. *IEEE Signal Processing Letters*, 12(4): 265–268, April 2005. CODEN ISPLEM. ISSN 1070-9908 (print), 1558-2361 (electronic).

Chang:2005:LCB

[5078] Ku-Young Chang, Dowon Hong, and Hyun-Sook Cho. Low complexity bit-parallel multiplier for GF(2^m) defined by all-one polynomials using redundant representation. *IEEE Transactions on Computers*, 54(12): 1628–1630, December 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1524942`.

Chaniotakis:2005:LNB

[5079] Eleftherios Chaniotakis, Paraskevas Kalivas, and Kiamal Pekmestzi. Long number bit-serial squarers. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL `http://arith17.polito.it/final/paper-162.pdf`.

Chatterjee:2005:DEH

[5080] S. Chatterjee, L. R. Bachega, P. Bergner, K. A. Dockser, J. A. Gunnels, M. Gupta, F. G. Gustavson, C. A. Lapkowski, G. K. Liu, M. Mendell, R. Nair, C. D. Wait, T. J. C. Ward, and P. Wu. Design and exploitation of a high-performance SIMD floating-point unit for Blue Gene/L. *IBM Journal of Research and Development*, 49(2/3):377–391, ???? 2005. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL `http://www.research.ibm.com/journal/rd/492/chatterjee.pdf`.

Choi:2005:PPA

[5081] Youngmoon Choi and Earl Swartzlander. Parallel prefix adder design with matrix representation. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL `http://arith17.polito.it/final/paper-107.pdf`.

Cotofana:2005:ARA

[5082] Sorin Cotofana, Casper Lageweg, and Stamatis Vassiliadis. Addition related arithmetic operations via controlled transport of charge. *IEEE Transactions on Computers*, 54(3):243–256, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://csdl.computer.org/comp/trans/tc/2005/03/t0243abs.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0243.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0243.pdf; http://ieeexplore.ieee.org/iel5/12/30205/01388190.pdf?isnumber=30205&prod=JNL&arnumber=1388190&arSt=+243&ared=+256&arAuthor=Cotofana%2C+S.%3B+Lageweg%2C+C.%3B+Vassiliadis%2C+S.; http://ieeexplore.ieee.org/xpls/abs_all.jsp?isnumber=30205&arnumber=1388190&count=13&index=1; http://ieeexplore.ieee.org/xpls/references.jsp?arnumber=1388190.

Cowlishaw:2005:GDA

[5083] Mike Cowlishaw. General decimal arithmetic specification. Report Version 1.50, IBM UK Laboratories, Hursley, UK, December 9, 2005. iii + 63 pp. URL http://www2.hursley.ibm.com/decimal/decarith.pdf; http://www2.hursley.ibm.com/decimal/decarith.ps.

Daneshbeh:2005:CUB

[5084] Amir K. Daneshbeh and M. Anwar Hasan. A class of unidirectional bit serial systolic architectures for multiplicative inversion and division over GF(2^m). *IEEE Transactions on Computers*, 54(3):370–380, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://csdl.computer.org/comp/trans/tc/2005/03/t0370abs.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0370.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0370.pdf; http://ieeexplore.ieee.org/iel5/12/30205/01388201.pdf?isnumber=30205&prod=JNL&arnumber=1388201&arSt=+370&ared=+380&arAuthor=Daneshbeh%2C+A.K.%3B+Hasan%2C+M.A.; http://ieeexplore.ieee.org/xpls/abs_all.jsp?isnumber=30205&arnumber=1388201&count=13&index=12; http://ieeexplore.ieee.org/xpls/references.jsp?arnumber=1388201.

Danysh:2005:AIV

[5085] Albert Danysh and Dimitri Tan. Architecture and implementation of a vector/SIMD multiply-accumulate unit. *IEEE Transactions on Computers*, 54(3):284–293, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://csdl.computer.org/comp/trans/tc/2005/03/t0284abs.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0284.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0284.pdf; http://ieeexplore.ieee.org/iel5/12/30205/01388193.pdf?isnumber=30205&prod=JNL&arnumber=1388193&arSt=+284&ared=+293&arAuthor=Danysh%2C+A.%3B+Tan%

2C+D.; http://ieeexplore.ieee.org/xpls/abs_all.jsp?isnumber=30205&arnumber=1388193&count=13&index=4; http://ieeexplore.ieee.org/xpls/references.jsp?arnumber=1388193.

Daramy-Loirat:2005:CLL

[5086] Catherine Daramy-Loirat, David Defour, Florent de Dinechin, Matthieu Gallet, Nicolas Gast, and Jean-Michel Muller. *CR-LIBM: a library of correctly rounded elementary functions in double-precision*. Laboratoire de l'Informatique du Parallélisme, Lyon, France, September 16, 2005. 138 pp. URL http://lipforge.ens-lyon.fr/frs/download.php/11/crlibm.pdf.

Daumas:2005:GPU

[5087] Marc Daumas, Guillaume Melquiond, and César Muñoz. Guaranteed proofs using interval arithmetic. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-155.pdf.

deDinechin:2005:MTM

[5088] Florent de Dinechin and Arnaud Tisserand. Multipartite table methods. *IEEE Transactions on Computers*, 54(3):319–330, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://csdl.computer.org/comp/trans/tc/2005/03/t0319abs.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0319.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0319.pdf; http://ieeexplore.ieee.org/iel5/12/30205/01388196.pdf?isnumber=30205&prod=JNL&arnumber=1388196&arSt=+319&ared=+330&arAuthor=de+Dinechin%2C+F.%3B+Tisserand%2C+A.; http://ieeexplore.ieee.org/xpls/abs_all.jsp?isnumber=30205&arnumber=1388196&count=13&index=7; http://ieeexplore.ieee.org/xpls/references.jsp?arnumber=1388196.

deDinechin:2005:TPU

[5089] Florent de Dinechin, Alexey Ershov, and Nicolas Gast. Towards the post-ultimate libm. In Montuschi and Schwarz [8020], pages 288–295. ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-165.pdf.

Dou:2005:BFP

[5090] Y. Dou, S. Vassiliadis, G. K. Kuzmanov, and G. N. Gaydadjiev. 64-bit floating-point FPGA matrix multiplication. In ACM [8009], pages 86–95. ISBN 1-59593-029-9. LCCN TK7895.G36 A26 2005. ACM order number 480050.

Efstathiou:2005:EDM

[5091] C. Efstathiou, H. T. Vergos, G. Dimitrakopoulos, and D. Nikolos. Efficient diminished-1 modulo $2^n + 1$ multipliers. *IEEE Transactions on Computers*, 54(4):491–496, April 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1401868.

Eggert:2005:PEN

[5092] P. R. Eggert and D. S. Parker. Perturbing and evaluating numerical programs without recompilation — the wonglediff way. *Software—Practice and Experience*, 35(4):313–322, April 10, 2005. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Eleftheriou:2005:SFF

[5093] M. Eleftheriou, B. G. Fitch, A. Rayshubskiy, T. J. C. Ward, and R. S. Germain. Scalable framework for 3D FFTs on the Blue Gene/L supercomputer: Implementation and early performance measurements. *IBM Journal of Research and Development*, 49(2/3):457–464, ???? 2005. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/492/eleftheriou.pdf.

Enenkel:2005:CMF

[5094] R. F. Enenkel, B. G. Fitch, R. S. Germain, F. G. Gustavson, A. Martin, M. Mendell, J. W. Pitera, M. C. Pitman, A. Rayshubskiy, F. Suits, W. C. Swope, and T. J. C. Ward. Custom math functions for molecular dynamics. *IBM Journal of Research and Development*, 49(2/3):465–474, ???? 2005. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/492/enenkel.pdf.

Erle:2005:DME

[5095] Mark Erle, Eric Schwarz, and Michael Schulte. Decimal multiplication with efficient partial product generation. In Montuschi and Schwarz [8020], pages 21–28. ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-183.pdf; http://mesa.ece.wisc.edu/publications/cp_2005-07.pdf.

Etiemble:2005:CBF

[5096] D. Etiemble, S. Bouaziz, and L. Lacassagne. Customizing 16-bit floating point instructions on a NIOS II processor for FPGA image and media processing. In IEEE [8018], pages 61–66. ISBN 0-7803-9347-3. LCCN

QA76.575 .W67 2005. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=10172`. IEEE catalog number 5EX1149.

Even:2005:PEA

[5097] Guy Even, Peter-Michael Seidel, and Warren E. Ferguson. A parametric error analysis of Goldschmidt's division algorithm. *Journal of Computer and System Sciences*, 70(1):118–139, February 2005. CODEN JCSSBM. ISSN 0022-0000 (print), 1090-2724 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0022000004000960`.

Fan:2005:FBP

[5098] Haining Fan and Yiqi Dai. Fast bit-parallel GF(2^n) multiplier for all trinomials. *IEEE Transactions on Computers*, 54(4):485–490, April 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1401867`.

Fit-Florea:2005:ABE

[5099] A. Fit-Florea, D. W. Matula, and M. A. Thornton. Addition-based exponentiation modulo 2^k. *Electronics Letters*, 41(2):56–57, January 20, 2005. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic). URL `https://ieeexplore.ieee.org/iel5/2220/30332/01393468.pdf`.

Fousse:2005:MMP

[5100] Laurent Fousse, Guillaume Hanrot, Vincent Lefèvre, Patrick Pélissier, and Paul Zimmermann. MPFR: a multiple-precision binary floating-point library with correct rounding. Technical Report RR-5753, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, November 2005. 15 pp. URL `ftp://ftp.inria.fr/INRIA/publication/publi-pdf/RR/RR-5753.pdf`; `ftp://ftp.inria.fr/INRIA/publication/publi-ps-gz/RR/RR-5753.ps.gz`; `http://www.inria.fr/rrrt/rr-5753.html`.

Fraysse:2005:ASG

[5101] Valŕie Frayssé, Luc Giraud, Serge Gratton, and Julien Langou. Algorithm 842: a set of GMRES routines for real and complex arithmetics on high performance computers. *ACM Transactions on Mathematical Software*, 31(2):228–238, June 2005. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Giles:2005:BLN

[5102] David E. Giles. Benford's Law and naturally occurring prices in certain ebaY auctions. Econometrics Working Paper EWP0505, Department of Economics, University of Victoria, Victoria, BC, Canada, May 2005. URL `http://web.uvic.ca/econ/ewp0505.pdf`.

Giraud:2005:REA

[5103] Luc Giraud, Julien Langou, Miroslav Rozložník, and Jasper van den Eshof. Rounding error analysis of the classical Gram–Schmidt orthogonalization process. *Numerische Mathematik*, 101(1):87–100, July 2005. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=101&issue=1&spage=87`.

Glusker:2005:TCM

[5104] Mark Glusker, David M. Hogan, and Pamela Vass. The ternary calculating machine of Thomas Fowler. *IEEE Annals of the History of Computing*, 27(3):4–22, July/September 2005. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic).

Graillat:2005:CHS

[5105] S. Graillat, P. Langlois, and N. Louvet. Compensated Horner scheme. Research Report RR2005-04, Équipe de Recherche DALI, Laboratoire LP2A, Université de Perpignan, Via Domitia, Perpignan, France, July 24, 2005. ii + 25 pp. URL `http://gala.univ-perp.fr/~graillat/papers/rr2005-04.pdf`.

Graillat:2005:ICH

[5106] S. Graillat, P. Langlois, and N. Louvet. Improving the compensated Horner scheme with a fused multiply and add. Research Report RR2005-05, Équipe de Recherche DALI, Laboratoire LP2A, Université de Perpignan, Via Domitia, Perpignan, France, November 2005.

Guizzo:2005:IRS

[5107] E. Guizzo. IBM reclaims supercomputer lead. *IEEE Spectrum*, 42(2):15–16, February 2005. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Haijun:2005:ROT

[5108] Sun Haijun, Shao Zhibiao, Zom Gang, and Zhao Ning. The research on optimization techniques of 32-bit floating-point RISC microprocessor. In *Proceedings of 2005 IEEE International Workshop on VLSI Design* *and Video Technology, 28–30 May 2005*, pages 63–66. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005.

Hally:2005:EBS

[5109] Mike Hally. *Electronic Brains: Stories from the Dawn of the Computer Age*. Joseph Henry Press, Washington, DC, USA, 2005. ISBN 0-309-09630-8 (hardcover). xxiii + 275 pp. LCCN QA76.17 .H35 2005. URL `http://catdir.loc.gov/catdir/toc/ecip0514/2005016583.html; http://library.ccsu.edu/help/spcoll/oconnell/index.htm`.

Hanss:2005:AFA

[5110] Michael Hanss. *Applied fuzzy arithmetic: an introduction with engineering applications*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2005. ISBN 3-540-24201-5. xiii + 256 pp. LCCN QA248.5 .H36 2005. URL `http://www.loc.gov/catdir/enhancements/fy0662/2004117177-d.html`.

Hariri:2005:SMS

[5111] A. Hariri, K. Navi, and R. Rastegar. A simplified modulo $(2^n - 1)$ squaring scheme for residue number system. In *EUROCON 2005, The International Conference on "Computer as a Tool": proceedings: Belgrade, Serbia and Montenegro: November 21–24, 2005*, pages 615–618. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. CODEN ???? ISBN 1-4244-0049-X. ISSN ????

Harris:2005:IUS

[5112] David Harris, Ram Krishnamurthy, Mark Anders, Sanu Mathew, and Steven Hsu. An improved unified scalable radix-2 Montgomery multiplier. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL `http://arith17.polito.it/final/paper-109.pdf`.

He:2005:MAF

[5113] Hu He, Zheng Li, and Yihe Sun. Multiply-add fused float point unit with on-fly denormalized number processing. In IEEE [8015], pages 1466–1468. ISBN 0-7803-9197-7. LCCN TK3226 .M55 2005eb. URL `http://www.ieeexplore.ieee.org/xpl/RecentCon.jsp?punumber=10622`.

Hernandez:2005:ACN

[5114] M. A. Hernández and N. Romero. Accelerated convergence in Newton's method for approximating square roots. *Journal of Computational and*

Applied Mathematics, 177(1):225–229, May 1, 2005. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042704004315.

Hsiao:2005:EVI

[5115] Shen-Fu Hsiao, Yu Hen Hu, T.-B. Juang, and Chung-Han Lee. Efficient VLSI implementations of fast multiplierless approximated DCT using parameterized hardware modules for silicon intellectual property design. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 52(8): 1568–1579, 2005. ISSN 1549-8328 (print), 1558-0806 (electronic).

Huang:2005:EMP

[5116] Liusheng Huang, Hong Zhong, Hong Shen, and Yonglong Luo. An efficient multiple-precision division algorithm. In Hong Shen and Koji Nakano, editors, *Sixth International Conference on Parallel and Distributed Computing, Applications and Technologies, 2005. PDCAT 2005: 5–8 December 2005, Dalian, China*, pages 971–974. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN 0-7695-2405-2. LCCN QA76.58 .I5752 2005. The authors present an integer-division algorithm that runs three to five times faster than Knuth's 1981 original. However, there is an error in the renormalization algorithm that is corrected in [6149], while retaining the speedup.

Huang:2005:HPL

[5117] Zhijun Huang and Miloš D. Ercegovac. High-performance low-power left-to-right array multiplier design. *IEEE Transactions on Computers*, 54(3):272–283, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://csdl.computer.org/comp/trans/tc/2005/03/t0272abs.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0272.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0272.pdf; http://ieeexplore.ieee.org/iel5/12/30205/01388192.pdf?isnumber=30205&prod=JNL&arnumber=1388192&arSt=+272&ared=+283&arAuthor=Zhijun+Huang%3B+Ercegovac%2C+M.D.; http://ieeexplore.ieee.org/xpls/abs_all.jsp?isnumber=30205&arnumber=1388192&count=13&index=3; http://ieeexplore.ieee.org/xpls/references.jsp?arnumber=1388192.

Jacobi:2005:AFV

[5118] C. Jacobi, K. Weber, V. Paruthi, and J. Baumgartner. Automatic formal verification of fused-multiply-add FPUs. In IEEE [8012], pages 1298–

1303. ISBN 0-7695-2288-2. LCCN TK7870 .D467 2005. IEEE Computer Society Order Number P2288.

Kahan:2005:BTG

[5119] William Kahan. A brief tutorial on gradual underflow. World-Wide Web lecture notes., July 8, 2005. URL http://www.cs.berkeley.edu/~wkahan/ARITH_17U.pdf. Prepared for ARITH 17, Tues. 28 June 2005, and subsequently augmented.

Kahan:2005:DP

[5120] William Kahan. *A Demonstration of Presubstitution for* ∞/∞, July 5, 2005. 10 pp. URL http://www.cs.berkeley.edu/~wkahan/Grail.pdf.

Kahan:2005:FPA

[5121] William Kahan. Floating-point arithmetic besieged by "Business decisions". World-Wide Web lecture notes., July 5, 2005. URL http://www.cs.berkeley.edu/~wkahan/ARITH_17.pdf. A Keynote Address, prepared for the IEEE-Sponsored ARITH 17 Symposium on Computer Arithmetic, delivered on Mon. 27 June 2005 in Hyannis, Massachusetts.

Kahan:2005:OQD

[5122] William Kahan and Dan Zuras. An open question to developers of numerical software. *Computer*, 38(5):91–94, May 2005. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). URL http://csdl.computer.org/comp/mags/co/2005/05/r5091abs.htm; http://csdl.computer.org/comp/mags/co/2005/05/r5toc.htm; http://csdl.computer.org/dl/mags/co/2005/05/r5091.pdf.

Kaihara:2005:HAM

[5123] M. E. Kaihara and N. Takagi. A hardware algorithm for modular multiplication/division. *IEEE Transactions on Computers*, 54(1):12–21 54, January 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1362636.

Karlsson:2005:IIL

[5124] Kent Karlsson. ISO/IEC 10967, Language Independent Arithmetic (LIA). Wikipedia article, October 31, 2005. URL http://en.wikipedia.org/wiki/ISO/IEC_10967; http://www.open-std.org/JTC1/SC22/WG11/docs/n364.pdf; http://www.open-std.org/JTC1/SC22/WG11/docs/n462.pdf; http://www.open-std.org/jtc1/sc22/wg11/docs/n490.pdf.

Kenney:2005:HSM

[5125] R. D. Kenney and M. J. Schulte. High-speed multioperand decimal adders. *IEEE Transactions on Computers*, 54(8):953–963, August 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://mesa.ece.wisc.edu/publications/cp_2005-04.pdf; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1453497.

Khabbazian:2005:NMA

[5126] M. Khabbazian, T. A. Gulliver, and V. K. Bhargava. A new minimal average weight representation for left-to-right point multiplication methods. *IEEE Transactions on Computers*, 54(11):1454–1459, November 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1514423.

Klarer:2005:DTC

[5127] Robert Klarer. Decimal types for C++: Second draft. Report C22/WG21/N1839 J16/05-0099, IBM Canada, Ltd., Toronto, ON, Canada, June 24, 2005. URL http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2005/n1839.html.

Kornerup:2005:DSS

[5128] Peter Kornerup. Digit selection for SRT division and square root. *IEEE Transactions on Computers*, 54(3):294–303, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://csdl.computer.org/comp/trans/tc/2005/03/t0294abs.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0294.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0294.pdf; http://ieeexplore.ieee.org/iel5/12/30205/01388194.pdf?isnumber=30205&prod=JNL&arnumber=1388194&arSt=+294&ared=+303&arAuthor=Kornerup%2C+P.; http://ieeexplore.ieee.org/xpls/abs_all.jsp?isnumber=30205&arnumber=1388194&count=13&index=5; http://ieeexplore.ieee.org/xpls/references.jsp?arnumber=1388194.

Kornerup:2005:LGD

[5129] Peter Kornerup and Jean-Michel Muller. Leading guard digits in finite precision redundant representations. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://www.imada.sdu.dk/~kornerup/papers/red-add.pdf.

Kornerup:2005:RCN

[5130] Peter Kornerup and Jean-Michel Muller. RN-coding of numbers: Definition and some properties. In *Proceedings of the International Meeting on Automated Compliance Systems (IMACS'05), July 2005*, page ?? ????, ????, 2005. URL https://www.researchgate.net/publication/243786550_RN-coding_of_numbers_definition_and_some_properties.

Kornerup:2005:SPR

[5131] Peter Kornerup and David Matula. Single precision reciprocals by multipartite table lookup. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-177.pdf.

Kulikova:2005:CAS

[5132] A. A. Kulikova and Yu. V. Prokhorov. Completely asymmetric stable laws and Benford's Law. *Theory of probability and its applications*, 49 (1):163–169, March 2005. CODEN TPRBAU. ISSN 0040-585X (print), 1095-7219 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/98094.

Lang:2005:HTC

[5133] Tomás Lang and Elisardo Antelo. High-throughput CORDIC-based geometry operations for 3D computer graphics. *IEEE Transactions on Computers*, 54(3):347–361, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://csdl.computer.org/comp/trans/tc/2005/03/t0347abs.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0347.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0347.pdf; http://ieeexplore.ieee.org/iel5/12/30205/01388199.pdf?isnumber=30205&prod=JNL&arnumber=1388199&arSt=+347&ared=+361&arAuthor=Lang%2C+T.%3B+Antelo%2C+E.; http://ieeexplore.ieee.org/xpls/abs_all.jsp?isnumber=30205&arnumber=1388199&count=13&index=10; http://ieeexplore.ieee.org/xpls/references.jsp?arnumber=1388199.

Langlois:2005:STS

[5134] P. Langlois and N. Louvet. Solving triangular systems more accurately and efficiently. Research Report RR2005-02, Équipe de Recherche DALI, Laboratoire LP2A, Université de Perpignan, Via Domitia, Perpignan, France, May 9, 2005. 15 pp. URL http://webdali.univ-perp.fr/RR/rr2005-02.pdf.

Lauter:2005:BBB

[5135] Christoph Quirin Lauter. Basic building blocks for a triple-double intermediate format. Technical Report RR-5702, Inria, ????, 2005. iii + 67 + i pp. URL http://hal.inria.fr/inria-00070314; https://hal.inria.fr/inria-00070314/document.

Lawlor:2005:PDP

[5136] Orion Lawlor, Hari Govind, Isaac Dooley, Michael Breitenfeld, and Laxmikant Kale. Performance degradation in the presence of subnormal floating-point values. World-Wide Web slides from the Workshop on Operating System Interfaces in High Performance Applications 2005, 2005. URL http://charm.cs.uiuc.edu/presentations/OSIHPA/html/.

Lee:2005:LCB

[5137] Chiou-Yng Lee, Jenn-Shyong Horng, I-Chang Jou, and Erl-Huei Lu. Low-complexity bit-parallel systolic Montgomery multipliers for special classes of GF(2^m). *IEEE Transactions on Computers*, 54(9):1061–1070, September 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1471668.

Lee:2005:OHF

[5138] D.-U. Lee, A. A. Gaffar, O. Mencer, and W. Luk. Optimizing hardware function evaluation. *IEEE Transactions on Computers*, 54(12):1520–1531, December 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Lefevre:2005:GMP

[5139] Vincent Lefèvre. The generic multiple-precision floating-point addition with exact rounding (as in the MPFR library). *arXiv.org*, ??(??):??, May 11, 2005. CODEN ???? ISSN ???? URL http://arxiv.org/abs/cs/0505027.

Lefevre:2005:NRD

[5140] Vincent Lefèvre. New results on the distance between a segment and $\mathbf{Z}^2$. application to the exact rounding. In Montuschi and Schwarz [8020], pages 68–75. ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-147.pdf.

Li:2005:HIA

[5141] L. Li, A. Fit-Florea, M. A. Thornton, and D. W. Matula. Hardware implementation of an additive bit-serial algorithm for the discrete logarithm modulo-2^k. In IEEE [8013], page ?? ISBN 0-7695-2365-X. LCCN ???? URL http://www.computer.org/cspress/CATALOG/p2365.htm.

Li:2005:NBI

[5142] L. Li, A. Fit-Florea, M. A. Thornton, and D. W. Matula. A new binary integer number system with simplified hardware support. In IEEE [8016], page ?? ISBN ???? LCCN ???? URL http://www.ece.uvic.ca/asap2005/. Submitted.

Li:2005:RPE

[5143] C. Li, S. Pion, and C. K. Yap. Recent progress in exact geometric computation. *Journal of Logic and Algebraic Programming*, 64(1):85–111, July 2005. ISSN 1567-8326 (print), 1873-5940 (electronic).

Lorencz:2005:SFA

[5144] Róbert Lórencz and Josef Hlaváč. Subtraction-free Almost Montgomery Inverse algorithm. *Information Processing Letters*, 94(1):11–14, April 15, 2005. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Lorenz:2005:VTB

[5145] J. Lorenz, S. Kral, F. Franchetti, and C. W. Ueberhuber. Vectorization techniques for the Blue Gene/L double FPU. *IBM Journal of Research and Development*, 49(2/3):437–446, ???? 2005. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/492/lorenz.pdf.

Macchetti:2005:QPH

[5146] Marco Macchetti and Luigi Dadda. Quasi-pipelined hash circuits. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-149.pdf.

Markstein:2005:FSM

[5147] Peter Markstein. A fast-start method for computing the inverse tangent. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-112.pdf.

Marques:2005:BIF

[5148] Osni A. Marques, E. Jason Riedy, and Christof Vömel. Benefits of IEEE-754 features in modern symmetric tridiagonal eigensolvers. LAPACK

Working Note 172, Computer Science Division, University of California, Berkeley, Berkeley, CA, USA, September 30, 2005. 22 pp. URL http://www.netlib.org/lapack/lawnspdf/lawn172.pdf. Also issued as Technical Report UCB//CSD-05-1414.

Matula:2005:TLS

[5149] David Matula, Alex Fit-Florea, and Mitchell Thornton. Table lookup structures for multiplicative inverses modulo 2^k. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-160.pdf.

McCann:2005:SDA

[5150] Mark McCann and Nicholas Pippenger. SRT division algorithms as dynamical systems. *SIAM Journal on Computing*, 34(6):1279–1301, December 2005. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/44106.

Mei:2005:LZA

[5151] Xiao-Lu Mei. Leading zero anticipation for latency improvement in floating-point fused multiply-add units. In Tang et al. [8021], pages 53–56. ISBN 0-7803-9210-8. LCCN TK7874.6 2005. URL https://ieeexplore.ieee.org/servlet/opac?punumber=10726. IEEE Catalog Number 05TH8820.

Menissier-Morain:2005:APR

[5152] Valérie Ménissier-Morain. Arbitrary precision real arithmetic: design and algorithms. *Journal of Logic and Algebraic Programming*, 64(1):13–39, July 2005. ISSN 1567-8326 (print), 1873-5940 (electronic).

Mitra:2005:BFP

[5153] Abhijit Mitra, Mrityunjoy Chakraborty, and Hideaki Sakai. A block floating-point treatment to the LMS algorithm: efficient realization and a roundoff error analysis. *IEEE Transactions on Signal Processing*, 53 (12):4536–4544, 2005. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Mitzenmacher:2005:PCI

[5154] Michael Mitzenmacher and Eli Upfal. *Probability and Computing: an Introduction to Randomized Algorithms and Probabilistic Analysis*. Cambridge University Press, Cambridge, UK, 2005. ISBN 0-521-83540-2 (print), 0-511-81360-0 (e-book). xvi + 352 pp. LCCN QA274 .M574 2005.

Montgomery:2005:FSS

[5155] Peter L. Montgomery. Five, six, and seven-term Karatsuba-like formulae. *IEEE Transactions on Computers*, 54(3):362–369, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://csdl.computer.org/comp/trans/tc/2005/03/t0362abs.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0362.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0362.pdf; http://ieeexplore.ieee.org/iel5/12/30205/01388200.pdf?isnumber=30205&prod=JNL&arnumber=1388200&arSt=+362&ared=+369&arAuthor=Montgomery%2C+P.L.; http://ieeexplore.ieee.org/xpls/abs_all.jsp?isnumber=30205&arnumber=1388200&count=13&index=11; http://ieeexplore.ieee.org/xpls/references.jsp?arnumber=1388200.

Morris:2005:FBF

[5156] G. Morris and V. Prasanna. An FPGA-based floating-point Jacobi iterative solver. In Bein [8010], pages 420–427. ISBN 0-7695-2509-1. ISSN 1087-4089. LCCN QA76.58 .I5673 2005. IEEE Computer Society Order Number P2509.

Mueller:2005:VFP

[5157] Silvia M. Mueller, Christian Jacobi, Hwa-Joon Oh, Kevin D. Tran, Cottier Scott, Brad W. Michael, Hiroo Nishikawa, Yonetaro Totsuka, Tatsuya Namatame, Naoka Yano, Takashi Machida, and Sang H. Dhong. The vector floating-point unit in a synergistic processor element of a CELL processor. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-151.pdf.

Muller:2005:D

[5158] Jean-Michel Muller. On the definition of ulp(x). Rapport de recherche LIP RR2005-09, INRIA RR-5504, Laboratoire de l'Informatique du Parallélisme, Lyon, France, February 2005. 19 pp. URL ftp://ftp.inria.fr/INRIA/publication/publi-pdf/RR/RR-5504.pdf.

Muller:2005:DCS

[5159] Jean-Michel Muller, Arnaud Tisserand, Benoit de Dinechin, and Christophe Monat. Division by constant for the ST100 DSP microprocessor. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-133.pdf.

Muller:2005:GEI

[5160] Norbert Müller, Martin Escardo, and Paul Zimmermann. Guest editors' introduction: Special issue on practical development of exact real number computation. *Journal of Logic and Algebraic Programming*, 64(1):1–2, July 2005. ISSN 1567-8326 (print), 1873-5940 (electronic).

Muscedere:2005:ETB

[5161] Roberto Muscedere, Vassil Dimitrov, Graham A. Jullien, and William C. Miller. Efficient techniques for binary-to-multidigit multidimensional logarithmic number system conversion using range-addressable look-up tables. *IEEE Transactions on Computers*, 54(3):257–271, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `http://csdl.computer.org/comp/trans/tc/2005/03/t0257abs.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0257.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0257.pdf; http://ieeexplore.ieee.org/iel5/12/30205/01388191.pdf?isnumber=30205&prod=JNL&arnumber=1388191&arSt=+257&ared=+271&arAuthor=Muscedere%2C+R.%3B+Dimitrov%2C+V.%3B+Jullien%2C+G.A.%3B+Miller%2C+W.C.; http://ieeexplore.ieee.org/xpls/abs_all.jsp?isnumber=30205&arnumber=1388191&count=13&index=2; http://ieeexplore.ieee.org/xpls/references.jsp?arnumber=1388191`.

Muscedere:2005:LPT

[5162] Roberto Muscedere, Vassil Dimitrov, Graham Jullien, and William Miller. A low-power two-digit multi-dimensional logarithmic number system filterbank architecture for a digital hearing aid. *EURASIP Journal on Advances in Signal Processing*, 1:3015–3025, 2005. ISSN 1110-8657 (print), 1687-0433 (electronic).

Newman:2005:PLP

[5163] M. E. J. Newman. Power laws, Pareto distributions and Zipf's law. *Contemporary physics*, 46(5):323–351, September 2005. CODEN CTPHAF. ISSN 0010-7514 (print), 1366-5812 (electronic).

Nguyen:2005:FPL

[5164] P. Nguyen and D. Stehle. Floating-point LLL revisited. *Lecture Notes in Computer Science*, 3494:215–233, 2005. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Oberman:2005:HPA

[5165] Stuart Oberman and Michael Siu. A high-performance area-efficient multifunction interpolator. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-164.pdf.

Ogita:2005:ASD

[5166] Takeshi Ogita, Siegfried M. Rump, and Shin'ichi Oishi. Accurate sum and dot product. *SIAM Journal on Scientific Computing*, 26(6):1955–1988, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sam-bin/dbq/article/60181.

Oh:2005:FPS

[5167] H.-J. Oh, S. M. Mueller, C. Jacobi, K. D. Tran, S. R. Cottier, B. W. Michael, H. Nishikawa, Y. Totsuka, T. Namatame, N. Yano, T. Machida, and S. H. Dhong. A fully-pipelined single-precision floating point unit in the synergistic processor element of a CELL processor. In *2005 Symposium on VLSI Circuits, June 16–18th, 2005, Rhiga Royal Hotel Kyoto, Kyoto, Japan*, page ?? IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN ???? LCCN ???? URL http://www.vlsisymposium.org/circuits/technical.html. Paper 2.4.

Pareto:2005:GAL

[5168] Lena Pareto. Graphical arithmetic for learners with dyscalculia. In ACM [8008], pages 214–215. ISBN 1-59593-159-7. LCCN ????

Phatak:2005:FMR

[5169] Dhananjay Phatak and Tom Goff. Fast modular reduction for large wordlengths via one linear and one cyclic convolution. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-156.pdf.

Pineiro:2005:HSF

[5170] Jose-Alejandro Piñeiro, Stuart F. Oberman, Jean-Michel Muller, and Javier D. Bruguera. High-speed function approximation using a minimax quadratic interpolator. *IEEE Transactions on Computers*, 54(3):304–318, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://csdl.computer.org/comp/trans/tc/2005/03/t0304abs.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0304.htm; http://csdl.computer.org/dl/trans/tc/

2005/03/t0304.pdf; http://ieeexplore.ieee.org/iel5/12/30205/01388195.pdf?isnumber=30205&prod=JNL&arnumber=1388195&arSt=+304&ared=+318&arAuthor=Pineiro%2C+J.-A.%3B+Oberman%2C+S.F.%3B+Muller%2C+J.-M.%3B+Bruguera%2C+J.D.; http://ieeexplore.ieee.org/xpls/abs_all.jsp?isnumber=30205&arnumber=1388195&count=13&index=6; http://ieeexplore.ieee.org/xpls/references.jsp?arnumber=1388195.

Revol:2005:TMF

[5171] N. Revol, K. Makino, and M. Berz. Taylor models and floating-point arithmetic: proof that arithmetic operations are validated in COSY. *Journal of Logic and Algebraic Programming*, 64(1):135–154, July 2005. CODEN ???? ISSN 1567-8326 (print), 1873-5940 (electronic). URL http://bt.pa.msu.edu/pub/papers/TMJLAP03/TMJLAP03.pdf.

Reyhani-Masoleh:2005:LCW

[5172] A. Reyhani-Masoleh and M. A. Hasan. Low complexity word-level sequential normal basis multipliers. *IEEE Transactions on Computers*, 54(2):98–110, February 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1377149.

Robison:2005:BUD

[5173] Arch Robison. N-bit unsigned division via N-bit multiply-add. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-104.pdf.

Rump:2005:AFP

[5174] Siegfried M. Rump, Takeshi Ogita, and Shin'ichi Oishi. Accurate floating-point summation. Technical Report 05.12, Faculty for Information- and Communication Sciences, Hamburg University of Technology, Hamburg, Germany, November 13, 2005. URL http://www.ti3.tu-harburg.de/paper/rump/Ru05d.pdf.

Savas:2005:CFA

[5175] E. Savas. A carry-free architecture for Montgomery inversion. *IEEE Transactions on Computers*, 54(12):1508–1519, December 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1524933.

Sax:2005:FPN

[5176] Jeffrey Sax. Floating point in .NET part 1: Concepts and formats. World-Wide
Web document, April 18, 2005. URL http://www.codeproject.com/dotnet/ExtremeFloatingPoint1.asp; http://www.codeproject.com/dotnet/ExtremeFloatingPoint1/ExtremeFloatingPoint1.zip.

Schulte:2005:GEI

[5177] Michael J. Schulte and Jean-Claude Bajard. Guest Editors' introduction: Special issue on computer arithmetic. *IEEE Transactions on Computers*, 54(3):241–242, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://csdl.computer.org/comp/trans/tc/2005/03/t0241.pdf;
http://csdl.computer.org/dl/trans/tc/2005/03/t0241.htm.

Schulte:2005:PED

[5178] M. J. Schulte, N. Lindberg, and A. Laxminarain. Performance evaluation of decimal floating-point arithmetic. In *Proceedings of the 6th IBM Austin Center for Advanced Studies Conference, Austin, TX, February, 2005*, page ?? IBM Corporation, San Jose, CA, USA, 2005. ISBN ???? LCCN ???? URL http://domino.watson.ibm.com/acas/w3www_acas.nsf/images/conf05/%24FILE/schulte.pdf;
http://mesa.ece.wisc.edu/publications/cp_2005-14.pdf.

Seidel:2005:HRI

[5179] Peter-Michael Seidel. High-radix implementation of IEEE floating-point addition. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-192.pdf.

Seidel:2005:SRR

[5180] Peter-Michael Seidel, L. D. McFearin, and D. W. Matula. Secondary radix recodings for higher radix multipliers. *IEEE Transactions on Computers*, 54(2):111–123, February 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1377150.

Serebrenik:2005:TFP

[5181] Alexander Serebrenik and Danny De Schreye. Termination of floating-point computations. *Journal of Automated Reasoning*, 34(2):141–177, December 2005. CODEN JAREEW. ISSN 0168-7433 (print), 1573-0670 (electronic). URL http://link.springer.com/article/10.1007/s10817-005-6546-z.

Setiaarif:2005:NMS

[5182] E. Setiaarif and P. Siy. A new moduli set selection technique to improve sign detection and number comparison in residue number system (RNS). In *NAFIPS 2005, Annual Meeting of the North American Fuzzy Information Processing Society, 26–28 June 2005*, pages 766–768. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. CODEN ???? ISSN ????

Soderstrand:2005:RNS

[5183] M. A. Soderstrand, G. Y. Cho, and L. G. Johnson. Residue number system implementations of complex heterodyne tunable filters. In *ISCAS 2005, IEEE International Symposium on Circuits and Systems, 23–26 May 2005*, volume 1, pages 548–551. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. CODEN ???? ISSN ????

Sofroniou:2005:PNC

[5184] Mark Sofroniou and Giulia Spaletta. Precise numerical computation. *Journal of Logic and Algebraic Programming*, 64(1):113–134, July 2005. ISSN 1567-8326 (print), 1873-5940 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S1567832604000785`.

Sofroniou:2005:PNC

[5185] Mark Sofronioua and Giulia Spalettab. Precise numerical computation. *Journal of Logic and Algebraic Programming*, 64(1):113–134, July 2005. ISSN 1567-8326 (print), 1873-5940 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S1567832604000785`.

Steele:2005:SME

[5186] Guy L. Steele Jr. System and method for extracting the high part of a floating point operand. US Patent 6976050, December 13, 2005. URL `http://www.patentstorm.us/patents/6976050/fulltext.html`.

Steele:2005:SMF

[5187] Guy L. Steele Jr. System and method for forcing floating point status information to selected values. US Patent 6970898, November 29, 2005. URL `http://www.patentstorm.us/patents/6970898/fulltext.html`.

Steele:2005:SMG

[5188] Guy L. Steele Jr. System and method for generating an integer part of a logarithm of a floating point operand. US Patent 6961744, November 01, 2005. URL http://www.patentstorm.us/patents/6961744/fulltext.html.

Stehle:2005:GAT

[5189] Damien Stehlé and Paul Zimmermann. Gal's accurate tables method revisited. In Montuschi and Schwarz [8020], pages 275–264. ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-152.pdf.

Stehle:2005:SWC

[5190] Damien Stehlé, Vincent Lefèvre, and Paul Zimmermann. Searching worst cases of a one-variable function using lattice reduction. *IEEE Transactions on Computers*, 54(3):340–346, March 2005. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL http://csdl.computer.org/comp/trans/tc/2005/03/t0340abs.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0340.htm; http://csdl.computer.org/dl/trans/tc/2005/03/t0340.pdf; http://ieeexplore.ieee.org/iel5/12/30205/01388198.pdf?isnumber=30205&prod=JNL&arnumber=1388198&arSt=+340&ared=+346&arAuthor=Stehle%2C+D.%3B+Lefevre%2C+V.%3B+Zimmermann%2C+P.; http://ieeexplore.ieee.org/xpls/abs_all.jsp?isnumber=30205&arnumber=1388198&count=13&index=9; http://ieeexplore.ieee.org/xpls/references.jsp?arnumber=1388198.

Stine:2005:CTC

[5191] J. E. Stine and M. J. Schulte. A combined two's complement and floating-point comparator. In IEEE [8014], pages 89–92. ISBN 0-7803-8834-8. LCCN TK454.2 .I22 2005. URL http://mesa.ece.wisc.edu/publications/cp_2005-09.pdf.

Takagi:2005:HAI

[5192] Naofumi Takagi, Shunsuke Kadowaki, and Kazuyoshi Takagi. A hardware algorithm for integer division. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL http://arith17.polito.it/final/paper-113.pdf.

Takahashi:2005:AMP

[5193] Daisuke Takahashi. An algorithm for multiple-precision floating-point multiplication. *Applied Mathematics and Computation*, 166(2):291–298, July 15, 2005. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Tang:2005:BBI

[5194] Ping Tak Peter Tang. BID — binary-integer decimal encoding for decimal floating point: a format friendly to software emulation and compiler native support. Technical report, Intel Corporation, San Jose, CA, USA, June 17, 2005.

Tang:2005:GBE

[5195] Ping Tak Peter Tang. On generalized BCD encodings for decimal floating point. Technical comment, Software and Solutions Group, Intel Corporation, San Jose, CA, USA, March 7, 2005.

Tsuiki:2005:RNC

[5196] Hideki Tsuiki. Real number computation with committed choice logic programming languages. *Journal of Logic and Algebraic Programming*, 64(1):61–84, July 2005. ISSN 1567-8326 (print), 1873-5940 (electronic).

Turing:2005:PEC

[5197] Alan M. Turing. Proposed electronic calculator (1945). In Copeland [8011], page ?? ISBN 0-19-856593-3 (hardcover). LCCN QA75 .A43 2005. URL `http://ukcatalogue.oup.com/product/9780198565932.do`; `http://www.oxfordscholarship.com/oso/public/content/maths/9780198565932/toc.html`.

Usevitch:2005:JCL

[5198] B. Usevitch. JPEG2000 compliant lossless coding of floating point data. In *Proceedings. DCC 2005 Data Compression Conference, 29–31 March 2005*, page 484. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005.

Verdonk:2005:BSI

[5199] B. Verdonk, J. Vervloet, and A. Cuyt. Blending set and interval arithmetic for maximal reliability. *Computing: Archiv fur informatik und numerik*, 74 (1):41–65, February 2005. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=74&issue=1&spage=41`.

Wahid:2005:EFC

[5200] Khan Wahid, Vassil Dimitrov, and Graham Jullien. Error-free computation of 8×8 2-D DCT and IDCT using two-dimensional algebraic integer quantization. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL `http://arith17.polito.it/final/paper-138.pdf`.

Wait:2005:IPF

[5201] C. D. Wait. IBM PowerPC 440 FPU with complex-arithmetic extensions. *IBM Journal of Research and Development*, 49(2/3):249–254, ???? 2005. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL `http://www.research.ibm.com/journal/rd/492/wait.pdf`.

Walter:2005:DDP

[5202] Colin Walter and David Samyde. Data dependent power use in multipliers. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL `http://arith17.polito.it/final/paper-126.pdf`.

Walters:2005:EFA

[5203] George Walters and Michael Schulte. Efficient function approximation using truncated multipliers and squarers. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL `http://arith17.polito.it/final/paper-190.pdf`.

Wang:2005:DFPa

[5204] L.-K. Wang and M. J. Schulte. Decimal floating-point square root using Newton–Raphson iteration. In Vassiliadis et al. [8022], pages 309–315. ISBN 0-7695-2407-9. LCCN TK7874.6 .I58 2005. URL `http://mesa.ece.wisc.edu/publications/cp_2005-05.pdf`.

Whidborne:2005:OCF

[5205] James F. Whidborne, Da-Wei Gu, Jun Wu, and Sheng Chen. Optimal controller and filter realizations using finite-precision, floating-point arithmetic. *International Journal of Systems Science*, 36(7):405–413, 2005. CODEN IJSYA9. ISSN 0020-7721 (print), 1464-5319 (electronic).

Wilkinson:2005:PAN

[5206] James H. Wilkinson. The Pilot ACE at the National Physical Laboratory. In Copeland [8011], pages 93–105. ISBN 0-19-856593-3 (hardcover). LCCN QA75 .A43 2005. URL `http://www.ingentaconnect.com/content/oso/2353639/2005/00000001/00000001/art00006`.

Wo:2005:SSC

[5207] Zhaojun Wo and Israel Koren. Synthesis of saturating counters using traditional and non-traditional basic counters. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL `http://arith17.polito.it/final/paper-191.pdf`.

Yang:2005:IMM

[5208] Jen-Ho Yang, Chin-Chen Chang, and Chih-Hung Wang. An iterative modular multiplication algorithm in RNS. *Applied Mathematics and Computation*, 171(1):637–645, December 1, 2005. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Yatskiv:2005:MAB

[5209] V. Yatskiv and N. Yatskiv. Multiple access on the basis of residue number system transformation. In *Proceedings of The Third Workshop 2005 IEEE Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications*, pages 527–530. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. CODEN ???? ISSN ????

Zeydel:2005:EMA

[5210] Bart Zeydel, Theo Kluter, and Vojin Oklobdzija. Efficient mapping of addition recurrence algorithms in CMOS. In Montuschi and Schwarz [8020], page ?? ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005. URL `http://arith17.polito.it/final/paper-181.pdf`.

Zhu:2005:NDA

[5211] Yong-Kang Zhu, Jun-Hai Yong, and Guo-Qin Zheng. A new distillation algorithm for floating-point summation. *SIAM Journal on Scientific Computing*, 26(6):2066–2078, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/60200`.

Zhuo:2005:DSF

[5212] Ling Zhuo, G. R. Morris, and V. K. Prasanna. Designing scalable FPGA-based reduction circuits using pipelined floating-point cores. In *Proceedings. 19th IEEE International Parallel and Distributed Processing Symposium, 04–08 April 2005*, pages 147a–147a. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005.

Zimmermann:2005:EBC

[5213] Paul Zimmermann, Richard Brent, and Colin Percival. Error bounds on complex floating-point multiplication. World-Wide Web slides, December 14, 2005. URL `http://www.loria.fr/~zimmerma/talks/cm.pdf`.

Zimmermann:2005:MPT

[5214] Paul Zimmermann, Nathalie Revol, and Patrick Pélissier. `mpcheck`: a program to test the accuracy of elementary functions. World-Wide Web software archive, 2005. URL http://www.loria.fr/~zimmerma/free/mpcheck-1.1.0.tar.gz; http://www.loria.fr/~zimmerma/mpcheck/.

Zimmermann:2005:MVC

[5215] Paul Zimmermann. MPFR: vers un calcul flottant correct ? (French) [MPFR: Towards correct floating-point arithmetic?]. Online interactive report., LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, 2005. URL http://interstices.info/display.jsp?id=c_9345.

Zimmermann:2005:WTA

[5216] Paul Zimmermann. Why transcendentals and arbitrary precision? World-Wide Web slides, December 15, 2005. URL http://www.loria.fr/~zimmerma/talks/why.pdf.

Zimmermann:2005:XXX

[5217] Paul Zimmermann. 5,341,321. Technical report, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, June 8, 2005. 2 pp. URL http://www.loria.fr/~zimmerma/papers/5341321.ps.gz.

Anderson:2006:AMF

[5218] Cristina S. Anderson, Shane Story, and Nikita Astafiev. Accurate math functions on the Intel IA-32 architecture: a performance-driven design. In Anonymous [8024], page ?? ISBN ???? LCCN ????

Anguita:2006:FFS

[5219] D. Anguita, S. Pischiutta, S. Ridella, and D. Sterpi. Feed-forward support vector machine without multipliers. *IEEE Transactions on Neural Networks*, 17(5):1328–1331, 2006. CODEN ITNNEP. ISSN 1045-9227 (print), 1941-0093 (electronic).

Anonymous:2006:IFPa

[5220] Anonymous. Intel and floating point: Updating one of the industry's most successful standards. World-Wide Web document, July 20, 2006. URL http://www.intel.com/standards/floatingpoint.pdf.

Anonymous:2006:IFPb

[5221] Anonymous. IBM's forthcoming Power6 processor can count to 10. World-Wide Web document, October 2006. URL http://news.zdnet.com/2100-9584_22-6124451.html.

Anonymous:2006:RSI

[5222] Anonymous. Reference software implementation of the IEEE 754R decimal floating-point arithmetic. World-Wide Web document, 2006. URL http://cache-www.intel.com/cd/00/00/29/43/294339_294339.pdf.

Avanzi:2006:SMK

[5223] Roberto M. Avanzi, Clemens Heuberger, and Helmut Prodinger. Scalar multiplication on Koblitz curves using the Frobenius endomorphism and its combination with point halving: Extensions and mathematical analysis. *Algorithmica*, 46(3–4):249–270, November 2006. CODEN ALGOEJ. ISSN 0178-4617 (print), 1432-0541 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0178-4617&volume=46&issue=3&spage=249.

Bajard:2006:AOF

[5224] J.-C. Bajard, L. Imbert, and C. Negre. Arithmetic operations in finite fields of medium prime characteristic using the Lagrange representation. *IEEE Transactions on Computers*, 55(9):1167–1177, September 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1668044.

Bartzis:2006:EBB

[5225] Constantinos Bartzis and Tevfik Bultan. Efficient BDDs for bounded arithmetic constraints. *International Journal on Software Tools for Technology Transfer: STTT*, 8(1):26–36, February 2006. CODEN ???? ISSN 1433-2779 (print), 1433-2787 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=1433-2779&volume=8&issue=1&spage=26.

Bernal:2006:IRD

[5226] Javier Bernal and Christoph J. Witzgall. Integer representation of decimal numbers for exact computations. *Journal of Research of the National Bureau of Standards*, 111(2):79–88, March/April 2006. URL https://nvlpubs.nist.gov/nistpubs/jres/111/2/V111.N02.A02.pdf.

Bertot:2006:PGS

[5227] Yves Bertot, Nicolas Magaud, and Paul Zimmermann. A proof of GMP square root using the Coq assistant. Research Report RR-4475, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, 2006. 28 pp. URL ftp://ftp.inria.fr/INRIA/publication/publi-pdf/RR/RR-4475.pdf; ftp://ftp.inria.fr/INRIA/publication/publi-ps-gz/RR/RR-4475.ps.gz; http://www.inria.fr/rrrt/rr-4475.html.

Bik:2006:MVF

[5228] Aart J. C. Bik, Xinmin Tian, and Milind B. Girkar. Multimedia vectorization of floating-point MIN/MAX reductions. *Concurrency and Computation: Practice and Experience*, 18(9):997–1007, August 10, 2006. CODEN CCPEBO. ISSN 1532-0626 (print), 1532-0634 (electronic).

Boldo:2006:PFF

[5229] S. Boldo. Pitfalls of a full floating-point proof: example on the formal proof of the Veltkamp/Dekker algorithms. *Lecture Notes in Computer Science*, 4130:52–66, 2006. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Bonten:2006:ACF

[5230] J. H. M. Bonten. Arithmetic computer formats. Web document, October 5, 2006. URL http://home.hetnet.nl/mr_1/81/jhm.bonten/computers/bitsandbytes/wordsizes/.

Briggs:2006:IER

[5231] Keith Briggs. Implementing exact real arithmetic in python, C++ and C. *Theoretical Computer Science*, 351(1):74–81, February 14, 2006. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Castellanos:2006:BDF

[5232] I. D. Castellanos and J. E. Stine. A 64-bit decimal floating-point comparator. In Dimopoulos et al. [8027], pages 138–144. ISBN 0-7695-2682-9. ISSN 1063-6862. LCCN TK7874.6 .I57 2006. URL https://ieeexplore.ieee.org/servlet/opac?punumber=4019472. IEEE Computer Society Order Number P2682.

Chang:2006:DAR

[5233] Chin-Chen Chang and Yeu-Pong Lai. A division algorithm for residue numbers. *Applied Mathematics and Computation*, 172(1):368–378, January 1, 2006. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Choi:2006:DCB

[5234] Sung Woo Choi, Sung il Pae, Hyungju Park, and Chee Yap. Decidability of collision between a helical motion and an algebraic motion. In Anonymous [8024], page ?? ISBN ???? LCCN ????

Cornea:2006:SII

[5235] Marius Cornea and Cristina Anderson. Software implementation of the IEEE 754R decimal floating-point architecture. World-Wide Web slides, July 10–12, 2006. URL `http://rnc7.loria.fr/cornea_poster.pdf`. See also [5222].

Cowlishaw:2006:DCL

[5236] Mike Cowlishaw. *The decNumber C library*. IBM Corporation, San Jose, CA, USA, November 22, 2006. URL `http://download.icu-project.org/ex/files/decNumber/decNumber-icu-337.zip`. Version 3.37.

Dahab:2006:SMU

[5237] R. Dahab, D. Hankerson, F. Hu, M. Long, J. Lopez, and A. Menezes. Software multiplication using Gaussian normal bases. *IEEE Transactions on Computers*, 55(8):974–984, August 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1650195`.

deDinechin:2006:STP

[5238] Florent de Dinechin and Sergey Maidanov. Software techniques for perfect elementary functions in floating-point interval arithmetic. In Anonymous [8024], page ?? ISBN ???? LCCN ????

Demmel:2006:EBE

[5239] James Demmel, Yozo Hida, William Kahan, Xiaoye S. Li, Sonil Mukherjee, and E. Jason Riedy. Error bounds from extra-precise iterative refinement. *ACM Transactions on Mathematical Software*, 32(2):325–351, June 2006. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Deng:2006:IMM

[5240] Rui Deng and Yujie Zhou. Improvement to Montgomery modular inverse algorithm. *IEEE Transactions on Computers*, 55(9):1207–1210, September 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1668048`.

Deschamps:2006:SAC

[5241] Jean-Pierre Deschamps, Géry Jean Antoine Bioul, and Gustavo D. Sutter. *Synthesis of arithmetic circuits: FPGA, ASIC, and embedded systems*. Wiley, New York, NY, USA, 2006. ISBN 0-471-68783-9 (hardcover). xix + 556 pp. LCCN TK7895.A65 D47 2006. URL http://www.loc.gov/catdir/enhancements/fy0621/2005003237-b.html; http://www.loc.gov/catdir/enhancements/fy0621/2005003237-d.html; http://www.loc.gov/catdir/toc/ecip057/2005003237.html.

Detrey:2006:FVL

[5242] Jérémie Detrey and Florent de Dinechin. FPLibrary. A VHDL library of parametrisable floating-point and LNS operators for FPGA. Web site and source code., 2006. URL http://www.ens-lyon.fr/LIP/Arenaire/Ware/FPLibrary/. The FPLibrary has been superceded by the FloPoCo project [5696].

Dietz:2006:FPC

[5243] Hank Dietz, Bill Dieter, Randy Fisher, and Kungyen Chang. Floating-point computation with just enough accuracy. *Lecture Notes in Computer Science*, 3991:226–233, 2006. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://aggregate.org/NPAR/iccs2006.pdf. ICCS 2006, Part I, conference proceedings.

Diniz:2006:DFP

[5244] P. C. Diniz and G. Govindu. Design of field-programmable dual-precision floating-point arithmetic units. In Bertels et al. [8025], pages 1–4. ISBN 1-4244-0312-X (softbound). LCCN TK7895.G36 I48 2006. IEEE catalog number 06EX1349. Two volumes.

Enge:2006:CCP

[5245] Andreas Enge. The complexity of class polynomial computation via floating point approximations. *arXiv.org*, ??(??):??, January 24, 2006. CODEN ???? ISSN ???? URL http://arxiv.org/abs/cs/0601104. Published in Mathematics of Computation 78, **266** (2009) 1089–1107.

Fan:2006:RBM

[5246] H. Fan and M. A. Hasan. Relationship between $GF(2^m)$ Montgomery and shifted polynomial basis multiplication algorithms. *IEEE Transactions on Computers*, 55(9):1202–1206, September 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1668047.

Feldstein:2006:GTO

[5247] Alan Feldstein and Peter R. Turner. Gradual and tapered overflow and underflow: a functional differential equation and its approximation. *Applied Numerical Mathematics*, 56(3–4):517–532, March/April 2006. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Gandhi:2006:DRA

[5248] Rajiv Gandhi, Samir Khuller, Srinivasan Parthasarathy, and Aravind Srinivasan. Dependent rounding and its applications to approximation algorithms. *Journal of the Association for Computing Machinery*, 53 (3):324–360, May 2006. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Gochman:2006:IIC

[5249] Simcha Gochman, Avi Mendelson, Alon Naveh, and Efraim Rotem. Introduction to Intel Core Duo processor architecture. *Intel Technology Journal*, 10(2):89–97, May 15, 2006. ISSN 1535-766X. URL http://developer.intel.com/technology/itj/2006/volume10issue02/art01_Intro_to_Core_Duo/p01_abstract.htm.

Gok:2006:IMO

[5250] M. Gok, M. J. Schulte, and M. G. Arnold. Integer multipliers with overflow detection. *IEEE Transactions on Computers*, 55(8):1062–1066, August 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1650203.

Goubault:2006:SAN

[5251] Eric Goubault and Sylvie Putot. Static analysis of numerical algorithms. In Yi [8035], pages 18–34. CODEN LNCSD9. ISBN 3-540-37756-5 (print), 3-540-37758-1 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN ???? URL http://link.springer.com/chapter/10.1007/11823230_3.

Graa:2006:IFF

[5252] Guillaume Da Graça and David Defour. Implementation of float-float operators on graphics hardware. In Anonymous [8024], page ?? ISBN ???? LCCN ????

Graca:2006:ODE

[5253] Daniel S. Graça, Ning Zhong, and Jorge Buescu. The ordinary differential equation defined by a computable function whose maximal interval of existence is non-computable. In Anonymous [8024], page ?? ISBN ???? LCCN ????

Graillat:2006:ICH

[5254] Stef Graillat, Philippe Langlois, and Nicolas Louvet. Improving the compensated Horner scheme with a fused multiply and add. In Haddad [8028], pages 1323–1327. ISBN 1-59593-108-2. LCCN QA76.76.A65 S95 2006. URL http://portal.acm.org/toc.cfm?id=1141277.

Harrison:2006:FPV

[5255] John Harrison. Floating-point verification using theorem proving. In Cimatti and Bernardo [8026], pages 211–242. ISBN 3-540-34304-0. ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.F67 I586 2006. URL http://www.loc.gov/catdir/enhancements/fy0661/2006925529-d.html; http://www.loc.gov/catdir/toc/fy0705/2006925529.html.

Hars:2006:MIA

[5256] Laszlo Hars. Modular inverse algorithms without multiplications for cryptographic applications. *EURASIP Journal on Embedded Systems*, 2006:1–13, 2006. CODEN ???? ISSN 1687-3955 (print), 1687-3963 (electronic). URL http://downloads.hindawi.com/journals/es/2006/032192.pdf. Article ID 32192.

Hill:2006:QUB

[5257] M. Hill and I. Robinson. Quadrature using 64-bit IEEE arithmetic for integrands over $[0, 1]$ with a singularity at 1. *Theoretical Computer Science*, 351(1):82–100, February 14, 2006. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

How:2006:RRN

[5258] H. T. How, T. H. Liew, Ee-Lin Kuan, Lie-Liang Yang, and L. Hanzo. A redundant residue number system coded burst-by-burst adaptive joint-detection based CDMA speech transceiver. *IEEE Transactions on Vehicular Technology*, 55(1):387–396, January 2006. CODEN ITUTAB. ISSN 0018-9545 (print), 1939-9359 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=33430.

Hurlimann:2006:BLB

[5259] Werner Hürlimann. Benford's Law from 1881 to 2006: a bibliography. Report, Feldstrasse 145, CH-8004 Zürich, Switzerland, July 5, 2006. 15 pp. URL http://arxiv.org/pdf/math.ST/0607168.

IBM:2006:PDF

[5260] IBM Corporation. *Preliminary Decimal-Floating-Point Architecture*. San Jose, CA, USA, November 2006. viii + 52 pp. URL http://publibz.boulder.ibm.com/epubs/pdf/a2322320.pdf; http://www-03.ibm.com/servers/eserver/zseries/zos/bkserv/r3pdf/zarchpops.html. Form number SA23-2232-00.

Imana:2006:BPF

[5261] J. L. Imana, J. M. Sanchez, and F. Tirado. Bit-parallel finite field multipliers for irreducible trinomials. *IEEE Transactions on Computers*, 55(5):520–533, May 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1613833.

Intel:2006:IFP

[5262] Intel. Intel and floating point: Updating one of the industry's most successful standards. Web report, Intel Corporation, San Jose, CA, USA, July 17, 2006. 11 pp. URL http://www.intel.com/standards/floatingpoint.pdf.

ISO:2006:IIIa

[5263] ISO. *ISO/IEC 10967-3: Information technology — Language independent arithmetic — Part 3: Complex integer and floating point arithmetic and complex elementary numerical functions*. International Organization for Standardization, Geneva, Switzerland, August 15, 2006. ISBN ???? viii + 149 pp. LCCN ???? URL http://standards.iso.org/ittf/PubliclyAvailableStandards/c037994_ISO_IEC_10967-3_2006(E).zip; http://www.iso.ch/cate/d24427.html.

ISO:2006:IIJa

[5264] ISO. ISO/IEC JTC1 SC22 WG14 N1154: Extension for the programming language C to support decimal floating-point arithmetic. World-Wide Web document, February 27, 2006. URL http://www.open-std.org/jtc1/sc22/wg14/www/docs/n1154.pdf.

ISO:2006:IIJb

[5265] ISO. ISO/IEC JTC1 SC22 WG14 N1161: Rationale for TR 24732: Extension to the programming language C: Decimal floating-point arithmetic. World-Wide Web document, February 27, 2006. URL http://www.open-std.org/jtc1/sc22/wg14/www/docs/n1161.pdf.

ISO:2006:IIJc

[5266] ISO. ISO/IEC JTC1 SC22 WG14 N1176: Extension for the programming language C to support decimal floating-point arithmetic. World-Wide Web document, May 24, 2006. URL `http://open-std.org/jtc1/sc22/wg14/www/docs/n1176.pdf`.

Kahan:2006:AIR

[5267] William Kahan. Applications of IEEE 754r's rounding modes. World-Wide Web document., February 16, 2006. URL `http://nonabelian.com/754/RNDGMODE.TXT`.

Kaivani:2006:RID

[5268] A. Kaivani, A. Zaker Alhosseini, S. Gorgin, and M. Fazlali. Reversible implementation of densely-packed-decimal converter to and from binary-coded-decimal format using in IEEE-754R. In Mohanty and Sahoo [8033], pages 273–276. ISBN 0-7695-2635-7. LCCN QA76.575 .I25 2006.

Kang:2006:SHS

[5269] J.-Y. Kang and J.-L. Gaudiot. A simple high-speed multiplier design. *IEEE Transactions on Computers*, 55(10):1253–1258, October 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1683756`.

Kettani:2006:CBN

[5270] Houssain Kettani. On the conversion between number systems. *IEEE transactions on circuits and systems. 2, Analog and digital signal processing*, 53(11):1255–1258, November 2006. CODEN ICSPE5. ISSN 1057-7130 (print), 1558-125X (electronic).

Kong:2006:IGA

[5271] Fanyu Kong, Zhun Cai, Jia Yu, and Daxing Li. Improved generalized Atkin algorithm for computing square roots in finite fields. *Information Processing Letters*, 98(1):1–5, April 15, 2006. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Kornerup:2006:CSV

[5272] Peter Kornerup and Jean-Michel Muller. Choosing starting values for certain Newton–Raphson iterations. *Theoretical Computer Science*, 351(1):101–110, February 14, 2006. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Kornerup:2006:RCN

[5273] Peter Kornerup and Jean-Michel Muller. RN-codings: New insights and some applications. In Anonymous [8024], page ?? ISBN ???? LCCN ????

Kulikova:2006:HFD

[5274] A. A. Kulikova, Yu. V. Prokhorov, and V. I. Khokhlov. H.F.D. (H-function distribution) and Benford's Law. I. *Theory of probability and its applications*, 50(2):311–315, January 2006. CODEN TPRBAU. ISSN 0040-585X (print), 1095-7219 (electronic).

Kumar:2006:ODS

[5275] Sandeep Kumar, T. Wollinger, and C. Paar. Optimum digit serial $\mathrm{GF}(2^{\mathrm{m}})$ multipliers for curve-based cryptography. *IEEE Transactions on Computers*, 55(10):1306–1311, October 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1683761`.

Kushner:2006:I

[5276] David Kushner. The insomniacs. *IEEE Spectrum*, 43(12):24–29, December 2006. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Lang:2006:SRI

[5277] Tomas Lang and Javier D. Bruguera. The sunity representation to improve the accuracy of some computations. In Anonymous [8024], page ?? ISBN ???? LCCN ????

Langou:2006:EPBa

[5278] Julie Langou, Julien Langou, Piotr Luszczek, Jakub Kurzak, Alfredo Buttari, and Jack Dongarra. Exploiting the performance of 32 bit floating point arithmetic in obtaining 64 bit accuracy (revisiting iterative refinement for linear systems). LAPACK Working Note 175, Department of Computer Science, University of Tennessee, Knoxville, Knoxville, TN 37996, USA, June 2006. 17 pp. URL `http://www.netlib.org/lapack/lawnspdf/lawn175.pdf; http://www.netlib.org/lapack/lawnspdf/lawn175.ps`.

Langou:2006:EPBb

[5279] Julie Langou, Julien Langou, Piotr Luszczek, Jakub Kurzak, Alfredo Buttari, and Jack Dongarra. Exploiting the performance of 32 bit floating point arithmetic in obtaining 64 bit accuracy (revisiting iterative refinement for linear systems). In ACM [8023], page ?? ISBN 0-7695-2700-0. LCCN ???? Contains one CD-ROM.

Lefevre:2006:WCE

[5280] Vincent Lefèvre, Damien Stehlé, and Paul Zimmermann. Worst cases for the exponential function in the IEEE 754r `decimal64` format. Technical report, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, September 2006. 14 pp. URL `http://www.loria.fr/~zimmerma/papers/decimalexp-lncs-final.pdf; http://www.loria.fr/~zimmerma/wc/decimal32.html; http://www.loria.fr/~zimmerma/wc/decimal64.html`. To appear in a special LNCS issue following the Dagstuhl seminar 06021: Reliable Implementation of Real Number Algorithms: Theory and Practice.

Liew:2006:SRR

[5281] T. H. Liew, Lie-Liang Yang, and L. Hanzo. Systematic redundant residue number system codes: analytical upper bound and iterative decoding performance over AWGN and Rayleigh channels. *IEEE Transactions on Communications*, 54(6):1006–1016, June 2006. CODEN IECMBT. ISSN 0090-6778 (print), 1558-0857 (electronic). URL `https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=34443`.

Lindstrom:2006:FEC

[5282] Peter Lindstrom and Martin Isenburg. Fast and efficient compression of floating-point data. *IEEE Transactions on Visualization and Computer Graphics*, 12(5):1245–1250, September/October 2006. CODEN ITVGEA. ISSN 1077-2626 (print), 1941-0506 (electronic), 2160-9306.

Mahalingam:2006:IAM

[5283] Venkatraman Mahalingam and Nagarajan Ranganathan. Improving accuracy in Mitchell's logarithmic multiplication using operand decomposition. *IEEE Transactions on Computers*, 55(12):1523–1535, December 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1717385`.

Marques:2006:BIF

[5284] Osni A. Marques, E. Jason Riedy, and Christof Vömel. Benefits of IEEE-754 features in modern symmetric tridiagonal eigensolvers. *SIAM Journal on Scientific Computing*, 28(5):1613–1633, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Maslennikowa:2006:DFB

[5285] N. Maslennikowa, O. Maslennikow, R. Berezowski, and J.-P. Lienou. Design of FPGA-based multi-operand modular adders for residue number system converters. In *MIXDES 2006, Proceedings of the International Conference Mixed Design of Integrated Circuits and System, 22–24 June 2006*, pages 264–268. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2006. CODEN ???? ISSN ????

Melquiond:2006:AIC

[5286] Guillaume Melquiond. *De l'arithmétique d'intervalles à la certification de programmes. (French) [From interval arithmetic to program certification]*. Ph.d. dissertation, École normale supérieure de Lyon, Lyon, France, November 21, 2006. vi + 126 pp. URL `https://theses.hal.science/tel-01094485/file/06-these.pdf`.

Meurant:2006:LCG

[5287] Gérard Meurant and Zdeněk Strakoš. The Lanczos and conjugate gradient algorithms in finite precision arithmetic. *Acta Numerica*, 15: 471–542, 2006. CODEN ANUMFU. ISBN 0-521-86815-7. ISSN 0962-4929 (print), 1474-0508 (electronic).

Muller:2006:CLA

[5288] Jean-Michel Muller. CR-LIBM, and Arenaire's results on function implementation. World-Wide Web slides., November 2006. URL `http://grouper.ieee.org/groups/754/email/pdfNTnWzhjsBA.pdf`.

Muller:2006:EFA

[5289] Jean-Michel Muller. *Elementary Functions: Algorithms and Implementation*. Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, second edition, 2006. ISBN 0-8176-4372-9. xxii + 266 pp. LCCN QA331 .M866 2006. US$59.95. URL `http://perso.ens-lyon.fr/jean-michel.muller/SecondEdition.html; http://www.springer.com/sgw/cda/frontpage/0,,4-40109-22-72377986-0,00.html`.

Nievergelt:2006:EPD

[5290] Yves Nievergelt. Extensions of Priest's double-precision summation. *SIAM Journal on Scientific Computing*, 28(5):1837–1850, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Nikmehr:2006:FDF

[5291] H. Nikmehr, B. Phillips, and C.-C. Lim. Fast decimal floating-point division. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 14(9):951–961, September 2006. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

OLeary:2006:CMA

[5292] Dianne P. O'Leary. Computer memory and arithmetic: a look under the hood. *Computing in Science and Engineering*, 8(3):54–59, May/June 2006. CODEN CSENFA. ISSN 1521-9615 (print), 1558-366X (electronic).

Ou:2006:DSE

[5293] Jingzhao Ou and Viktor K. Prasanna. Design space exploration using arithmetic-level hardware–software cosimulation for configurable multiprocessor platforms. *ACM Transactions on Embedded Computing Systems*, 5(2):355–382, May 2006. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic).

Ozban:2006:NMA

[5294] Ahmet Yaşar Özban. New methods for approximating square roots. *Applied Mathematics and Computation*, 175(1):532–540, April 1, 2006. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Park:2006:EBP

[5295] Sun-Mi Park, Ku-Young Chang, and Dowon Hong. Efficient bit-parallel multiplier for irreducible pentanomials using a shifted polynomial basis. *IEEE Transactions on Computers*, 55(9):1211–1215, September 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1668049`.

Parks:2006:UTS

[5296] Michael Parks. Unifying tests for square root. In Anonymous [8024], page ?? ISBN ???? LCCN ????

Perry:2006:BSF

[5297] Tekla S. Perry. Building a supercomputer in a flash. *IEEE Spectrum*, 41(6):24–25, June 2006. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Persson:2006:RCA

[5298] A. Persson and L. Bengtsson. Reverse conversion architectures for signed-digit residue number systems. In *ISCAS 2006, Proceedings, 2006 IEEE International Symposium on Circuits and Systems, 21–24 May 2006*, page 4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2006. CODEN ???? ISSN ????

Piso:2006:OMD

[5299] D. Piso and J. D. Bruguera. Optimizing the multiplier design for Goldschmidt's division and reciprocal units. In ????, editor, *Proceedings of the XXI Conference on Design of Circuits and Integrated Systems (DSIS2006, Barcelona, 2006)*, pages 1C.3–?? ????, ????, 2006.

Pryce:2006:IAC

[5300] J. D. Pryce and G. F. Corliss. Interval arithmetic with containment sets. *Computing: Archiv fur informatik und numerik*, 78(3):251–276, November 2006. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=78&issue=3&spage=251.

Qian:2006:HMP

[5301] Jianbo Qian and Cao An Wang. How much precision is needed to compare two sums of square roots of integers? *Information Processing Letters*, 100(5):194–198, December 16, 2006. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

Rajagopal:2006:TOA

[5302] S. Rajagopal and J. R. Cavallaro. Truncated online arithmetic with applications to communication systems. *IEEE Transactions on Computers*, 55(10):1240–1252, October 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1683755.

Shen:2006:TAS

[5303] Xunyang Shen and Peter R. Turner. Taylor approximation for symmetric level-index arithmetic processing. *IMA Journal of Numerical Analysis*, 26(3):584–603, July 2006. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL http://comjnl.oxfordjournals.org/cgi/content/abstract/26/3/584; http://comjnl.oxfordjournals.org/cgi/reprint/26/3/584.

Shou:2006:MAA

[5304] Huahao Shou, Hongwei Lin, Ralph R. Martin, and Guojin Wang. Modified affine arithmetic in tensor form for trivariate polynomial evaluation and algebraic surface plotting. *Journal of Computational and Applied Mathematics*, 195(1–2):155–171, October 15, 2006. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042705004814.

Singh:2006:IEE

[5305] S. B. Singh and H. S. Kasana. Improved estimates for error in floating point representation analysis. *Bulletin of the Calcutta Mathematical Society*, 98(2):117–124, 2006. CODEN BCMSA5. ISSN 0008-0659.

Solymosi:2006:APS

[5306] József Solymosi. Arithmetic progressions in sets with small sumsets. *Combinatorics, Probability and Computing*, 15(4):597–603, July 2006. CODEN CPCOFG. ISSN 0963-5483 (print), 1469-2163 (electronic). URL http://journals.cambridge.org/action/displayIssue?jid=CPC&volumeId=15&issueId=04.

StDenis:2006:BMH

[5307] Tom St Denis and Greg Rose. *BigNum Math: Implementing Cryptographic Multiple Precision Arithmetic*. Syngress Publishing, Inc., Rockland, MA, USA, 2006. ISBN 1-59749-112-8. xviii + 296 pp. LCCN QA402.5 2006. URL http://www.oreilly.com/catalog/1597491128/index.html.

StDenis:2006:BMI

[5308] Tom St. Denis. *BigNum Math: Implementing Cryptographic Multiple Precision Arithmetic*. Syngress Publishing, Inc., Rockland, MA, USA, 2006. ISBN 1-59749-112-8. xviii + 296 pp. LCCN QA402.5 .S73 2006. US$49.95. URL http://www.oreilly.com/catalog/1597491128/index.html.

Steele:2006:FPM

[5309] Guy L. Steele Jr. Floating point multiplier for delimited operands. US Patent 7003540, February 21, 2006. URL http://www.patentstorm.us/patents/7003540/fulltext.html.

Steele:2006:FPSa

[5310] Guy L. Steele Jr. Floating point system with improved support of interval arithmetic. US Patent 7069288, June 27, 2006. URL http://www.patentstorm.us/patents/7069288/fulltext.html.

Steele:2006:FPSb

[5311] Guy L. Steele Jr. Floating point status information testing circuit. US Patent 7016928, March 21, 2006. URL `http://www.patentstorm.us/patents/7016928/fulltext.html`.

Steele:2006:FPU

[5312] Guy L. Steele Jr. Floating point unit for detecting and representing inexact computations without flags or traps. US Patent 7069289, June 27, 2006. URL `http://www.patentstorm.us/patents/7069289/fulltext.html`.

Steele:2006:SMP

[5313] Guy L. Steele Jr. System and method for performing floating point operations involving extended exponents. US Patent 6993549, January 31, 2006. URL `http://www.patentstorm.us/patents/6993549/fulltext.html`.

Steele:2006:TOC

[5314] Guy L. Steele Jr. Total order comparator unit for comparing values of two floating point operands. US Patent 7133890, November 07, 2006. URL `http://www.patentstorm.us/patents/7133890/fulltext.html`.

Strzebonski:2006:CAD

[5315] Adam W. Strzeboński. Cylindrical Algebraic Decomposition using validated numerics. *Journal of Symbolic Computation*, 41(9):1021–1038, September 2006. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic).

Strzodka:2006:PMP

[5316] R. Strzodka and D. Goddeke. Pipelined mixed precision algorithms on FPGAs for fast and accurate PDE solvers from low precision components. In Pocek and Buell [8034], pages 259–270. ISBN 0-7695-2661-6. LCCN TK7895.G36 .I36 2006. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=4020883`.

Sung:2006:HEV

[5317] Tze yun Sung, Yaw shih Shieh, Chun wang Yu, and Hsi chin Hsin. A high-efficiency vector interpolator using redundant CORDIC arithmetic in power-aware 3-d graphics rendering. In *2006 Seventh International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT'06)*, pages 44–49. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2006.

Taylor:2006:IAI

[5318] Paul Taylor. Interval analysis without intervals. In Anonymous [8024], page ?? ISBN ???? LCCN ????

Thakkar:2006:PDP

[5319] Anuja J. Thakkar and Abdel Ejnioui. Pipelining of double precision floating point division and square root operations. In Menezes [8032], pages 488–493. ISBN 1-59593-315-8 (print). LCCN QA75.5 A184 2006 E.

Thapliyal:2006:CIF

[5320] Himanshu Thapliyal, Hamid R. Arabnia, and A. P. Vinod. Combined integer and floating point multiplication architecture (CIFM) for FPGAs and its reversible logic implementation. *arXiv.org*, ??(??):??, October 14, 2006. CODEN ???? ISSN ???? URL http://arxiv.org/abs/cs/0610090.

Thapliyal:2006:DNR

[5321] Himanshu Thapliyal and Sumedha K. Gupta. Design of novel reversible carry look-ahead BCD subtractor. In Mohanty and Sahoo [8033], pages 253–258. ISBN 0-7695-2635-7. LCCN QA76.575 .I25 2006.

Thapliyal:2006:NBA

[5322] H. Thapliyal, S. Kotiyal, and M. B. Srinivas. Novel BCD adders and their reversible logic implementation for IEEE 754R format. In IEEE [8030], pages xli + 837. ISBN 0-7695-2502-4 (paperback). LCCN TK7874 .I4728 2006.

Toivonen:2006:VFF

[5323] T. Toivonen and J. Heikkila. Video filtering with Fermat number theoretic transforms using residue number system. *IEEE Transactions on Circuits and Systems for Video Technology*, 16(1):92–101, January 2006. CODEN ITCTEM. ISSN 1051-8215 (print), 1558-2205 (electronic). URL https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=33196.

Trott:2006:MGN

[5324] Michael Trott. *The Mathematica guidebook for numerics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006. ISBN 0-387-95011-7. xxxvi + 1208 pp. LCCN QA76.95 .T773 2006. With 1 DVD (Windows, Macintosh, Mac, UNIX).

VanMeter:2006:DAQ

[5325] Rodney Van Meter, Kae Nemoto, W. J. Munro, and Kohei M. Itoh. Distributed arithmetic on a quantum multicomputer. *ACM SIGARCH Computer Architecture News*, 34(2):354–365, 2006. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Vazquez:2006:CSD

[5326] Alvaro Vazquez and Elisardo Antelo. Conditional speculative decimal addition. In Anonymous [8024], page ?? ISBN ???? LCCN ????

Villalba:2006:DRM

[5327] J. Villalba, T. Lang, and M. A. Gonzalez. Double-residue modular range reduction for floating-point hardware implementations. *IEEE Transactions on Computers*, 55(3):254–267, March 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1583556.

Wang:2006:ACV

[5328] X. Wang, S. Braganza, and M. Leeser. Advanced components in the variable precision floating-point library. In Pocek and Buell [8034], pages 249–258. ISBN 0-7695-2661-6. LCCN TK7895.G36 .I36 2006. URL https://ieeexplore.ieee.org/servlet/opac?punumber=4020883.

Wang:2006:PAN

[5329] Chengpu Wang. Precision arithmetic: A new floating-point arithmetic. *arXiv.org*, ??(??):??, June 25, 2006. CODEN ???? ISSN ???? URL http://arxiv.org/abs/cs/0606103.

Wires:2006:RRS

[5330] Kent E. Wires and Michael J. Schulte. Reciprocal and reciprocal square root units with operand modification and multiplication. *Journal of VLSI Signal Processing*, 42(3):257–272, March 2006. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic). URL http://springerlink.metapress.com/content/t6027p6713727606/fulltext.pdf.

Wong:2006:FES

[5331] K. W. Wong, Edward C. W. Lee, L. M. Cheng, and Xiaofeng Liao. Fast elliptic scalar multiplication using new double-base chain and point halving. *Applied Mathematics and Computation*, 183(2):1000–1007, December 15, 2006. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Xenoulis:2006:TAS

[5332] G. Xenoulis, M. Psarakis, D. Gizopoulos, and A. Paschalis. Testability analysis and scalable test generation for high-speed floating-point units. *IEEE Transactions on Computers*, 55(11):1449–1457, November 2006. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1705453.

Xia:2006:RSI

[5333] Bican Xia and Ting Zhang. Real solution isolation using interval arithmetic. *Computers and Mathematics with Applications*, 52(6–7):853–860, September/October 2006. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0898122106002896.

XILINX:2006:XLF

[5334] XILINX. *XILINX LogiCORE floating-point operator v3.0 product specification*. Xilinx, Inc., September 28, 2006. URL http://www.xilinx.com/bvdocs/ipcenter/data_sheet/floating_point_ds335.pdf.

You:2006:DDA

[5335] Younggap You, Yong Dae Kim, and Jong Hwa Choi. Dynamic decimal adder circuit design by using the carry lookahead. In IEEE [8031], pages 242–244. ISBN 1-4244-0184-4 (softbound). LCCN TK7874 .I32745 2005. URL https://ieeexplore.ieee.org/iel5/10974/34591/01649627.pdf. IEEE catalog number: 06EX1307.

Zhu:2006:FGA

[5336] Yong-Kang Zhu and Wayne Hayes. Fast, guaranteed-accurate sums of many floating-point numbers. In Anonymous [8024], page ?? ISBN ???? LCCN ????

Zimmermann:2006:AFD

[5337] Paul Zimmermann. Asymptotically fast division for GMP. Technical report, LORIA/INRIA Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, August 31, 2006. URL http://www.loria.fr/~zimmerma/papers/invert.pdf.

Zimmermann:2006:EBC

[5338] Paul Zimmermann, Richard Brent, and Colin Percival. Errors bounds on complex floating-point multiplication. Technical report, LORIA/INRIA

Lorraine, Bâtiment A, Technopôle de Nancy-Brabois, 615 rue du jardin botanique, F-54602 Villers-lès-Nancy Cedex, France, 2006. ???? pp. URL http://www.loria.fr/~zimmerma/papers/index.html.

Zimmermann:2006:WC

[5339] Paul Zimmermann. Worst cases for sin(BIG). World-Wide Web slides., November 2, 2006. URL http://www.loria.fr/~zimmerma/talks/sinbig.pdf.

Zimmermann:2006:YE

[5340] Paul Zimmermann and Bruce Dodson. 20 years of ECM. In Hess et al. [8029], pages 525–541. ISBN 3-540-36075-1 (paperback). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA241 .A43 2006. URL https://members.loria.fr/PZimmermann/papers/40760525.pdf.

Abtahi:2007:FSD

[5341] M. Abtahi and P. Siy. The factor-2 sign detection algorithm using a core function for RNS numbers. *Computers and Mathematics with Applications*, 53(9):1455–1463, May 2007. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0898122107001150.

Aharoni:2007:SCI

[5342] Merav Aharoni, Ron Maharik, and Abraham Ziv. Solving constraints on the intermediate result of decimal floating-point operations. In Kornerup and Muller [8047], pages 38–45. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/papers/aharoni-DecimalConstraints.pdf.

Anonymous:2007:AI

[5343] Anonymous. Author index. In Kornerup and Muller [8047], page 269. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Anonymous:2007:CPSa

[5344] Anonymous. Call for papers for special issue on computer arithmetic. *IEEE Transactions on Computers*, 56(1):144, January 2007. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Anonymous:2007:CPSb

[5345] Anonymous. Call for papers for special section on computer arithmetic. *IEEE Transactions on Computers*, 56(2):287, February 2007. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Balasubramaniam:2007:ECS

[5346] P. Balasubramaniam and E. Karthikeyan. Elliptic curve scalar multiplication algorithm using complementary recoding. *Applied Mathematics and Computation*, 190(1):51–56, July 1, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Balasubramaniam:2007:FSS

[5347] P. Balasubramaniam and E. Karthikeyan. Fast simultaneous scalar multiplication. *Applied Mathematics and Computation*, 192(2):399–404, September 15, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Beebe:2007:ETM

[5348] Nelson H. F. Beebe. Extending TeX and METAFONT with floating-point arithmetic. *TUGboat (Journal of the TeX Users Group)*, 28(3):319–328, 2007. ISSN 0896-3207. URL `https://tug.org/TUGboat/tb28-3/tb90beebe.pdf`.

Beebe:2007:NDF

[5349] Nelson H. F. Beebe. New directions in floating-point arithmetic. In Simos and Maroulis [8051], pages 155–158. ISBN 0-7354-0476-3 (set), 0-7354-0477-1 (vol. 1), 0-7354-0478-X (vol. 2). LCCN Q183.9 2007. Two volumes.

Beuchat:2007:ANP

[5350] Jean-Luc Beuchat, Masaaki Shirase, Tsuyoshi Takagi, and Eiji Okamoto. An algorithm for the ηT pairing calculation in characteristic three and its hardware implementation. In Kornerup and Muller [8047], pages 97–104. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL `http://www.lirmm.fr/arith18/`.

Bodrato:2007:IPM

[5351] Marco Bodrato and Alberto Zanoni. Integer and polynomial multiplication: towards optimal Toom–Cook matrices. In Brown [8040], pages 17–24. ISBN 1-59593-743-9 (print), 1-59593-742-0 (CD-ROM). LCCN QA76.5 S98 2007. ACM order number 505070.

Boldo:2007:FPD

[5352] Sylvie Boldo, Marc Daumas, and Pascal Giorgi. Formal proof for delayed finite field arithmetic using floating point operators. *arXiv.org*, ??(??): ??, March 6, 2007. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/cs/0703026`.

Boldo:2007:FVF

[5353] Sylvie Boldo and Jean-Christophe Filliatre. Formal verification of floating-point programs. In Kornerup and Muller [8047], pages 187–194. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lri.fr/~filliatr/ftp/publis/caduceus-floats.pdf.

Boldo:2007:PCA

[5354] Sylvie Boldo, Marc Daumas, William Kahan, and Guillaume Melquiond. Proof and certification of an accurate discriminant. In Luther and Otten [8048], page ?? ISBN 0-7695-2821-X. LCCN QA297.I5 2007. URL https://ieeexplore.ieee.org/servlet/opac?punumber=4402381. IEEE Computer Society Order Number E2821.

Brent:2007:EBC

[5355] Richard Brent, Colin Percival, and Paul Zimmermann. Error bounds on complex floating-point multiplication. *Mathematics of Computation*, 76(259):1469–1481, 2007. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Brisebarre:2007:CRA

[5356] Nicolas Brisebarre and Jean-Michel Muller. Correct rounding of algebraic functions. *RAIRO. Informatique théorique et applications := Theoretical informatics and applications*, 41(1):71–83, January 2007. CODEN RSITD7, RITAE4. ISSN 0988-3754 (print), 1290-385X (electronic).

Brisebarre:2007:EPA

[5357] Nicolas Brisebarre and Sylvain Chevillard. Efficient polynomial L^∞-approximations. In Kornerup and Muller [8047], pages 169–176. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Brisebarre:2007:FPA

[5358] Nicolas Brisebarre and Guillaume Hanrot. Floating-point L^2-approximations to functions. In Kornerup and Muller [8047], pages 177–186. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Burgess:2007:DAV

[5359] Neil Burgess and Chris N. Hinds. Design of the ARM VFP11 divide and square root synthesisable macrocell. In Kornerup and Muller [8047], pages 87–96. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Ceberio:2007:ITA

[5360] Martine Ceberio, Vladik Kreinovich, Sanjeev Chopra, Luc Longpré, Hung T. Nguyen, Bertram Ludäscher, and Chitta Baral. Interval-type and affine arithmetic-type techniques for handling uncertainty in expert systems. *Journal of Computational and Applied Mathematics*, 199(2):403–410, February 15, 2007. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S037704270500779X.

Chaves:2007:IRN

[5361] R. Chaves and L. Sousa. Improving residue number system multiplication with more balanced moduli sets and enhanced modular arithmetic structures. *IET Computers & Digital Techniques*, 1(5):472–480, September 2007. CODEN ICDTEA, ICDTEX. ISSN 1751-8601 (print), 1751-861X (electronic). URL http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=4312767; https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=4117424.

Chen:2007:NSA

[5362] Gang Chen, Guoqiang Bai, and Hongyi Chen. A new systolic architecture for modular division. *IEEE Transactions on Computers*, 56(2):282–286, February 2007. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4042687.

Cho:2007:BBL

[5363] Wendy K. Tam Cho and Brian J. Gaines. Breaking the (Benford) Law. *The American Statistician*, 61(3):218–223, August 2007. CODEN ASTAAJ. ISSN 0003-1305 (print), 1537-2731 (electronic).

Cho:2007:SPM

[5364] Heumpil Cho and Earl E. Swartzlander, Jr. Serial parallel multiplier design in quantum-dot cellular automata. In Kornerup and Muller [8047], pages 7–15. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Chung:2007:ASF

[5365] Jaewook Chung and M. Anwar Hasan. Asymmetric squaring formulae. In Kornerup and Muller [8047], pages 113–122. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Chung:2007:LWP

[5366] Jaewook Chung and M. Anwar Hasan. Low-weight polynomial form integers for efficient modular multiplication. *IEEE Transactions on Computers*, 56(1):44–57, January 2007. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4016496.

Chung:2007:MRA

[5367] Jaewook Chung and M. Anwar Hasan. Montgomery reduction algorithm for modular multiplication using low-weight polynomial form integers. In Kornerup and Muller [8047], pages 230–239. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Cornea:2007:SII

[5368] Marius Cornea, Cristina Anderson, John Harrison, Ping Tak Peter Tang, Eric Schneider, and Charles Tsen. A software implementation of the IEEE 754R decimal floating-point arithmetic using the binary encoding format. In Kornerup and Muller [8047], pages 29–37. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/papers/CorneaM_Decimal_ARITH18.pdf.

Cowlishaw:2007:DCL

[5369] Mike Cowlishaw. *The decNumber C library*. IBM Corporation, San Jose, CA, USA, April 18, 2007. URL http://download.icu-project.org/ex/files/decNumber/decNumber-icu-340.zip. Version 3.40.

Dadda:2007:MPD

[5370] Luigi Dadda. Multioperand parallel decimal adder: a mixed binary and BCD approach. *IEEE Transactions on Computers*, 56(10):1320–1328, October 2007. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

David:2007:HCM

[5371] J. P. David, K. Kalach, and N. Tittley. Hardware complexity of modular multiplication and exponentiation. *IEEE Transactions on Computers*, 56(10):1308–1319, October 2007. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4302704.

deDinechin:2007:FCR

[5372] Florent de Dinechin, Christoph Lauter, and Jean-Michel Muller. Fast and correctly rounded logarithms in double-precision. *RAIRO. Informatique* *théorique et applications := Theoretical informatics and applications*, 41 (1):85–102, January 2007. CODEN RSITD7, RITAE4. ISSN 0988-3754 (print), 1290-385X (electronic).

Detrey:2007:RHF

[5373] Jeremie Detrey, Florent de Dinechin, and Xavier Pujol. Return of the hardware floating-point elementary function. In Kornerup and Muller [8047], pages 161–168. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Detrey:2007:TUC

[5374] Jérémie Detrey and Florent Dinechin. A tool for unbiased comparison between logarithmic and floating-point arithmetic. *Journal of VLSI Signal Processing*, 49(1):161–175, October 2007. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Diekmann:2007:FDU

[5375] Andreas Diekmann. Not the first digit! Using Benford's Law to detect fraudulent scientific data. *Journal of Applied Statistics*, 34(3):321–329, 2007. CODEN ???? ISSN 0266-4763 (print), 1360-0532 (electronic).

Dieter:2007:LCM

[5376] W. R. Dieter, A. Kaveti, and H. G. Dietz. Low-cost microarchitectural support for improved floating-point accuracy. *IEEE Computer Architecture Letters*, 6(1):13–16, January 2007. CODEN ???? ISSN 1556-6056 (print), 1556-6064 (electronic).

Dimitrov:2007:MCS

[5377] Vassil Dimitrov, Laurent Imbert, and Andrew Zakaluzny. Multiplication by a constant is sublinear. In Kornerup and Muller [8047], pages 261–268. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Doornik:2007:CHP

[5378] Jurgen A. Doornik. Conversion of high-period random numbers to floating point. *ACM Transactions on Modeling and Computer Simulation*, 17(1):??, January 2007. CODEN ATMCEZ. ISSN 1049-3301 (print), 1558-1195 (electronic).

Duale:2007:DFP

[5379] A. Y. Duale, M. H. Decker, H.-G. Zipperer, M. Aharoni, and T. J. Bohizic. Decimal floating-point in z9: An implementation and testing perspective. *IBM Journal of Research and Development*, 51(1/2):217–227, January /March 2007. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/511/duale.html.

Eisen:2007:IPA

[5380] L. Eisen, J. W. Ward III, H.-W. Tast, N. Mäding, J. Leenstra, S. M. Mueller, C. Jacobi, J. Preiss, E. M. Schwarz, and S. R. Carlough. IBM POWER6 accelerators: VMX and DFU. *IBM Journal of Research and Development*, 51(6):663–683, November 2007. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/rd/516/eisen.html.

Eisinberg:2007:AFP

[5381] A. Eisinberg and G. Fedele. Accurate floating-point summation: a new approach. *Applied Mathematics and Computation*, 189(1):410–424, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Ercegovac:2007:CSR

[5382] Miloš D. Ercegovac and Jean-Michel Muller. Complex square root with operand prescaling. *Journal of VLSI Signal Processing*, 49(1):19–30, October 2007. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Ercegovac:2007:HOM

[5383] Miloš D. Ercegovac and Jean-Michel Muller. A hardware-oriented method for evaluating complex polynomials. In IEEE, editor, *2007 IEEE International Conference on Application-specific Systems, Architectures and Processors (ASAP), Montréal, Canada, July 8–11, 2007*, pages 122–127. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 1-4244-1027-4.

Erle:2007:DFP

[5384] Mark A. Erle, Michael J. Schulte, and Brian J. Hickmann. Decimal floating-point multiplication via carry-save addition. In Kornerup and Muller [8047], pages 46–55. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/papers/erlem-DFPmultiplication-v2.pdf.

Fan:2007:NAS

[5385] Haining Fan and M. Anwar Hasan. A new approach to subquadratic space complexity parallel multipliers for extended binary fields. *IEEE Transactions on Computers*, 56(2):224–233, February 2007. CODEN

ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4042682.

Fan:2007:SCC

[5386] Haining Fan and M. Anwar Hasan. Subquadratic computational complexity schemes for extended binary field multiplication using optimal normal bases. *IEEE Transactions on Computers*, 56(10):1435–1437, October 2007. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4302715.

Fousse:2007:AMP

[5387] Laurent Fousse. Accurate multiple-precision Gauss–Legendre quadrature. In Kornerup and Muller [8047], pages 150–160. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Fousse:2007:MMP

[5388] Laurent Fousse, Guillaume Hanrot, Vincent Lefèvre, Patrick Pélissier, and Paul Zimmermann. MPFR: a multiple-precision binary floating-point library with correct rounding. *ACM Transactions on Mathematical Software*, 33(2):1–15, June 2007. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Fousse:2007:MPC

[5389] Laurent Fousse. Multiple-precision correctly rounded Newton–Cotes quadrature. *RAIRO. Informatique théorique et applications := Theoretical informatics and applications*, 41(1):103–121, January 2007. CODEN RSITD7, RITAE4. ISSN 0988-3754 (print), 1290-385X (electronic).

Frommer:2007:PEZ

[5390] A. Frommer, F. Hoxha, and B. Lang. Proving the existence of zeros using the topological degree and interval arithmetic. *Journal of Computational and Applied Mathematics*, 199(2):397–402, February 15, 2007. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042705007788.

Furer:2007:FIM

[5391] Martin Fürer. Faster integer multiplication. In ACM [8036], pages 57–66. ISBN 1-59593-631-9. LCCN ????

Gaudry:2007:GBI

[5392] Pierrick Gaudry, Alexander Kruppa, and Paul Zimmermann. A gmp-based implementation of Schönhage–Strassen's large integer multiplication algorithm. In Brown [8040], pages 167–174. ISBN 1-59593-743-9 (print), 1-59593-742-0 (CD-ROM). LCCN QA76.5 S98 2007. ACM order number 505070.

Goel:2007:RMS

[5393] S. Goel and S. K. Dash. Response of model simulated weather parameters to round-off-errors on different systems. *Environmental Modelling & Software*, 22(8):1164–1174, August 2007. CODEN EMSOFT. ISSN 1364-8152 (print), 1873-6726 (electronic).

Goldberg:2007:FIP

[5394] Ronen Goldberg, Guy Even, and Peter-Michael Seidel. An FPGA implementation of pipelined multiplicative division with IEEE rounding. In Pocek and Buell [8050], pages 185–196. ISBN 0-7695-2940-2. LCCN TK7895.G36 2007. URL https://ieeexplore.ieee.org/servlet/opac?punumber=4297231. IEEE Computer Society order number P2940.

Hanrot:2007:WCP

[5395] Guillaume Hanrot, Vincent Lefèvre, Damien Stehle, and Paul Zimmermann. Worst cases of a periodic function for large arguments. In Kornerup and Muller [8047], pages 133–140. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Harrison:2007:FPV

[5396] J. Harrison. Floating-point verification. *J.UCS: Journal of Universal Computer Science*, 13(5):629–638, ???? 2007. CODEN ???? ISSN 0948-6968. URL http://www.jucs.org/jucs_13_5/floating_point_verification.

Hasenplaugh:2007:FMR

[5397] William Hasenplaugh, Gunnar Gaubatz, and Vinodh Gopal. Fast modular reduction. In Kornerup and Muller [8047], pages 225–229. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Hernandez:2007:MPO

[5398] M. A. Hernández and N. Romero. Methods with prefixed order for approximating square roots with global and general convergence. *Applied Mathematics and Computation*, 194(2):346–353, December 15, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Hilewitz:2007:PAB

[5399] Yedidya Hilewitz and Ruby B. Lee. Performing advanced bit manipulations efficiently in general-purpose processors. In Kornerup and Muller [8047], pages 251–260. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL `http://www.lirmm.fr/arith18/`.

Holmes:2007:BA

[5400] Neville Holmes. Binary arithmetic. *Computer*, 40(6):90–93, June 2007. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Homann:2007:IFPa

[5401] Holger Homann, Jürgen Dreher, and Rainer Grauer. Impact of the floating-point precision and interpolation scheme on the results of DNS of turbulence by pseudo-spectral codes. *arXiv.org*, ??(??):??, May 22, 2007. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/0705.3144`. Published in [5402].

Homann:2007:IFPb

[5402] Holger Homann, Jürgen Dreher, and Rainer Grauer. Impact of the floating-point precision and interpolation scheme on the results of DNS of turbulence by pseudo-spectral codes. *Computer Physics Communications*, 177(7):560–565, October 1, 2007. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465507002998`.

Hosangadi:2007:AMO

[5403] Anup Hosangadi, Farzan Fallah, and Ryan Kastner. Algebraic methods for optimizing constant multiplications in linear systems. *Journal of VLSI Signal Processing*, 49(1):31–50, October 2007. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Hosseinzadeh:2007:NMS

[5404] M. Hosseinzadeh, K. Navi, and S. Gorgin. A new moduli set for residue number system: $\{r^n - 2, r^n - 1, r^n\}$. In *ICEE '07, International Conference on Electrical Engineering, 11–12 April 2007*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. CODEN ???? ISSN ????

Huang:2007:NAM

[5405] Libo Huang, Li Shen, Kui Dai, and Zhiying Wang. A new architecture for multiple-precision floating-point multiply-add fused unit design. In

Kornerup and Muller [8047], pages 69–76. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Iguchi:2007:DRC

[5406] Yukihiro Iguchi, Tsutomu Sasao, and Munehiro Matsuura. On designs of radix converters using arithmetic decompositions—binary to decimal converters—. In IEEE [8046], page 32. ISBN 0-7695-2831-7. ISSN 0195-623X. LCCN ????

Ihsberner:2007:REA

[5407] Katja Ihsberner. Roundoff error analysis of fast DCT algorithms in fixed point arithmetic. *Numerical Algorithms*, 46(1):1–22, September 2007. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=1017-1398&volume=46&issue=1&spage=1.

James:2007:QAD

[5408] Rekha K. James, Shahana T. K., K. Poulose Jacob, and Sreela Sasi. Quick addition of decimals using reversible conservative logic. In IEEE [8042], pages 191–195. ISBN 0-7695-3059-1. LCCN ????

Kapre:2007:OPF

[5409] Nachiket Kapre and Andre DeHon. Optimistic parallelization of floating-point accumulation. In Kornerup and Muller [8047], pages 205–216. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Kechagias:2007:CME

[5410] P. S. Kechagias and Basil K. Papadopoulos. Computational method to evaluate fuzzy arithmetic operations. *Applied Mathematics and Computation*, 185(1):169–177, February 1, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Khabbazian:2007:DPC

[5411] M. Khabbazian, T. A. Gulliver, and V. K. Bhargava. Double point compression with applications to speeding up random point multiplication. *IEEE Transactions on Computers*, 56(3):305–313, March 2007. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4079514.

Knowles:2007:RSE

[5412] Simon Knowles. The return of silicon efficiency. In Kornerup and Muller [8047], page 3. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL `http://www.lirmm.fr/arith18/`.

Kobayashi:2007:AIG

[5413] Katsuki Kobayashi, Naofumi Takagi, and Kazuyoshi Takagi. An algorithm for inversion in GF(2^m) suitable for implementation using a polynomial multiply instruction on GF(2). In Kornerup and Muller [8047], pages 105–112. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL `http://www.lirmm.fr/arith18/`.

Kornerup:2007:CIPa

[5414] Peter Kornerup, Vincent Lefèvre, and Jean-Michel Muller. Computing integer powers in floating-point arithmetic. *arXiv.org*, ??(??):??, May 30, 2007. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/0705.4369`. Published in [5415].

Kornerup:2007:CIPb

[5415] Peter Kornerup, Vincent Lefevre, and Jean-Michel Muller. Computing integer powers in floating-point arithmetic. In Michael B. Matthews, editor, *2007 Conference Record of the Forty-First Asilomar Conference on Signals, Systems and Computers, November 4–7, 2007. Pacific Grove, California*, pages 343–347. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 1-4244-2110-1. ISSN 1058-6393.

Kuliamin:2007:STI

[5416] V. V. Kuliamin. Standardization and testing of implementations of mathematical functions in floating point numbers. *Programming and Computer Software; translation of Programmirovaniye (Moscow, USSR) Plenum*, 33(3):154–173, 2007. CODEN PCSODA. ISSN 0361-7688 (print), 1608-3261 (electronic).

Lambov:2007:REI

[5417] Branimir Lambov. RealLib: An efficient implementation of exact real arithmetic. *Mathematical Structures in Computer Science*, 17(1):81–98, February 2007. ISSN 0960-1295. URL `http://www.brics.dk/~barnie/RealPractical.pdf`.

Lang:2007:RDR

[5418] Tomas Lang and Alberto Nannarelli. A radix-10 digit-recurrence division unit: Algorithm and architecture. *IEEE Transactions on Computers*, 56

(6):727–739, June 2007. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4167785.

Langlois:2007:HEF

[5419] Philippe Langlois and Nicolas Louvet. How to ensure a faithful polynomial evaluation with the compensated Horner algorithm. In Kornerup and Muller [8047], pages 141–149. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Langlois:2007:MIL

[5420] Philippe Langlois and Nicolas Louvet. More instruction level parallelism explains the actual efficiency of compensated algorithms. Technical report, Laboratoire de Physique Appliquée et d'Automatique, Perpignan, France, 2007. 11 pp. URL http://hal.archives-ouvertes.fr/hal-00165020; https://hal.archives-ouvertes.fr/hal-00165020/document.

Laurie:2007:VPA

[5421] Dirk Laurie. Variable-precision arithmetic considered perilous — a detective story. *Electronic Transactions on Numerical Analysis*, 28: 168–173, 2007/2008. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL http://etna.mcs.kent.edu/vol.28.2007-2008/pp168-173.dir/pp168-173.pdf. Special volume for Gene Golub.

Lefevre:2007:SNP

[5422] Vincent Lefévre and Jean-Michel Muller. Some notes on the possible under/overflow of the most common elementary functions. Report, LIP, École Normale Supérieure de Lyon, Lyon, France, 2007. 7 pp. URL http://prunel.ccsd.cnrs.fr/ensl-00149414.

Li:2007:DDP

[5423] Zhaolin Li and Gongqiong Li. Design of a double-precision floating-point multiply-add-fused unit with consideration of data dependence. In Becker [8038], pages 492–497. ISBN 0-7695-2896-1. LCCN ????

Li:2007:DEF

[5424] Zhaolin Li and Gongqiong Li. Design of an extended floating-point multiply-add-fused unit for exploiting instruction-level parallelism. In IEEE [8044], pages 17–20. ISBN 1-4244-0797-4. LCCN TK7874 2007. URL https://ieeexplore.ieee.org/servlet/opac?punumber=4441779.

Li:2007:DFP

[5425] Gongqiong Li and Zhaolin Li. Design of a fully pipelined single-precision multiply-add-fused unit. In IEEE [8045], pages 318–323. ISBN 1-4244-3079-8. LCCN TK7874 .I4728 2007. URL https://ieeexplore.ieee.org/servlet/opac?punumber=4091978. IEEE Computer Society Order Number P2762.

Li:2007:FAT

[5426] Xin Li, Marc Moreno Maza, and Éric Schost. Fast arithmetic for triangular sets: from theory to practice. In Brown [8040], pages 269–276. ISBN 1-59593-743-9 (print), 1-59593-742-0 (CD-ROM). LCCN QA76.5 S98 2007. ACM order number 505070.

Lopez:2007:EIF

[5427] Guillermo A. Lopez, Michela Taufer, and Patricia J. Teller. Evaluation of IEEE 754 floating-point arithmetic compliance across a wide range of heterogeneous computers. In Morales and Howard [8049], pages 1–4. ISBN 1-59593-866-4. LCCN ????

Louvet:2007:ACA

[5428] Nicolas Louvet. *Algorithmes compensés en arithmétique flottante: précision, validation, performances.* Docteur de l'université de Perpignan spécialité: Informatique, Laboratoire ELIAUS: Électronique, Informatique, Automatique et Systèmes, Université de Perpignan Via Domitia, Perpignan, France, November 27, 2007. vi + 188 pp. URL https://tel.archives-ouvertes.fr/tel-01315543/en.

Lundvall:2007:CDF

[5429] Shawn D. Lundvall, Eric M. Schwarz, Ronald M. Smith, Sr., and Phil C. Yeh. Composition of decimal floating point data, and methods therefor. US Patent 8060545B2., April 26, 2007. URL https://patents.google.com/patent/US8060545.

Lundvall:2007:DDF

[5430] Shawn D. Lundvall, Eric M. Schwarz, Ronald M. Smith, Sr., and Phil C. Yeh. Decomposition of decimal floating point data. US Patent 9690580B2., April 26, 2007. URL https://patents.google.com/patent/US9690580B2/en.

Maslennikow:2007:DFB

[5431] Oleg Maslennikow, Natalia Maslennikowa, Magdalena Rajewska, Dariusz Gretkowski, and Jean-Pierre Lienou. Design of FPGA-based residue number system converters for digital signal processing systems. In *CADSM '07. 9th International Conference — The Experience of Designing and Applications of CAD Systems in Microelectronics*, pages 194–201. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. CODEN ???? ISSN ????

Melquiond:2007:FCF

[5432] Guillaume Melquiond and Sylvain Pion. Formally certified floating-point filters for homogeneous geometric predicates. *RAIRO. Informatique théorique et applications := Theoretical informatics and applications*, 41 (1):57–69, 2007. CODEN RSITD7, RITAE4. ISSN 0988-3754 (print), 1290-385X (electronic).

Mine:2007:RAD

[5433] Antoine Miné. Relational abstract domains for the detection of floating-point run-time errors. *arXiv.org*, ??(??):??, March 15, 2007. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/cs/0703077`. Published in European Symposium on Programming (ESOP) (03/2004) 3–17.

Mitchell:2007:MFP

[5434] D. Mitchell and S. Noble. Multiprecision floating-point arithmetic on Apple systems. Report, Advanced Computation Group, Apple Computer, Cupertino, CA, USA, March 13, 2007. 23 pp. URL `http://images.apple.com/acg/pdf/MP_Floating_Point_20070313.pdf`.

Miyajima:2007:ETS

[5435] Shinya Miyajima and Masahide Kashiwagi. Existence test for solution of nonlinear systems applying affine arithmetic. *Journal of Computational and Applied Mathematics*, 199(2):304–309, February 15, 2007. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S037704270500765X`.

Monniaux:2007:AZT

[5436] David Monniaux. Applying the Z-transform for the static analysis of floating-point numerical filters. *arXiv.org*, ??(??):??, June 2, 2007. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/0706.0252`.

Monniaux:2007:PVFa

[5437] David Monniaux. The pitfalls of verifying floating-point computations. Technical report HAL-00128124, CNRS/École Normale Supérieure, 45, rue d'Ulm 75230 Paris cedex 5, France, June 29, 2007. 44 pp. URL `http://hal.archives-ouvertes.fr/docs/00/15/88/63/PDF/floating-point.pdf`. Published in [5523].

Monniaux:2007:PVFb

[5438] David Monniaux. The pitfalls of verifying floating-point computations. *arXiv.org*, ??(??):??, January 30, 2007. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/cs/0701192`. Published in [5523].

Montuschi:2007:DDA

[5439] P. Montuschi, J. D. Bruguera, L. Ciminiera, and J.-A. Pieiro. A digit-by-digit algorithm for m th root extraction. *IEEE Transactions on Computers*, 56(12):1696–1706, December 2007. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4358221`.

Muller-Olm:2007:AMA

[5440] Markus Müller-Olm and Helmut Seidl. Analysis of modular arithmetic. *ACM Transactions on Programming Languages and Systems*, 29(5):29:1–29:27, August 2007. CODEN ATPSDT. ISSN 0164-0925 (print), 1558-4593 (electronic).

Nikmehr:2007:FRF

[5441] Hooman Nikmehr, Braden Phillips, and Cheng-Chew Lim. A fast radix-4 floating-point divider with quotient digit selection by comparison multiples. *The Computer Journal*, 50(1):81–92, January 2007. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://comjnl.oxfordjournals.org/cgi/content/abstract/50/1/81`; `http://comjnl.oxfordjournals.org/cgi/content/full/50/1/81`; `http://comjnl.oxfordjournals.org/cgi/reprint/50/1/81`.

Osborne:2007:AAG

[5442] W. Osborne, R. Cheung, J. Coutinho, W. Luk, and O. Mencer. Automatic accuracy-guaranteed bit-width optimization for fixed and floating-point systems. In Bertels et al. [8039], pages 617–620. ISBN 1-4244-1060-6. LCCN TK7895.G36 2007. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=4380601`. IEEE catalog number 07EX1708C.

Pan:2007:EFS

[5443] V. Y. Pan, B. Murphy, G. Qian, and R. E. Rosholt. Error-free summations via floating-point operations. Report 2007010 and 2007013, CUNY Ph.D. Program in Computer Science, Graduate Center, City University of New York, New York, NY, USA, 2007.

Pan:2007:SAS

[5444] V. Y. Pan, B. Murphy, R. E. Rosholt, and M. Tabanjeh. The Schur aggregation for solving linear systems of equations. In Jan Verschelde and Stephen M. Watt, editors, *SNC'07: proceedings of the 2007 International Workshop on Symbolic–Numeric Computation, London (Ontario, Canada), July 25–27, 2007*, pages 142–151. ACM Press, New York, NY 10036, USA, 2007. ISBN 1-59593-744-7 (paperback). LCCN QA9.59 .S53 2007.

Patel:2007:FMA

[5445] R. A. Patel, M. Benaissa, and S. Boussakta. Fast modulo $2^n-(2^{n-2}+1)$ addition: a new class of adder for RNS. *IEEE Transactions on Computers*, 56(4):572–576, April 2007. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4118680`.

Patil:2007:REE

[5446] Dinesh Patil, Omid Azizi, Mark Horowitz, Ron Ho, and Rajesh Ananthraman. Robust energy-efficient adder topologies. In Kornerup and Muller [8047], pages 16–28. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL `http://www.lirmm.fr/arith18/`.

Pearce:2007:MLH

[5447] Roman Pearce and Michael Monagan. A Maple library for high performance sparse polynomial arithmetic. *ACM Communications in Computer Algebra*, 41(3):110–111, September 2007. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Rauh:2007:ROI

[5448] Andreas Rauh, Marco Kletting, Harald Aschemann, and Eberhard P. Hofer. Reduction of overestimation in interval arithmetic simulation of biological wastewater treatment processes. *Journal of Computational and Applied Mathematics*, 199(2):207–212, February 15, 2007. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042705007521`.

Saldamli:2007:SME

[5449] Gokay Saldamli and Cetin K. Koc. Spectral modular exponentiation. In Kornerup and Muller [8047], pages 123–132. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL `http://www.lirmm.fr/arith18/`.

Saqib:2007:CAI

[5450] Nazar Abbas Saqib. Complexity analysis for 4-input/1-output FPGAs applied to multiplier designs. *Scalable Computing: Practice and Experience*, 8(4):411–422, December 2007. CODEN ???? ISSN 1895-1767. URL http://www.scpe.org/vols/vol08/no4/SCPE_8_4_07.pdf; http://www.scpe.org/vols/vol08/no4/SCPE_8_4_07.zip.

Schulte:2007:FPD

[5451] M. J. Schulte, D. Tan, and C. E. Lemonds. Floating-point division algorithms for an x86 microprocessor with a rectangular multiplier. In IEEE, editor, *Proceedings of the 25th IEEE International Conference on Computer Design: 7–10 October 2007*, pages 304–310. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007.

Scott:2007:NHC

[5452] N. S. Scott, F. Jézéquel, C. Denis, and J.-M. Chesneaux. Numerical 'health check' for scientific codes: the CADNA approach. *Computer Physics Communications*, 176(8):507–521, April 15, 2007. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0010465507000331.

Shams:2007:EHA

[5453] R. Shams and R. Kennedy. Efficient histogram algorithms for NVIDIA CUDA compatible devices. In ????, editor, *Proceedings of the International Conference on Signal Processing and Communications Systems (ICSPCS), Gold Coast, Australia, 2007*, pages 418–422. ????, ????, 2007.

Shpilka:2007:IDA

[5454] Amir Shpilka. Interpolation of depth-3 arithmetic circuits with two multiplication gates. In ACM [8036], pages 284–293. ISBN 1-59593-631-9. LCCN ????

Sousa:2007:EMM

[5455] Leonel Sousa. Efficient method for magnitude comparison in RNS based on two pairs of conjugate moduli. In Kornerup and Muller [8047], pages 240–250. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Steele:2007:CSP

[5456] Guy L. Steele Jr. Circuit for selectively providing maximum or minimum of a pair of floating point operands. US Patent 7228324, June 05, 2007. URL http://www.patentstorm.us/patents/7228324/fulltext.html.

Steele:2007:CUC

[5457] Guy L. Steele Jr. Comparator unit for comparing values of floating point operands. US Patent 7191202, March 13, 2007. URL http://www.patentstorm.us/patents/7191202/fulltext.html.

Steele:2007:MSCa

[5458] Guy L. Steele Jr. Methods and systems for computing the quotient of floating-point intervals. US Patent 7236999, June 26, 2007. URL http://www.patentstorm.us/patents/7236999/fulltext.html.

Steele:2007:MSCb

[5459] Guy L. Steele Jr. Methods and systems for computing floating-point intervals. US Patent 7219117, May 15, 2007. URL http://www.patentstorm.us/patents/7219117/fulltext.html.

Stern:2007:MLA

[5460] Richard Stern. Micro law: Antitrust division gives IEEE Standard setters the okay to ask patentees how RAND they are. *IEEE Micro*, 27(3): 106–109, May/June 2007. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Stoutemyer:2007:UCN

[5461] David R. Stoutemyer. Useful computations need useful numbers. *ACM Communications in Computer Algebra*, 41(3):75–99, September 2007. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Swartzlander:2007:NTC

[5462] Earl E. Swartzlander, Jr. The negative two's complement number system. *Journal of VLSI Signal Processing*, 49(1):177–183, October 2007. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Tang:2007:MMU

[5463] Ping Tak Peter Tang. Modular multiplication using redundant digit division. In Kornerup and Muller [8047], pages 217–224. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Thapliyal:2007:CIV

[5464] Himanshu Thapliyal, Hamid R. Arabnia, Rajnish Bajpai, and Kamal K. Sharma. Combined integer and variable precision (CIVP) floating point multiplication architecture for FPGAs. *arXiv.org*, ??(??):??, November 16, 2007. CODEN ???? ISSN ???? URL http://arxiv.org/abs/0711.2671.

Trong:2007:PBF

[5465] Son Dao Trong, Martin Schmookler, Eric. M. Schwarz, and Michael Kroener. P6 binary floating-point unit. In Kornerup and Muller [8047], pages 77–86. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Tsen:2007:HDBa

[5466] C. Tsen, S. Gonzalez-Navarro, and M. Schulte. Hardware design of a binary integer decimal-based floating-point adder. In IEEE [8043], pages 288–295. ISBN 1-4244-1258-7. LCCN TK7888.4 .I35 2007eb. URL http://www.ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=4591423.

Tsen:2007:HDBb

[5467] Charles Tsen, Michael Schulte, and Sonia Gonzalez-Navarro. Hardware design of a binary integer decimal-based IEEE P754 rounding unit. In IEEE [8041], pages 115–121. ISBN 1-4244-1027-4. LCCN TK7874.6 .I57a 2007. URL https://ieeexplore.ieee.org/servlet/opac?punumber=4429947.

Vasudevan:2007:AVA

[5468] S. Vasudevan, V. Viswanath, R. W. Sumners, and J. A. Abraham. Automatic verification of arithmetic circuits in RTL using stepwise refinement of term rewriting systems. *IEEE Transactions on Computers*, 56(10):1401–1414, October 2007. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4302711.

Vazquez:2007:NFH

[5469] Alvaro Vazquez, Elisardo Antelo, and Paolo Montuschi. A new family of high-performance parallel decimal multipliers. In Kornerup and Muller [8047], pages 195–204. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/papers/vazquez-DecimalMultiplier.pdf.

Veeramachaneni:2007:NHS

[5470] Sreehari Veeramachaneni, M. Kirthi Krishna, Lingamneni Avinash, Reddy P. Sreekanth, and M. B. Srinivas. Novel, high-speed 16-digit BCD adders conforming to IEEE 754r format. In Becker [8038], pages 343–350. ISBN 0-7695-2896-1. LCCN ????

Voronenko:2007:MMC

[5471] Yevgen Voronenko and Markus Püschel. Multiplierless multiple constant multiplication. *ACM Transactions on Algorithms*, 3(2):11:1–11:??, May 2007. CODEN ???? ISSN 1549-6325 (print), 1549-6333 (electronic).

Vouzis:2007:MCL

[5472] P. Vouzis, M. Arnold, S. Collange, and M. Kothare. Monte Carlo logarithmic number system for model predictive control. In Bertels et al. [8039], pages 453–458. ISBN 1-4244-1060-6. LCCN TK7895.G36 2007. IEEE catalog number 07EX1708C.

Wang:2007:DFPa

[5473] Liang-Kai Wang and Michael J. Schulte. Decimal floating-point adder and multifunction unit with injection-based rounding. In Kornerup and Muller [8047], pages 56–68. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL `http://www.lirmm.fr/arith18/papers/wang_schulte-multifunction_unit.pdf`.

Wang:2007:DFPb

[5474] Liang-Kai Wang and Michael J. Schulte. A decimal floating-point divider using Newton–Raphson iteration. *Journal of VLSI Signal Processing*, 49 (1):3–18, October 2007. CODEN JVSPED. ISSN 0922-5773 (print), 1573-109x (electronic).

Wang:2007:PSD

[5475] Liang-Kai Wang. *Processor support for decimal floating-point arithmetic*. Ph.D. thesis, The University of Wisconsin — Madison, Madison, WI, USA, 2007. 157 pp.

Wu:2007:FBM

[5476] Chia-Long Wu, Der-Chyuan Lou, and Te-Jen Chang. Fast binary multiplication by performing dot counting and complement recoding. *Applied Mathematics and Computation*, 191(1):132–139, August 1, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Wu:2007:FMM

[5477] Chia-Long Wu, Der-Chyuan Lou, Jui-Chang Lai, and Te-Jen Chang. Fast modular multi-exponentiation using modified complex arithmetic. *Applied Mathematics and Computation*, 186(2):1065–1074, March 15, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Xu:2007:HWP

[5478] Fei Xu, Chip-Hong Chang, and Ching-Chuen Jong. Hamming weight pyramid — a new insight into canonical signed digit representation and its applications. *Computers and Electrical Engineering*, 33(3):195–207, May 2007. CODEN CPEEBQ. ISSN 0045-7906 (print), 1879-0755 (electronic).

Yen:2007:ICM

[5479] Sung-Ming Yen, Wei-Chih Lien, and SangJae Moon. Inefficiency of common-multiplicand multiplication and exponentiation algorithms by performing binary complements. *Applied Mathematics and Computation*, 189(1):285–290, June 1, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Yu:2007:DPE

[5480] Xian-Yan Yu. *Design of Power-Efficient Floating-Point Adder Blocks*. Ph.D. thesis, Advanced Computer Systems Engineering Laboratory, University of California, Davis, Davis, CA, USA, May 2007. ???? pp.

Zhuo:2007:SMA

[5481] Ling Zhuo and Viktor K. Prasanna. Scalable and modular algorithms for floating-point matrix multiplication on reconfigurable computing systems. *IEEE Transactions on Parallel and Distributed Systems*, 18 (4):433–448, April 2007. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic).

Aamodt:2008:CTI

[5482] Tor M. Aamodt and Paul Chow. Compile-time and instruction-set methods for improving floating- to fixed-point conversion accuracy. *ACM Transactions on Embedded Computing Systems*, 7(3):26:1–26:??, April 2008. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic).

Ahmadi:2008:PFS

[5483] O. Ahmadi, D. Hankerson, and F. Rodríguez-Henríquez. Parallel formulations of scalar multiplication on Koblitz curves. *J.UCS: Journal of Universal Computer Science*, 14(3):481–504, ???? 2008. CODEN ???? ISSN 0948-6968. URL `http://www.jucs.org/jucs_14_3/parallel_formulations_of_scalar`.

ASTM:2008:AES

[5484] ASTM. *ASTM E29-08: Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications*. ASTM

International, West Conshohocken, PA, USA, 2008. URL https://www.astm.org/Standards/E29.htm.

Bapst:2008:SIO

[5485] Frederic Bapst and François Kilchoer. Signalling integer overflows in Java: a tool for checking overflows in Java code. *Dr. Dobb's Journal of Software Tools*, 33(9):54–58, September 2008. CODEN DDJOEB. ISSN 1044-789X. URL http://home.hefr.ch/bapst/cojac.

Beuchat:2008:AGM

[5486] Jean-Luc Beuchat and Jean-Michel Muller. Automatic generation of modular multipliers for FPGA applications. *IEEE Transactions on Computers*, 57(12):1600–1613, December 2008. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4564441.

Boldo:2008:EFC

[5487] Sylvie Boldo and Guillaume Melquiond. Emulation of a FMA and correctly rounded sums: Proved algorithms using rounding to odd. *IEEE Transactions on Computers*, 57(4):462–471, April 2008. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ens-lyon.hal.science/inria-00080427/file/odd-rounding.pdf; https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4358278.

Brisebarre:2008:CRM

[5488] Nicolas Brisebarre and Jean-Michel Muller. Correctly rounded multiplication by arbitrary precision constants. *IEEE Transactions on Computers*, 57(2):165–174, February 2008. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4358257.

Brisebarre:2008:EME

[5489] Nicolas Brisebarre, Sylvain Chevillard, Miloš D. Ercegovac, Jean-Michel Muller, and Serge Torres. An efficient method for evaluating polynomial and rational function approximations. In IEEE [8055], pages 233–238. ISBN 1-4244-1897-6 (paperback), 1-4244-1898-4. LCCN ???? URL http://www.gbv.de/dms/tib-ub-hannover/631855815.pdf; https://ieeexplore.ieee.org/servlet/opac?punumber=4569858. IEEE catalog number CFP08063-PRT.

Brisebarre:2008:IFP

[5490] Nicolas Brisebarre, Florent de Dinechin, and Jean-Michel Muller. Integer and floating-point constant multipliers for FPGAs. In IEEE [8055], pages 239–244. ISBN 1-4244-1897-6 (paperback), 1-4244-1898-4. LCCN ???? URL http://www.gbv.de/dms/tib-ub-hannover/631855815.pdf; https://ieeexplore.ieee.org/servlet/opac?punumber=4569858. IEEE catalog number CFP08063-PRT.

Buttari:2008:UMP

[5491] Alfredo Buttari, Jack Dongarra, Jakub Kurzak, Piotr Luszczek, and Stanimir Tomov. Using mixed precision for sparse matrix computations to enhance the performance while achieving 64-bit accuracy. *ACM Transactions on Mathematical Software*, 34(4):17:1–17:22, July 2008. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Carnicer:2008:REP

[5492] J. M. Carnicer, T. N. T. Goodman, and J. M. Peña. Roundoff errors for polynomial evaluation by a family of formulae. *Computing: Archiv fur informatik und numerik*, 82(2–3):199–215, July 2008. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=82&issue=2&spage=199.

Castaldo:2008:RFP

[5493] Anthony M. Castaldo, R. Clint Whaley, and Anthony T. Chronopoulos. Reducing floating point error in dot product using the superblock family of algorithms. *SIAM Journal on Scientific Computing*, 31(2):1156–1174, ???? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Castellanos:2008:CTD

[5494] Ivan D. Castellanos and James E. Stine. Compressor trees for decimal partial product reduction. In ACM [8052], pages 107–110. ISBN 1-59593-999-7. LCCN ???? ACM Order Number 477088.

Cavagnino:2008:EAI

[5495] D. Cavagnino and A. E. Werbrouck. Efficient algorithms for integer division by constants using multiplication. *The Computer Journal*, 51 (4):470–480, July 2008. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/cgi/content/abstract/51/4/470; http://comjnl.oxfordjournals.org/cgi/content/full/51/4/470; http://comjnl.oxfordjournals.org/cgi/reprint/51/4/470.

Colon-Bonet:2008:MEF

[5496] Glenn Colón-Bonet and Paul Winterrowd, Jr. Multiplier evolution: a family of multiplier VLSI implementations. *The Computer Journal*, 51(5):585–594, September 2008. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/cgi/content/abstract/51/5/585; http://comjnl.oxfordjournals.org/cgi/content/full/51/5/585; http://comjnl.oxfordjournals.org/cgi/reprint/51/5/585.

Cordeiro:2008:MSI

[5497] Gauss M. Cordeiro and Borko D. Stosić. Maple script for improving test statistics. *Journal of Statistical Computation and Simulation*, 78(11): 1045–1053, 2008. CODEN JSCSAJ. ISSN 0094-9655 (print), 1026-7778 (electronic), 1563-5163.

De:2008:FIM

[5498] Anindya De, Piyush P. Kurur, Chandan Saha, and Ramprasad Saptharishi. Fast integer multiplication using modular arithmetic. In ACM [8053], pages 499–506. ISBN 1-60558-047-3. LCCN ????

DeDinechin:2008:CFP

[5499] Florent De Dinechin, Christoph Quirin Lauter, and Guillaume Melquiond. Certifying floating-point implementations using Gappa. *arXiv.org*, ??(??):??, January 3, 2008. CODEN ???? ISSN ???? URL http://arxiv.org/abs/0801.0523.

DeDinechin:2008:OPF

[5500] Florent De Dinechin and Christoph Quirin Lauter. Optimizing polynomials for floating-point implementation. *arXiv.org*, ??(??):1–12, March 4, 2008. CODEN ???? ISSN ???? URL http://arxiv.org/abs/0803.0439.

Dimitrov:2008:PSP

[5501] V. S. Dimitrov, K. U. Jarvinen, M. J. Jacobson, W. Chan, and Zhun Huang. Provably sublinear point multiplication on Koblitz curves and its hardware implementation. *IEEE Transactions on Computers*, 57(11): 1469–1481, November 2008. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4487060. See comments [5974].

Dvir:2008:HRT

[5502] Zeev Dvir, Amir Shpilka, and Amir Yehudayoff. Hardness-randomness tradeoffs for bounded depth arithmetic circuits. In ACM [8053], pages 741–748. ISBN 1-60558-047-3. LCCN ????

Edmonson:2008:ISS

[5503] W. W. Edmonson and M. H. van Emden. Interval semantics for standard floating-point arithmetic. *arXiv.org*, ??(??):1–10, October 23, 2008. CODEN ???? ISSN ???? URL http://arxiv.org/abs/0810.4196.

Erle:2008:AHD

[5504] Mark A. Erle. *Algorithms and Hardware Designs for Decimal Multiplication*. Ph.D. thesis, Department of Computer Engineering, Lehigh University, Bethlehem, PA, USA, November 21, 2008. xviii + 221 pp. URL http://speleotrove.com/decimal/erle2008-decimal-multipliers-dissertation-duplex.pdf.

Gonzalez-Navarro:2008:BID

[5505] S. Gonzalez-Navarro, C. Tsen, and M. Schulte. Binary integer decimal-based multiplier for decimal floating-point arithmetic. In Matthews [8056], pages 353–357. ISBN 1-4244-2109-8. ISSN 1058-6393. LCCN TK7801 .A83 2007eb. URL http://www.ieeexplore.ieee.org/xpl/RecentCon.jsp?punumber=4483515.

Graillat:2008:ASZ

[5506] Stef Graillat. Accurate simple zeros of polynomials in floating point arithmetic. *Computers and Mathematics with Applications*, 56(4):1114–1120, August 2008. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0898122108001120.

Hardy:2008:ITN

[5507] G. H. (Godfrey Harold) Hardy, Edward Maitland Wright, D. R. Heath-Brown, and Joseph H. Silverman. *An introduction to the theory of numbers*. Oxford mathematics. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, sixth edition, 2008. ISBN 0-19-921985-0 (hardcover), 0-19-921986-9 (paperback). xxi + 621 pp. LCCN QA241 .H28 2008.

Homma:2008:SAD

[5508] N. Homma, T. Aoki, and T. Higuchi. A systematic approach for designing redundant arithmetic adders based on counter tree diagrams. *IEEE*

Transactions on Computers, 57(12):1633–1646, December 2008. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4569835`.

Hsiao:2008:EDF

[5509] Shen-Fu Hsiao, Hsin-Mau Lee, Yen-Chun Cheng, and Ming-Yu Tsai. Efficient designs of floating-point CORDIC rotation and vectoring operations. In *APCCAS 2008 — 2008 IEEE Asia Pacific Conference on Circuits and Systems*, pages 1422–1425. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008.

Jager:2008:DAD

[5510] Hendrik Jager and Pierre Liardet. Distributions arithmétiques des dénominateurs de convergents de fractions continues. (French) [arithmetic distributions of the denominators of continued fractions]. *Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen, Series A, Indagationes mathematicae*, 91(2):181–197, June 20, 2008. CODEN ???? ISSN 1385-7258 (print), 1878-5972 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S138572588880026X`.

Jezequel:2008:CLE

[5511] Fabienne Jézéquel and Jean-Marie Chesneaux. CADNA: a library for estimating round-off error propagation. *Computer Physics Communications*, 178(12):933–955, June 15, 2008. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465508000775`.

Jimeno:2008:BBA

[5512] Antonio Jimeno, Higinio Mora, Jose L. Sanchez, and Francisco Pujol. A BCD-based architecture for fast coordinate rotation. *Journal of Systems Architecture*, 54(8):829–840, August 2008. CODEN JSARFB. ISSN 1383-7621 (print), 1873-6165 (electronic).

Kahan:2008:BFU

[5513] William Kahan. Back to the future of undebuggable floating-point computation in science and engineering. Web document, March 30, 2008. URL `http://math.berkeley.edu/bascd08; http://www.eecs.berkeley.edu/~wkahan/BASCD08K.pdf`. The Bay Area Scientific Computing Day, BASCD08, honoring Profs. Kahan and Parlett, 29–30 March, 2008.

Kaihara:2008:BMM

[5514] M. E. Kaihara and N. Takagi. Bipartite modular multiplication method. *IEEE Transactions on Computers*, 57(2):157–164, February 2008. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4358245`.

Khalid:2008:NRE

[5515] M. S. Khalid, M. R. Amin, M. M. Hossain, and M. Anwer. Numerical round-off error in cellular phone services billing system. In IEEE, editor, *Proceedings of 10th International Conference on Computer and Information Technology (ICCIT 2007), 27-29, December 2007, United International University, Dhanmondi, Dhaka-1209, Bangladesh*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008. ISBN 1-4244-1550-0, 1-4244-1551-9. LCCN QA75.5 .I574 2007.

Kong:2008:RMI

[5516] I. Kong and E. E. Swartzlander, Jr. A rounding method with improved error tolerance for division by convergence. In Michael B. Matthews, editor, *42nd Asilomar Conference on Signals, Systems and Computers: October 26–29, 2008, Pacific Grove, California*, pages 1814–1818. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008. ISBN 1-4244-2941-2. ISSN 1058-6393. LCCN TK7801 .A83 2008.

Kulisch:2008:CAV

[5517] Ulrich Kulisch. *Computer Arithmetic and Validity — Theory, Implementation, and Applications*. De Gruyter Studies in Mathematics. Walter de Gruyter, Berlin, Germany, 2008. ISBN 3-11-020318-9 (hardcover). ISSN 0179-0986. 410 (est.) pp. LCCN ???? US$108.00.

Lauter:2008:ACF

[5518] Christoph Quirin Lauter. *Arrondi correct de fonctions mathématiques — Fonctions univariées et bivariées, certification et automatisation. (French) [Correct rounding of mathematical functions — univariate and bivariate functions, certification and automation]*. Ph.D. dissertation, École Normale Supérieure de Lyon, Lyon, France, October 2008. xiii + 197 + 3 pp. URL `https://www.christoph-lauter.org/these.pdf`.

Lefevre:2008:WCE

[5519] Vincent Lefèvre, Damien Stehlé, and Paul Zimmermann. Worst cases for the exponential function in the IEEE 754r decimal64 format. *Lecture*

Notes in Computer Science, 5045:114–126, 2008. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer.com/content/pdf/10.1007/978-3-540-85521-7_7.pdf`.

Li:2008:MLB

[5520] Xin Li, Marc Moreno Maza, Raqeeb Rasheed, and Éric Schost. The `modpn` library: bringing fast polynomial arithmetic into MAPLE. *ACM Communications in Computer Algebra*, 42(3):172–174, September 2008. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Liu:2008:FIM

[5521] J. Liu, B. Weaver, and Y. Zakharov. FPGA implementation of multiplication-free complex division. *Electronics Letters*, 44(2):5–96, January 17, 2008. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Melquiond:2008:DRA

[5522] Guillaume Melquiond and Sylvain Pion. Directed rounding arithmetic operations. Web document, December 05, 2008. ISO WG21 Document N2811=08-0321, posted to the stds-1788 mailing list on 8-Dec-2008.

Monniaux:2008:PVF

[5523] David Monniaux. The pitfalls of verifying floating-point computations. *ACM Transactions on Programming Languages and Systems*, 30(3):12:1–12:41, May 2008. CODEN ATPSDT. ISSN 0164-0925 (print), 1558-4593 (electronic).

Moore:2008:IMB

[5524] Samuel K. Moore. Intel makes a big jump in computer math. *IEEE Spectrum*, 45(2):14–15, February 2008. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Morris:2008:PLC

[5525] Gerald R. Morris and Viktor K. Prasanna. A pipelined-loop-compatible architecture and algorithm to reduce variable-length sets of floating-point data on a reconfigurable computer. *Journal of Parallel and Distributed Computing*, 68(7):913–921, July 2008. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Nakamori:2008:SRA

[5526] S. Nakamori. Square-root algorithms of RLS Wiener filter and fixed-point smoother in linear discrete stochastic systems. *Applied Mathematics and*

Computation, 203(1):186–193, September 1, 2008. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Namin:2008:NFF

[5527] A. H. Namin, Huapeng Wu, and M. Ahmadi. A new finite-field multiplier using redundant representation. *IEEE Transactions on Computers*, 57 (5):716–720, May 2008. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4378354.

P754:2008:ISF

[5528] IEEE Task P754. *IEEE 754-2008, Standard for Floating-Point Arithmetic*. IEEE, New York, NY, USA, August 29, 2008. ISBN 0-7381-5753-8 (paper), 0-7381-5752-X (electronic). 58 pp. LCCN ???? URL http://en.wikipedia.org/wiki/IEEE_754-2008; http://ieeexplore.ieee.org/servlet/opac?punumber=4610933.

Pan:2008:SAL

[5529] V. Y. Pan, D. Grady, B. Murphy, G. Qian, R. E. Rosholt, and A. D. Ruslanov. Schur aggregation for linear systems and determinants. *Theoretical Computer Science*, 409(2):255–268, December 17, 2008. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Patterson:2008:AC

[5530] David A. Patterson and John L. Hennessy. Arithmetic for computers. In *Computer Organization and Design: the Hardware/Software Interface* [8057], chapter 3, pages 222–297. ISBN 0-12-374493-8. LCCN QA76.9.C643.

Patterson:2008:GCG

[5531] David A. Patterson and John L. Hennessy. Graphics and computing GPUs. In *Computer Organization and Design: the Hardware/Software Interface* [8057], chapter A, pages A–1–A–77. ISBN 0-12-374493-8. LCCN QA76.9.C643.

Pineiro:2008:RDD

[5532] J.-A. Pineiro, J. D. Bruguera, F. Lamberti, and P. Montuschi. A radix-2 digit-by-digit architecture for cube root. *IEEE Transactions on Computers*, 57(4):562–566, April 2008. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4407683.

Piso:2008:FOS

[5533] D. Piso and J. D. Bruguera. Forcing *one-sided* results in Goldschmidt algorithm. In Michael B. Matthews, editor, *42nd Asilomar Conference on Signals, Systems and Computers: October 26–29, 2008, Pacific Grove, California*, pages 1830–1833. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, October 2008. ISBN 1-4244-2941-2. ISSN 1058-6393. LCCN TK7801 .A83 2008.

Piso:2008:NRA

[5534] D. Piso and J. D. Bruguera. A new rounding algorithm for variable latency division and square root implementations. In Luca Fanucci, editor, *Proceedings: 11th Euromicro Symposium on Digital Systems Design: Architectures, Methods and Tools (DSD 2008), Parma, Italy, September 3–5, 2008*, pages 760–767. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008. ISBN 0-7695-3277-2.

Quinnell:2008:BFP

[5535] E. Quinnell, E. E. Swartzlander, and C. Lemonds. Bridge floating-point fused multiply-add design. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 16(12):1727–1731, 2008. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Quinnell:2008:FPF

[5536] E. Quinnell, E. E. Swartzlander, and C. Lemonds. Floating-point fused multiply-add architectures. In Matthews [8056], pages 331–337. ISBN 1-4244-2109-8. ISSN 1058-6393. LCCN TK7801 .A83 2007eb. URL `http://www.ieeexplore.ieee.org/xpl/RecentCon.jsp?punumber=4483515`.

Rahaman:2008:CTB

[5537] H. Rahaman, J. Mathew, D. K. Pradhan, and A. M. Jabir. C-testable bit parallel multipliers over GF(2^m). *ACM Transactions on Design Automation of Electronic Systems.*, 13(1):5:1–5:??, January 2008. CODEN ATASFO. ISSN 1084-4309 (print), 1557-7309 (electronic).

Rahaman:2008:DRT

[5538] H. Rahaman, J. Mathew, D. K. Pradhan, and A. M. Jabir. Derivation of reduced test vectors for bit-parallel multipliers over GF(2^{m}). *IEEE Transactions on Computers*, 57(9):1289–1294, September 2008. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4487058`.

Ravikumar:2008:BND

[5539] Bala Ravikumar. The Benford–Newcomb distribution and unambiguous context-free languages. *International Journal of Foundations of Computer Science*, 19(3):717–727, June 2008. CODEN IFCSEN. ISSN 0129-0541 (print), 1793-6373 (electronic).

Raz:2008:EFL

[5540] Ran Raz. Elusive functions and lower bounds for arithmetic circuits. In ACM [8053], pages 711–720. ISBN 1-60558-047-3. LCCN ????

Raz:2008:LBS

[5541] Ran Raz, Amir Shpilka, and Amir Yehudayoff. A lower bound for the size of syntactically multilinear arithmetic circuits. *SIAM Journal on Computing*, 38(4):1624–1647, ???? 2008. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic).

Rodriguez-Henriquez:2008:LCB

[5542] F. Rodriguez-Henriquez, G. Morales-Luna, and J. Lopez. Low-complexity bit-parallel square root computation over $GF(2^m)$ for all trinomials. *IEEE Transactions on Computers*, 57(4):472–480, April 2008. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4358282.

Ruiz:2008:EIR

[5543] Gustavo A. Ruiz and Mercedes Granda. Efficient implementation of 3X for radix-8 encoding. *Microelectronics Journal*, 39(1):152–159, January 2008. CODEN MICEB9. ISSN 0026-2692 (print), 1879-2391 (electronic).

Rump:2008:AFPa

[5544] Siegfried M. Rump, Takeshi Ogita, and Shin'ichi Oishi. Accurate floating-point summation. Part I: Faithful rounding. *SIAM Journal on Scientific Computing*, 31(1):189–224, ???? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Rump:2008:AFPb

[5545] Siegfried M. Rump, Takeshi Ogita, and Shin'ichi Oishi. Accurate floating-point summation. Part II: Sign, K-fold faithful and rounding to nearest. *SIAM Journal on Scientific Computing*, 31(2):1269–1302, ???? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Rump:2008:UFA

[5546] Siegfried M. Rump. Ultimately fast accurate summation. Technical report, Institute for Reliable Computing, Technische Universität Hamburg, Hamburg, Germany, October 19, 2008. 28 pp. URL http://www.ti3.tu-harburg.de/paper/rump/Ru08b.pdf.

Russell:2008:BOR

[5547] Craig Russell. Bridging the object-relational divide. *ACM Queue: Tomorrow's Computing Today*, 6(3):18–28, May/June 2008. CODEN AQCUAE. ISSN 1542-7730 (print), 1542-7749 (electronic).

Schreppers:2008:ACC

[5548] Walter Schreppers and Annie Cuyt. Algorithm 871: a C/C++ precompiler for autogeneration of multiprecision programs. *ACM Transactions on Mathematical Software*, 34(1):5:1–5:20, January 2008. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Steele:2008:FPA

[5549] Guy L. Steele Jr. Floating point adder with embedded status information. US Patent 7366749, April 29, 2008. URL http://www.patentstorm.us/patents/7366749/fulltext.html.

Steele:2008:FPD

[5550] Guy L. Steele Jr. Floating point divider with embedded status information. US Patent 7363337, April 22, 2008. URL http://www.patentstorm.us/patents/7363337/fulltext.html.

Steele:2008:FPSa

[5551] Guy L. Steele Jr. Floating point status information accumulation circuit. US Patent 7444367, October 28, 2008. URL http://www.patentstorm.us/patents/7444367/fulltext.html.

Steele:2008:FPSb

[5552] Guy L. Steele Jr. Floating point square root provider with embedded status information. US Patent 7430576, September 30, 2008. URL http://www.patentstorm.us/patents/7430576/fulltext.html.

Steele:2008:FPSc

[5553] Guy L. Steele Jr. Floating point system that represents status flag information within a floating point operand. US Patent 7395297, July 01, 2008. URL http://www.patentstorm.us/patents/7395297/fulltext.html.

Sun:2008:HPM

[5554] Junqing Sun, G. D. Peterson, and O. O. Storaasli. High-performance mixed-precision linear solver for FPGAs. *IEEE Transactions on Computers*, 57(12):1614–1623, December 2008. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4531732`.

Terauds:2008:CFP

[5555] Maris Terauds, Gatis Valters, Uldis Derums, Nauris Vasilevskis, and Peteris Misans. Comparison of fixed-point arithmetic errors for the FPGA-based CRAIMOT basis function generators. In *2008 NORCHIP*, pages 108–113. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008.

Thill:2008:EMP

[5556] M. Thill. Erratum: a more precise rounding algorithm for rational numbers. *Computing: Archiv fur informatik und numerik*, 82(4):261–262, September 2008. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=82&issue=4&spage=261`. See [5557].

Thill:2008:MPR

[5557] M. Thill. A more precise rounding algorithm for rational numbers. *Computing: Archiv fur informatik und numerik*, 82(2–3):189–198, July 2008. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=82&issue=2&spage=189`. See erratum [5556].

Tsigaridas:2008:CRR

[5558] Elias P. Tsigaridas and Ioannis Z. Emiris. On the complexity of real root isolation using continued fractions. *Theoretical Computer Science*, 392 (1–3):158–173, February 28, 2008. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

VanMeter:2008:ADM

[5559] Rodney Van Meter, W. J. Munro, Kae Nemoto, and Kohei M. Itoh. Arithmetic on a distributed-memory quantum multicomputer. *ACM Journal on Emerging Technologies in Computing Systems (JETC)*, 3(4): 2:1–2:??, January 2008. CODEN ???? ISSN 1550-4832 (print), 1550-4840 (electronic).

Webb:2008:IZN

[5560] Charles F. Webb. IBM z10: The next-generation mainframe microprocessor. *IEEE Micro*, 28(2):19–29, March/April 2008. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Wirth:2008:ND

[5561] Niklaus Wirth. A note on division. Note, ETH Zürich, Zürich, Switzerland, August 20, 2008. 4 pp. URL `https://people.inf.ethz.ch/wirth/Miscellaneous/Division.pdf`.

Yamanaka:2008:PAA

[5562] Naoya Yamanaka, Takeshi Ogita, Siegfried M. Rump, and Shin'ichi Oishi. A parallel algorithm for accurate dot product. *Parallel Computing*, 34(6–8):392–410, July 2008. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Zhou:2008:DCF

[5563] Jie Zhou, Yazhuo Dong, Yong Dou, and Yuanwu Lei. Dynamic configurable floating-point FFT pipelines and hybrid-mode CORDIC on FPGA. In *2008 International Conference on Embedded Software and Systems*, pages 616–620. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008.

Zhou:2008:DPH

[5564] Jie Zhou, Yong Dou, Yuanwu Lei, Jinbo Xu, and Yazhuo Dong. Double precision hybrid-mode floating-point FPGA CORDIC co-processor. In *2008 10th IEEE International Conference on High Performance Computing and Communications*, pages 182–189. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008.

Zhou:2008:HMF

[5565] Jie Zhou, Yong Dou, Yuanwu Lei, and Yazhuo Dong. Hybrid-mode floating-point FPGA CORDIC co-processor. In Woods et al. [8058], pages 256–261. ISBN 3-540-78610-4. ISSN 1611-3349.

Adikari:2009:HBT

[5566] Jithra Adikari, Vassil Dimitrov, and Laurent Imbert. Hybrid binary-ternary joint form and its application in elliptic curve cryptography. In Bruguera et al. [8061], pages 76–83. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Amaricai:2009:DFP

[5567] A. Amaricai, M. Vladutiu, and O. Boncalo. Design of floating point units for interval arithmetic. In IEEE [8068]. ISBN 1-4244-3733-4. LCCN TK7874 2009.

Anderson:2009:PAD

[5568] Michael J. Anderson, Charles Tsen, Liang-Kai Wang, Katherine Compton, and Michael J. Schulte. Performance analysis of decimal floating-point libraries and its impact on decimal hardware and software solutions. In IEEE [8066], pages 465–471. ISBN 1-4244-5028-4. LCCN TK7888.3 2009. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5406656`. IEEE Catalog Number: CFP09ICD.

Anonymous:2009:AI

[5569] Anonymous. Author index. In Bruguera et al. [8061], page 235. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Anonymous:2009:CPC

[5570] Anonymous. Call-for-papers on computer arithmetic. *IEEE Transactions on Computers*, 58(5):719, May 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Arnold:2009:DPR

[5571] Mark G. Arnold and Sylvain Collange. A dual-purpose real/complex logarithmic number system ALU. In Bruguera et al. [8061], pages 15–24. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Baboulin:2009:ASC

[5572] Marc Baboulin, Alfredo Buttari, Jack Dongarra, Jakub Kurzak, Julie Langou, Julien Langou, Piotr Luszczek, and Stanimire Tomov. Accelerating scientific computations with mixed precision algorithms. *Computer Physics Communications*, 180(12):2526–2533, December 2009. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465508003846`.

Bajard:2009:SRB

[5573] J. C. Bajard, M. Kaihara, and T. Plantard. Selected RNS bases for modular multiplication. In Bruguera et al. [8061], pages 25–31. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Barsi:2009:ECP

[5574] Ferruccio Barsi and Maria Cristina Pinotti. Error control by product codes in arithmetic units. *International Journal of Parallel, Emergent and Distributed Systems: IJPEDS*, 24(5):407–419, 2009. CODEN ???? ISSN 1744-5760 (print), 1744-5779 (electronic).

Bayat-Sarmadi:2009:CED

[5575] S. Bayat-Sarmadi and M. A. Hasan. Concurrent error detection in finite-field arithmetic operations using pipelined and systolic architectures. *IEEE Transactions on Computers*, 58(11):1553–1567, November 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4815219`.

Beebe:2009:NML

[5576] Nelson H. F. Beebe. A new math library. *International Journal of Quantum Chemistry*, 109(13):3008–3025, November 5, 2009. CODEN IJQCB2. ISSN 0020-7608 (print), 1097-461X (electronic).

Blomquist:2009:MSC

[5577] Frithjof Blomquist, Werner Hofschuster, and Walter Krämer. A modified staggered correction arithmetic with enhanced accuracy and very wide exponent range. *Lecture Notes in Computer Science*, 5492:41–67, 2009. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://www.springerlink.com/content/k038294004403504/`.

Boldo:2009:CCG

[5578] Sylvie Boldo, Jean-Christophe Filliâtre, and Guillaume Melquiond. Combining Coq and Gappa for certifying floating-point programs. *Lecture Notes in Computer Science*, pages 59–74, 2009. CODEN LNCSD9. ISBN 3-642-02614-1. ISSN 0302-9743 (print), 1611-3349 (electronic).

Boldo:2009:FRC

[5579] Sylvie Boldo. Floats and ropes: a case study for formal numerical program verification. *Lecture Notes in Computer Science*, 5556:91–102, 2009. CODEN LNCSD9. ISBN 3-642-02930-2. ISSN 0302-9743 (print), 1611-3349 (electronic).

Boldo:2009:FVA

[5580] S. Boldo, Marc Daumas, and Ren-Cang Li. Formally verified argument reduction with a fused multiply-add. *IEEE Transactions on Computers*, 58(8):1139–1145, August 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4711042.

Boldo:2009:KAC

[5581] S. Boldo. Kahan's algorithm for a correct discriminant computation at last formally proven. *IEEE Transactions on Computers*, 58(2):220–225, February 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). See [4956] for the original algorithm.

Bryant:2009:ABD

[5582] Randal E. Bryant, Daniel Kroening, Joël Ouaknine, Sanjit A. Seshia, Ofer Strichman, and Bryan Brady. An abstraction-based decision procedure for bit-vector arithmetic. *International Journal on Software Tools for Technology Transfer: STTT*, 11(2):95–104, April 2009. CODEN ???? ISSN 1433-2779 (print), 1433-2787 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=1433-2779&volume=11&issue=2&spage=95.

Bullynck:2009:MAB

[5583] Maarten Bullynck. Modular arithmetic before C. F. Gauss: Systematizations and discussions on remainder problems in 18th-Century Germany. *Historia Mathematica*, 36(1):48–72, February 2009. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL http://www.sciencedirect.com/science/article/pii/S0315086008000670.

Burtscher:2009:FHS

[5584] M. Burtscher and P. Ratanaworabhan. FPC: a high-speed compressor for double-precision floating-point data. *IEEE Transactions on Computers*, 58(1):18–31, January 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4589203.

Cenk:2009:PMF

[5585] Murat Cenk, Çetin Kaya Koç, and Ferruh Özbudak. Polynomial multiplication over finite fields using field extensions and interpolation. In Bruguera et al. [8061], pages 84–91. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Chabert:2009:PEA

[5586] Gilles Chabert and Luc Jaulin. A priori error analysis and spring arithmetic. *SIAM Journal on Scientific Computing*, 31(3):2214–2230,

???? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chen:2009:BDF

[5587] Dongdong Chen, Yu Zhang, Younhee Choi, Moon Ho Lee, and Seok-Bum Ko. A 32-bit decimal floating-point logarithmic converter. In Bruguera et al. [8061], pages 195–203. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Chen:2009:NDA

[5588] Dongdong Chen, Yu Zhang, D. Teng, K. Wahid, Moon Ho Lee, and Seok-Bum Ko. A new decimal antilogarithmic converter. In IEEE [8067], pages 445–448. ISBN 1-4244-3827-6 (print). LCCN TK454 .I15 2009. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5076158`.

Cheng:2009:DSE

[5589] Chung-Kuan Cheng. Design space exploration for power-efficient mixed-radix Ling adders. In Bruguera et al. [8061], page 212. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Chevillard:2009:CFC

[5590] Sylvain Chevillard, Mioara Joldes, and Christoph Lauter. Certified and fast computation of supremum norms of approximation errors. In Bruguera et al. [8061], pages 169–176. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Cho:2009:AMD

[5591] H. Cho and E. E. Swartzlander. Adder and multiplier design in quantum-dot cellular automata. *IEEE Transactions on Computers*, 58(6):721–727, June 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4760137`.

Chouliaras:2009:CLF

[5592] V. A. Chouliaras, K. Manolopoulos, and D. Reisis. A configurable length, fused multiply-add floating point unit for a VLIW processor. In Sezer et al. [8070], pages 93–96. ISBN 1-4244-4940-5, 1-4244-4941-3. LCCN TK7874.6 .I59 2009. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5379508`.

Cilardo:2009:EBP

[5593] A. Cilardo. Efficient bit-parallel GF(2^m) multiplier for a large class of irreducible pentanomials. *IEEE Transactions on Computers*, 58(7):1001–1008, July 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4752811.

Colberg:2009:HAS

[5594] Peter H. Colberg and Felix Höfling. Highly accelerated simulations of glassy dynamics using GPUs: caveats on limited floating-point precision. *arXiv.org*, ??(??):1–12, December 20, 2009. CODEN ???? ISSN ???? URL http://arxiv.org/abs/0912.3824. Published in Comp. Phys. Comm. **182**, 1120 (2011).

Cornea:2009:IDF

[5595] Marius Cornea. IEEE 754-2008 decimal floating-point for Intel architecture processors. In Bruguera et al. [8061], pages 225–228. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Cornea:2009:SII

[5596] M. Cornea, J. Harrison, C. Anderson, P. Tang, E. Schneider, and E. Gvozdev. A software implementation of the IEEE 754R decimal floating-point arithmetic using the binary encoding format. *IEEE Transactions on Computers*, 58(2):148–162, February 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4674342.

Csuros:2009:ACF

[5597] Miklos Csuros. Approximate counting with a floating-point counter. *arXiv.org*, ??(??):??, April 20, 2009. CODEN ???? ISSN ???? URL http://arxiv.org/abs/0904.3062.

Daumas:2009:VRN

[5598] Marc Daumas, D. Lester, and C. Muoz. Verified real number calculations: a library for interval arithmetic. *IEEE Transactions on Computers*, 58 (2):226–237, February 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4685896.

Davida:2009:FAU

[5599] George Davida, Bruce Litow, and Guangwu Xu. Fast arithmetics using Chinese remaindering. *Information Processing Letters*, 109(13):660–662, June 15, 2009. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic).

DeCaro:2009:DSM

[5600] Davide De Caro, Nicola Petra, and Antonio G. M. Strollo. Digital synthesizer/mixer with hybrid CORDIC multiplier architecture: Error analysis and optimization. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 56(2):364–373, 2009. ISSN 1549-8328 (print), 1558-0806 (electronic).

Deschamps:2009:HIF

[5601] Jean-Pierre Deschamps, José Luis Imaña, and Gustavo D. Sutter. *Hardware implementation of finite-field arithmetic*. Electronic engineering. McGraw-Hill, New York, NY, USA, 2009. ISBN 0-07-154581-6 (hardcover). xiii + 347 pp. LCCN TK7895.E42 D466 2009.

Dormiani:2009:DIR

[5602] P. Dormiani, M. D. Ercegovac, and Jean-Michel Muller. Design and implementation of a radix-4 complex division unit with prescaling. In IEEE [8065], pages 83–90. ISBN 0-7695-3732-4. ISSN 1063-6862. LCCN ????

Dormiani:2009:LPT

[5603] Pouya Dormiani, Milo D. Ercegovac, and Jean-Michel Muller. Low precision table based complex reciprocal approximation. In Michael B. Matthews, editor, *2009 Conference Record of the Forty-Third Asilomar Conference on Signals, Systems and Computers. November 1–4, 2009. Pacific Grove, California*, pages 1803–1807. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009. ISBN 1-4244-5827-7. ISSN 1058-6393.

Duff:2009:GMA

[5604] Bob Duff. Gem #26: the `mod` attribute. *ACM SIGADA Ada Letters*, 29(1):33–34, April 2009. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Edmonson:2009:IIS

[5605] William Edmonson and Guillaume Melquiond. IEEE Interval Standard Working Group — P1788: Current status. In Bruguera et al. [8061], pages 231–234. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Enge:2009:CCP

[5606] Andreas Enge. The complexity of class polynomial computation via floating point approximations. *Mathematics of Computation*, 78(266): 1089–1107, April 2009. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.ams.org/journals/mcom/2009-78-266/S0025-5718-08-02200-X/home.html; http://www.ams.org/journals/mcom/2009-78-266/S0025-5718-08-02200-X/S0025-5718-08-02200-X.pdf.

Enge:2009:MLM

[5607] Andreas Enge, Philippe Théveny, and Paul Zimmermann. *mpc — a library for multiprecision complex arithmetic with exact rounding*. INRIA, France, 0.8.1 edition, December 2009. URL http://mpc.multiprecision.org/.

Erle:2009:DFP

[5608] Mark A. Erle, Brian J. Hickmann, and Michael J. Schulte. Decimal floating-point multiplication. *IEEE Transactions on Computers*, 58(7): 902–916, July 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4711044.

Fahmy:2009:EDI

[5609] Hossam A. H. Fahmy, Ramy Raafat, Amira M. Abdel-Majeed, Rodina Samy, Tarek ElDeeb, and Yasmin Farouk. Energy and delay improvement via decimal floating point units. In Bruguera et al. [8061], pages 221–224. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Fewster:2009:SEB

[5610] R. M. Fewster. A simple explanation of Benford's Law. *The American Statistician*, 63(1):26–32, February 2009. CODEN ASTAAJ. ISSN 0003-1305 (print), 1537-2731 (electronic).

Fit-Florea:2009:DLN

[5611] A. Fit-Florea, L. Li, M. A. Thornton, and D. W. Matula. A discrete logarithm number system for integer arithmetic modulo 2^k: Algorithms and lookup structures. *IEEE Transactions on Computers*, 58(2):163–174, February 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4663061.

Fraysse:2009:ASF

[5612] Valérie Frayssé, Luc Giraud, and Serge Gratton. Algorithm 881: a set of flexible GMRES routines for real and complex arithmetics on high-performance computers. *ACM Transactions on Mathematical Software*, 35(2):13:1–13:12, July 2009. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Furer:2009:FIM

[5613] Martin Fürer. Faster integer multiplication. *SIAM Journal on Computing*, 39(3):979–1005, ???? 2009. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic).

Ganai:2009:EDP

[5614] Malay K. Ganai and Franjo Ivančić. Efficient decision procedure for non-linear arithmetic constraints using CORDIC. In *2009 Formal Methods in Computer-Aided Design*, pages 61–68. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009.

Gavrilova:2009:ESC

[5615] Marina L. Gavrilova. An explicit solution for computing the vertices of the Euclidean d-dimensional Voronoi diagram of spheres in a floating-point arithmetic. *International Journal of Computational Geometry and Applications (IJCGA)*, 19(5):415–424, October 2009. CODEN IJCAEV. ISSN 0218-1959.

Gentle:2009:CSA

[5616] James E. Gentle. Computer storage and arithmetic. In *Computational Statistics*, Statistics and Computing, pages 85–105. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2009. ISBN 0-387-98143-8 (print), 0-387-98144-6 (electronic). LCCN QA276.4 .G46 2009. URL `http://link.springer.com/chapter/10.1007/978-0-387-98144-4_2`.

Gonzalez-Navarro:2009:CDB

[5617] Sonia Gonzalez-Navarro, Alberto Nannarelli, Michael J. Schulte, and Charles Tsen. A combined decimal and binary floating-point divider. In Matthews [8069], pages 930–934. ISBN 1-4244-5825-0. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5465900`.

Gorgin:2009:FRD

[5618] Saeid Gorgin and Ghassem Jaberipur. Fully redundant decimal arithmetic. In Bruguera et al. [8061], pages 145–152. ISBN 0-7695-3670-

0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Graillat:2009:AAV

[5619] Stef Graillat, Philippe Langlois, and Nicolas Louvet. Algorithms for accurate, validated and fast polynomial evaluation. *Japan Journal of Industrial and Applied Mathematics*, 26(2–3):191–214, 2009. CODEN JAPJI7. ISSN 0916-7005 (print), 1868-937x (electronic).

Graillat:2009:AFP

[5620] Stef Graillat. Accurate floating-point product and exponentiation. *IEEE Transactions on Computers*, 58(7):994–1000, July 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4711041.

Gu:2009:SDB

[5621] Haihua Gu and Dawu Gu. Speeding up the double-base recoding algorithm of scalar multiplication. *Cryptologia*, 33(4):315–320, 2009. CODEN CRYPE6. ISSN 0161-1194 (print), 1558-1586 (electronic).

Guralnik:2009:ISV

[5622] Elena Guralnik, Ariel J. Birnbaum, Anatoly Koyfman, and Avi Kaplan. Implementation specific verification of divide and square root instructions. In Bruguera et al. [8061], pages 114–121. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Han:2009:ICS

[5623] Dong-Guk Han, Dooho Choi, and Howon Kim. Improved computation of square roots in specific finite fields. *IEEE Transactions on Computers*, 58 (2):188–196, February 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4663058.

Hariri:2009:BSB

[5624] A. Hariri and A. Reyhani-Masoleh. Bit-serial and bit-parallel Montgomery multiplication and squaring over GF(2^m). *IEEE Transactions on Computers*, 58(10):1332–1345, October 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4912195.

Harrison:2009:DTB

[5625] John Harrison. Decimal transcendentals via binary. In Bruguera et al. [8061], pages 187–194. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Harrison:2009:FAB

[5626] John Harrison. Fast and accurate Bessel function computation. In Bruguera et al. [8061], pages 104–113. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Hasan:2009:SSC

[5627] M. A. Hasan and C. Negre. Subquadratic space complexity multiplier for a class of binary fields using Toeplitz matrix approach. In Bruguera et al. [8061], pages 67–75. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Hinek:2009:ALS

[5628] M. Jason Hinek and Charles C. Y. Lam. Another look at some fast modular arithmetic methods. *Journal of Mathematical Cryptology*, 3 (2):165–174, 2009. CODEN ???? ISSN 1862-2976 (print), 1862-2984 (electronic).

Ho:2009:FPF

[5629] C. H. Ho, C. W. Yu, P. Leong, W. Luk, and S. J. E. Wilton. Floating-point FPGA: architecture and modeling. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 17(12):1709–1718, 2009. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

ISO:2009:IIT

[5630] International Organization for Standardization. *ISO/IEC TR 24732:2009 Information technology — Programming languages, their environments and system software interfaces — Extension for the programming language C to support decimal floating-point arithmetic*. Technical report. International Organization for Standardization, Geneva, Switzerland, 2009. LCCN ???? URL http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=38842.

Jaberipur:2009:ISP

[5631] G. Jaberipur and A. Kaivani. Improving the speed of parallel decimal multiplication. *IEEE Transactions on Computers*, 58(11):1539–1552, November 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5184812`.

Jaberipur:2009:UAD

[5632] Ghassem Jaberipur and Behrooz Parhami. Unified approach to the design of modulo-($2^n \pm 1$) adders based on signed-LSB representation of residues. In Bruguera et al. [8061], pages 57–64. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

James:2009:HPL

[5633] R. K. James, K. P. Jacob, and S. Sasi. High performance, low latency double digit decimal multiplier on ASIC and FPGA. In Abraham et al. [8059], pages 1445–1450. ISBN 1-4244-5612-6, 1-4244-5053-5. LCCN QA76.887 2009. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5377996`. IEEE Catalog Number CFP0995H.

Jeannerod:2009:NBF

[5634] Claude-Pierre Jeannerod, Hervé Knochel, Christophe Monat, Guillaume Revy, and Gilles Villard. A new binary floating-point division algorithm and its software implementation on the ST231 processor. In Bruguera et al. [8061], pages 95–103. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Jiang:2009:FPA

[5635] D. Jiang and N. F. Stewart. Floating-point arithmetic for computational geometry problems with uncertain data. *International Journal of Computational Geometry and Applications (IJCGA)*, 19(4):371–385, August 2009. CODEN IJCAEV. ISSN 0218-1959.

Kaivola:2009:RTF

[5636] Roope Kaivola, Rajnish Ghughal, Naren Narasimhan, Amber Telfer, Jesse Whittemore, Sudhindra Pandav, Anna Slobodová, Christopher Taylor, Vladimir Frolov, Erik Reeber, and Armaghan Naik. Replacing testing with formal verification in Intel(R) Core^{TM} i7 processor execution engine validation. In Bouajjani and Maler [8060], pages 414–429. ISBN 3-642-02658-3. LCCN QA76.76.V47 .C38 2009.

Keaton:2009:IIR

[5637] David Keaton, Thomas Plum, Robert C. Seacord, David Svoboda, Alex Volkovitsky, and Timothy Wilson. As-if infinitely ranged integer model. Technical Note CMU/SEI-2009-TN-023, Carnegie-Mellon University Software Engineering Institute, Pittsburgh, PA, USA, July 2009. URL https://resources.sei.cmu.edu/asset_files/TechnicalNote/2009_004_001_15074.pdf; https://resources.sei.cmu.edu/library/asset-view.cfm?assetid=9019.

Khare:2009:HEA

[5638] Kavita Khare, Nilay Khare, and Supriya Aggarwal. Hardware efficient algorithm for complex arithmetic. In *2009 IEEE International Advance Computing Conference*, pages 209–213. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009.

Kim:2009:FPU

[5639] Donghyun Kim and Lee-Sup Kim. A floating-point unit for 4D vector inner product with reduced latency. *IEEE Transactions on Computers*, 58(7):890–901, July 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4674343.

Kornerup:2009:CCR

[5640] P. Kornerup, V. Lefèvre, N. Louvet, and Jean-Michel Muller. On the computation of correctly-rounded sums. In Bruguera et al. [8061], pages 155–160. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Kornerup:2009:GEI

[5641] Peter Kornerup, Paolo Montuschi, Jean-Michel Muller, and Eric Schwarz. Guest Editors' introduction: Special section on computer arithmetic. *IEEE Transactions on Computers*, 58(2):145–147, February 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4740165.

Lang:2009:DUB

[5642] T. Lang and A. Nannarelli. Division unit for binary integer decimals. In IEEE [8065], pages 1–7. ISBN 0-7695-3732-4. ISSN 1063-6862. LCCN ????

Lauter:2009:ERB

[5643] C. Q. Lauter and V. Lefevre. An efficient rounding boundary test for `pow(x, y)` in double precision. *IEEE Transactions on Computers*, 58 (2):197–207, February 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4663059`.

Li:2009:FAT

[5644] Xin Li, Marc Moreno Maza, and Éric Schost. Fast arithmetic for triangular sets: From theory to practice. *Journal of Symbolic Computation*, 44(7):891–907, July 2009. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic).

Maclaren:2009:HCH

[5645] N. M. Maclaren. How computers handle numbers: a.k.a. computer arithmetic uncovered. Course notes, Cambridge University Computing Service, Cambridge, UK, July 2009. URL `http://www-uxsup.csx.cam.ac.uk/courses/Arithmetic/notes.pdf`.

Martel:2009:PTN

[5646] Matthieu Martel. Program transformation for numerical precision. In Germán Puebla, editor, *Proceedings of the 2009 ACM SIGPLAN Workshop on Partial Evaluation and Program Manipulation — PEPM'09: Savannah, Georgia, USA, January 19–20, 2009*, pages 101–110. ACM Press, 2009. ISBN 1-60558-327-8. URL `https://dl.acm.org/citation.cfm?doid=1480945.1480960`.

Matula:2009:HRS

[5647] David W. Matula. Higher radix squaring operations employing left-to-right dual recoding. In Bruguera et al. [8061], pages 39–47. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Mazor:2009:HPC

[5648] Stanley Mazor. A historical perspective on computer arithmetic. In Bruguera et al. [8061], page 35. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Miller:2009:RNR

[5649] Frederic P. Miller, Agnes F. Vandome, and John McBrewster, editors. *Roman Numerals: Roman numeral analysis, Roman arithmetic, Roman* *abacus, Kharosthi, Unicode numerals, Etruscan numerals, Positional notation, Arabic numerals, Districts of Turku*. Alphascript Publishing, 17 Rue Meldrum, Beau Bassin, 1713-01 Mauritius, 2009. ISBN 613-0-06480-2. 88 (est.) pp. LCCN ???? US$50.

Minchola:2009:FID

[5650] C. Minchola and G. Sutter. A FPGA IEEE-754-2008 Decimal64 floating-point multiplier. In Cumplido et al. [8062], pages 59–64. ISBN 1-4244-5293-7, 0-7695-3917-3. LCCN TK7895.G36 2009. URL https://ieeexplore.ieee.org/servlet/opac?punumber=5379688.

Monniaux:2009:UFPa

[5651] David Monniaux. On using floating-point computations to help an exact linear arithmetic decision procedure. *arXiv.org*, ??(??):??, April 22, 2009. CODEN ???? ISSN ???? URL http://arxiv.org/abs/0904.3525.

Monniaux:2009:UFPb

[5652] David Monniaux. On using floating-point computations to help an exact linear arithmetic decision procedure. In Bouajjani and Maler [8060], pages 570–583. ISBN 3-642-02657-5 (paperback), 3-642-02658-3. LCCN QA76.76.V47 .C38 2009.

Mosbach:2009:QPI

[5653] Sebastian Mosbach and Amanda G. Turner. A quantitative probabilistic investigation into the accumulation of rounding errors in numerical ODE solution. *Computers and Mathematics with Applications*, 57(7):1157–1167, April 2009. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0898122109000431.

Murakami:2009:CFT

[5654] Hiroshi Murakami. A continued fraction type method to find a rational number in a given closed interval whose denominator is minimal. *ACM Communications in Computer Algebra*, 43(3):88–90, September 2009. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Pan:2009:NEF

[5655] V. Y. Pan, B. Murphy, G. Qian, and R. E. Rosholt. A new error-free floating-point summation algorithm. *Computers and Mathematics with Applications*, 57(4):560–564, February 2009. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0898122108006718.

Papadantonakis:2009:PSA

[5656] K. Papadantonakis, N. Kapre, S. Chan, and A. DeHon. Pipelining saturated accumulation. *IEEE Transactions on Computers*, 58(2):208–219, February 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Preiss:2009:ACS

[5657] Jochen Preiss, Maarten Boersma, and Silvia Melitta Mueller. Advanced clockgating schemes for fused-multiply-add-type floating-point units. In Bruguera et al. [8061], pages 48–56. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Rump:2009:CPS

[5658] Siegfried M. Rump, Paul Zimmermann, Sylvie Boldo, and Guillaume Melquiond. Computing predecessor and successor in rounding to nearest. *BIT Numerical Mathematics*, 49(2):419–431, June 2009. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=49&issue=2&spage=419`.

Rump:2009:UFA

[5659] Siegfried M. Rump. Ultimately fast accurate summation. *SIAM Journal on Scientific Computing*, 31(5):3466–3502, ???? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Schwarz:2009:DFP

[5660] E. M. Schwarz, J. S. Kapernick, and M. F. Cowlishaw. Decimal floating-point support on the IBM System z10 processor. *IBM Journal of Research and Development*, 53(1):4:1–4:10, January/February 2009. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL `http://www.research.ibm.com/journal/rd/531/schwarz.pdf`.

Shaw:2009:ASM

[5661] David E. Shaw. Anton: a specialized machine for millisecond-scale molecular dynamics simulations of proteins. In Bruguera et al. [8061], page 3. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Shpilka:2009:IDA

[5662] Amir Shpilka. Interpolation of depth-3 arithmetic circuits with two multiplication gates. *SIAM Journal on Computing*, 38(6):2130–2161,

???? 2009. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic).

Stewart:2009:FMP

[5663] G. W. Stewart. Flap: a Matlab package for adjustable precision floating-point arithmetic. Report, Department of Computer Science, University of Maryland, College Park, MD, USA, 2009. URL `http://www.cs.umd.edu/~stewart/flap/flap.html`.

Tajallipour:2009:FCD

[5664] R. Tajallipour, D. Teng, Seok-Bum Ko, and K. Wahid. On the fast computation of decimal logarithm. In ICCIT [8063], pages 32–36. ISBN 1-4244-6281-9, 1-4244-6284-3. LCCN T58.5 2009. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5398764`.

Tan:2009:LPM

[5665] D. Tan, C. E. Lemonds, and Michael J. Schulte. Low-power multiple-precision iterative floating-point multiplier with SIMD support. *IEEE Transactions on Computers*, 58(2):175–187, February 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4663060`.

Tenca:2009:MOF

[5666] Alexandre F. Tenca. Multi-operand floating-point addition. In Bruguera et al. [8061], pages 161–168. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Tsen:2009:CDB

[5667] Charles Tsen, Sonia Gonzalez-Navarro, Michael J. Schulte, Brian Hickmann, and Katherine Compton. A combined decimal and binary floating-point multiplier. In IEEE [8065], pages 8–15. ISBN 0-7695-3732-4. ISSN 1063-6862. LCCN ????

Tydeman:2009:CMC

[5668] Fred J. Tydeman. Complex multiply and complex divide, taking into account IEEE-754 (IEC 60559) signed zeros, signed infinities, NaN, and C99 _Imaginary_I. Report WG14 N1399, ????, ????, September 25, 2009. URL `https://www.open-std.org/jtc1/sc22/wg14/www/docs/n1399.htm`.

Usselmann:2009:FPU

[5669] R. Usselmann. Floating point unit. Web report, Algotronix Ltd., Edinburgh EH8 8YB, UK, December 20, 2009. URL http://opencores.org/project,fpu.

Van:2009:PEP

[5670] Lan-Da Van and Jin-Hao Tu. Power-efficient pipelined reconfigurable fixed-width Baugh–Wooley multipliers. *IEEE Transactions on Computers*, 58(10):1346–1355, October 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5156495.

VanDenDries:2009:AC

[5671] Lou Van Den Dries and Yiannis N. Moschovakis. Arithmetic complexity. *ACM Transactions on Computational Logic*, 10(1):2:1–2:??, January 2009. CODEN ???? ISSN 1529-3785 (print), 1557-945X (electronic).

Vazquez:2009:CDT

[5672] Álvaro Vázquez, Julio Villalba, and Elisardo Antelo. Computation of decimal transcendental functions using the CORDIC algorithm. In Bruguera et al. [8061], pages 179–186. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Vazquez:2009:HPS

[5673] Álvaro Vázquez and Elisardo Antelo. A high-performance significand BCD adder with IEEE 754-2008 decimal rounding. In Bruguera et al. [8061], pages 135–144. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Verma:2009:CAO

[5674] Ajay K. Verma, Philip Brisk, and Paolo Ienne. Challenges in automatic optimization of arithmetic circuits. In Bruguera et al. [8061], pages 213–218. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Vuillemin:2009:EDS

[5675] Jean E. Vuillemin. Efficient data structure and algorithms for sparse integers, sets and predicates. In Bruguera et al. [8061], pages 7–14. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL http://www.ac.usc.es/arith19/.

Wang:2009:DFP

[5676] Liang-Kai Wang and Michael J. Schulte. A decimal floating-point adder with decoded operands and a decimal leading-zero anticipator. In Bruguera et al. [8061], pages 125–134. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Wang:2009:HDD

[5677] Liang-Kai Wang, Michael J. Schulte, J. D. Thompson, and N. Jairam. Hardware designs for decimal floating-point addition and related operations. *IEEE Transactions on Computers*, 58(3):322–335, March 2009. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4599577`.

Wang:2009:RCD

[5678] Dong Wang, M. D. Ercegovac, and Nanning Zheng. A radix-8 complex divider for FPGA implementation. In IEEE [8064], pages 236–241. ISBN 1-4244-3892-6. LCCN ????

XILINX:2009:XLF

[5679] XILINX. *XILINX LogiCORE floating-point operator v5.0 product specification*. Xilinx, Inc., June 24, 2009. URL `http://www.xilinx.com/support/documentation/ip_documentation/floating_point_ds335.pdf`.

Zhu:2009:CRH

[5680] Yong-Kang Zhu and Wayne B. Hayes. Correct rounding and a hybrid approach to exact floating-point summation. *SIAM Journal on Scientific Computing*, 31(4):2981–3001, ???? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zimmermann:2009:DSS

[5681] Reto Zimmermann. Datapath synthesis for standard-cell design. In Bruguera et al. [8061], pages 207–211. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Akbarpour:2010:VSI

[5682] Behzad Akbarpour, Amr T. Abdel-Hamid, Sofiène Tahar, and John Harrison. Verifying a synthesized implementation of IEEE-754 floating-point exponential function using HOL. *The Computer Journal*, 53

(4):465–488, May 2010. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/cgi/content/abstract/53/4/465; http://comjnl.oxfordjournals.org/cgi/reprint/53/4/465.

Aldous:2010:WCO

[5683] David Aldous and Tung Phan. When can one test an explanation? Compare and contrast Benford's Law and the fuzzy CLT. *The American Statistician*, 64(3):221–227, August 2010. CODEN ASTAAJ. ISSN 0003-1305 (print), 1537-2731 (electronic).

Alimohammad:2010:UAA

[5684] A. Alimohammad, S. F. Fard, and B. F. Cockburn. A unified architecture for the accurate and high-throughput implementation of six key elementary functions. *IEEE Transactions on Computers*, 59(4):449–456, ???? 2010. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5313801.

Amin:2010:HRM

[5685] Alaaeldin Amin and Waleed Shinwari. High-radix multiplier-dividers: Theory, design, and hardware. *IEEE Transactions on Computers*, 59(8):1009–1022, ???? 2010. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5453337.

Banescu:2010:MFP

[5686] Sebastian Banescu, Florent de Dinechin, Bogdan Pasca, and Radu Tudoran. Multipliers for floating-point double precision and beyond on FPGAs. *ACM SIGARCH Computer Architecture News*, 38(4):73–79, September 2010. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Block:2010:GEB

[5687] Henry W. Block and Thomas H. Savits. A general example for Benford data. *The American Statistician*, 64(4):335–339, November 2010. CODEN ASTAAJ. ISSN 0003-1305 (print), 1537-2731 (electronic).

Brent:2010:PAV

[5688] Richard P. Brent. On the precision attainable with various floating-point number systems. *arXiv.org*, ??(??):??, April 20, 2010. CODEN ???? ISSN ???? URL http://arxiv.org/abs/1004.3374.

Brisebarre:2010:IDF

[5689] Nicolas Brisebarre, Nicolas Louvet, Érik Martin-Dorel, Jean-Michel Muller, Adrien Panhaleux, and Milo D. Ercegovac. Implementing decimal floating-point arithmetic through binary: Some suggestions. In François Charot, Frank Hannig, Jürgen Teich, and Christophe Wolinski, editors, *ASAP 2010 — 21st IEEE International Conference on Application-specific Systems, Architectures and Processors. July 7–9, 2010. Rennes, France*, pages 317–320. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 1-4244-6967-8. ISSN 1063-6862.

Chapoutot:2010:ISN

[5690] Alexandre Chapoutot. Interval slopes as numerical abstract domain for floating-point variables. *arXiv.org*, ??(??):??, April 1, 2010. CODEN ???? ISSN ???? URL http://arxiv.org/abs/1004.0202.

Cheng:2010:BSS

[5691] Qi Cheng, Xianmeng Meng, Celi Sun, and Jiazhe Chen. Bounding the sum of square roots via lattice reduction. *Mathematics of Computation*, 79(270):1109–1122, April 2010. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.ams.org/journals/mcom/2010-79-270/S0025-5718-09-02304-7/home.html; http://www.ams.org/journals/mcom/2010-79-270/S0025-5718-09-02304-7/S0025-5718-09-02304-7.pdf.

Chevillard:2010:SED

[5692] Sylvain Chevillard, Mioara Jolde, and Christoph Lauter. Sollya: An environment for the development of numerical codes. In Fukuda et al. [8073], pages 28–31. ISBN 3-642-15581-2 (paperback), 3-642-15582-0 (e-book). LCCN QA76.95 .I5654 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15582-6_5.pdf.

Cuyt:2010:VSF

[5693] Annie Cuyt, Franky Backeljauw, Stefan Becuwe, and Joris Van Deun. Validated special functions software. In Fukuda et al. [8073], pages 32–34. ISBN 3-642-15581-2 (paperback), 3-642-15582-0 (e-book). LCCN QA76.95 .I5654 2010. URL http://link.springer.com/book/10.1007/978-3-642-15582-6.

Daumas:2010:CBE

[5694] Marc Daumas and Guillaume Melquiond. Certification of bounds on expressions involving rounded operators. *ACM Transactions* *on Mathematical Software*, 37(1):2:1–2:20, January 2010. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

deDinechin:2010:AGP

[5695] Florent de Dinechin, Mioara Joldes, and Bogdan Pasca. Automatic generation of polynomial-based hardware architectures for function evaluation. In *ASAP 2010 — 21st IEEE International Conference on Application-specific Systems, Architectures and Processors*, pages 216–222. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, July 2010.

deDinechin:2010:FGA

[5696] Florent de Dinechin and Bogdan Pasca. FloPoCo: generator of arithmetic cores (Floating-Point Cores, but not only) for FPGAs (but not only). Web site and source code., August 10, 2010.

deDinechin:2010:FPE

[5697] Florent de Dinechin and Bogdan Pasca. Floating-point exponential functions for DSP-enabled FPGAs. In Jinian Bian, Qiang Zhou, and Kang Zhao, editors, *Proceedings 2010 International Conference on Field-Programmable Technology, 8–10 December 2010, Beijing, China*, pages 110–117. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, December 2010.

deDinechin:2010:MSR

[5698] Florent de Dinechin, Mioara Joldes, Bogdan Pasca, and Guillaume Revy. Multiplicative square root algorithms for FPGAs. In Fabrizio Ferrandi, Jari Nurmi, and Marco D. Santambrogio, editors, *2010 International Conference on Field Programmable Logic and Applications: FPL 2010, 31 August–2 September 2010, Milano, Italy*, pages 547–577. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 0-7695-4179-8. URL `https://ens-lyon.hal.science/ensl-00475779v2/document`.

Digeser:2010:ISE

[5699] P. Digeser, M. Tubolino, M. Klemm, D. Shapiro, and M. Bolic. Instruction set extension in the NIOS II: a floating point divider for complex numbers. In IEEE [8074], page ???? ISBN 1-4244-5376-3. LCCN ????

Dvir:2010:HRT

[5700] Zeev Dvir, Amir Shpilka, and Amir Yehudayoff. Hardness-randomness tradeoffs for bounded depth arithmetic circuits. *SIAM Journal on*

Computing, 39(4):1279–1293, ???? 2010. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic).

El-Hariry:2010:MCM

[5701] Yassmeen M. El-Hariry and Ahmed H. Madian. MOS current mode logic realization of digital arithmetic circuits. In *2010 International Conference on Microelectronics*, pages 128–131. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010.

Emmart:2010:HPI

[5702] Niall Emmart and Charles Weems. High precision integer addition, subtraction and multiplication with a graphics processing unit. *Parallel Processing Letters*, 20(4):293–306, December 2010. CODEN PPLTEE. ISSN 0129-6264 (print), 1793-642X (electronic). See later improvements [5829].

Fahmy:2010:DFP

[5703] H. A. H. Fahmy, T. ElDeeb, M. Y. Hassan, Y. Farouk, and R. R. Eissa. Decimal floating point for future processors. In IEEE [8076], pages 443–446. ISBN 1-4244-7200-8, 1-4244-7201-6. LCCN TK7874 2010. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5483038`. IEEE Catalog Number CFP10432-ART.

Fang:2010:DFP

[5704] Zhao Fang. The design of FFT processor based on CORDIC arithmetic. Master's thesis, Beijing Institute of Technology, Beijing (People's Republic of China), 2010. URL `https://login.ezproxy.lib.utah.edu/login?url=https://www.proquest.com/dissertations-theses/design-fft-processor-based-on-cordic-arithmetic/docview/1868432799/se-2`.

Fiedler:2010:GGF

[5705] Glenn Fiedler. Gaffer on games — floating point determinism. Web site, February 24, 2010. Comments on the problem of reproducing game behavior on different platforms because of floating-point issues.

Frey:2010:ABC

[5706] Gerhard Frey. The arithmetic behind cryptography. *Notices of the American Mathematical Society*, 57(3):366–374, March 2010. CODEN AMNOAN. ISSN 0002-9920 (print), 1088-9477 (electronic). URL `http://www.ams.org/notices/201003/`.

Fu:2010:FDO

[5707] Haohuan Fu, O. Mencer, and W. Luk. FPGA designs with optimized logarithmic arithmetic. *IEEE Transactions on Computers*, 59(7):1000–1006, ???? 2010. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5416693.

Ghazi:2010:WHU

[5708] Kaveh R. Ghazi, Vincent Lefèvre, Philippe Theveny, and Paul Zimmermann. Why and how to use arbitrary precision. *Computing in Science and Engineering*, 12(3):5, May/June 2010. CODEN CSENFA. ISSN 0740-7475 (print), 1558-1918 (electronic).

Habegger:2010:EHI

[5709] Andreas Habegger, Andreas Stahel, Josef Goette, and Marcel Jacomet. An efficient hardware implementation for a reciprocal unit. In IEEE, editor, *2010 Fifth IEEE International Symposium on Electronic Design, Test & Applications: 13–15 January 2010 Ho Chi Minh City, Vietnam*, pages 183–187. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010.

Hemmert:2010:FEF

[5710] K. Scott Hemmert and Keith D. Underwood. Fast, efficient floating-point adders and multipliers for FPGAs. *ACM Transactions on Reconfigurable Technology and Systems*, 3(3):11:1–11:??, September 2010. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic).

Hsiao:2010:IFP

[5711] Shen-Fu Hsiao, Chia-Shen Wen, and Hsin-Mau Lee. Implementation of floating-point CORDIC rotation and vectoring based on look up tables and multipliers. In *2010 International Symposium on Next Generation Electronics*, pages 44–47. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010.

Hsiao:2010:LCD

[5712] Shen-Fu Hsiao, Chia-Sheng Wen, and Ming-Yu Tsai. Low-cost design of reciprocal function units using shared multipliers and adders for polynomial approximation and Newton–Raphson interpolation. In ????, editor, *2010 International Symposium on Next Generation Electronics: 18–19 November 2010*, pages 40–43. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, November 2010.

Jaberipur:2010:RDF

[5713] G. Jaberipur, B. Parhami, and S. Gorgin. Redundant-digit floating-point addition scheme based on a stored rounding value. *IEEE Transactions on Computers*, 59(5):694–706, ???? 2010. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5278659.

Jiang:2010:AEP

[5714] Hao Jiang, Shengguo Li, Lizhi Cheng, and Fang Su. Accurate evaluation of a polynomial and its derivative in Bernstein form. *Computers and Mathematics with Applications*, 60(3):744–755, August 2010. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0898122110003706.

Kahan:2010:PUC

[5715] W. Kahan. Pete's unsung contribution to IEEE Standard 754 for binary floating-point: a talk at a conference to celebrate G. W. "Pete" Stewart's 70th birthday. Lecture slides, July 19, 2010. URL https://people.eecs.berkeley.edu/~wkahan/19July10.pdf.

Kalla:2010:PIN

[5716] Ron Kalla, Balaram Sinharoy, William J. Starke, and Michael Floyd. Power7: IBM's next-generation server processor. *IEEE Micro*, 30(2): 7–15, March/April 2010. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Kastner:2010:AOT

[5717] Ryan Kastner, Anup Hosangadi, and Farzan Fallah. *Arithmetic optimization techniques for hardware and software design*. Cambridge University Press, Cambridge, UK, 2010. ISBN 0-521-88099-8. vii + 187 pp. LCCN QA76.9.C62 K37 2010; QA76.9.C62 KAS 2010. URL http://assets.cambridge.org/97805218/80992/cover/9780521880992.jpg.

Kirk:2010:PMP

[5718] David B. Kirk and Wen mei W. Hwu. *Programming Massively Parallel Processors: a Hands-on Approach*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, 2010. ISBN 0-12-381472-3. xviii + 258 pp. LCCN QA76.642 .K57 2010. Chapter 7 (pages 125–140) discusses GPU floating-point considerations.

Knezevic:2010:FIM

[5719] M. Knezevic, F. Vercauteren, and I. Verbauwhede. Faster interleaved modular multiplication based on Barrett and Montgomery reduction methods. *IEEE Transactions on Computers*, 59(12):1715–1721, ???? 2010. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5453352.

Kong:2010:RMR

[5720] Inwook Kong and E. E. Swartzlander. A rounding method to reduce the required multiplier precision for Goldschmidt division. *IEEE Transactions on Computers*, 59(12):1703–1708, December 2010. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5453345.

Kornerup:2010:CCRa

[5721] Peter Kornerup, Vincent Lefèvre, Nicholas Louvet, and Jean-Michel Muller. On the computation of correctly-rounded sums. Research report RR-7262, INRIA, Lyon, France, April 2010. 28 pp. URL http://hal.inria.fr/inria-00475279.

Kornerup:2010:CCRb

[5722] Peter Kornerup, Christoph Lauter, Vincent Lefèvre, Nicolas Louvet, and Jean-Michel Muller. Computing correctly rounded integer powers in floating-point arithmetic. *ACM Transactions on Mathematical Software*, 37(1):4:1–4:23, January 2010. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Kornerup:2010:FPN

[5723] Peter Kornerup and David W. Matula. *Finite Precision Number Systems and Arithmetic*, volume 133 of *Encyclopedia of mathematics and its applications*. Cambridge University Press, Cambridge, UK, 2010. ISBN 0-521-76135-2 (hardcover). xv + 699 pp. LCCN QA248 .K627 2010. URL http://assets.cambridge.org/97805217/61352/cover/9780521761352.jpg; http://catdir.loc.gov/catdir/enhancements/fy1011/2010030521-b.html; http://catdir.loc.gov/catdir/enhancements/fy1011/2010030521-d.html; http://catdir.loc.gov/catdir/enhancements/fy1011/2010030521-t.html.

KrusemanAretz:2010:DCP

[5724] F. E. J. Kruseman Aretz. Design and correctness proof of an emulation of the floating-point operations of the Electrologica X8: a case study.

Computer Science Report 1002, Technische Universiteit Eindhoven, Eindhoven, The Netherlands, March 30, 2010. 58 pp. URL `http://repository.tue.nl/674735`.

Lamotte:2010:CVC

[5725] Jean-Luc Lamotte, Jean-Marie Chesneaux, and Fabienne Jézéquel. CADNA_C: a version of CADNA for use with C or C++ programs. *Computer Physics Communications*, 181(11):1925–1926, November 2010. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465510002353`.

Lefevre:2010:LTL

[5726] Vincent Lefévre, Philippe Théveny, Florent de Dinechin, Claude-Pierre Jeannerod, Christophe Mouilleron, David Pfannholzer, and Nathalie Revol. LEMA: towards a language for reliable arithmetic. *ACM Communications in Computer Algebra*, 44(2):41–52, June 2010. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Lima:2010:KBA

[5727] J. B. Lima, D. Panario, and Qiang Wang. A Karatsuba-based algorithm for polynomial multiplication in Chebyshev form. *IEEE Transactions on Computers*, 59(6):835–841, ???? 2010. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5416688`.

Loitsch:2010:PFP

[5728] Florian Loitsch. Printing floating-point numbers quickly and accurately with integers. *ACM SIGPLAN Notices*, 45(6):233–243, June 2010. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Louvet:2010:NRA

[5729] Nicolas Louvet, Jean-Michel Muller, and Adrien Panhaleux. Newton–Raphson algorithms for floating-point division using an FMA. In Charot et al. [8071], pages 200–207. ISBN 1-4244-6965-1, 1-4244-6966-X, 1-4244-6967-8. LCCN TK7874.6 2010. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5523683`. IEEE Catalog Number CFP10063ART.

Maruyama:2010:SVN

[5730] Takumi Maruyama, Toshio Yoshida, Ryuji Kan, Iwao Yamazaki, Shuji Yamamura, Noriyuki Takahashi, Mikio Hondou, and Hiroshi Okano.

Sparc64 VIIIfx: a new-generation octocore processor for petascale computing. *IEEE Micro*, 30(2):30–40, March/April 2010. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Mathews:2010:AOE

[5731] Deborah Mathews. Abstract only: an empirical study of parallel big number arithmetic. *ACM Communications in Computer Algebra*, 44 (2):25, June 2010. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Mehrotra:2010:SLR

[5732] Sanjay Mehrotra and Zhifeng Li. Segment LLL reduction of lattice bases using modular arithmetic. *Algorithms (Basel)*, 3(3):224–243, September 2010. CODEN ALGOCH. ISSN 1999-4893 (electronic). URL `https://www.mdpi.com/1999-4893/3/3/224`.

Meyer:2010:CGT

[5733] Quirin Meyer, Jochen Süßmuth, Gerd Sußner, Marc Stamminger, and Günther Greiner. Computer graphics theory: On floating-point normal vectors. *Computer Graphics Forum*, 29(4):1405–1409, June 2010. CODEN CGFODY. ISSN 0167-7055 (print), 1467-8659 (electronic).

Moller:2010:IDI

[5734] Niels Möller and Torbjörn Granlund. Improved division by invariant integers. Report, Centre for Industrial and Applied Mathematics, KTH, Stockholm, Sweden, April 13, 2010. 10 pp. URL `https://gmplib.org/~tege/division-paper.pdf`.

Morisita:2010:IEA

[5735] Hirokazu Morisita, Kenta Inakagata, Yasunori Osana, Naoyuki Fujita, and Hideharu Amano. Implementation and evaluation of an arithmetic pipeline on FLOPS-2D: multi-FPGA system. *ACM SIGARCH Computer Architecture News*, 38(4):8–13, September 2010. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Mukherjee:2010:NAC

[5736] Manideepa Mukherjee and Amitabha Sinha. A novel architecture for conversion of binary to single digit double base numbers. *ACM SIGARCH Computer Architecture News*, 38(5):1–6, December 2010. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Muller:2010:HFP

[5737] Jean-Michel Muller, Nicolas Brisebarre, Florent de Dinechin, Claude-Pierre Jeannerod, Vincent Lefèvre, Guillaume Melquiond, Nathalie Revol, Damien Stehlé, and Serge Torres. *Handbook of Floating-Point Arithmetic*. Birkhäuser Boston Inc., Cambridge, MA, USA, 2010. ISBN 0-8176-4704-X (hardcover), 0-8176-4705-8 (e-book). xxiii + 572 pp. LCCN QA76.9.C62 H36 2010. US$90 (est.).

Munoz:2010:FBF

[5738] Daniel M. Muñoz, Diego F. Sanchez, Carlos H. Llanos, and Mauricio Ayala-Rincón. FPGA based floating-point library for CORDIC algorithms. In *2010 VI Southern Programmable Logic Conference (SPL)*, pages 55–60. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010.

Nickolls:2010:GCE

[5739] John Nickolls and William J. Dally. The GPU computing era. *IEEE Micro*, 30(2):56–69, March/April 2010. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

NURCL:2010:VNV

[5740] Northeastern University Reconfigurable Computing Laboratory. Vfloat: The Northeastern Variable precision FLOATing point library. Web site., 2010. URL `http://www.ece.neu.edu/groups/rcl/projects/floatingpoint/`.

Parhami:2010:CAA

[5741] Behrooz Parhami. *Computer arithmetic: algorithms and hardware designs*. The Oxford series in electrical and computer engineering. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, second edition, 2010. ISBN 0-19-532848-5 (hardcover). xxv + 641 pp. LCCN QA76.9.C62 P37 2010. URL `http://www.loc.gov/catdir/enhancements/fy1006/2009034155-d.html; http://www.loc.gov/catdir/enhancements/fy1006/2009034155-t.html`.

Pence:2010:OCF

[5742] W. D. Pence, R. L. White, and R. Seaman. Optimal compression of floating-point astronomical images without significant loss of information. *arXiv.org*, ??(??):??, July 7, 2010. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/1007.1179`. Published in PASP **122**, 1096 (2010).

Purohit:2010:EIA

[5743] G. N. Purohit and Asmita Singh Rawat. Efficient implementation of arithmetic operations in ECC over binary fields. *International Journal of Computer Applications*, 6(??):5–9, September 2010. CODEN ???? ISSN 0975-8887. URL https://www.ijcaonline.org/archives/volume6/number2/1056-1376/.

Qi:2010:DLC

[5744] Zichu Qi, Qi Guo, Ge Zhang, Xiangku Li, and Weiwu Hu. Design of low-cost high-performance floating-point fused multiply-add with reduced power. In IEEE [8077], pages 206–211. ISBN 1-4244-5541-3, 0-7695-3928-9, 1-4244-5541-3. LCCN TK7874.75 2010. URL https://ieeexplore.ieee.org/servlet/opac?punumber=5400049. IEEE Computer Society Order Number E3928.

Roldao:2010:HTF

[5745] Antonio Roldao and George A. Constantinides. A high throughput FPGA-based floating point conjugate gradient implementation for dense matrices. *ACM Transactions on Reconfigurable Technology and Systems*, 3(1):1:1–1:??, January 2010. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic).

Rummer:2010:IPI

[5746] Philipp Rümmer and Thomas Wahl. Informal proceedings of 8th International Workshop on Satisfiability Modulo Theories (SMT) at FLoC, Edinburgh, Scotland. In An smt-lib theory of binary floating-point arithmetic, editor, *????*, page ?? ????, ??, 2010.

Rump:2010:ARC

[5747] Siegfried M. Rump. Accurate and reliable computing in floating-point arithmetic. In Fukuda et al. [8073], pages 105–108. ISBN 3-642-15581-2 (paperback), 3-642-15582-0 (e-book). LCCN QA76.95 .I5654 2010. URL http://link.springer.com/content/pdf/10.1007/978-3-642-15582-6_22.pdf.

Rump:2010:FHP

[5748] Siegfried M. Rump, T. Ogita, and S. Oishi. Fast high precision summation. *Nonlinear Theory and Its Applications (NOLTA)*, 1(1):2–24, ???? 2010.

Rump:2010:VMRa

[5749] Siegfried M. Rump. Verification methods: rigorous results using floating-point arithmetic. In Watt [8080], pages 3–4. ISBN 1-4503-0150-9. LCCN QA76.95 .I59 2010.

Rump:2010:VMRb

[5750] Siegfried M. Rump. Verification methods: Rigorous results using floating-point arithmetic. *Acta Numerica*, 19:287–449, 2010. CODEN ANUMFU. ISBN 0-521-19284-6. ISSN 0962-4929 (print), 1474-0508 (electronic). URL `http://www.ti3.tu-harburg.de/paper/rump/Ru10.pdf`.

Ryden:2010:EIR

[5751] Jesper Rydén and Sven Erick Alm. The effect of interaction and rounding error in two-way ANOVA: example of impact on testing for normality. *Journal of Applied Statistics*, 37(10):1695–1701, October 2010. CODEN ???? ISSN 0266-4763 (print), 1360-0532 (electronic).

Saito:2010:DQP

[5752] Tsubasa Saito, Emiko Ishiwata, and Hidehiko Hasegawa. Development of quadruple precision arithmetic toolbox QuPAT on Scilab. *Lecture Notes in Computer Science*, 6017:60–70, 2010. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer.com/chapter/10.1007/978-3-642-12165-4_5`.

Samy:2010:DFP

[5753] R. Samy, H. A. H. Fahmy, R. Raafat, A. Mohamed, T. ElDeeb, and Y. Farouk. A decimal floating-point fused-multiply-add unit. In Delgado-Frias et al. [8072], pages 529–532. ISBN 1-4244-7771-9. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5542407`.

Sasaki:2010:CFP

[5754] Tateaki Sasaki and Fujio Kako. Computing floating-point Gröbner bases accurately. *ACM Communications in Computer Algebra*, 44(3):142–143, September 2010. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Schertz:2010:CM

[5755] Reinhard Schertz. *Complex Multiplication*. Cambridge University Press, Cambridge, UK, 2010. ISBN 0-521-76668-0. xiii + 361 pp. LCCN QA564 .S294 2010.

Schneeweiss:2010:SAR

[5756] H. Schneeweiss, J. Komlos, and A. S. Ahmad. Symmetric and asymmetric rounding: a review and some new results. *AStA. Advances in Statistical Analysis*, 94(3):247–271, September 2010. CODEN ???? ISSN 1863-8171 (print), 1863-818X (electronic). URL http://link.springer.com/article/10.1007/s10182-010-0125-2.

Sheikh:2010:OOA

[5757] Basit Riaz Sheikh and Rajit Manohar. An operand-optimized asynchronous IEEE 754 double-precision floating-point adder. In IEEE, editor, *ASYNC 2010: 16th IEEE Symposium on Asynchronous Circuits and Systems, 3–6 May 2010, Grenoble, France, Proceedings*, pages 151–162. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 0-7695-4032-5. LCCN ???? URL https://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=5476966; https://www.semanticscholar.org/paper/An-Operand-Optimized-Asynchronous-IEEE-754-Double-Sheikh-Manohar/3e30463d11ba059f19c5959e0acc66709390475e.

Shieh:2010:WBM

[5758] Ming-Der Shieh and Wen-Ching Lin. Word-based Montgomery modular multiplication algorithm for low-latency scalable architectures. *IEEE Transactions on Computers*, 59(8):1145–1151, ???? 2010. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5441286.

Shuster:2010:ECN

[5759] John A. Shuster and Jens Köplinger. Elliptic complex numbers with dual multiplication. *Applied Mathematics and Computation*, 216(12):3497–3514, August 15, 2010. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic).

Smiley:2010:MWI

[5760] Jane Smiley. *The man who invented the computer: the biography of John Atanasoff, digital pioneer*. Doubleday, New York, NY, USA, 2010. ISBN 0-385-52713-6, 0-385-53372-1 (e-book), 1-299-11995-6 (e-book). 246 + 8 pp. LCCN QA76.2.A75 S64 2010. US$25.95.

Smith:2010:AFA

[5761] Alastair M. Smith, George A. Constantinides, and Peter Y. K. Cheung. An automated flow for arithmetic component generation in field-programmable gate arrays. *ACM Transactions on Reconfigurable*

Technology and Systems, 3(3):13:1–13:??, September 2010. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic).

Sze:2010:TQB

[5762] Tsz-Wo Sze. The two quadrillionth bit of pi is 0 ! Distributed computation of pi with Apache Hadoop. In IEEE, editor, *2010 IEEE Second International Conference on Cloud Computing Technology and Science (CloudCom)*, page 727. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 1-4244-9405-2. LCCN ????

Szewczak:2010:LTR

[5763] Zbigniew S. Szewczak. A limit theorem for random sums modulo 1. *Statistics & Probability Letters*, 80(9 10):747–751, 2010. CODEN SPLTDC. ISSN 0167-7152 (print), 1879-2103 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0167715210000106.

Takahashi:2010:PIM

[5764] Daisuke Takahashi. Parallel implementation of multiple-precision arithmetic and $2,576,980,370,000$ decimal digits of π calculation. *Parallel Computing*, 36(8):439–448, August 2010. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Tichy:2010:GAF

[5765] Milan Tichy, Jan Schier, and David Gregg. GSFAP adaptive filtering using log arithmetic for resource-constrained embedded systems. *ACM Transactions on Embedded Computing Systems*, 9(3):29:1–29:??, February 2010. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic).

Vazquez:2010:IDH

[5766] A. Vazquez, E. Antelo, and P. Montuschi. Improved design of high-performance parallel decimal multipliers. *IEEE Transactions on Computers*, 59(5):679–693, ???? 2010. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5313798.

Vestias:2010:PDM

[5767] M. P. Véstias and H. C. Neto. Parallel decimal multipliers using binary multipliers. In Santos et al. [8079], pages 73–78. ISBN 1-4244-6309-2, 1-4244-7089-7. LCCN TK7895.G36 2010. URL https://ieeexplore.ieee.org/servlet/opac?punumber=5473892. IEEE Catalog Number CFPI021B-PRT.

Viswanadham:2010:ULI

[5768] Y. K. Viswanadham, Ch. D. V. Subba Rao, and T. V. Subrahmanyam. Ultra long integer multiplication on GDPS. *International Journal of Computer Applications*, 7(??):22–25, October 2010. CODEN ???? ISSN 0975-8887. URL https://www.ijcaonline.org/archives/volume7/number8/1271-1751/.

Wang:2010:AOB

[5769] Chih-Yueh Wang, Chen-Yang Yin, Hong-Yu Chen, and Yung-Ko Chen. Arithmetic operations beyond floating point number precision. *arXiv.org*, ??(??):??, September 29, 2010. CODEN ???? ISSN ???? URL http://arxiv.org/abs/1009.5911.

Wang:2010:DAH

[5770] Dong Wang, M. D. Ercegovac, and Nanning Zheng. Design and analysis of high radix complex dividers. In IEEE [8075], pages V1–84–V1–88. ISBN 1-4244-6347-5. LCCN ????

Wang:2010:SHD

[5771] Liang-Kai Wang, Mark A. Erle, Charles Tsen, Eric M. Schwarz, and Michael J. Schulte. A survey of hardware designs for decimal arithmetic. *IBM Journal of Research and Development*, 54(2):8:1–8:15, ???? 2010. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic). URL http://www.research.ibm.com/journal/abstracts/rd/542/wang-schwarz.html.

Wang:2010:VVP

[5772] Xiaojun Wang and Miriam Leeser. VFloat: a variable precision fixed- and floating-point library for reconfigurable hardware. *ACM Transactions on Reconfigurable Technology and Systems*, 3(3):16:1–16:??, September 2010. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic).

Waters:2010:RCW

[5773] Ron S. Waters and Earl E. Swartzlander. A reduced complexity Wallace multiplier reduction. *IEEE Transactions on Computers*, 59(8):1134–1137, ???? 2010. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5467045.

Ye:2010:FIC

[5774] Min Ye, Taijun Liu, Yan Ye, Gaoming Xu, and Tiefeng Xu. FPGA implementation of CORDIC-based square root operation for parameter extraction of digital pre-distortion for power amplifiers. In *2010 6th International Conference on Wireless Communications Networking and Mobile Computing (WiCOM)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010.

Zanoni:2010:ITC

[5775] Alberto Zanoni. Iterative Toom–Cook methods for very unbalanced long integer multiplication. In Watt [8080], pages 319–323. ISBN 1-4503-0150-9. LCCN QA76.95 .I59 2010.

Zhao:2010:GMP

[5776] Kaiyong Zhao and Xiaowen Chu. GPUMP: a multiple-precision integer library for GPUs. In IEEE, editor, *IEEE 10th International Conference on Computer and Information Technology (CIT), 2010: June 29, 2010–July 1, 2010, Bradford, West Yorkshire, UK*, pages 1164–1168. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 0-7695-4108-9 (print), 1-4244-7547-3. LCCN ???? IEEE Computer Society Order Number E4108. BMS Part Number: CFP10355-CDR.

Zhu:2010:AOE

[5777] Yong-Kang Zhu and Wayne B. Hayes. Algorithm 908: Online exact summation of floating-point streams. *ACM Transactions on Mathematical Software*, 37(3):37:1–37:13, 2010. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Zimmermann:2010:RCG

[5778] Paul Zimmermann. Reliable computing with GNU MPFR. In Fukuda et al. [8073], pages 42–45. ISBN 3-642-15581-2 (paperback), 3-642-15582-0 (e-book). LCCN QA76.95 .I5654 2010. URL `http://link.springer.com/book/10.1007/978-3-642-15582-6`.

Adikari:2011:HBT

[5779] Jithra Adikari, Vassil S. Dimitrov, and Laurent Imbert. Hybrid binary-ternary number system for elliptic curve cryptosystems. *IEEE Transactions on Computers*, 60(2):254–265, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Al-Ashrafy:2011:EIF

[5780] M. Al-Ashrafy, A. Salem, and W. Anis. An efficient implementation of floating point multiplier. In *2011 Saudi International Electronics, Communications and Photonics Conference (SIECPC)*, pages 1–5. pub-IEEE, pub-IEEE:adr, 2011. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5876905`.

Anderson:2011:GVD

[5781] Timothy Anderson, Duc Bui, Shriram Moharil, Soujanya Narnur, Mujibur Rahman, Anthony Lell, Eric Biscondi, Ashish Shrivastava, Peter Dent, Mingjian Yan, and Hasan Mahmood. A 1.5 Ghz VLIW DSP CPU with integrated floating point and fixed point instructions in 40 nm CMOS. In Schwarz and Oklobdzija [8084], pages 82–86. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992112`.

Anonymous:2011:CPSa

[5782] Anonymous. Call for papers: Special section on computer arithmetic. *IEEE Transactions on Computers*, 60(6):910, June 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Antelo:2011:IIFa

[5783] Elisardo Antelo, editor. *Industrial Implementations of Floating-Point Units*, volume 1. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011. ISBN ???? ???? pp. LCCN ????

Antelo:2011:IIFb

[5784] Elisardo Antelo, editor. *Industrial Implementations of Floating-Point Units*, volume 2. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011. ISBN ???? ???? pp. LCCN ????

Arias-Garcia:2011:SFI

[5785] J. Arias-Garcia, R. Pezzuol Jacobi, C. H. Llanos, and M. Ayala-Rincon. A suitable FPGA implementation of floating-point matrix inversion based on Gauss–Jordan elimination. In *2011 VII Southern Conference on Programmable Logic (SPL)*, pages 263–268. pub-IEEE, pub-IEEE:adr, 2011. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5782659`.

Arnold:2011:RCL

[5786] Mark G. Arnold and Sylvain Collange. A real/complex logarithmic number system ALU. *IEEE Transactions on Computers*, 60(2):202–213, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Arnold:2011:TQC

[5787] Mark G. Arnold, John Cowles, Vassilis Paliouras, and Ioannis Kouretas. Towards a quaternion complex logarithmic number system. In Schwarz and Oklobdzija [8084], pages 33–42. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992106.

Badin:2011:IAM

[5788] Matthew Badin, Lubomir Bic, Michael Dillencourt, and Alexandru Nicolau. Improving accuracy for matrix multiplications on GPUs. *Scientific Programming*, 19(1):3–11, ???? 2011. CODEN SCIPEV. ISSN 1058-9244 (print), 1875-919X (electronic).

Bailey:2011:GMD

[5789] David H. Bailey and Jonathan M. Borwein. The greatest mathematical discovery? Report, Lawrence Berkeley National Laboratory and Centre for Computer Assisted RMA, University of Newcastle, Berkeley, CA 94720, USA and Callaghan, NSW 2308, Australia, May 8, 2011. 10 pp. URL http://www.davidhbailey.com/dhbpapers/decimal.pdf.

Baudin:2011:EBC

[5790] M. Baudin. Error bounds of complex arithmetic. Report ??, ????, ????, June 2011. URL http://forge.scilab.org/upload/compdiv/files/complexerrorbounds_v0.2.pdf.

Beebe:2011:BPAb

[5791] Nelson H. F. Beebe. A bibliography of publications about Benford's Law, Heaps' Law, and Zipf's Law. Technical report, Center for Scientific Computing, Department of Mathematics, University of Utah, Salt Lake City, UT 84112, USA, November 12, 2011. 62 pp. URL https://www.math.utah.edu/pub/tex/bib/index-table-b.html#benfords-law.

Berger:2011:FSM

[5792] Arno Berger, Theodore P. Hill, Bahar Kaynar, and Ad Ridder. Finite-state Markov chains obey Benford's Law. *SIAM Journal on Matrix Analysis and Applications*, 32(3):665–684, ???? 2011. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL http://epubs.siam.org/simax/resource/1/sjmael/v32/i3/p665_s1.

Beuchat:2011:FAP

[5793] Jean-Luc Beuchat, Jeremie Detrey, Nicolas Estibals, Eiji Okamoto, and Francisco Rodriguez-Henriquez. Fast architectures for the η_T pairing over small-characteristic supersingular elliptic curves. *IEEE Transactions on Computers*, 60(2):266–281, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Bhakthavatchalu:2011:CRF

[5794] Ramesh Bhakthavatchalu, Nisha Abdul Kareem, and J. Arya. Comparison of reconfigurable FFT processor implementation using CORDIC and multipliers. In *2011 IEEE Recent Advances in Intelligent Computational Systems*, pages 343–347. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011.

Bodrato:2011:HDT

[5795] Marco Bodrato. High degree Toom'n'Half for balanced and unbalanced multiplication. In Schwarz and Oklobdzija [8084], pages 15–22. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992104.

Boersma:2011:PBF

[5796] Maarten Boersma, Michael Kroner, Christophe Layer, Petra Leber, Silvia M. Muller, and Kerstin Schelm. The POWER7 binary floating-point unit. In Schwarz and Oklobdzija [8084], pages 87–91. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992113.

Boldo:2011:EAE

[5797] Sylvie Boldo and Jean-Michel Muller. Exact and approximated error of the FMA. *IEEE Transactions on Computers*, 60(2):157–164, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Boldo:2011:FUL

[5798] Sylvie Boldo and Guillaume Melquiond. Flocq: a unified library for proving floating-point algorithms in Coq. In Schwarz and Oklobdzija [8084], pages 243–252. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992132.

Boldo:2011:FVN

[5799] Sylvie Boldo and Claude Marché. Formal verification of numerical programs: From C annotated programs to mechanical proofs. *Mathematics in Computer Science*, 5(4):377–393, December 2011. CODEN ???? ISSN 1661-8270 (print), 1661-8289 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=1661-8270&volume=5&issue=4&spage=377.

Bos:2011:ESA

[5800] Joppe W. Bos, Thorsten Kleinjung, Arjen K. Lenstra, and Peter L. Montgomery. Efficient SIMD arithmetic modulo a Mersenne number.

In Schwarz and Oklobdzija [8084], pages 213–221. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992129`.

Brent:2011:MCA

[5801] Richard P. Brent and Paul Zimmermann. *Modern Computer Arithmetic*, volume 18 of *Cambridge monographs on applied and computational mathematics*. Cambridge University Press, Cambridge, UK, 2011. ISBN 0-521-19469-5 (hardcover). xvi + 221 pp. LCCN QA76.9.C62 BRE 2011. URL `http://www.loria.fr/~zimmerma/mca/pub226.html`.

Brisebarre:2011:APS

[5802] Nicolas Brisebarre, Mioara Joldes, Peter Kornerup, Érik Martin-Dorel, and Jean-Michel Muller. Augmented precision square roots and 2-D norms, and discussion on correctly rounding $\sqrt{x^2 + y^2}$. In Schwarz and Oklobdzija [8084], pages 23–30. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992105`.

Bruguera:2011:GEI

[5803] Javier Bruguera, Marius Cornea, and Debjit Das Sarma. Guest Editors' introduction: Special section on computer arithmetic. *IEEE Transactions on Computers*, 60(2):145–147, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Brumley:2011:BSB

[5804] Billy Bob Brumley and Dan Page. Bit-sliced binary normal basis multiplication. In Schwarz and Oklobdzija [8084], pages 205–212. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992128`.

Brunie:2011:MPF

[5805] Nicolas Brunie, Florent de Dinechin, and Benoit de Dinechin. A mixed-precision fused multiply and add. In *2011 Conference Record of the Forty Fifth Asilomar Conference on Signals, Systems and Computers (ASILOMAR)*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, November 2011.

Brusentsov:2011:TCS

[5806] Nikolay Petrovich Brusentsov and José Ramil Alvarez. Ternary computers: The Setun and the Setun 70. In Impagliazzo and Proydakov [8083], pages 74–80. ISBN 3-642-22815-1 (print), 3-642-22816-X (e-book). ISSN 1868-422X (print), 1868-4238 (electronic). LCCN QA75.5

.C66 2011. URL http://link.springer.com/openurl?genre=book%26isbn=978-3-642-22815-5.

Burgess:2011:FRC

[5807] Neil Burgess. Fast ripple-carry adders in standard-cell CMOS VLSI. In Schwarz and Oklobdzija [8084], pages 103–111. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992115.

Butts:2011:RDR

[5808] J. Adam Butts, Ping Tak Peter Tang, Ron O. Dror, and David E. Shaw. Radix-8 digit-by-rounding: Achieving high-performance reciprocals, square roots, and reciprocal square roots. In Schwarz and Oklobdzija [8084], pages 149–158. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992120.

Calamia:2011:CGG

[5809] J. Calamia. China's Godson gamble. *IEEE Spectrum*, 48(5):14–16, May 2011. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Carlough:2011:IZD

[5810] Steven Carlough, Adam Collura, Silvia Mueller, and Michael Kroener. The IBM zEnterprise-196 decimal floating-point accelerator. In Schwarz and Oklobdzija [8084], pages 139–146. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992119.

Cavagnino:2011:AAD

[5811] D. Cavagnino and A. E. Werbrouck. An analysis of associated dividends in the DBM algorithm for division by constants using multiplication. *The Computer Journal*, 54(1):148–156, January 2011. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/54/1/148.full.pdf+html.

Cenk:2011:EM

[5812] Murat Cenk and Ferruh Özbudak. Efficient multiplications in $\mathbf{F}_{5^{5n}}$ and $\mathbf{F}_{7^{7n}}$. *Journal of Computational and Applied Mathematics*, 236(2):177–183, August 15, 2011. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042711003396.

Chakraborty:2011:CBS

[5813] Anindita Chakraborty and Amitabha Sinha. Conversion of binary to single-term triple base numbers for DSP applications. *ACM SIGARCH Computer Architecture News*, 39(5):5–11, December 2011. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Chang:2011:CGR

[5814] Harry M. Chang. Constructing n-gram rules for natural language models through exploring the limitation of the Zipf–Mandelbrot law. *Computing: Archiv fur informatik und numerik*, 91(3):241–264, March 2011. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=91&issue=3&spage=241.

Chen:2011:PIM

[5815] Zhimin Chen and Patrick Schaumont. A parallel implementation of Montgomery multiplication on multicore systems: Algorithm, analysis, and prototype. *IEEE Transactions on Computers*, 60(12):1692–1703, December 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5669278.

Chen:2011:TSA

[5816] Jianxun Chen, Yongzhong Huang, Shaozhong Guo, Shimiao Chen, and Wei Wang. Test standardization and analyse model of mathematical functions for precision. In *2011 Third International Conference on Measuring Technology and Mechatronics Automation (ICMTMA)*, volume 3, pages 652–655. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011. ISBN 0-7695-4296-4. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5721571.

Chevillard:2011:AGC

[5817] Sylvain Chevillard. Automatic generation of code for the evaluation of constant expressions at any precision with a guaranteed error bound. In Schwarz and Oklobdzija [8084], pages 225–232. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992130.

Colberg:2011:HAS

[5818] Peter H. Colberg and Felix Höfling. Highly accelerated simulations of glassy dynamics using GPUs: Caveats on limited floating-point precision. *Computer Physics Communications*, 182(5):1120–1129, May 2011. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0010465511000294.

Corless:2011:RCA

[5819] Robert Corless, Erik Postma, and David R. Stoutemyer. Rounding coefficients and artificially underflowing terms in non-numeric expressions. *ACM Communications in Computer Algebra*, 45(1):17–48, March 2011. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Cui:2011:TDB

[5820] Mingyi Cui. A threshold denoising based floating point representation genetic algorithm. In *2011 International Conference on Electronic and Mechanical Engineering and Information Technology (EMEIT)*, volume 7, pages 3305–3308. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6023063.

Curran:2011:ZSM

[5821] Brian W. Curran, Lee E. Eisen, Eric M. Schwarz, Pak kin Mak, James Warnock, Patrick J. Meaney, and Michael Fee. The zEnterprise 196 system and microprocessor. *IEEE Micro*, 31(2):26–40, March/April 2011. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Daisaka:2011:GMS

[5822] Hiroshi Daisaka, Naohito Nakasato, Junichiro Makino, Fukuko Yuasa, and Tadashi Ishikawa. GRAPE-MP: An SIMD accelerator board for multi-precision arithmetic. *Procedia Computer Science*, 4:878–887, May 2011. ISSN 1877-0509.

Das:2011:HSR

[5823] Malay Das, Amitabha Sinha, and Nishant Kumar Giri. High speed residue number system (RNS) based FIR filter using distributed arithmetic (DA). *ACM SIGARCH Computer Architecture News*, 39(5): 1–4, December 2011. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

deDinechin:2011:AOY

[5824] Florent de Dinechin. The arithmetic operators you will never see in a microprocessor. In Schwarz and Oklobdzija [8084], pages 189–190.

ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992125.

deDinechin:2011:CFP

[5825] Florent de Dinechin, Christoph Lauter, and Guillaume Melquiond. Certifying the floating-point implementation of an elementary function using Gappa. *IEEE Transactions on Computers*, 60(2):242–253, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

DelVento:2011:SLM

[5826] Davide Del Vento, Thomas Engel, Siddhartha S. Ghosh, David L. Hart, Rory Kelly, Si Liu, and Richard Valent. System-level monitoring of floating-point performance to improve effective system utilization. In ACM [8081], pages 5:1–5:6. ISBN 1-4503-1139-3. LCCN ????

Dimitrov:2011:AEM

[5827] Vassil S. Dimitrov, Kimmo U. Jarvinen, and Jithra Adikari. Area-efficient multipliers based on multiple-radix representations. *IEEE Transactions on Computers*, 60(2):189–201, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Dimond:2011:ALS

[5828] Rob Dimond, Sebastien Racanière, and Oliver Pell. Accelerating large-scale HPC applications using FPGAs. In Schwarz and Oklobdzija [8084], pages 191–192. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992126.

Emmart:2011:HPI

[5829] Niall Emmart and Charles C. Weems. High precision integer multiplication with a GPU using Strassen's algorithm with multiple FFT sizes. *Parallel Processing Letters*, 21(3):359–375, September 2011. CODEN PPLTEE. ISSN 0129-6264 (print), 1793-642X (electronic). See earlier work [5702].

Fischer:2011:HIC

[5830] Ralf Fischer. High intelligence computing: The new era of high performance computing. In Schwarz and Oklobdzija [8084], page 3. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992102.

Galal:2011:EEF

[5831] Sameh Galal and Mark Horowitz. Energy-efficient floating-point unit design. *IEEE Transactions on Computers*, 60(7):913–922, July 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Galal:2011:LSF

[5832] Sameh Galal and Mark Horowitz. Latency sensitive FMA design. In Schwarz and Oklobdzija [8084], pages 129–138. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992118`.

Gandino:2011:GAI

[5833] Filippo Gandino, Fabrizio Lamberti, Paolo Montuschi, and Jean-Claude Bajard. A general approach for improving RNS Montgomery exponentiation using pre-processing. In Schwarz and Oklobdzija [8084], pages 195–204. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992127`.

Garofalo:2011:ACM

[5834] Valeria Garofalo, Nicola Petra, and Ettore Napoli. Analytical calculation of the maximum error for a family of truncated multipliers providing minimum mean square error. *IEEE Transactions on Computers*, 60(9): 1366–1371, September 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5669274`.

Gebali:2011:FPA

[5835] Fayez Gebali. Floating-point adaptive CORDIC (FPA-CORDIC) algorithm for elementary function calculation. In *Proceedings of the 2011 IEEE National Aerospace and Electronics Conference (NAECON)*, pages 46–50. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011.

Gonzalez-Espin:2011:ECA

[5836] Fran González-Espín, Emilio Figueres, Gabriel Garcerá, and Iván Patrao. An efficient CORDIC arithmetic unit for 3-phase voltage grid synchronization. In *2011 IEEE International Symposium on Industrial Electronics*, pages 125–130. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011.

Gopikiran:2011:FIF

[5837] G. Gopikiran and R. Thilagavathy. FPGA implementation of floating-point rotation mode CORDIC algorithm. In *2011 International Conference on Signal Processing, Communication, Computing and Networking Technologies (ICSCCN)*, pages 506–508. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6024604.

Gorgin:2011:FHR

[5838] Saeid Gorgin and Ghassem Jaberipur. A family of high radix signed digit adders. In Schwarz and Oklobdzija [8084], pages 112–120. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992116.

Goubault:2011:SAF

[5839] Eric Goubault and Sylvie Putot. Static analysis of finite precision computations. In Ranjit Jhala and David A. Schmidt, editors, *VMCAI'11: Proceedings of the 12th international conference on verification, model checking, and abstract interpretation. Austin, TX, USA — January 23–25, 2011*, pages 232–247. ACM Press, New York, NY 10036, USA, 2011. ISBN 3-642-18274-7. URL https://dl.acm.org/citation.cfm?id=1946284.1946301.

Graillat:2011:SAM

[5840] Stef
Graillat, Fabienne Jézéquel, Shiyue Wang, and Yuxiang Zhu. Stochastic arithmetic in multiprecision. *Mathematics in Computer Science*, 5(4): 359–375, December 2011. CODEN ???? ISSN 1661-8270 (print), 1661-8289 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=1661-8270&volume=5&issue=4&spage=359.

Grcar:2011:JNA

[5841] Joseph F. Grcar. John von Neumann's analysis of Gaussian elimination and the origins of modern numerical analysis. *SIAM Review*, 53(4): 607–682, ???? 2011. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL http://epubs.siam.org/sirev/resource/1/siread/v53/i4/p607_s1.

Gupta:2011:LPP

[5842] A. Gupta, S. Mandavalli, V. J. Mooney, Keck-Voon Ling, A. Basu, H. Johan, and B. Tandianus. Low power probabilistic floating point multiplier design. In *2011 IEEE Computer Society Annual*

Symposium on VLSI (ISVLSI), pages 182–187. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992502.

Guralnik:2011:SBV

[5843] Elena Guralnik, Merav Aharoni, Ariel J. Birnbaum, and Anatoly Koyfman. Simulation-based verification of floating-point division. *IEEE Transactions on Computers*, 60(2):176–188, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Han:2011:NDS

[5844] Liu Han, Dongdong Chen, Khan A. Wahid, and Seok-Bum Ko. Nonspeculative decimal signed digit adder. In *2011 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1053–1056. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5937750.

Hariri:2011:CED

[5845] Arash Hariri and Arash Reyhani-Masoleh. Concurrent error detection in Montgomery multiplication over binary extension fields. *IEEE Transactions on Computers*, 60(9):1341–1353, September 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5669280.

Haron:2011:RRN

[5846] Nor Zaidi Haron and Said Hamdioui. Redundant residue number system code for fault-tolerant hybrid memories. *ACM Journal on Emerging Technologies in Computing Systems (JETC)*, 7(1):4:1–4:??, January 2011. CODEN ???? ISSN 1550-4832 (print), 1550-4840 (electronic).

Harvey:2011:FAS

[5847] David Harvey. Faster algorithms for the square root and reciprocal of power series. *Mathematics of Computation*, 80(273):387–394, January 2011. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.ams.org/journals/mcom/2011-80-273/S0025-5718-2010-02392-0/home.html; http://www.ams.org/journals/mcom/2011-80-273/S0025-5718-2010-02392-0/S0025-5718-2010-02392-0.pdf.

Harvey:2011:SDL

[5848] David Harvey and Paul Zimmermann. Short division of long integers. In Schwarz and Oklobdzija [8084], pages 7–14. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992103`.

Holanda:2011:FBA

[5849] B. Holanda, R. Pimentel, J. Barbosa, R. Camarotti, A. Silva-Filho, L. Joao, V. Souza, J. Ferraz, and M. Lima. An FPGA-based accelerator to speed-up matrix multiplication of floating point operations. In *2011 IEEE International Symposium on Parallel and Distributed Processing Workshops and Phd Forum (IPDPSW)*, pages 306–309. pub-IEEE, pub-IEEE:adr, 2011. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6008910`.

Hong:2011:EOS

[5850] Wonhak Hong, Rajashekhar Modugu, and Minsu Choi. Efficient online self-checking modulo $2^n + 1$ multiplier design. *IEEE Transactions on Computers*, 60(9):1354–1365, September 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5962404`.

Hsiao:2011:DLC

[5851] Shen-Fu Hsiao, Chan-Feng Chiu, and Chia-Sheng Wen. Design of a low-cost floating-point programmable vertex processor for mobile graphics applications based on hybrid number system. In *2011 IEEE International Conference on IC Design & Technology (ICICDT)*, pages 1–4. pub-IEEE, pub-IEEE:adr, 2011. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5783231`.

Huang:2011:LCB

[5852] L. Huang, S. Ma, L. Shen, Z. Wang, and N. Xiao. Low cost Binary128 floating-point FMA unit design with SIMD support. *IEEE Transactions on Computers*, PP(99):1, ???? 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5740858`.

Huang:2011:NHA

[5853] Miaoqing Huang, Kris Gaj, and Tarek El-Ghazawi. New hardware architectures for Montgomery modular multiplication algorithm. *IEEE Transactions on Computers*, 60(7):923–936, July 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Huynh:2011:EAP

[5854] Thang Viet Huynh and Manfred Mucke. Error analysis and precision estimation for floating-point dot-products using affine arithmetic. In *2011*

International Conference on Advanced Technologies for Communications (ATC), pages 319–322. pub-IEEE, pub-IEEE:adr, 2011. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6027495`.

Ibrahim:2011:PAA

[5855] Atef Ibrahim, Fayez Gebali, Hamed Elsimary, and Amin Nassar. Processor array architectures for scalable radix 4 Montgomery modular multiplication algorithm. *IEEE Transactions on Parallel and Distributed Systems*, 22(7):1142–1149, July 2011. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic).

Ikhile:2011:RBD

[5856] M. N. O. Ikhile. The root and Bell's disk iteration methods are of the same error propagation characteristics in the simultaneous determination of the zeros of a polynomial, part II: Round-off error analysis by use of interval arithmetic. *Computers and Mathematics with Applications*, 61(11):3191–3217, June 2011. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0898122111002860`.

Ismail:2011:RLL

[5857] R. Che Ismail and J. N. Coleman. ROM-less LNS. In Schwarz and Oklobdzija [8084], pages 43–51. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992107`.

ISO:2011:III

[5858] ISO. *ISO/IEC/IEEE 60559:2011 Information technology — Microprocessor Systems — Floating-Point arithmetic*. International Organization for Standardization, Geneva, Switzerland, 2011. 58 pp. URL `http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=57469`.

Izsak:2011:CPM

[5859] Alexander Izsak and Nicholas Pippenger. Carry propagation in multiplication by constants. *ACM Transactions on Algorithms*, 7(4): 54:1–54:??, September 2011. CODEN ???? ISSN 1549-6325 (print), 1549-6333 (electronic).

Jaime:2011:HSA

[5860] F. J. Jaime, M. A. Sánchez, J. Hormigo, J. Villalba, and E. L. Zapata. High-speed algorithms and architectures for range reduction computation. *IEEE Transactions on Very Large Scale Integration (VLSI)*

Systems, 19(3):512–516, ???? 2011. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5308221`.

Jaiswal:2011:HPF

[5861] Manish Kumar Jaiswal and Ray C. C. Cheung. High performance FPGA implementation of double precision floating point adder/subtractor. *International Journal of Hybrid Information Technology: IJHIT*, 4(4): 71–80, October 2011. ISSN 1738-9968 (print), 2652-2233 (electronic). URL `https://gvpress.com/journals/IJHIT/vol4_no4/6.pdf`.

Janhunen:2011:FFP

[5862] J. Janhunen, T. Pitkanen, O. Silven, and M. Juntti. Fixed- and floating-point processor comparison for MIMO–OFDM detector. *IEEE Journal of Selected Topics in Signal Processing*, 5(8):1588–1598, December 2011. CODEN ???? ISSN 1932-4553 (print), 1941-0484 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5995137`.

Janhunen:2011:FVF

[5863] J. Janhunen, P. Salmela, O. Silven, and M. Juntti. Fixed- versus floating-point implementation of MIMO–OFDM detector. In *2011 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 3276–3279. pub-IEEE, pub-IEEE:adr, 2011. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5946721`.

Jeannerod:2011:CFP

[5864] Claude-Pierr Jeannerod, Hervé Knochel, Christophe Monat, and Guillaume Revy. Computing floating-point square roots via bivariate polynomial evaluation. *IEEE Transactions on Computers*, 60(2):214–227, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Jeannerod:2011:HSF

[5865] Claude-Pierre Jeannerod, Jingyan Jourdan-Lu, Christophe Monat, and Guillaume Revy. How to square floats accurately and efficiently on the ST231 integer processor. In Schwarz and Oklobdzija [8084], pages 77–81. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992111`.

Jeannerod:2011:MEP

[5866] Claude-Pierre Jeannerod, Nicolas Louvet, Jean-Michel Muller, and Adrien Panhaleux. Midpoints and exact points of some algebraic functions in floating-point arithmetic. *IEEE Transactions on Computers*, 60(2):228–241, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Jiang:2011:AEP

[5867] Hao Jiang, Roberto Barrio, Housen Li, Xiangke Liao, Lizhi Cheng, and Fang Su. Accurate evaluation of a polynomial in Chebyshev form. *Applied Mathematics and Computation*, 217(23):9702–9716, August 1, 2011. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300311006242`.

Kainuma:2011:DIC

[5868] T. Kainuma, Y. Shimamura, F. Miyaoka, Y. Yamanashi, N. Yoshikawa, A. Fujimaki, K. Takagi, N. Takagi, and S. Nagasawa. Design and implementation of component circuits of an SFQ half-precision floating-point adder using 10-kA/cm^2 Nb process. *IEEE Transactions on Applied Superconductivity*, 21(3):827–830, ???? 2011. CODEN ITASE9. ISSN 1051-8223 (print), 1558-2515 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5680618`.

Kaivani:2011:DCR

[5869] Amir Kaivani and Ghassem Jaberipur. Decimal CORDIC rotation based on selection by rounding: Algorithm and architecture. *The Computer Journal*, 54(11):1798–1809, November 2011. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic).

Kathiara:2011:AVS

[5870] J. Kathiara and M. Leeser. An autonomous vector/scalar floating point coprocessor for FPGAs. In *2011 IEEE 19th Annual International Symposium on Field-Programmable Custom Computing Machines (FCCM)*, pages 33–36. pub-IEEE, pub-IEEE:adr, 2011. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5771244`.

Kim:2011:ZAS

[5871] SeongKi Kim, HaYoon Song, and SangYong Han. ZipfAllocation: an algorithm for static allocation of movies in a cluster of video servers. *Software—Practice and Experience*, 41(6):695–716, May 2011. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Kong:2011:GDM

[5872] Inwook Kong and Earl E. Swartzlander. A Goldschmidt division method with faster than quadratic convergence. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 19(4):696–700, April 2011. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Kornerup:2011:PAO

[5873] Peter Kornerup, Jean-Michel Muller, and Adrien Panhaleux. Performing arithmetic operations on round-to-nearest representations. *IEEE Transactions on Computers*, 60(2):282–291, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kulisch:2011:EDP

[5874] Ulrich Kulisch and Van Snyder. The exact dot product as basic tool for long interval arithmetic. *Computing: Archiv fur informatik und numerik*, 91(3):307–313, March 2011. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=91&issue=3&spage=307.

Kulisch:2011:VFE

[5875] Ulrich Kulisch. Very fast and exact accumulation of products. *Computing: Archiv fur informatik und numerik*, 91(4):397–405, April 2011. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=91&issue=4&spage=397.

Lamberti:2011:RCT

[5876] Fabrizio Lamberti, Nikos Andrikos, Elisardo Antelo, and Paolo Montuschi. Reducing the computation time in (short bit-width) two's complement multipliers. *IEEE Transactions on Computers*, 60(2):148–156, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Langhammer:2011:TFD

[5877] Martin Langhammer. Teraflop FPGA design. In Schwarz and Oklobdzija [8084], pages 187–188. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992124.

Lefevre:2011:SSI

[5878] Vincent Lefèvre. SIPE: Small integer plus exponent. Technical report, INRIA, Lyon, France, 2011. 25 pp. URL `http://hal.inria.fr/hal-00650659`.

Lei:2011:FIV

[5879] Yuanwu Lei, Yong Dou, Song Guo, and Jie Zhou. FPGA implementation of variable-precision floating-point arithmetic. In Olivier Temam, Pen-Chung Yew, and Binyu Zang, editors, *Advanced Parallel Processing Technologies: 9th International Symposium, APPT 2011, Shanghai, China, September 26–27, 2011, Proceedings*, volume 6965 of *Lecture Notes in Computer Science*, pages 127–141. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2011. CODEN LNCSD9. ISBN 3-642-24151-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

Lei:2011:VSP

[5880] Yuanwu Lei, Yong Dou, Jie Zhou, and Sufeng Wang. VPFPAP: A special-purpose VLIW processor for variable-precision floating-point arithmetic. In Peter Athanas, Dionisios Pnevmatikatos, and Nicolas Sklavos, editors, *21st International Conference on Field Programmable Logic and Applications: FPL 2011, 5–7 September 2011, Chania, Greece*, pages 252–257. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, September 2011.

Lipetz:2011:SCC

[5881] Daniel Lipetz and Eric Schwarz. Self checking in current floating-point units. In Schwarz and Oklobdzija [8084], pages 73–76. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992110`.

Liu:2011:FAH

[5882] Feng Liu, Xiaoyu Song, Qingping Tan, and Gang Chen. Formal analysis of hybrid prefix/carry-select arithmetic systems. *The Computer Journal*, 54(6):894–904, June 2011. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://comjnl.oxfordjournals.org/content/54/6/894.full.pdf+html`.

Liu:2011:ILC

[5883] Yuanlong Liu, Bateer, and Wen Zhong. Implementation of a low complexity divider for ILUT-based FPGAs. In *2011 International Conference on Computer Science and Service System (CSSS)*, pages 464–466. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver

Spring, MD 20910, USA, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5974453.

Lutz:2011:FMA

[5884] David R. Lutz. Fused multiply-add microarchitecture comprising separate early-normalizing multiply and add pipelines. In Schwarz and Oklobdzija [8084], pages 123–128. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992117.

Malone:2011:FBI

[5885] A. N. Malone, G. R. Morris, and K. H. Abed. FPGA-based implementation of Horner's rule on a high performance heterogeneous computer. In *Southeastcon, 2011 Proceedings of IEEE*, pages 277–282. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5752949.

Masakova:2011:ANS

[5886] Z. Masáková, E. Pelantová, and T. Vávra. Arithmetics in number systems with a negative base. *Theoretical Computer Science*, 412(8–10):835–845, March 4, 2011. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

Matula:2011:PLP

[5887] David W. Matula and Mihai T. Panu. A prescale-lookup-postscale additive procedure for obtaining a single precision ulp accurate reciprocal. In Schwarz and Oklobdzija [8084], pages 177–183. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992123.

Mauer:2011:FPS

[5888] V. Mauer and M. Parker. Floating point STAP implementation on FPGAs. In *Radar Conference (RADAR), 2011 IEEE*, pages 901–904. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5960667.

Minchola:2011:FID

[5889] C. Minchola, M. Vazquez, and G. Sutter. A FPGA IEEE-754-2008 decimal64 floating-point adder/subtractor. In *2011 VII Southern Conference on Programmable Logic (SPL)*, pages 251–256. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5782657.

Moller:2011:IDI

[5890] Niels Möller and Torbjörn Granlund. Improved division by invariant integers. *IEEE Transactions on Computers*, 60(2):165–175, February 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Mouilleron:2011:AGF

[5891] Christophe Mouilleron and Guillaume Revy. Automatic generation of fast and certified code for polynomial evaluation. In Schwarz and Oklobdzija [8084], pages 233–242. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992131`.

Nannarelli:2011:RCD

[5892] Alberto Nannarelli. Radix-16 combined division and square root unit. In Schwarz and Oklobdzija [8084], pages 169–176. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992122`.

Nguyen:2011:FSA

[5893] Hong Diep Nguyen, Bogdan Pasca, and Thomas B. Preußer. FPGA-specific arithmetic optimizations of short-latency adders. In Peter Athanas, Dionisios Pnevmatikatos, and Nicolas Sklavos, editors, *21st International Conference on Field Programmable Logic and Applications: FPL 2011: proceedings: 5–7 September 2011, Chania, Greece*, pages 232–237. pub-IEEE, pub-IEEE:adr, 2011. ISBN 0-7695-4529-7. LCCN TK7895.G36. URL `https://ieeexplore.ieee.org/document/6044770`.

Ozaki:2011:TEE

[5894] Katsuhisa Ozaki, Takeshi Ogita, and Shin'ichi Oishi. Tight and efficient enclosure of matrix multiplication by using optimized BLAS. *Numerical Linear Algebra with Applications*, 18(2):237–248, March 2011. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Park:2011:LPS

[5895] Daejin Park, Tag Gon Kim, Changmin Kim, and Sungho Kwak. A low-power sync processor with a floating-point timer and universal edge tracer for 3DTV active shutter glasses. In *2011 IEEE COOL Chips XIV: Yokohama Joho Bunka Center, Yokohama, Japan, April 20–22, 2011* [8082], pages 1–3. CODEN IRELAO. ISBN 1-61284-884-2. ISSN 0367-9950. LCCN ???? URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5890924`. IEEE Catalog Number CFP11COL-ART.

Peay:2011:IQW

[5896] N. S. Peay, G. R. Morris, and K. H. Abed. Integrating Quartus Wizard-based VHDL floating-point components into a high performance heterogeneous computing environment. In *2011 Proceedings of IEEE Southeastcon*, pages 413–417. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5752977.

Piso:2011:VLG

[5897] Daniel Piso and Javier D. Bruguera. Variable latency Goldschmidt algorithm based on a new rounding method and a remainder estimate. *IEEE Transactions on Computers*, 60(11):1535–1546, November 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5669291.

Preusser:2011:ACF

[5898] Thomas B. Preußer, Martin Zabel, and Rainer G. Spallek. Accelerating computations on FPGA carry chains by operand compaction. In Schwarz and Oklobdzija [8084], pages 95–102. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992114.

Ramakrishnan:2011:AFP

[5899] A. Ramakrishnan and J. M. Conrad. Analysis of floating point operations in microcontrollers. In *2011 Proceedings of IEEE Southeastcon*, pages 97–100. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5752913.

Romano:2011:NLR

[5900] Paul K. Romano and Harry McLaughlin. On non-linear recursive sequences and Benford's Law. *Fibonacci Quarterly*, 49(2):134–138, May 2011. CODEN FIBQAU. ISSN 0015-0517. URL http://www.fq.math.ca/Abstracts/49-2/romano.pdf.

Romanovski:2011:ASS

[5901] Valery G. Romanovski and Mateja Presern. An approach to solving systems of polynomials via modular arithmetics with applications. *Journal of Computational and Applied Mathematics*, 236(2):196–208, August 15, 2011. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042711003542.

Rupp:2011:SBF

[5902] Benjamin Rupp, Howard Lovatt, and Andrea Vezzini. Simulink-based floating-point DSP control platform. In *Proceedings of the 2011 14th European Conference on Power Electronics and Applications (EPE 2011)*, pages 1–7. pub-IEEE, pub-IEEE:adr, 2011. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6020132`.

Samman:2011:RSP

[5903] F. A. Samman, P. Surapong, and M. Glesner. Reconfigurable streaming processor core with interconnected floating-point arithmetic units for multicore adaptive signal processing systems. In *2011 6th International Workshop on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC)*, pages 1–6. pub-IEEE, pub-IEEE:adr, 2011. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5981539`.

Sarbishei:2011:FPA

[5904] Omid Sarbishei and Katarzyna Radecka. On the fixed-point accuracy analysis and optimization of FFT units with CORDIC multipliers. In Schwarz and Oklobdzija [8084], pages 62–69. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992109`.

Seidel:2011:FVI

[5905] Peter-Michael Seidel. Formal verification of an iterative low-power x86 floating-point multiplier with redundant feedback. *arXiv.org*, ??(??):??, October 21, 2011. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/1110.4675`. Published in EPTCS 70, 2011, pp. 70–83.

Seo:2011:GDP

[5906] Young-Hun Seo, Seon-Kyoo Lee, and Jae-Yoon Sim. A 1-GHz digital PLL with a 3-ps resolution floating-point-number TDC in a 0.18-CMOS. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 58(2): 70–74, ???? 2011. CODEN ???? ISSN 1549-7747 (print), 1558-3791 (electronic). URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5713246`.

Siegel:2011:LAL

[5907] Stefan Siegel and Jürgen Wolff von Gudenberg. A long accumulator like a carry-save adder. *Computing: Archiv fur informatik und numerik*, 93 (??):??, ???? 2011. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Singh:2011:VEF

[5908] R. R. Singh, A. Tiwari, V. K. Singh, and G. S. Tomar. VHDL environment for floating point arithmetic logic unit-ALU design and simulation. In *2011 International Conference on Communication Systems and Network Technologies (CSNT)*, pages 469–472. pub-IEEE, pub-IEEE:adr, 2011. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5966491`.

Singha:2011:NAF

[5909] Satrughna Singha, Aniruddha Ghosh, and Amitabha Sinha. A new architecture for FPGA based implementation of conversion of binary to double base number system (DBNS) using parallel search technique. *ACM SIGARCH Computer Architecture News*, 39(5):12–18, December 2011. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Surapong:2011:PFP

[5910] Pongyupinpanich Surapong and Manfred Glesner. Pipelined floating-point architecture for a phase and magnitude detector based on CORDIC. In *2011 21st International Conference on Field Programmable Logic and Applications*, pages 382–384. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011.

Tang:2011:TCT

[5911] Ping Tak Peter Tang, J. Adam Butts, Ron O. Dror, and David E. Shaw. Tight certification techniques for digit-by-rounding algorithms with application to a new $1/\sqrt{x}$ design. In Schwarz and Oklobdzija [8084], pages 159–168. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992121`.

Tsen:2011:HDB

[5912] Charles Tsen, Sonia Gonzalez-Navarro, Michael J. Schulte, and Katherine Compton. Hardware designs for binary integer decimal-based rounding. *IEEE Transactions on Computers*, 60(5):614–627, May 2011. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Vazquez:2011:CIA

[5913] Álvaro Vázquez and Javier D. Bruguera. Composite iterative algorithm and architecture for q-th root calculation. In Schwarz and Oklobdzija [8084], pages 52–61. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6. URL `https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5992108`.

Vestias:2011:IDM

[5914] M. P. Vestias and H. C. Neto. Iterative decimal multiplication using binary arithmetic. In *2011 VII Southern Conference on Programmable Logic (SPL)*, pages 257–262. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5782658.

Vigliar:2011:MFB

[5915] Mario Vigliar, Giancarlo Raiconi, Amedeo D'Auria, and Giuseppe Del Mastro. Modelling a fast BLAS level-1 inspired vectorized FPU for ARM devices. In *2011 IEEE 54th International Midwest Symposium on Circuits and Systems (MWSCAS)*, pages 1–4. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6026644.

Wang:2011:DFB

[5916] Mulan Wang, Xinghua Zhu, Baosheng Wang, and Xiaoxia Li. Development of FPGA-based arithmetic module in CNC system. In *2011 International Conference on Mechatronic Science, Electric Engineering and Computer (MEC)*, pages 494–497. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6025510.

Wang:2011:RCM

[5917] Xiaofang Wang and Pallav Gupta. Resource-constrained multiprocessor synthesis for floating-point applications on FPGAs. *ACM Transactions on Design Automation of Electronic Systems.*, 16(4):41:1–41:??, October 2011. CODEN ATASFO. ISSN 1084-4309 (print), 1557-7309 (electronic).

Whitehead:2011:PPF

[5918] Nathan Whitehead and Alex Fit-Florea. Precision & performance: Floating point and IEEE 754 compliance for NVIDIA GPUs. Report, nVidia Corporation, Santa Clara, CA, USA, June 21, 2011. 7 pp. URL http://developer.download.nvidia.com/assets/cuda/files/NVIDIA-CUDA-Floating-Point.pdf.

Xu:2011:DLF

[5919] Jun Xu and Hong Wang. Desynchronize a legacy floating-point adder with operand-dependant delay elements. In *2011 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1427–1430. pub-IEEE, pub-IEEE:adr, 2011. URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5937841.

Yang:2011:CMD

[5920] Yu Chen Yang. C model design and verification of floating-point CORDIC for hardware implementation. Master's thesis, Xian Jiaotong University, Xian, People's Republic of China, 2011. URL https://login.ezproxy.lib.utah.edu/login?url=https://www.proquest.com/dissertations-theses/c-model-design-verification-floating-point-cordic/docview/1874930256/se-2.

Yeung:2011:MCF

[5921] Jackson H. C. Yeung, Evangeline F. Y. Young, and Philip H. W. Leong. A Monte-Carlo floating-point unit for self-validating arithmetic. In *FPGA '11: Proceedings of the 19th ACM/SIGDA International Symposium on Field Programmable Gate Arrays, Monterey, CA, USA, February 27–March 01, 2011*, pages 199–208. ACM Press, New York, NY 10036, USA, 2011. ISBN 1-4503-0554-7.

Yu:2011:OFP

[5922] C. Yu, A. M. Smith, W. Luk, P. H. W. Leong, and S. J. E. Wilton. Optimizing floating point units in hybrid FPGAs. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, PP(99): 1–10, ???? 2011. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5893965.

Zalaket:2011:PFU

[5923] Joseph Zalaket and Joseph Hajj-Boutros. Prime factorization using square root approximation. *Computers and Mathematics with Applications*, 61(9):2463–2467, May 2011. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0898122111001131.

Abbott:2012:TFA

[5924] John Abbott. Twin-float arithmetic. *Journal of Symbolic Computation*, 47(5):536–551, May 2012. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic). URL http://www.sciencedirect.com/science/article/pii/S0747717111001970.

Adam:2012:FPD

[5925] Sanda Adam and Gheorghe Adam. Floating point degree of precision in numerical quadrature. *Lecture Notes in Computer Science*, 7125: 189–194, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer.com/chapter/10.1007/978-3-642-28212-6_19/.

Aharony:2012:IFP

[5926] Merav Aharony, Emanuel Gofman, Elena Guralnik, and Anatoly Koyfman. Injecting floating-point testing knowledge into test generators. *Lecture Notes in Computer Science*, 7261:234–241, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer.com/chapter/10.1007/978-3-642-34188-5_20/.

Akleylek:2012:MRR

[5927] Sedat Akleylek and Ferruh Ozbudak. Modified redundant representation for designing arithmetic circuits with small complexity. *IEEE Transactions on Computers*, 61(3):427–432, March 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Al-Mohy:2012:MAB

[5928] Awad H. Al-Mohy. A more accurate Briggs method for the logarithm. *Numerical Algorithms*, 59(??):??, ???? 2012. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL http://www.springerlink.com/content/4110609h521kg66m/.

Anonymous:2012:FIS

[5929] Anonymous. Fast inverse square root. Wikipedia article., March 20, 2012. URL http://en.wikipedia.org/wiki/Fast_inverse_square_root. This article describes an algorithm for the inverse square root. The only novel feature is use of two IEEE-754 specific magic constants for 32-bit and 64-bit binary arithmetic that allow obtaining fast starting estimates for Newton–Raphson iterations by manipulating the floating-point representations as integers. The code fails to handle signed zero, Infinity, and NaN arguments, uses too few iterations, and does not adjust for rounding errors to obtain correctly-rounded results. See [3795].

Antao:2012:RBE

[5930] Samuel Antão, Jean-Claude Bajard, and Leonel Sousa. RNS-based elliptic curve point multiplication for massive parallel architectures. *The Computer Journal*, 55(5):629–647, May 2012. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/55/5/629.full.pdf+html.

Antelo:2012:GEI

[5931] Elisardo Antelo, David Hough, and Paolo Ienne. Guest Editors' introduction: Special section on computer arithmetic. *IEEE Transactions on Computers*, 61(8):1057–1058, August 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Antelo:2012:IIFa

[5932] Elisardo Antelo. *Industrial Implementations of Floating-Point Units: Vol. 1*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012. ISBN ???? 103 (est.) pp. LCCN ???? Product ID ES0000033.

Antelo:2012:IIFb

[5933] Elisardo Antelo. *Industrial Implementations of Floating-Point Units: Vol. 2*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012. ISBN ???? 79 (est.) pp. LCCN ???? Product ID ES0000034.

Aswal:2012:BFD

[5934] Abhilasha Aswal, M. Ganesh Perumal, and G. N. Srinivasa Prasanna. On basic financial decimal operations on binary machines. *IEEE Transactions on Computers*, 61(8):1084–1096, August 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Bailey:2012:AIS

[5935] David H. Bailey and Jonathan M. Borwein. Ancient Indian square roots: An exercise in forensic paleo-mathematics. *American Mathematical Monthly*, 119(8):646–657, October 2012. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL http://www.jstor.org/stable/pdfplus/10.4169/amer.math.monthly.119.08.646.pdf.

Bailey:2012:HPC

[5936] David H. Bailey, Roberto Barrio, and Jonathan M. Borwein. High-precision computation: Mathematical physics and dynamics. *Applied Mathematics and Computation*, 218(20):10106–10121, June 15, 2012. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL http://docserver.carma.newcastle.edu.au/775/; http://www.sciencedirect.com/science/article/pii/S0096300312003505.

Baudin:2012:RCD

[5937] Michael Baudin and Robert L. Smith. A robust complex division in Scilab. *CoRR*, abs/1210.4539, 2012. URL http://arxiv.org/abs/1210.4539.

Benz:2012:DPA

[5938] Florian Benz, Andreas Hildebrandt, and Sebastian Hack. A dynamic program analysis to find floating-point accuracy problems. *ACM SIGPLAN Notices*, 47(6):453–462, June 2012. CODEN SINODQ. ISSN

0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). PLDI '12 proceedings.

Bohlender:2012:CFE

[5939] G. Bohlender and U. Kulisch. Comments on fast and exact accumulation of products. In Jónasson [8086], pages 148–156. CODEN LNCSD9. ISBN 3-642-28144-3 (print), 3-642-28145-1 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN ???? URL `http://www.springerlink.com/content/978-3-642-28145-7`.

Boldo:2012:AOP

[5940] Sylvie Boldo and Guillaume Melquiond. Arithmétique des ordinateurs et preuves formelles. (French) [Computer arithmetic and formal proofs]. Technical report, École des Jeunes Chercheurs en Informatique Mathématique, ????, March 22, 2012. 31 pp. URL `https://inria.hal.science/hal-00755333/file/main.pdf`.

Brisebarre:2012:MPK

[5941] Nicolas Brisebarre, Milo D. Ercegovac, and Jean-Michel Muller. (M, p, k)-friendly points: a table-based method for trigonometric function evaluation. In IEEE, editor, *2012 IEEE 23rd International Conference on Application-Specific Systems, Architectures and Processors, 9–11 July 2012. Delft, The Netherlands*, pages 46–52. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012. ISBN 0-7695-4768-0. ISSN 1063-6862.

Bruintjes:2012:SLA

[5942] Tom M. Bruintjes, Karel H. G. Walters, Sabih H. Gerez, Bert Molenkamp, and Gerard J. M. Smit. Sabrewing: a lightweight architecture for combined floating-point and integer arithmetic. *ACM Transactions on Architecture and Code Optimization*, 8(4):41:1–41:??, January 2012. CODEN ???? ISSN 1544-3566 (print), 1544-3973 (electronic).

Chen:2012:IDF

[5943] Dongdong Chen, Liu Han, Younhee Choi, and Seok-Bum Ko. Improved decimal floating-point logarithmic converter based on selection by rounding. *IEEE Transactions on Computers*, 61(5):607–621, May 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Cleemput:2012:CMT

[5944] Jeroen V. Cleemput, Bart Coppens, and Bjorn De Sutter. Compiler mitigations for time attacks on modern x86 processors. *ACM*

Transactions on Architecture and Code Optimization, 8(4):23:1–23:??, January 2012. CODEN ???? ISSN 1544-3566 (print), 1544-3973 (electronic).

Das:2012:AAT

[5945] Subrata Das, Partha Sarathi Dasgupta, and Samar Sensarma. Arithmetic algorithms for ternary number system. *Lecture Notes in Computer Science*, 7373:111–120, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer.com/chapter/10.1007/978-3-642-31494-0_13/`.

deDinechin:2012:MRC

[5946] Florent de Dinechin. Multiplication by rational constants. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 52(2):98–102, February 2012. ISSN 1549-7747 (print), 1558-3791 (electronic). URL `https://ieeexplore.ieee.org/document/6126071`.

deDinechin:2012:TBD

[5947] Florent de Dinechin and Laurent-Stéphane Didier. Table-based division by small integer constants. *Lecture Notes in Computer Science*, 7199:53–63, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer.com/chapter/10.1007/978-3-642-28365-9_5/`.

Deschamps:2012:GFI

[5948] Jean-Pierre Deschamps, Gustavo D. Sutter, and Enrique Cantó. *Guide to FPGA implementation of arithmetic functions*, volume 95 of *Lecture notes in electrical engineering*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2012. ISBN 94-007-2986-3 (hardcover), 94-007-2987-1 (e-book). xv + 469 pp. LCCN TK7895.G36.

Diethelm:2012:LRN

[5949] Kai Diethelm. The limits of reproducibility in numerical simulation. *Computing in Science and Engineering*, 14(1):64–72, January/February 2012. CODEN CSENFA. ISSN 1521-9615 (print), 1558-366X (electronic).

Dong:2012:ISP

[5950] Chen Dong, Chen He, Sun Xing, and Pang Long. Implementation of single-precision floating-point trigonometric functions with small area. In *2012 International Conference on Control Engineering and Communication Technology*, pages 589–592. IEEE Computer Society

Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012.

Fan:2012:EHI

[5951] Junfeng Fan, Frederik Vercauteren, and Ingrid Verbauwhede. Efficient hardware implementation of FP-arithmetic for pairing-friendly curves. *IEEE Transactions on Computers*, 61(5):676–685, May 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Fout:2012:APB

[5952] Nathaniel Fout and Kwan-Liu Ma. An adaptive prediction-based approach to lossless compression of floating-point volume data. *IEEE Transactions on Visualization and Computer Graphics*, 18(12):2295–2304, December 2012. CODEN ITVGEA. ISSN 1077-2626 (print), 1941-0506 (electronic), 2160-9306.

G:2012:DOR

[5953] Rangaraju H G, Aakash Babu Suresh, and Muralidhara K N. Design and optimization of reversible multiplier circuit. *International Journal of Computer Applications*, 52(??):44–50, August 2012. CODEN ???? ISSN 0975-8887. URL `https://www.ijcaonline.org/archives/volume52/number10/8242-1523/`.

Gandino:2012:AAS

[5954] Filippo Gandino, Fabrizio Lamberti, Gianluca Paravati, Jean-Claude Bajard, and Paolo Montuschi. An algorithmic and architectural study on Montgomery exponentiation in RNS. *IEEE Transactions on Computers*, 61(8):1071–1083, August 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Gazeau:2012:NLM

[5955] Ivan Gazeau, Dale Miller, and Catuscia Palamidessi. A non-local method for robustness analysis of floating point programs. *arXiv.org*, ??(??):??, February 3, 2012. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/1202.0693`.

Ghosh:2012:FPR

[5956] Aniruddha Ghosh, Satrughna Singha, and Amitabha Sinha. “Floating point RNS”: a new concept for designing the MAC unit of digital signal processor. *ACM SIGARCH Computer Architecture News*, 40(2):39–43, May 2012. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Giessing:2012:FRB

[5957] Sarah Giessing. Flexible rounding based on consistent post-tabular stochastic noise. *Lecture Notes in Computer Science*, 7556:22–34, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer.com/chapter/10.1007/978-3-642-33627-0_3/`.

Goldberg:2012:CA

[5958] David Goldberg. Computer arithmetic. In *Computer Architecture: a Quantitative Approach* [8085], chapter J, pages J–1–J–74. ISBN 0-12-383872-X (paperback). LCCN QA76.9.A73 P377 2012. URL `http://booksite.mkp.com/9780123838728/references/appendix_j.pdf`. The complete Appendix J is not in the printed book; it is available only at the book's Web site.

Goossens:2012:CTS

[5959] Bernard Goossens, Philippe [Grégoire] Langlois, David Parello, and Kathy Porada. Computing time for summation algorithm: Less hazard and more scientific research. In *Numerical Sofware: Design, Analysis and Verification, Santander, Spain, 4–6 July 2012*, pages i + 34. ????, ????, 2012. URL `http://hal-lirmm.ccsd.cnrs.fr/lirmm-00835508`.

Grcar:2012:JNA

[5960] Joseph F. Grcar. John von Neumann's analysis of Gaussian elimination and the origins of modern numerical analysis. *SIAM Review*, 53(4): 607–682, ???? 2012. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL `http://epubs.siam.org/sirev/resource/1/siread/v53/i4/p607_s1`.

Haller:2012:DFP

[5961] L. Haller, A. Griggio, M. Brain, and D. Kroening. Deciding floating-point logic with systematic abstraction. In *Formal Methods in Computer-Aided Design (FMCAD), 2012*, pages 131–140. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, October 2012. ISBN 1-4673-4832-5.

Huang:2012:LCB

[5962] Libo Huang, Sheng Ma, Li Shen, Zhiying Wang, and Nong Xiao. Low-cost Binary128 floating-point FMA unit design with SIMD support. *IEEE Transactions on Computers*, 61(5):745–751, May 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Hyman:2012:LF

[5963] Paul Hyman. Lost and found. *Communications of the Association for Computing Machinery*, 55(7):21, July 2012. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Kahan:2012:DNR

[5964] W. Kahan. Desperately needed remedies for the undebuggability of large floating-point computations in science and engineering. Report, Department of Electrical Engineering and Computer Science, University of California, Berkeley, Berkeley, CA, USA, April 24, 2012. 90 pp. URL `https://people.eecs.berkeley.edu/~wkahan/Boulder.pdf`.

Katranov:2012:DRN

[5965] A. Katranov. Deterministic reduction: a new community preview feature in Intel Threading Building Blocks. Report, Intel Corporation, Santa Clara, CA, USA, 2012. ???? pp.

Koiran:2012:ACC

[5966] Pascal Koiran. Arithmetic circuits: the chasm at depth four gets wider. *Theoretical Computer Science*, 448(1):56–65, August 24, 2012. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0304397512003131`.

Kornerup:2012:CCR

[5967] Peter Kornerup, Vincent Lefèvre, Nicolas Louvet, and Jean-Michel Muller. On the computation of correctly rounded sums. *IEEE Transactions on Computers*, 61(3):289–298, March 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kornerup:2012:FPA

[5968] Peter Kornerup, Jean-Michel Muller, and Adrien Panhaleux. Floating-point arithmetic on round-to-nearest representations. *arXiv.org*, ??(??): ??, January 18, 2012. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/1201.3914`.

Kramer:2012:MAP

[5969] Walter Krämer. Multiple/arbitrary precision interval computations in C-XSC. *Computing: Archiv fur informatik und numerik*, 94(2–4):229–241, March 2012. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=94&issue=2&spage=229`.

Kumm:2012:RCS

[5970] Martin Kumm, Katharina Liebisch, and Peter Zipf. Reduced complexity single and multiple constant multiplication in floating point precision. In ????, editor, *IEEE 22nd International Conference on Field Programmable Logic and Application (FPL), 2012*, pages 255–261. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012. URL `https://ieeexplore.ieee.org/document/6339190/`.

Kurka:2012:FAA

[5971] Petr Kůrka. Fast arithmetical algorithms in Möbius number systems. *IEEE Transactions on Computers*, 61(8):1097–1109, August 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Langlois:2012:ACT

[5972] Philippe Langlois, Matthieu Martel, and Laurent Thévenoux. Automatic code transformation to optimize accuracy and speed in floating-point arithmetic. In ????, editor, *Proceedings of the 15th GAMM–IMACS International Symposium on Scientific Computing, Computer Arithmetic and Validated Numerics, Novosibirsk, Russia*, page ?? IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012. URL `https://hal.archives-ouvertes.fr/hal-00821667`.

Langlois:2012:CTS

[5973] Philippe Langlois, David Parello, Bernard Goossens, and Kathy Porada. Computing time for summation algorithm: Less hazard and more scientific research. Research Report RR-12021, LIRMM, Université Montpellier 2, CNRS UMR 5506, France, 2012. i + 34 pp. URL `http://personales.unican.es/segurajj/numsoft12/`; `https://hal-lirmm.ccsd.cnrs.fr/lirmm-00737617`; `https://hal-lirmm.ccsd.cnrs.fr/lirmm-00737617/document`.

Lee:2012:CPS

[5974] Mun-Kyu Lee. Comments on “Provably Sublinear Point Multiplication on Koblitz Curves and Its Hardware Implementation”. *IEEE Transactions on Computers*, 61(4):591–592, April 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). See [5501].

Lee:2012:DHP

[5975] Yong-Hwan Lee, Young-Sung Cho, and Sangook Moon. Design of a high precision logarithmic converter in a binary floating point divider. *Concurrency and Computation: Practice and Experience*, 24(4):342–353,

???? 2012. CODEN CCPEBO. ISSN 1532-0626 (print), 1532-0634 (electronic).

Li:2012:ENE

[5976] Wenbin Li, Sven Simon, and Steffen Kieß. On the estimation of numerical error bounds in linear algebra based on discrete stochastic arithmetic. *Applied Numerical Mathematics*, 62(5):536–555, May 2012. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0168927412000086.

Liedel:2012:SDC

[5977] Manuel Liedel. Secure distributed computation of the square root and applications. *Lecture Notes in Computer Science*, 7232:277–288, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer.com/chapter/10.1007/978-3-642-29101-2_19/; http://link.springer.com/content/pdf/10.1007/978-3-642-29101-2_19.

Liu:2012:PED

[5978] Wei Liu and Alberto Nannarelli. Power efficient division and square root unit. *IEEE Transactions on Computers*, 61(8):1059–1070, August 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Mahapatra:2012:FIS

[5979] Chinmaya Mahapatra, Saad Mahboob, Victor C. M. Leung, and Thanos Stouraitis. Fast inverse square root based matrix inverse for MIMO-LTE systems. In *2012 International Conference on Control Engineering and Communication Technology*, pages 321–324. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012.

Maitra:2012:NAC

[5980] Subhashis Maitra and Amitabha Sinha. A new algorithm for computing triple-base number system. *ACM SIGARCH Computer Architecture News*, 40(4):3–9, September 2012. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Markovi:2012:CDS

[5981] Dejan Markovi and Robert W. Brodersen. *CORDIC, Divider, Square Root*, pages 91–110. Springer US, 2012. ISBN 1-4419-9660-5.

Masotti:2012:FPN

[5982] Glauco Masotti. Floating-point numbers with error estimates (revised). *arXiv.org*, ??(??):1–45, January 28, 2012. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/1201.5975`.

McCalpin:2012:OSH

[5983] J. D. McCalpin. Is "ordered summation" a hard problem to speed up? Web document, May 28, 2012. URL `http://blogs.utexas.edu/jdm4372/2012/02/15/is-ordered-summation-a-hard-problem-to-speed-up/`.

Milicevic:2012:PAO

[5984] Aleksandar Milicevic and Daniel Jackson. Preventing arithmetic overflows in Alloy. *Lecture Notes in Computer Science*, 7316:108–121, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer.com/content/pdf/10.1007/978-3-642-30885-7_8`.

Mine:2012:ADB

[5985] Antoine Miné. Abstract domains for bit-level machine integer and floating-point operations. In Gudmund Grov, editor, *WING'12 — 4th International Workshop on Invariant Generation, held on June 30, 2012 in Manchester, UK*, page 16. Elsevier, Amsterdam, The Netherlands, 2012.

Mukunoki:2012:PCD

[5986] Daichi Mukunoki and Daisuke Takahashi. Performance comparison of double, triple and quadruple precision real and complex BLAS subroutines on GPUs (extended abstract). In ????, editor, *ATIP '12: Proceedings of the ATIP/A*CRC Workshop on Accelerator Technologies for High-Performance Computing: Does Asia Lead the Way?*, pages 788–790. ACM Press, New York, NY 10036, USA, 2012. ISBN 1-4503-1644-1. LCCN ????

Muller:2012:SSV

[5987] Norbert Th. Müller and Christian Uhrhan. Some steps into verification of exact real arithmetic. *Lecture Notes in Computer Science*, 7226: 168–173, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer.com/chapter/10.1007/978-3-642-28891-3_17/`.

Nehmeier:2012:SHI

[5988] M. Nehmeier, S. Siegel, and J. Wolff von Gudenberg. Specification of hardware for interval arithmetic. *Computing: Archiv fur informatik und numerik*, 94(2–4): 243–255, March 2012. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=94&issue=2&spage=243.

Neron:2012:FPS

[5989] Pierre Neron. A formal proof of square root and division elimination in embedded programs. *Lecture Notes in Computer Science*, 7679:256–272, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://www.springerlink.com//chapter/10.1007/978-3-642-35308-6_20/.

Oudjida:2012:NHR

[5990] A. K. Oudjida, N. Chaillet, M. L. Berrandjia, and A. Liacha. A new high radix-2 r ($r \geq 8$) multibit recoding algorithm for large operand size ($N \geq 32$) multipliers. *ACM SIGARCH Computer Architecture News*, 40 (4):32–43, September 2012. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Ozaki:2012:FAF

[5991] Katsuhisa Ozaki, Takeshi Ogita, Siegfried M. Rump, and Shin'ichi Oishi. Fast algorithms for floating-point interval matrix multiplication. *Journal of Computational and Applied Mathematics*, 236(7):1795–1814, January 2012. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042711005449.

Panhaleux:2012:CFP

[5992] A. Panhaleux. *Contributions to floating-point arithmetic: Coding and correct rounding of algebraic functions*. Ph.D. dissertation, École Normale Supérieure de Lyon, Lyon, France, 2012. URL https://theses.hal.science/tel-00744373v1.

Petrovsky:2012:CIL

[5993] Nicolai A. Petrovsky and Marek Parfieniuk. The CORDIC-inside-lifting architecture for constant-coefficient hardware quaternion multipliers. In *2012 International Conference on Signals and Electronic Systems (ICSES)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012.

Pongyupinpanich:2012:DEF

[5994] S. Pongyupinpanich, F. A. Samman, M. Glesner, and S. Singhaniyom. Design and evaluation of a floating-point division operator based on CORDIC algorithm. In *2012 9th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012.

Raj:2012:RLC

[5995] Krishna Raj, Praveen Kumar Singh, and Rajkumar Tomar. A review of low cost multiplier using CORDIC subsystem. In *2012 2nd International Conference on Power, Control and Embedded Systems*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012.

Rodriguez:2012:RRE

[5996] Marcos Rodríguez and Roberto Barrio. Reducing rounding errors and achieving Brouwer's law with Taylor Series Method. *Applied Numerical Mathematics*, 62(8):1014–1024, August 2012. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0168927412000645`.

Rump:2012:EEF

[5997] Siegfried M. Rump. Error estimation of floating-point summation and dot product. *BIT Numerical Mathematics*, 52(1):201–220, March 2012. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=52&issue=1&spage=201`.

Rump:2012:FIM

[5998] Siegfried M. Rump. Fast interval matrix multiplication. *Numerical Algorithms*, 61 (1):1–34, September 2012. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=1017-1398&volume=61&issue=1&spage=1`.

Saha:2012:DHS

[5999] Prabir Saha, Arindam Banerjee, Anup Dandapat, and Partha Bhattacharyya. Design of high speed Vedic multiplier for decimal number system. *Lecture Notes in Computer Science*, 7373:79–88, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer.com/chapter/10.1007/978-3-642-31494-0_10/`.

Saito:2012:AGM

[6000] Tsubasa Saito, Emiko Ishiwata, and Hidehiko Hasegawa. Analysis of the GCR method with mixed precision arithmetic using QuPAT. *Journal of Computational Science*, 3(3):87–91, May 2012. CODEN ???? ISSN 1877-7503 (print), 1877-7511 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S1877750311000329`.

Seo:2012:MPM

[6001] Hwajeong Seo and Howon Kim. Multi-precision multiplication for public-key cryptography on embedded microprocessors. *Lecture Notes in Computer Science*, 7690:55–67, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer.com/chapter/10.1007/978-3-642-35416-8_5/`.

Sheikh:2012:AFP

[6002] Basit Riaz Sheikh and Rajit Manohar. An asynchronous floating-point multiplier. In IEEE, editor, *2012 IEEE International Symposium on Asynchronous Circuits and Systems: proceedings, ASYNC 2012: 7–9 May 2012, Copenhagen, Denmark*, pages 89–96. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012. ISBN 1-4673-1360-2, 0-7695-4688-9. ISSN 1522-8681. LCCN TK7868.A79. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=6242773`.

Shi:2012:DPM

[6003] Jiangyi Shi, Mingxing Wang, Yinghui Tian, and Zhe Yang. Design of plural-multiplier based on CORDIC algorithm for FFT application. In *2012 Second International Conference on Intelligent System Design and Engineering Application*, pages 1220–1223. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012.

Siegel:2012:LAL

[6004] Stefan Siegel and Jürgen Wolff von Gudenberg. A long accumulator like a carry-save adder. *Computing: Archiv fur informatik und numerik*, 94 (2–4):203–213, March 2012. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0010-485X&volume=94&issue=2&spage=203`.

Su:2012:IIN

[6005] Chen Su and Haining Fan. Impact of Intel's new instruction sets on software implementation of GF(2)[x] multiplication. *Information*

Processing Letters, 112(12):497–502, June 30, 2012. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0020019012000804.

Sudha:2012:NMC

[6006] J. Sudha, M. C. Hanumantharaju, V. Venkateswarulu, and Jayalaxmi H. A novel method for computing exponential function using CORDIC algorithm. *Procedia Engineering*, 30:519–528, 2012. ISSN 1877-7058.

Swartzlander:2012:FIF

[6007] Earl E. Swartzlander and Hani H. M. Saleh. FFT implementation with fused floating-point operations. *IEEE Transactions on Computers*, 61 (2):284–288, February 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5669293.

Thome:2012:SRA

[6008] Emmanuel Thomé. Square root algorithms for the number field sieve. *Lecture Notes in Computer Science*, 7369:208–224, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL http://link.springer.com/chapter/10.1007/978-3-642-31662-3_15/; http://link.springer.com/content/pdf/10.1007/978-3-642-31662-3_15.

Vazquez:2012:RFP

[6009] Alvaro Vazquez, Julio Villalba-Moreno, Elisardo Antelo, and Emilio L. Zapata. Redundant floating-point decimal CORDIC algorithm. *IEEE Transactions on Computers*, 61(11):1551–1562, November 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Wang:2012:EMB

[6010] Zhen Wang and Shuqin Fan. Efficient Montgomery-based semi-systolic multiplier for even-type GNB of GF(2^m). *IEEE Transactions on Computers*, 61(3):415–419, March 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Wang:2012:RCC

[6011] Dong Wang and Miloš D. Ercegovac. A radix-16 combined complex division/square root unit with operand prescaling. *IEEE Transactions on Computers*, 61(9):1243–1255, September 2012. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Wang:2012:UBW

[6012] Xi Wang, Haogang Chen, Alvin Cheung, Zhihao Jia, Nickolai Zeldovich, and M. Frans Kaashoek. Undefined behavior: What happened to my code? In ACM, editor, *Proceedings of the Asia–Pacific Workshop on Systems: APSys '12, July 23–24, 2012, Seoul, South Korea*, page 101. ACM Press, New York, NY 10036, USA, 2012. ISBN 1-4503-1669-7. LCCN QA75.5. URL http://dl.acm.org/citation.cfm?id=2349896.

Yan:2012:RBC

[6013] Song Yan. Review of *Modern Computer Arithmetic*, by Richard Brent and Paul Zimmermann. *SIGACT News (ACM Special Interest Group on Automata and Computability Theory)*, 43(4):49–51, December 2012. CODEN SIGNDM. ISSN 0163-5700 (print), 1943-5827 (electronic).

Yan:2012:RMC

[6014] Song Yan. Review of *Modern Computer Arithmetic*, by Richard Brent and Paul Zimmermann. *SIGACT News (ACM Special Interest Group on Automata and Computability Theory)*, 43(4):49–51, December 2012. CODEN SIGNDM. ISSN 0163-5700 (print), 1943-5827 (electronic).

Yang:2012:CDS

[6015] Bohan Yang, Dong Wang, and Leibo Liu. Complex division and square-root using CORDIC. In *2012 2nd International Conference on Consumer Electronics, Communications and Networks (CECNet)*, pages 2464–2468. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012.

Anguita:2013:EES

[6016] D. Anguita, A. Ghio, L. Oneto, X. Parra, and J. L. Reyes-Ortiz. Energy efficient Smartphone-based activity recognition using fixed-point arithmetic. *J.UCS: Journal of Universal Computer Science*, 19(9): 1295–??, ???? 2013. CODEN ???? ISSN 0948-695X (print), 0948-6968 (electronic). URL http://www.jucs.org/jucs_19_9/energy_efficient_smartphone_based.

Anonymous:2013:DML

[6017] Anonymous. Dedication: In memory of Luigi Ciminiera 1954–2012 and in memory of Luigi Dadda 1923–2012. In IEEE [8087], pages ix–xi. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Anonymous:2013:IOF

[6018] Anonymous. Intel overstates FPU accuracy. Web document, June 1, 2013. URL http://www.notabs.org/fpuaccuracy/.

Antao:2013:CFA

[6019] Samuel Antão and Leonel Sousa. The CRNS framework and its application to programmable and reconfigurable cryptography. *ACM Transactions on Architecture and Code Optimization*, 9(4):33:1–33:??, January 2013. CODEN ???? ISSN 1544-3566 (print), 1544-3973 (electronic).

Arnold:2013:DLN

[6020] Mark G. Arnold and Sylvain Collange. The denormal logarithmic number system. In IEEE, editor, *24th IEEE International Conference on Application-Specific Systems, Architectures and Processors (ASAP), 5–7 June 2013*, pages 117–124. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2013. ISBN 1-4799-0493-7, 1-4799-0494-5 (paperback), 1-4799-0492-9. LCCN QA76.5. URL https://ieeexplore.ieee.org/servlet/opac?punumber=6558539.

Bagnara:2013:EBF

[6021] Roberto Bagnara, Matthieu Carlier, Roberta Gori, and Arnaud Gotlieb. Exploiting binary floating-point representations for constraint propagation: The complete unabridged version. *arXiv.org*, ??(??):1–51, August 18, 2013. CODEN ???? ISSN ???? URL http://arxiv.org/abs/1308.3847.

Bailey:2013:KHP

[6022] David H. Bailey. Keynote I: High-precision computation: Applications and challenges. In IEEE [8087], page 3. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Bajard:2013:FDR

[6023] Jean-Claude Bajard, Julien Eynard, and Filippo Gandino. Fault detection in RNS Montgomery modular multiplication. In IEEE [8087], pages 119–126. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Bao:2013:FDI

[6024] Tao Bao and Xiangyu Zhang. On-the-fly detection of instability problems in floating-point program execution. *ACM SIGPLAN Notices*, 48(10): 817–832, October 2013. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). OOPSLA '13 conference proceedings.

Barr:2013:ADF

[6025] Earl T. Barr, Thanh Vo, Vu Le, and Zhendong Su. Automatic detection of floating-point exceptions. *ACM SIGPLAN Notices*, 48(1):549–560, January 2013. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Boldo:2013:FVC

[6026] Sylvie Boldo, Jacques-Henri Jourdan, Xavier Leroy, and Guillaume Melquiond. A formally-verified C compiler supporting floating-point arithmetic. In IEEE [8087], pages 107–115. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Boldo:2013:HCA

[6027] Sylvie Boldo. How to compute the area of a triangle: A formal revisit. In IEEE [8087], pages 91–98. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Boldo:2013:WEN

[6028] Sylvie Boldo, François Clément, Jean-Christophe Filliâtre, Micaela Mayero, Guillaume Melquiond, and Pierre Weis. Wave equation numerical resolution: a comprehensive mechanized proof of a C program. *Journal of Automated Reasoning*, 50(4):423–456, April 2013. CODEN JAREEW. ISSN 0168-7433 (print), 1573-0670 (electronic). URL `http://link.springer.com/article/10.1007/s10817-012-9255-4`.

Brisebarre:2013:CBB

[6029] Nicolas Brisebarre, Marc Mezzarobba, Jean-Michel Muller, and Christof Lauter. Comparison between Binary64 and Decimal64 floating-point numbers. In IEEE [8087], pages 145–152. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Carter:2013:ESF

[6030] Ashley R. Carter. Evolution of the significant figure rules. *The Physics Teacher*, 51(6):340–343, September 2013. CODEN PHTEAH. ISSN 0031-921X (print), 1943-4928 (electronic).

Chabrier:2013:FMB

[6031] Thomas Chabrier and Arnaud Tisserand. On-the-fly multi-base recoding for ECC scalar multiplication without pre-computations. In IEEE [8087], pages 219–228. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Chen:2013:PGF

[6032] Doris Chen and Deshanand Singh. Profile-guided floating- to fixed-point conversion for hybrid FPGA-processor applications. *ACM Transactions on Architecture and Code Optimization*, 9(4):43:1–43:??, January 2013. CODEN ???? ISSN 1544-3566 (print), 1544-3973 (electronic).

Chevillard:2013:MPE

[6033] Sylvain Chevillard and Marc Mezzarobba. Multiple-precision evaluation of the Airy Ai function with reduced cancellation. In IEEE [8087], pages 175–182. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Cleveland:2013:OIR

[6034] Mathew A. Cleveland, Thomas A. Brunner, Nicholas A. Gentile, and Jeffrey A. Keasler. Obtaining identical results with double precision global accuracy on different numbers of processors in parallel particle Monte Carlo simulations. *Journal of Computational Physics*, 251(??): 223–236, October 15, 2013. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0021999113004075`.

Corden:2013:DFP

[6035] Martyn Corden. Differences in floating-point arithmetic between Intel Xeon processors and the Intel Xeon Phi coprocessor. Report, Intel Corporation, Santa Clara, CA, USA, 2013. 6 pp. URL `https://software.intel.com/en-us/articles/differences-in-floating-point-arithmetic-between-intel-xeon-processors-and-the-intel-xeon`; `https://software.intel.com/file/420203/download`.

Cornea:2013:PAR

[6036] Marius Cornea. Precision, accuracy, and rounding error propagation in exascale computing. In IEEE [8087], pages 231–234. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

De:2013:FIM

[6037] Anindya De, Piyush P. Kurur, Chandan Saha, and Ramprasad Saptharishi. Fast integer multiplication using modular arithmetic. *SIAM Journal on Computing*, 42(2):685–699, ???? 2013. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic).

deDinechin:2013:FPE

[6038] Florent de Dinechin, Pedro Echeverría, Marisa López-Vallejo, and Bogdan Pasca. Floating-point exponentiation units for reconfigurable computing. *ACM Transactions on Reconfigurable Technology and Systems*, 6(1):4:1–4:??, May 2013. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic).

deDinechin:2013:FPT

[6039] Florent de Dinechin, Matei Istoan, and Guillaume Sergent. Fixed-point trigonometric functions on FPGAs. *ACM SIGARCH Computer Architecture News*, 41(5):83–88, December 2013. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

deDinechin:2013:ZRT

[6040] Florent de Dinechin, Christoph Lauter, Jean-Michel Muller, and Serge Torres. On Ziv's rounding test. *ACM Transactions on Mathematical Software*, 39(4):25:1–25:19, July 2013. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Demmel:2013:ERF

[6041] James Demmel and Hong Diep Nguyen. Efficient reproducible floating-point reduction operations on large scale systems. SIAM AN13 talk slides., July 8–12, 2013. URL `http://bebop.cs.berkeley.edu/reproblas/docs/talks/SIAM_AN13.pdf`.

Demmel:2013:FRF

[6042] James Demmel and Hong Diep Nguyen. Fast reproducible floating-point summation. In IEEE [8087], pages 163–172. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013. URL `http://www.eecs.berkeley.edu/~hdnguyen/public/papers/ARITH21_Fast_Sum.pdf`.

Demmel:2013:NRA

[6043] James Demmel and Hong Diep Nguyen. Numerical reproducibility and accuracy at exascale. In IEEE [8087], pages 235–237. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013. URL `http://bebop.cs.berkeley.edu/reproblas/docs/talks/ARITH21_ExaScale.pdf`; `http://www.eecs.berkeley.edu/~hdnguyen/public/papers/ARITH21_ExaScale.pdf`.

Demmel:2013:RRB

[6044] James Demmel and Hong Diep Nguyen. ReproBLAS: Reproducible BLAS. SC'13 talk slides., November 22, 2013. URL `http://bebop.cs.berkeley.edu/reproblas/docs/talks/SC13.pdf`.

Detrey:2013:RCF

[6045] Jérémie Detrey, Pierrick Gaudry, and Marion Videau. Relation collection for the function field sieve. In IEEE [8087], pages 201–210. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Dimitrov:2013:ALI

[6046] Vassil Dimitrov and Kimmo Järvinen. Another look at inversions over binary fields. In IEEE [8087], pages 211–218. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Dingle:2013:RIT

[6047] Nicholas J. Dingle and Nicholas J. Higham. Reducing the influence of tiny normwise relative errors on performance profiles. *ACM Transactions on Mathematical Software*, 39(4):24:1–24:11, July 2013. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Doertel:2013:BKM

[6048] K. Doertel. Best known method: Avoid heterogeneous precision in control flow calculations. Report, Intel Corporation, Santa Clara, CA, USA, 2013. ???? pp.

Edmunds:2013:AME

[6049] Michael G. Edmunds. Keynote II: The Antikythera Mechanism and the early history of mechanical computing. In IEEE [8087], page 79. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

ElWazeer:2013:SVD

[6050] Khaled ElWazeer, Kapil Anand, Aparna Kotha, Matthew Smithson, and Rajeev Barua. Scalable variable and data type detection in a binary rewriter. *ACM SIGPLAN Notices*, 48(6):51–60, June 2013. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Engels:2013:NLL

[6051] Susanne Engels, Elif Bilge Kavun, Christof Paar, Tolga Yalcin, and Hristina Mihajloska. A non-linear/linear instruction set extension for lightweight ciphers. In IEEE [8087], pages 67–75. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Galal:2013:FGD

[6052] Sameh Galal, Ofer Shacham, John S. Brunhaver, Jing Pu, Artem Vassiliev, and Mark Horowitz. FPU generator for design space exploration. In IEEE [8087], pages 25–34. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Giorgi:2013:PMM

[6053] Pascal Giorgi, Laurent Imbert, and Thomas Izard. Parallel modular multiplication on multi-core processors. In IEEE [8087], pages 135–142. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Gonzalez-Navarro:2013:BID

[6054] Sonia Gonzalez-Navarro, Charles Tsen, and Michael J. Schulte. Binary integer decimal-based floating-point multiplication. *IEEE Transactions on Computers*, 62(7):1460–1466, July 2013. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Gustafson:2013:UCN

[6055] John Gustafson. Unleashed computing: The need to right-size precision to save energy, bandwidth, storage, and electrical power. Web slides (64)., March 19, 2013. URL `http://sites.ieee.org/scv-cs/files/2013/03/Right-SizingPrecision1.pdf`.

Han:2013:HSP

[6056] Liu Han and Seok-Bum Ko. High-speed parallel decimal multiplication with redundant internal encodings. *IEEE Transactions on Computers*, 62(5):956–968, May 2013. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). See comment [6211].

Hilaire:2013:RIL

[6057] Thibault Hilaire and Benoit Lopez. Reliable implementation of linear filters with fixed-point arithmetic. In *SiPS 2013 Proceedings*, pages 401–406. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, October 2013. ISBN 1-4673-6236-0 (print), 1-4673-6238-7 (e-book). LCCN TK5102.9 .I578 2013. URL `http://www.gbv.de/dms/tib-ub-hannover/791452751.pdf`.

Ioualalen:2013:SAF

[6058] Arnault Ioualalen and Matthieu Martel. Synthesizing accurate floating-point formulas. In ????, editor, *Proceedings of the 24th IEEE*

International Conference on Application-Specific Systems, Architectures and Processors, June, 2013, pages 113–116. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2013. URL `https://hal.archives-ouvertes.fr/hal-00835736`.

Jaffer:2013:EAR

[6059] Aubrey Jaffer. Easy accurate reading and writing of floating-point numbers. *arXiv.org*, ??(??):1–7, October 28, 2013. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/1310.8121`.

Jeannerod:2013:CAC

[6060] Claude-Pierre Jeannerod, Nicolas Louvet, and Jean-Michel Muller. On the componentwise accuracy of complex floating-point division with an FMA. In IEEE [8087], pages 83–90. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Jeannerod:2013:FAK

[6061] Claude-Pierre Jeannerod, Nicolas Louvet, and Jean-Michel Muller. Further analysis of Kahan's algorithm for the accurate computation of 2×2 determinants. *Mathematics of Computation*, 82(284):2245–2264, 2013. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/journals/mcom/2013-82-284/S0025-5718-2013-02679-8`; `http://www.ams.org/journals/mcom/2013-82-284/S0025-5718-2013-02679-8/S0025-5718-2013-02679-8.pdf`.

Jeannerod:2013:IEB

[6062] Claude-Pierre Jeannerod and Siegfried M. Rump. Improved error bounds for inner products in floating-point arithmetic. *SIAM Journal on Matrix Analysis and Applications*, 34(2):338–344, ???? 2013. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Jiang:2013:AED

[6063] Hao Jiang, Stef Graillat, Canbin Hu, Shengguo Li, Xiangke Liao, Lizhi Cheng, and Fang Su. Accurate evaluation of the k-th derivative of a polynomial and its application. *Journal of Computational and Applied Mathematics*, 243(??):28–47, May 1, 2013. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042712005018`.

Jiang:2013:AFE

[6064] Hao Jiang, Stef Graillat, and Roberto Barrio. Accurate and fast evaluation of elementary symmetric functions. In IEEE [8087], pages

183–190. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Kadric:2013:APF

[6065] Edin Kadric, Paul Gurniak, and André DeHon. Accurate parallel floating-point accumulation. In IEEE [8087], pages 153–162. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Khanna:2013:HPN

[6066] Gaurav Khanna. High-precision numerical simulations on a CUDA GPU: Kerr black hole tails. *Journal of Scientific Computing*, 56(2): 366–380, August 2013. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic). URL http://link.springer.com/article/10.1007/s10915-012-9679-3; http://link.springer.com/content/pdf/10.1007/s10915-012-9679-3.pdf.

Kouretas:2013:LPL

[6067] Ioannis Kouretas, Charalambos Basetas, and Vassilis Paliouras. Low-power logarithmic number system addition/subtraction and their impact on digital filters. *IEEE Transactions on Computers*, 62(11):2196–2209, November 2013. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kulisch:2013:CAV

[6068] Ulrich Kulisch. *Computer Arithmetic and Validity*, volume 33 of *De Gruyter studies in mathematics*. Walter de Gruyter, Berlin, Germany, second edition, 2013. ISBN 3-11-030173-3, 3-11-030179-2 (e-book), 3-11-030180-6 (set). ISSN 0179-0986. xxii + 434 pp. LCCN QA76.9.C62 K853 2013.

Kupriianova:2013:RCIa

[6069] O. Kupriianova, Ch. Lauter, and Jean-Michel Muller. Radix conversion for IEEE754-2008 mixed radix floating-point arithmetic. *arXiv.org*, ?? (??):??, December 2, 2013. CODEN ???? ISSN ???? URL http://arxiv.org/abs/1312.0455.

Kupriianova:2013:RCIb

[6070] Olga Kupriianova, Christoph Lauter, and Jean-Michel Muller. Radix conversion for IEEE754-2008 mixed radix floating-point arithmetic. In Michael B. Matthews, editor, *The Forty-Seventh Asilomar Conference on Signals, Systems and Computers. November 3–6, 2013. Pacific Grove, California*, pages 1134–1138. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2013. ISBN 1-4799-2390-7.

Kurka:2013:UAA

[6071] Petr Kůrka and Martin Delacourt. The unary arithmetical algorithm in bimodular number systems. In IEEE [8087], pages 127–134. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Lam:2013:DFP

[6072] Michael O. Lam, Jeffrey K. Hollingsworth, and G. W. Stewart. Dynamic floating-point cancellation detection. *Parallel Computing*, 39(3):146–155, March 2013. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0167819112000622`.

Lefevre:2013:HRC

[6073] Vincent Lefèvre. Hardest-to-round cases: Part 2. Lecture slides from ENS-Lyon, France., October 8, 2013.

Lefevre:2013:SML

[6074] Vincent Lefèvre. Sipe: a mini-library for very low precision computations with correct rounding. Report hal-00864580, INRIA, LIP / CNRS / ENS Lyon / Université de Lyon, Lyon, France, September 22, 2013. 13 pp. URL `https://inria.hal.science/hal-00864580`.

Lefevre:2013:SSI

[6075] Vincent Lefèvre. SIPE: Small integer plus exponent. In IEEE [8087], pages 99–106. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013. URL `http://hal.inria.fr/hal-00763954`.

Lei:2013:FIE

[6076] Yuanwu Lei, Yong Dou, Yazhuo Dong, Jie Zhou, and Fei Xia. FPGA implementation of an exact dot product and its application in variable-precision floating-point arithmetic. *The Journal of Supercomputing*, 64 (2):580–605, May 2013. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL `http://link.springer.com/article/10.1007/s11227-012-0860-0`.

Lei:2013:VCI

[6077] Yuanwu Lei, Yong Dou, Lei Guo, Jinbo Xu, Jie Zhou, Yazhuo Dong, and Hongjian Li. VLIW coprocessor for IEEE-754 quadruple-precision elementary functions. *ACM Transactions on Architecture and Code Optimization*, 10(3):12:1–12:??, September 2013. CODEN ???? ISSN 1544-3566 (print), 1544-3973 (electronic).

Lowery:2013:RED

[6078] Bradley R. Lowery. Relative error due to a single bit-flip in floating-point arithmetic. *arXiv.org*, ??(??):1–6, April 15, 2013. CODEN ???? ISSN ???? URL http://arxiv.org/abs/1304.4292.

Maitra:2013:DSM

[6079] Subhashis Maitra and Amitabha Sinha. Design and simulation of MAC unit using combinational circuit and adder. *ACM SIGARCH Computer Architecture News*, 41(5):25–33, December 2013. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Maniatakos:2013:LCC

[6080] Michail Maniatakos, Prabhakar Kudva, Bruce M. Fleischer, and Yiorgos Makris. Low-cost concurrent error detection for floating-point unit (FPU) controllers. *IEEE Transactions on Computers*, 62(7):1376–1388, July 2013. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Martin-Dorel:2013:SIR

[6081] Érik Martin-Dorel, Guillaume Melquiond, and Jean-Michel Muller. Some issues related to double rounding. *BIT Numerical Mathematics*, 53(4): 897–924, December 2013. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://link.springer.com/article/10.1007/s10543-013-0436-2.

Muller:2013:ADR

[6082] Jean-Michel Muller. Avoiding double roundings in scaled Newton–Raphson division. In Michael B. Matthews, editor, *The Forty-Seventh Asilomar Conference on Signals, Systems and Computers. November 3–6, 2013. Pacific Grove, California*, pages 396–399. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2013. ISBN 1-4799-2390-7.

Nathan:2013:REB

[6083] Ralph Nathan, Bryan Anthonio, Shih-Lien Lu, Helia Naeimi, Daniel J. Sorin, and Xiaobai Sun. Recycled error bits: Energy-efficient architectural support for higher precision floating point. *arXiv.org*, ??(??):??, September 27, 2013. CODEN ???? ISSN ???? URL http://arxiv.org/abs/1309.7321.

Nguyen:2013:SED

[6084] Trung Duc Nguyen and Rodney Van Meter. A space-efficient design for reversible floating point adder in quantum computing. *arXiv.org*, ??(??): 1–11, June 17, 2013. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/1306.3760`.

Nikolajsen:2013:FSD

[6085] Jorgen L. Nikolajsen. Fractional significant digits. *SIAM Journal on Scientific Computing*, 35(2):A561–A576, ???? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ould-Bachir:2013:SAS

[6086] Tarek Ould-Bachir and Jean Pierre David. Self-alignment schemes for the implementation of addition-related floating-point operators. *ACM Transactions on Reconfigurable Technology and Systems*, 6(1):1:1–1:??, May 2013. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic).

Ozaki:2013:GEF

[6087] Katsuhisa Ozaki, Takeshi Ogita, Shin'ichi Oishi, and Siegfried M. Rump. Generalization of error-free transformation for matrix multiplication and its application. *Nonlinear Theory and Its Applications, IEICE*, 4(1):2–11, 2013. CODEN ???? ISSN 2185-4106. URL `https://www.jstage.jst.go.jp/article/nolta/4/1/4_2/_article`.

Pedram:2013:FPA

[6088] Ardavan Pedram, Andreas Gerstlauer, and Robert A. van de Geijn. Floating point architecture extensions for optimized matrix factorization. In IEEE [8087], pages 49–58. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Pontarelli:2013:LCC

[6089] Salvatore Pontarelli, Pedro Reviriego, Chris J. Bleakley, and Juan Antonio Maestro. Low complexity concurrent error detection for complex multiplication. *IEEE Transactions on Computers*, 62(9):1899–1903, September 2013. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Rodriguez-Garcia:2013:FFP

[6090] A. Rodriguez-Garcia, L. Pizano-Escalante, R. Parra-Michel, O. Longoria-Gandara, and J. Cortez. Fast fixed-point divider based on Newton–Raphson method and piecewise polynomial approximation. In René Cumplido, Eduardo de la Torre, and Mike Wirthlin, editors, *2013*

International Conference on Reconfigurable Computing and FPGAs (ReConFig): Cancun, Mexico, December 9–11, 2013, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, December 2013. ISBN 1-4799-2079-7.

Rubio-Gonzalez:2013:PTA

[6091] Cindy Rubio-González, Cuong Nguyen, Hong Diep Nguyen, James Demmel, William Kahan, Koushik Sen, David H. Bailey, Costin Iancu, and David Hough. Precimonious: Tuning assistant for floating-point precision. In *Proceedings of the SC13's International Conference on High Performance Computing, Networking, Storage and Analysis, Denver, CO, USA*, page 27. ACM Press, New York, NY 10036, USA, 2013.

Rump:2013:ASDa

[6092] Siegfried M. Rump. Accurate solution of dense linear systems, Part I: Algorithms in rounding to nearest. *Journal of Computational and Applied Mathematics*, 242(??):157–184, April 2013. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042712004360.

Rump:2013:ASDb

[6093] Siegfried M. Rump. Accurate solution of dense linear systems, part II: Algorithms using directed rounding. *Journal of Computational and Applied Mathematics*, 242(??):185–212, April 2013. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042712003974.

Rupley:2013:FPU

[6094] Jeff Rupley, John King, Eric Quinnell, Frank Galloway, Ken Patton, Peter-Michael Seidel, James Dinh, Hai Bui, and Anasua Bhowmik. The floating-point unit of the Jaguar x86 core. In IEEE [8087], pages 7–16. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Russinoff:2013:CFV

[6095] David M. Russinoff. Computation and formal verification of SRT quotient and square root digit selection tables. *IEEE Transactions on Computers*, 62(5):900–913, May 2013. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Saha:2013:PAF

[6096] Amrita Saha, Manideepa Mukherjee, Debanjana Datta, Sangita Saha, and Amitabha Sinha. Performance analysis of a FPGA based novel binary and DBNS multiplier. *ACM SIGARCH Computer Architecture*

News, 41(2):9–16, May 2013. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

SaiToh:2013:ZCL

[6097] Akira SaiToh. ZKCM: a C++ library for multiprecision matrix computation with applications in quantum information. *Computer Physics Communications*, 184(8):2005–2020, August 2013. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0010465513001306.

Shen:2013:SCC

[6098] Tao Shen and Zhugang Yuan. Stability criterion for a class of fixed-point digital filters using two's complement arithmetic. *Applied Mathematics and Computation*, 219(9):4880–4883, January 1, 2013. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0096300312010806.

Sohn:2013:IAF

[6099] Jongwook Sohn and Earl E. Swartzlander, Jr. Improved architectures for a floating-point fused dot product unit. In IEEE [8087], pages 41–48. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Srinivasan:2013:SPF

[6100] Suresh Srinivasan, Ketan Bhudiya, Rajaraman Ramanarayanan, P. Sahit Babu, Tiju Jacob, Sanu K. Mathew, Ram Krishnamurthy, and Vasantha Errgauntla. Split-path fused floating point multiply accumulate (FPMAC). In IEEE [8087], pages 17–24. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Sullivan:2013:TLA

[6101] Michael B. Sullivan and Earl E. Swartzlander, Jr. Truncated logarithmic approximation. In IEEE [8087], pages 191–198. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Suri:2013:DHP

[6102] Lakshay Suri, Devesh Lamba, Kunwar Kritarth, Bhavna Ghai, and Geetanjali Sharma. Design of high performance and power efficient 16-bit square root carry select adder using hybrid PTL/CMOS logic. *International Journal of Computer Applications*, 69(??):32–35, May 2013. CODEN ???? ISSN 0975-8887. URL https://www.ijcaonline.org/archives/volume69/number10/11881-7696/.

Tolmachev:2013:MFP

[6103] Alex Tolmachev, Igor Tselniker, Maxim Meltsin, Itzik Sigron, David Dahan, Aviv Shalom, and Moshe Nazarathy. Multiplier-free phase recovery with polar-domain multisymbol-delay-detector. *Journal of Lightwave Technology*, 31(23):3638–3650, 2013. CODEN JLTEDG. ISSN 0733-8724 (print), 1558-2213 (electronic).

Vazquez:2013:IAA

[6104] Alvaro Vazquez and Javier D. Bruguera. Iterative algorithm and architecture for exponential, logarithm, powering, and root extraction. *IEEE Transactions on Computers*, 62(9):1721–1731, September 2013. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Warren:2013:HD

[6105] Henry S. Warren. *Hacker's Delight*. Addison-Wesley, Reading, MA, USA, second edition, 2013. ISBN 0-321-84268-5 (hardcover). xvi + 494 pp. LCCN QA76.6 .W375 2013. URL `http://www.pearsonhighered.com/educator/product/Hackers-Delight/9780321842688.page`.

Wiebe:2013:FPR

[6106] Nathan Wiebe and Vadym Kliuchnikov. Floating point representations in quantum circuit synthesis. *arXiv.org*, ??(??):??, May 23, 2013. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/1305.5528`.

Yabuki:2013:DPC

[6107] Michiro Yabuki and Takashi Tsuchiya. Double precision computation of the logistic map depends on computational modes of the floating-point processing unit. *arXiv.org*, ??(??):1–10, May 14, 2013. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/1305.3128`.

Yuce:2013:FCT

[6108] Bilgiday Yuce, H. Fatih Ugurdag, Sezer Goren, and Gunham Dundar. A fast circuit topology for finding the maximum of N k-bit numbers. In IEEE [8087], pages 59–66. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Zhang:2013:BAF

[6109] Yiwei Zhang, Joseph P. Mcgeehan, Edward M. Regan, Stephen Kelly, and Jose Luis Nunez-Yanez. Biophysically accurate floating point neuroprocessors for reconfigurable logic. *IEEE Transactions on Computers*, 62(3):599–608, March 2013. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Akleylek:2014:AOF

[6110] S. Akleylek, F. Özbudak, and C. Özel. On the arithmetic operations over finite fields of characteristic three with low complexity. *Journal of Computational and Applied Mathematics*, 259 (part B)(??):546–554, March 15, 2014. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042713004160`.

Anonymous:2014:CLL

[6111] Anonymous. CR-Libm — a library of correctly rounded elementary functions in double-precision. Web site, 2014. URL `http://lipforge.ens-lyon.fr/www/crlibm/`.

Area:2014:ACS

[6112] Iván Area, Dimitar K. Dimitrov, Eduardo Godoy, and Vanessa Paschoa. Approximate calculation of sums I: Bounds for the zeros of Gram polynomials. *SIAM Journal on Numerical Analysis*, 52(4):1867–1886, ???? 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Arteaga:2014:DBR

[6113] A. Arteaga, O. Fuhrer, and T. Hoefler. Designing bit-reproducible portable high-performance applications. In *Proceedings of the 2014 IEEE 28th International Parallel and Distributed Processing Symposium*, pages 1235–1244. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014.

Ballard:2014:CLB

[6114] G. Ballard, E. Carson, J. Demmel, M. Hoemmen, N. Knight, and O. Schwartz. Communication lower bounds and optimal algorithms for numerical linear algebra. *Acta Numerica*, 23:1–155, 2014. CODEN ANUMFU. ISSN 0962-4929 (print), 1474-0508 (electronic).

BasiriM:2014:EHB

[6115] Mohamed Asan Basiri M. and Noor Mahammad Sk. An efficient hardware-based higher radix floating point MAC design. *ACM Transactions on Design Automation of Electronic Systems.*, 20(1):15:1–15:??, November 2014. CODEN ATASFO. ISSN 1084-4309 (print), 1557-7309 (electronic).

Boldo:2014:DFV

[6116] Sylvie Boldo. *Deductive formal verification: How to make your floating-point programs behave*. Thèse d habilitation, Universite Paris-Sud, Paris, France, October 2014. iv + 80 pp. URL http://www.lri.fr/~sboldo/files/hdr.pdf.

Bouvier:2014:DFB

[6117] Cyril Bouvier and Paul Zimmermann. Division-free binary-to-decimal conversion. *IEEE Transactions on Computers*, 63(8):1895–1901, August 2014. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://members.loria.fr/PZimmermann/papers/get_str.pdf.

Chiang:2014:ESI

[6118] Wei-Fan Chiang, Ganesh Gopalakrishnan, Zvonimir Rakamarić, and Alexey Solovyev. Efficient search for inputs causing high floating-point errors. In ACM, editor, *PPoPP '14: Proceedings of the 19th ACM SIGPLAN symposium on Principles and practice of parallel programming*, pages 43–52. ACM Press, New York, NY 10036, USA, 2014. ISBN 1-4503-2656-0. LCCN ???? URL http://dl.acm.org/citation.cfm?doid=2555243.2555265.

Cibikdiken:2014:CMM

[6119] Ali Osman Çibikdiken and Kemal Aydin. Computation of the monodromy matrix in floating point arithmetic with the Wilkinson model. *Computers and Mathematics with Applications*, 67(5):1186–1194, March 2014. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0898122113006706.

Darulova:2014:SCR

[6120] Eva Darulova and Viktor Kuncak. Sound compilation of reals. *ACM SIGPLAN Notices*, 49(1):235–248, January 2014. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). POPL '14 conference proceedings.

Darulova:2014:TCR

[6121] Eva Darulova and Viktor Kuncak. Towards a compiler for reals. *arxiv.org*, ??(??):1–24, October 1, 2014. URL http://arxiv.org/abs/1410.0198.

DelBarrio:2014:ULP

[6122] Alberto A. Del Barrio, Nader Bagherzadeh, and Román Hermida. Ultra-low-power adder stage design for exascale floating point units. *ACM*

Transactions on Embedded Computing Systems, 13(3s):105:1–105:??, March 2014. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic).

Demmel:2014:THS

[6123] James Demmel and Hong Diep Nguyen. Toward hardware support for reproducible BLAS. SCAN 2014 talk slides., September 24, 2014. URL `http://bebop.cs.berkeley.edu/reproblas/img/pdf.png`.

Doerr:2014:RRP

[6124] Benjamin Doerr and Magnus Wahlström. Randomized rounding in the presence of a cardinality constraint. *ACM Journal of Experimental Algorithmics*, 19(1):1.2:1–1.2:??, May 2014. CODEN ???? ISSN 1084-6654.

Drane:2014:SCF

[6125] T. A. Drane, T. M. Rose, and G. A. Constantinides. On the systematic creation of faithfully rounded truncated multipliers and arrays. *IEEE Transactions on Computers*, 63(10):2513–2525, October 2014. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Du:2014:AEP

[6126] Peibing Du, Hao Jiang, and Lizhi Cheng. Accurate evaluation of polynomials in Legendre basis. *Journal of Applied Mathematics*, 2014:742538:1–742538:13, 2014. ISSN 1110-757X (print), 1687-0042 (electronic). URL `https://www.hindawi.com/journals/jam/2014/742538/`.

Dumas:2014:NRI

[6127] Jean-Guillaume Dumas. On Newton–Raphson iteration for multiplicative inverses modulo prime powers. *IEEE Transactions on Computers*, 63(8):2106–2109, August 2014. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). See corrections [6831].

Duracz:2014:PFI

[6128] Jan Duracz and Michal Konečný. Polynomial function intervals for floating-point software verification. *Annals of Mathematics and Artificial Intelligence*, 70(4):351–398, April 2014. CODEN AMAIEC. ISSN 1012-2443 (print), 1573-7470 (electronic).

Gilani:2014:EEP

[6129] Syed Zohaib Gilani, Nam Sung Kim, and Michael Schulte. Energy-efficient pixel-arithmetic. *IEEE Transactions on Computers*, 63(8):1, August 2014. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Gladshtein:2014:DBP

[6130] Michael Gladshtein. Delay-based processing-in-wire for design of QCA serial decimal arithmetic units. *ACM Journal on Emerging Technologies in Computing Systems (JETC)*, 10(2):13:1–13:??, February 2014. CODEN ???? ISSN 1550-4832 (print), 1550-4840 (electronic).

Goualard:2014:HDY

[6131] Frédéric Goualard. How do you compute the midpoint of an interval? *ACM Transactions on Mathematical Software*, 40(2):11:1–11:25, February 2014. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Graillat:2014:MRE

[6132] Stef Graillat, Vincent Lefèvre, and Jean-Michel Muller. On the maximum relative error when computing x^n in floating-point arithmetic. *arXiv.org*, ??(??):??, February 11, 2014. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/1402.2991`.

Hormigo:2014:ODC

[6133] J. Hormigo and J. Villalba. Optimizing DSP circuits by a new family of arithmetic operators. In Michael B. Matthews, editor, *Proceedings of the 48th Asilomar Conference on Signals, Systems, and Computers, November 2–5, 2014, Pacific Grove, California*, pages 871–875. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014. ISBN 1-4799-8297-0, 1-4799-8298-9, 1-4799-8295-4. ISSN 1058-6393. LCCN TK7801.

Jeannerod:2014:REF

[6134] Claude-Pierre Jeannerod and Siegfried M. Rump. On relative errors of floating-point operations: optimal bounds and applications. Preprint ??, ????, ????, ???? 2014.

Johansson:2014:PMP

[6135] Fredrik Johansson and The mpmath Development Team. `mpmath`: a Python library for arbitrary-precision floating-point arithmetic. Web site, 2014. URL `http://mpmath.org/`.

Joldes:2014:CRF

[6136] Mioara Joldes, Jean-Michel Muller, and Valentina Popescu. On the computation of the reciprocal of floating point expansions using an adapted Newton–Raphson iteration. In IEEE, editor, *2014 IEEE 25th International Conference on Application-Specific Systems, Architectures and Processors. 18-20 June 2014. Zürich, Switzerland*, pages 63–67. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014. ISBN 1-4799-3608-1.

Joldes:2014:SSH

[6137] Mioara Joldes, Valentina Popescu, and Warwick Tucker. Searching for sinks for the Hénon map using a multiple-precision GPU arithmetic library. *ACM SIGARCH Computer Architecture News*, 42(4):63–68, 2014. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Kasliwal:2014:HRD

[6138] Prabha S. Kasliwal, Gaurav Bhand, and B. P. Patil. Hardware realization of discrete convolution using CORDIC and Vedic multiplier. In *2014 Science and Information Conference*, pages 850–854. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014.

Korzen:2014:PPP

[6139] Marcin Korzeń and Szymon Jaroszewicz. PaCAL: A Python package for arithmetic computations with random variables. *Journal of Statistical Software*, 57(10):??, May 2014. CODEN JSSOBK. ISSN 1548-7660. URL `http://www.jstatsoft.org/v57/i10`.

Leeser:2014:MIR

[6140] Miriam Leeser, Sayan Mukherjee, Jaideep Ramachandran, and Thomas Wahl. Make it real: Effective floating-point reasoning via exact arithmetic. In IEEE, editor, *Design, Automation and Test in Europe Conference and Exhibition (DATE), Dresden, Germany March 24–28, 2014*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014. ISBN 1-4799-3297-3, 3-9815370-2-5. LCCN TK7870 .D467 2014. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=6784162`.

Lei:2014:FIS

[6141] Yuanwu Lei, Lei Guo, Yong Dou, Sheng Ma, and Jinbo Xu. FPGA implementation of a special-purpose VLIW structure for double-precision elementary function. *ACM Transactions on Reconfigurable Technology and Systems*, 7(2):8:1–8:??, June 2014. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic).

Lindstrom:2014:FRC

[6142] Peter Lindstrom. Fixed-rate compressed floating-point arrays. *IEEE Transactions on Visualization and Computer Graphics*, 20(12):2674–2683, December 2014. CODEN ITVGEA. ISSN 1077-2626 (print), 1941-0506 (electronic), 2160-9306. URL http://csdl.computer.org/csdl/trans/tg/2014/12/06876024-abs.html.

Long:2014:SIF

[6143] Fan Long, Stelios Sidiroglou-Douskos, Deokhwan Kim, and Martin Rinard. Sound input filter generation for integer overflow errors. *ACM SIGPLAN Notices*, 49(1):439–452, January 2014. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). POPL '14 conference proceedings.

Lupon:2014:SHS

[6144] Marc Lupon, Enric Gibert, Grigorios Magklis, Sridhar Samudrala, Raúl Martínez, Kyriakos Stavrou, and David R. Ditzel. Speculative hardware/software co-designed floating-point multiply-add fusion. *ACM SIGARCH Computer Architecture News*, 42(1):623–638, March 2014. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Marche:2014:VFB

[6145] Claude Marché. Verification of the functional behavior of a floating-point program: an industrial case study. *Science of Computer Programming*, 96 (part 3)(??):279–296, December 15, 2014. CODEN SCPGD4. ISSN 0167-6423 (print), 1872-7964 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0167642314001671.

Milicevic:2014:PAO

[6146] Aleksandar Milicevic and Daniel Jackson. Preventing arithmetic overflows in Alloy. *Science of Computer Programming*, 94 (part 2)(??):203–216, November 15, 2014. CODEN SCPGD4. ISSN 0167-6423 (print), 1872-7964 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0167642314002470.

Moler:2014:CCFa

[6147] Cleve Moler. Cleve's Corner: Floating point numbers. MathWorks Web site., July 7, 2014. URL https://blogs.mathworks.com/cleve/2014/07/07/floating-point-numbers/.

Moler:2014:CCFb

[6148] Cleve Moler. Cleve's Corner: Floating point denormals, insignificant but controversial. MathWorks Web site., July 21, 2014. URL https://

blogs.mathworks.com/cleve/2014/07/21/floating-point-denormals-insignificant-but-controversial-2/.

Mukhopadhyay:2014:EMP

[6149] Debapriyay Mukhopadhyay and Subhas C. Nandy. Efficient multiple-precision integer division algorithm. *Information Processing Letters*, 114(3):152–157, March 2014. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0020019013002627. This paper provides a correction to the algorithm presented in [5116], and also supplies a complicated correctness proof.

Muller:2014:MRE

[6150] Jean-Michel Muller. On the maximum relative error when computing iterated integer powers in floating-point arithmetic. In ????, editor, *INVA Conference Proceedings, Tokyo, Japan, 2014*, page ?? ????, ????, 2014.

Murakami:2014:CRN

[6151] Hiroshi Murakami. Calculation of rational numbers in an interval whose denominator is the smallest by using FP interval arithmetic. *ACM Communications in Computer Algebra*, 48(3/4):134–136, September 2014. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Nannarelli:2014:GEI

[6152] Alberto Nannarelli, Peter-Michael Seidel, and Ping Tak Peter Tang. Guest Editors' introduction: Special section on computer arithmetic. *IEEE Transactions on Computers*, 63(8):1852–1853, August 2014. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Neto:2014:PUP

[6153] Joao Carlos Neto, Alexandre Ferreira Tenca, and Wilson Vicente Ruggiero. A parallel and uniform k-partition method for Montgomery multiplication. *IEEE Transactions on Computers*, 63(9):2122–2133, September 2014. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Nguyen:2014:RED

[6154] Trung Duc Nguyen and Rodney Van Meter. A resource-efficient design for a reversible floating point adder in quantum computing. *ACM Journal on Emerging Technologies in Computing Systems (JETC)*, 11(2):13:1–13:??, November 2014. CODEN ???? ISSN 1550-4832 (print), 1550-4840 (electronic).

Pedram:2014:AAF

[6155] Ardavan Pedram, Andreas Gerstlauer, and Robert A. van de Geijn. Algorithm, architecture, and floating-point unit codesign of a matrix factorization accelerator. *IEEE Transactions on Computers*, 63(8):1854–1867, August 2014. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Piso:2014:OAE

[6156] D. Piso and J. D. Bruguera. Obtaining accurate error expressions and bounds for floating-point multiplicative algorithms. *The Computer Journal*, 57(2):319–331, February 2014. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://comjnl.oxfordjournals.org/content/57/2/319.full.pdf+html.

Regan:2014:GAD

[6157] Rick Regan. GCC avoids double rounding errors with round-to-odd. Web site, January 15, 2014. URL https://www.exploringbinary.com/gcc-avoids-double-rounding-errors-with-round-to-odd/.

Revol:2014:NRP

[6158] Nathalie Revol and Philippe Theveny. Numerical reproducibility and parallel computations: Issues for interval algorithms. *IEEE Transactions on Computers*, 63(8):1915–1924, August 2014. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Riemens:2014:TSA

[6159] Danny P. Riemens, Georgi N. Gaydadjiev, Chris I. de Zeeuw, and Christos Strydis. Towards scalable arithmetic units with graceful degradation. *ACM Transactions on Embedded Computing Systems*, 13 (4):87:1–87:??, February 2014. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic).

Rohn:2014:VLD

[6160] Jiri Rohn. Verification of linear (in)Dependence in finite precision arithmetic. *Mathematics in Computer Science*, 8(3–4):323–328, September 2014. CODEN ???? ISSN 1661-8270 (print), 1661-8289 (electronic). URL http://link.springer.com/article/10.1007/s11786-014-0196-7.

Roux:2014:IDR

[6161] Pierre Roux. Innocuous double rounding of basic arithmetic operations. *Journal of Formalized Reasoning*, 7(1), 2014. ISSN 1972-5787. URL https://hal.archives-ouvertes.fr/hal-01091186.

Rump:2014:IBE

[6162] Siegfried M. Rump and Claude-Pierre Jeannerod. Improved backward error bounds for *LU* and Cholesky factorizations. *SIAM Journal on Matrix Analysis and Applications*, 35(2):684–698, ???? 2014. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Schkufza:2014:SOF

[6163] Eric Schkufza, Rahul Sharma, and Alex Aiken. Stochastic optimization of floating-point programs with tunable precision. *ACM SIGPLAN Notices*, 49(6):53–64, June 2014. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Shukla:2014:LLH

[6164] R. Shukla and K. C. Ray. Low latency hybrid CORDIC algorithm. *IEEE Transactions on Computers*, 63(12):3066–3078, December 2014. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Sultana:2014:RAC

[6165] Sayeeda Sultana and Katarzyna Radecka. Reversible architecture of computer arithmetic. *International Journal of Computer Applications*, 93(??):6–14, May 2014. CODEN ???? ISSN 0975-8887. URL `https://www.ijcaonline.org/archives/volume93/number14/16281-5852/`.

Szydzik:2014:PRM

[6166] Tomasz Szydzik and David Moloney. Precision refinement for media-processor SoCs: fp32 $\rightarrow$ fp64 on myriad. In *2014 IEEE Hot Chips 26 Symposium (HCS)*, page 1. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014.

Toronto:2014:PAF

[6167] Neil Toronto and Jay McCarthy. Practically accurate floating-point math. *Computing in Science and Engineering*, 16(4):80–95, July/August 2014. CODEN CSENFA. ISSN 1521-9615 (print), 1558-366x (electronic).

Vazquez:2014:FRM

[6168] Alvaro Vazquez, Elisardo Antelo, and Javier D. Bruguera. Fast radix-10 multiplication using redundant BCD codes. *IEEE Transactions on Computers*, 63(8):1902–1914, August 2014. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Wang:2014:CFA

[6169] Dong Wang, Miloš D. Ercegovac, and Yang Xiao. Complex function approximation using two-dimensional interpolation. *IEEE Transactions on Computers*, 63(12):2948–2960, December 2014. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Wang:2014:RBR

[6170] PengFei Wang and JianPing Li. On the relation between reliable computation time, float-point precision and the Lyapunov exponent in chaotic systems. *arXiv.org*, ??(??):1–8, October 18, 2014. CODEN ???? ISSN ???? URL `http://arxiv.org/abs/1410.4919`.

Yao:2014:NRP

[6171] Gavin Xiaoxu Yao, Junfeng Fan, Ray C. C. Cheung, and Ingrid Verbauwhede. Novel RNS parameter selection for fast modular multiplication. *IEEE Transactions on Computers*, 63(8):2099–2105, August 2014. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Zafar:2014:HAD

[6172] Saad Zafar and Raviteja Adapa. Hardware architecture design and mapping of "Fast Inverse Square Root" algorithm. In *2014 International Conference on Advances in Electrical Engineering (ICAEE)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, January 2014.

Ahmadifar:2015:NRN

[6173] H. Ahmadifar and G. Jaberipur. A new residue number system with 5-moduli set: 2^{2q}, $2^q \pm 3$, $2^q \pm 1$. *The Computer Journal*, 58(7):1548–1565, July 2015. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://comjnl.oxfordjournals.org/content/58/7/1548`.

Ahrens:2015:ERF

[6174] P. Ahrens, H. D. Nguyen, and J. Demmel. Efficient reproducible floating point summation and BLAS. Report UCB/EECS-2015-229, EECS Department, University of California, Berkeley, Berkeley, CA, USA, December 8, 2015. URL `http://www.eecs.berkeley.edu/Pubs/TechRpts/2015/EECS-2015-229.html`.

Ahrens:2015:RPM

[6175] Peter Ahrens. Reproducible parallel matrix-vector multiply. CS 267 final report, Department of Computer Science, University of California,

Berkeley,
Berkeley, CA, USA, May 11, 2015. URL http://bebop.cs.berkeley.edu/reproblas/docs/reports/PeterAhrensCS267FinalReport.pdf.

Aktan:2015:MEA

[6176] Mustafa Aktan, Dursun Baran, and Vojin G. Oklobdzija. Minimizing energy by achieving optimal sparseness in parallel adders. In Muller et al. [8091], pages 10–17. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7193754.

Andrysco:2015:SFP

[6177] Marc Andrysco, David Kohlbrenner, Keaton Mowery, Ranjit Jhala, Sorin Lerner, and Hovav Shacham. On subnormal floating point and abnormal timing. In IEEE [8090], pages 623–639. ISBN 1-4673-6949-7 (print), 1-4673-6950-0 (e-book). ISSN 1081-6011 (print), 2375-1207 (electronic). LCCN QA76.9.A25. URL https://github.com/kmowery/libfixedtimefixedpoint.

Aneesh:2015:HHM

[6178] R. Aneesh, Patil Vinayak, M. P. Sobham, and A. David Selvakumar. HMFPCC: — hybrid-mode floating point conversion co-processor. In *2015 International Conference on VLSI Systems, Architecture, Technology and Applications (VLSI-SATA)*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, January 2015.

Anonymous:2015:EFP

[6179] Anonymous. The evils of floating point, and the joys of unum. Web document, March 24, 2015. URL http://vrworld.com/2015/03/24/the-evils-of-floating-point-and-the-joys-of-unum/.

Bailey:2015:HPA

[6180] David H. Bailey and Jonathan M. Borwein. High-precision arithmetic in mathematical physics. *Mathematics*, 3(2):337–367, 2015.

Bailey:2015:NRH

[6181] David H. Bailey. Numerical reproducibility in high-performance computing. 24 lecture slides, November 19, 2015. URL https://www.nist.gov/sites/default/files/documents/itl/ssd/is/NRE-2015-02-dhb-num-repro.pdf.

Bajard:2015:RAA

[6182] Jean-Claude Bajard, Julien Eynard, Nabil Merkiche, and Thomas Plantard. RNS arithmetic approach in lattice-based cryptography: Accelerating the "Rounding-off" core procedure. In Muller et al. [8091], pages 113–120. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`.

Bankas:2015:NMA

[6183] Edem Kwedzo Bankas and Kazeem Alagbe Gbolagade. New MRC adder-based reverse converter for the moduli set 2^n, $2^{2n+1} - 1$, $2^{2n+2} - 1$. *The Computer Journal*, 58(7):1566–1572, July 2015. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://comjnl.oxfordjournals.org/content/58/7/1566`.

Biancolin:2015:HAE

[6184] David Biancolin and Jack Koenig. Hardware accelerator for exact dot product. Report ??, ASPIRE Laboratory, University of California, Berkeley, Berkeley, CA, USA, June 19, 2015.

Bobade:2015:SOM

[6185] Sunil Devidas Bobade and Vijay R. Mankar. Space optimized multiplier architecture for embedded cryptoprocessor. *International Journal of Computer Applications*, 113(??):26–32, March 2015. CODEN ???? ISSN 0975-8887. URL `https://www.ijcaonline.org/archives/volume113/number14/19897-1982/`.

Boldo:2015:FVP

[6186] Sylvie Boldo and Guillaume Melquiond. Formal verification of programs computing the floating-point average. In Butler et al. [8088], pages 17–32. ISBN 3-319-25422-7 (paperback), 3-319-25423-5 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.758. URL `https://hal.inria.fr/hal-01174892; https://link.springer.com/chapter/10.1007/978-3-319-25423-4_2`.

Boldo:2015:SSD

[6187] Sylvie Boldo. Stupid is as stupid does: Taking the square root of the square of a floating-point number. *Electronic Notes in Theoretical Computer Science*, 317:50–55, November 18, 2015. ISSN 1571-0661.

Boldo:2015:VCF

[6188] Sylvie Boldo, Jacques-Henri Jourdan, Xavier Leroy, and Guillaume Melquiond. Verified compilation of floating-point computations. *Journal* *of Automated Reasoning*, 54(2):135–163, February 2015. CODEN JAREEW. ISSN 0168-7433 (print), 1573-0670 (electronic). URL http://link.springer.com/article/10.1007/s10817-014-9317-x.

Brain:2015:AFS

[6189] Martin Brain, Cesare Tinelli, Philipp Ruemmer, and Thomas Wahl. An automatable formal semantics for IEEE-754 floating-point arithmetic. In Muller et al. [8091], pages 160–167. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7193754.

Brunie:2015:CGM

[6190] Nicolas Brunie, Florent de Dinechin, Olga Kupriianova, and Christoph Lauter. Code generators for mathematical functions. In Muller et al. [8091], pages 66–73. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7193754.

Chiang:2015:UFP

[6191] Wei-Fan Chiang, Ganesh Gopalakrishnan, and Zvonimir Rakamarić. Unsafe floating-point to unsigned integer casting check for GPU programs. *Electronic Notes in Theoretical Computer Science*, 317 (??):1–12, November 18, 2015. ISSN 1571-0661. URL http://formalverification.cs.utah.edu/papers/nsv15-unsafe-fp2ui.pdf; http://nsv2015.informatik.uni-freiburg.de/. Also presented at NSV 2015: 8th International Workshop on Numerical Software Verification 2015, Seattle, WA, USA.

Collange:2015:NRP

[6192] Sylvain Collange, David Defour, Stef Graillat, and Roman Iakymchuk. Numerical reproducibility for the parallel reduction on multi- and many-core architectures. *Parallel Computing*, 49(??):83–97, November 2015. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0167819115001155.

Cowlishaw:2015:GDA

[6193] Mike Cowlishaw. General decimal arithmetic. Web site., 2015. URL http://speleotrove.com/decimal/.

Coxon:2015:MMP

[6194] Nicholas Coxon. Montgomery's method of polynomial selection for the number field sieve. *Linear Algebra and its Applications*, 485(??):

72–102, November 15, 2015. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0024379515004395.

Damouche:2015:TPC

[6195] N. Damouche, M. Martel, and A. Chapoutot. Transformation of a PID controller for numerical accuracy. *Electronic Notes in Theoretical Computer Science*, 317:47–54, November 2015. ISSN 1571-0661.

deDinechin:2015:FPH

[6196] Florent de Dinechin. On fixed-point hardware polynomials. Technical report, INSA, CITI Lab, Université de Lyon, Lyon, France, October 2015. URL https://hal.inria.fr/hal-01214739.

deDinechin:2015:HIF

[6197] Florent de Dinechin and Matei Istoan. Hardware implementations of fixed-point Atan2. In Muller et al. [8091], pages 34–41. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7193754.

Demmel:2015:CFP

[6198] James Demmel, Hong Diep Nguyen, and Peter Ahrens. Cost of floating-point reproducibility. 33 lecture slides, November 20, 2015. URL https://www.nist.gov/sites/default/files/documents/itl/ssd/is/NRE-2015-07-Nguyen_slides.pdf.

Demmel:2015:PRS

[6199] J. Demmel and Hong Diep Nguyen. Parallel reproducible summation. *IEEE Transactions on Computers*, 64(7):2060–2070, July 2015. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Denis:2015:VCF

[6200] Christophe Denis, Pablo De Oliveira Castro, and Eric Petit. Verificarlo: checking floating point accuracy through Monte Carlo arithmetic. *arXiv.org*, ??(??):??, September 4, 2015. CODEN ???? ISSN ???? URL http://arxiv.org/abs/1509.01347.

Dietz:2015:UIO

[6201] Will Dietz, Peng Li, John Regehr, and Vikram Adve. Understanding integer overflow in C/C++. *ACM Transactions on Software Engineering and Methodology*, 25(1):2:1–2:29, December 2015. CODEN ATSMER. ISSN 1049-331X (print), 1557-7392 (electronic).

Ebergen:2015:RDA

[6202] J. Ebergen and N. Jamadagni. Radix-2 division algorithms with an over-redundant digit set. *IEEE Transactions on Computers*, 64(9):2652–2663, ???? 2015. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

El-Razouk:2015:NBL

[6203] Hayssam El-Razouk and Arash Reyhani-Masoleh. New bit-level serial GF(2^m) multiplication using polynomial basis. In Muller et al. [8091], pages 129–136. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`.

Elsayed:2015:NPE

[6204] Essam Elsayed and Hatem M. El-Boghdadi. A novel power-efficient multi-operand digit-multiplier using reconfiguration and clock gating. *The Journal of Supercomputing*, 71(7):2539–2564, July 2015. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL `http://link.springer.com/article/10.1007/s11227-015-1403-2`.

Flocke:2015:AAE

[6205] N. Flocke. Algorithm 954: an accurate and efficient cubic and quartic equation solver for physical applications. *ACM Transactions on Mathematical Software*, 41(4):30:1–30:24, October 2015. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Frechtling:2015:MMS

[6206] Michael Frechtling and Philip H. W. Leong. MCALIB: Measuring sensitivity to rounding error with Monte Carlo programming. *ACM Transactions on Programming Languages and Systems*, 37(2):5:1–5:??, April 2015. CODEN ATPSDT. ISSN 0164-0925 (print), 1558-4593 (electronic).

Froggatt:2015:EAU

[6207] Terry Froggatt. An error in the Ada universal arithmetic package. *ACM SIGADA Ada Letters*, 35(2):14, August 2015. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic). See [1773]. The 32-year-old error is a test with digit t that has `if (t > BASE)`, but the operator should instead be `>=`.

Fu:2015:ABE

[6208] Zhoulai Fu, Zhaojun Bai, and Zhendong Su. Automated backward error analysis for numerical code. *ACM SIGPLAN Notices*, 50(10):639–654, October 2015. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Fukushima:2015:PFCc

[6209] Toshio Fukushima. Precise and fast computation of elliptic integrals and functions. In Muller et al. [8091], pages 50–57. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`.

Gerard:2015:CDR

[6210] Benoît Gérard, Jean-Gabriel Kammerer, and Nabil Merkiche. Contributions to the design of residue number system architectures. In Muller et al. [8091], pages 105–112. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`.

Gorgin:2015:CXH

[6211] S. Gorgin and G. Jaberipur. Comment on "High-Speed Parallel Decimal Multiplication With Redundant Internal Encodings". *IEEE Transactions on Computers*, 64(1):293–294, January 2015. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). See [6056].

Gouicem:2015:MMD

[6212] Mourad Gouicem. Modular multiplication and division algorithms based on continued fraction expansion. In Muller et al. [8091], pages 137–143. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`.

Graillat:2015:ECF

[6213] Stef Graillat, Christoph Lauter, Ping Tak Peter Tang, Naoya Yamanaka, and Shin'ichi Oishi. Efficient calculations of faithfully rounded l_2-norms of n-vectors. *ACM Transactions on Mathematical Software*, 41(4):24:1–24:20, October 2015. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Graillat:2015:MRE

[6214] Stef Graillat, Vincent Lefèvre, and Jean-Michel Muller. On the maximum relative error when computing integer powers by iterated multiplications in floating-point arithmetic. *Numerical Algorithms*, 70 (3):653–667, November 2015. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://link.springer.com/article/10.1007/s11075-015-9967-8`.

Graillat:2015:NVC

[6215] Stef Graillat, Fabienne Jézéquel, and Romain Picot. Numerical validation of compensated summation algorithms with stochastic arithmetic. *Electronic Notes in Theoretical Computer Science*, 317:55–69, November 18, 2015. ISSN 1571-0661.

Gupta:2015:DLL

[6216] Suyog Gupta, Ankur Agrawal, Kailash Gopalakrishnan, and Pritish Narayanan. Deep learning with limited numerical precision. In Francis Bach and David Blei, editors, *ICML'15: Proceedings of the 32nd International Conference on International Conference on Machine Learning: Lille, France, July 6–11, 2015*, pages 1737–1746. JMLR.org, ????, 2015.

Gustafson:2015:EEU

[6217] John L. Gustafson. *The End of Error: Unum Computing*. Chapman and Hall, Ltd., London, UK, 2015. ISBN 1-4822-3986-8, 1-4822-3987-6. xx + 416 pp. LCCN QA275 .G928 2015.

Gustafson:2015:KTE

[6218] John Gustafson. Keynote talk: The end of numerical error. In Muller et al. [8091], page 74. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`. Abstract only.

Hamming:2015:DN

[6219] R. W. Hamming. On the distribution of numbers. In Swartzlander, Jr. [8092], pages 321–337. ISBN 981-4651-56-7 (vol. 1; hardcover), 981-4651-57-5, 981-4641-47-2 (e-book). LCCN QA76.6 .C633 2015 vol. 1.

Hart:2015:EDC

[6220] William Bruce Hart. Efficient divide-and-conquer multiprecision integer division. In Muller et al. [8091], pages 90–95. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`.

Higham:2015:MCT

[6221] Nicholas J. Higham. Matrix computation toolbox. Web site., 2015. URL `http://www.ma.man.ac.uk/~higham/mctoolbox`.

Holzmann:2015:B

[6222] Gerard J. Holzmann. Out of bounds. *IEEE Software*, 32(6):24–26, November/December 2015. CODEN IESOEG. ISSN 0740-7459 (print), 1937-4194 (electronic). URL `http://csdl.computer.org/csdl/mags/so/2015/06/mso2015060024.html`.

Hsiao:2015:TSR

[6223] Shen-Fu Hsiao, Po-Han Wu, Chia-Sheng Wen, and Pramod Kumar Meher. Table size reduction methods for faithfully rounded lookup-table-based multiplierless function evaluation. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 62(5):466–470, May 2015. ISSN 1549-7747 (print), 1558-3791 (electronic). URL `https://ieeexplore.ieee.org/abstract/document/6998028`.

Hutter:2015:MMA

[6224] Michael Hutter and Peter Schwabe. Multiprecision multiplication on AVR revisited. *Journal of Cryptographic Engineering*, 5(3):201–214, September 2015. CODEN ???? ISSN 2190-8508 (print), 2190-8516 (electronic). URL `http://link.springer.com/article/10.1007/s13389-015-0093-2`.

Iakymchuk:2015:EEB

[6225] Roman Iakymchuk, Sylvain Collange, David Defour, and Stef Graillat. ExBLAS — exact BLAS. Web site., 2015. URL `https://exblas.lip6.fr/; https://www.nist.gov/sites/default/files/documents/itl/ssd/is/NRE-2015-04-iakymchuk.pdf`.

Iakymchuk:2015:ERA

[6226] Roman Iakymchuk, Sylvain Collange, David Defour, and Stef Graillat. ExBLAS: Reproducible and accurate BLAS library. In ????, editor, *NRE: Numerical Reproducibility at Exascale, Austin, TX, USA, November 2015*, page ?? ????, ????, 2015.

IEEE:2015:ISI

[6227] IEEE. *1788-2015 — IEEE Standard for Interval Arithmetic*. IEEE, New York, NY, USA, June 30, 2015. ISBN 0-7381-9721-1 (PDF), 0-7381-9720-3 (electronic). xiv + 79 pp. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7140719`. Approved 11 June 2015 by IEEE-SA Standards Board.

Jacobsen:2015:PFP

[6228] Charles Jacobsen, Alexey Solovyev, and Ganesh Gopalakrishnan. A parameterized floating-point formalizaton in HOL Light. *Electronic Notes in Theoretical Computer Science*, 317(??):1–6, November 18, 2015. ISSN 1571-0661. URL `http://formalverification.cs.utah.edu/papers/nsv15-fp-hol-light.pdf; http://nsv2015.informatik.uni-freiburg.de/`. Also presented at NSV 2015:

8th International Workshop on Numerical Software Verification 2015, Seattle, WA, USA.

Johansson:2015:ADR

[6229] Fredrik Johansson. Arb documentation release 2.6.0. Report, ????, Softwarepark 23, Austria 4113, April 19, 2015. URL http://fredrikj.net/arb/.

Johansson:2015:EIE

[6230] Fredrik Johansson. Efficient implementation of elementary functions in the medium-precision range. In Muller et al. [8091], pages 83–89. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7193754.

Kamm:2015:SFP

[6231] Liina Kamm and Jan Willemson. Secure floating point arithmetic and private satellite collision analysis. *International Journal of Information Security*, 14(6):531–548, November 2015. CODEN ???? ISSN 1615-5262 (print), 1615-5270 (electronic). URL http://link.springer.com/article/10.1007/s10207-014-0271-8; http://link.springer.com/content/pdf/10.1007/s10207-014-0271-8.pdf.

Kornerup:2015:RHR

[6232] P. Kornerup. Reviewing high-radix signed-digit adders. *IEEE Transactions on Computers*, 64(5):1502–1505, May 2015. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kulisch:2015:HSA

[6233] Ulrich Kulisch and Gerd Bohlender. High speed associative accumulation of floating-point numbers and floating-point intervals. Report, Institut für Angewandte und Numerische Mathematik, Karlsruher Institut für Technologie, D-76128 Karlsruhe, Germany, December 21, 2015. 8 pp.

Kumm:2015:ESM

[6234] Martin Kumm, Shahid Abbas, and Peter Zipf. An efficient softcore multiplier architecture for Xilinx FPGAs. In Muller et al. [8091], pages 18–25. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7193754.

Kupriianova:2015:TMF

[6235] Olga Kupriianova. *Towards a modern floating-point environment*. Thèse de doctorat, Université Pierre et Marie Curie — Paris VI, Paris, France,

2015. xi + 130 pp. URL `https://pdfs.semanticscholar.org/94ca/770b22739bdcf22fb9f131d9d4665dc28031.pdf`.

Kurka:2015:ERA

[6236] Petr Kůrka. The exact real arithmetical algorithm in binary continued fractions. In Muller et al. [8091], pages 168–175. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`.

Langhammer:2015:DIE

[6237] Martin Langhammer and Bogdan Pasca. Design and implementation of an embedded FPGA floating point DSP block. In Muller et al. [8091], pages 26–33. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`.

Langroudi:2015:MPP

[6238] Seyed Hamed Fatemi Langroudi and Ghassem Jaberipur. Modulo-$(2^n 2^q 1)$ parallel prefix addition via excess-modulo encoding of residues. In Muller et al. [8091], pages 121–128. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`.

Laskar:2015:KTN

[6239] Jacques Laskar. Keynote talk: Numerical challenges in long term integrations of the solar system. In Muller et al. [8091], page 104. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`. Abstract only.

Lauter:2015:SAF

[6240] Christoph Lauter and Marc Mezzarobba. Semi-automatic floating-point implementation of special functions. In Muller et al. [8091], pages 58–65. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`.

Lee:2015:RRA

[6241] Wen-Chuan Lee, Tao Bao, Yunhui Zheng, Xiangyu Zhang, Keval Vora, and Rajiv Gupta. RAIVE: runtime assessment of floating-point instability by vectorization. *ACM SIGPLAN Notices*, 50(10):623–638, October 2015. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Liu:2015:IBI

[6242] L. Liu, S. Peng, C. Zhang, R. Li, B. Wang, C. Sun, Q. Liu, L. Dong, L. Li, Y. Shi, Y. He, W. Zhao, and G. Yang. Importance of bitwise identical reproducibility in earth system modeling and status report. *Geoscientific Model Development Discussions*, 8(6):4375–4400, June 2015. ISSN 1991-959X (print), 1991-9603 (electronic). URL `https://www.geosci-model-dev-discuss.net/gmd-2015-83/`.

Liu:2015:SSS

[6243] Weifeng Liu and Brian Vinter. Speculative segmented sum for sparse matrix-vector multiplication on heterogeneous processors. *Parallel Computing*, 49(??):179–193, November 2015. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0167819115000770`.

Lu:2015:REP

[6244] Xin Lu and Shufang Xu. Rounding errors of partial derivatives of simple eigenvalues of the quadratic eigenvalue problem. *Journal of Computational and Applied Mathematics*, 282(??):268–277, July 2015. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042715000151`.

Lutz:2015:OLZ

[6245] David Raymond Lutz. Optimized leading zero anticipators for faster fused multiply-adds. In Matthews [8098], pages 741–744. ISBN 1-5386-1824-9 (print), 1-5386-0666-6, 1-5386-1823-0 (e-book). LCCN TK7801. URL `https://ieeexplore.ieee.org/document/8335443/`.

Mack:2015:FPC

[6246] Joshua Mack, Sam Bellestri, and Daniel Llamocca. Floating point CORDIC-based architecture for powering computation. In *2015 International Conference on ReConFigurable Computing and FPGAs (ReConFig)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Martin-Dorel:2015:FVC

[6247] Érik Martin-Dorel, Guillaume Hanrot, Micaela Mayero, and Laurent Théry. Formally verified certificate checkers for hardest-to-round computation. *Journal of Automated Reasoning*, 54(1):1–29, January 2015. CODEN JAREEW. ISSN 0168-7433 (print), 1573-0670 (electronic). URL `http://link.springer.com/article/10.1007/s10817-014-9312-2`.

Matula:2015:MDE

[6248] D. W. Matula, M. T. Panu, and J. Y. Zhang. Multiplicative division employing independent factors. *IEEE Transactions on Computers*, 64 (7):2012–2019, ???? 2015. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

McCleeary:2015:LAA

[6249] Ryan McCleeary, Martin Brain, and Aaron Stump. A lazy approach to adaptive exact real arithmetic using floating-point operations. *ACM Communications in Computer Algebra*, 49(3):83–86, September 2015. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Meloni:2015:EDB

[6250] N. Meloni and M. A. Hasan. Efficient double bases for scalar multiplication. *IEEE Transactions on Computers*, 64(8):2204–2212, August 2015. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Michelogiannakis:2015:ESP

[6251] George Michelogiannakis and Xiaoye S. Li. Extending summation precision for network reduction operations. *International Journal of Parallel Programming*, 43(6):1218–1243, December 2015. CODEN IJPPE5. ISSN 0885-7458 (print), 1573-7640 (electronic). URL `http://link.springer.com/article/10.1007/s10766-014-0326-5`.

Momeni:2015:DAA

[6252] A. Momeni, Jie Han, P. Montuschi, and F. Lombardi. Design and analysis of approximate compressors for multiplication. *IEEE Transactions on Computers*, 64(4):984–994, April 2015. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Morar:2015:RMT

[6253] Florin-Stefan Morar. Reinventing machines: the transmission history of the Leibniz calculator. *British Journal for the History of Science*, 48 (1):123–146, March 2015. CODEN BJHSAT. ISSN 0007-0874 (print), 1474-001X (electronic).

Muller:2015:ECC

[6254] Jean-Michel Muller. On the error of computing $ab + cd$ using Cornea, Harrison and Tang's method. *ACM Transactions on Mathematical*

Software, 41(2):7:1–7:8, January 2015. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Munoz:2015:IFP

[6255] Sergio D. Muñoz and Javier Hormigo. Improving fixed-point implementation of QR decomposition by rounding-to-nearest. In *2015 International Symposium on Consumer Electronics (ISCE)*, pages 1–2. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Neal:2015:FESa

[6256] Radford M. Neal. Fast exact summation using small and large superaccumulators. Report, Department of Statistical Sciences and Department of Computer Science, University of Toronto, Toronto, ON, Canada, 2015. 22 pp. URL `http://www.cs.toronto.edu/~radford/ftp/xsum.pdf`.

Neal:2015:FESb

[6257] Radford M. Neal. Fast exact summation using small and large superaccumulators. *arxiv.org*, page 22, 2015. URL `https://arxiv.org/pdf/1505.05571v1.pdf`.

Negre:2015:EME

[6258] Christophe Negre, Thomas Plantard, and Jean-Marc Robert. Efficient modular exponentiation based on multiple multiplications by a common operand. In Muller et al. [8091], pages 144–151. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`.

Nguyen:2015:RTS

[6259] Hong Diep Nguyen and James Demmel. Reproducible tall-skinny QR. In Muller et al. [8091], pages 152–159. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `http://bebop.cs.berkeley.edu/reproblas/docs/papers/RepTSQR.pdf`.

Ozaki:2015:IEF

[6260] Katsuhisa Ozaki, Takeshi Ogita, and Shin'ichi Oishi. Improvement of error-free splitting for accurate matrix multiplication. *Journal of Computational and Applied Mathematics*, 288(??):127–140, November 2015. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042715002289`.

Palmer:2015:MBI

[6261] Tim Palmer. Modelling: Build imprecise supercomputers. *Nature*, 526 (7571):32–33, September 29, 2015. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic).

Panchekha:2015:AIA

[6262] Pavel Panchekha, Alex Sanchez-Stern, James R. Wilcox, and Zachary Tatlock. Automatically improving accuracy for floating point expressions. *ACM SIGPLAN Notices*, 50(6):1–11, June 2015. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Parhami:2015:DAN

[6263] Behrooz Parhami. Digital arithmetic in nature: Continuous-digit RNS. *The Computer Journal*, 58(5):1214–1223, May 2015. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://comjnl.oxfordjournals.org/content/58/5/1214`.

Patil:2015:OFP

[6264] Vinayak Patil, Aneesh Raveendran, P. M. Sobha, A. David Selvakumar, and D. Vivian. Out of order floating point coprocessor for RISC V ISA. In IEEE, editor, *2015 19th International Symposium on VLSI Design and Test*, pages 1–7. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Peeper:2015:DDP

[6265] D. Peeper. Deep-dish peeper [the big picture]. *IEEE Spectrum*, 52(11): 16–17, November 2015. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Petrovsky:2015:CLF

[6266] Nick Petrovsky, Andrew Stankevich, and Alexander Petrovsky. CORDIC-lifting factorization of paraunitary filter banks based on the quaternionic multipliers for lossless image coding. *Multidimensional Systems and Signal Processing*, 27(3):667–695, March 2015. ISSN 1573-0824.

Proust:2015:KTC

[6267] Christine Proust. Keynote talk: Calculating in floating sexagesimal place value notation, 4000 years ago. In Muller et al. [8091], page 1. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7193754`. Abstract only.

Renardy:2015:HIM

[6268] Antonius P. Renardy, Nur Ahmadi, Ashbir A. Fadila, Naufal Shidqi, and Trio Adiono. Hardware implementation of Montgomery modular multiplication algorithm using iterative architecture. In IEEE, editor, *2015 International Seminar on Intelligent Technology and Its Applications (ISITIA): proceeding: Surabaya, Indonesia, 20–21 May 2015*, pages 99–102. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015. ISBN 1-4799-7711-X. LCCN TA347.A78.

Roegel:2015:MCA

[6269] Denis Roegel. A mechanical calculator for arithmetic sequences (1844–1852): Part 1, historical context and structure. *IEEE Annals of the History of Computing*, 37(4):90–96, ???? 2015. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic).

Ruckert:2015:MSS

[6270] Martin Ruckert. *The MMIX supplement: supplement to* The Art of Computer Programming, volumes 1, 2, 3 *by Donald E. Knuth*. Addison-Wesley, Reading, MA, USA, 2015. ISBN 0-13-399231-4 (paperback), 0-13-399289-6. xxi + 193 pp. LCCN QA76.6 .K64 2005 Suppl. 1. URL `http://mmix.cs.hm.edu/`.

Seo:2015:MMS

[6271] Hwajeong Seo, Zhe Liu, Yasuyuki Nogami, Jongseok Choi, and Howon Kim. Montgomery multiplication and squaring for optimal prime fields. *Computers & Security*, 52(??):276–291, July 2015. CODEN CPSEDU. ISSN 0167-4048 (print), 1872-6208 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0167404815000371`.

Singh:2015:DIQ

[6272] Arun Kumar Singh, Madhav Kumar Singh, and Kailash Chandra Ray. Design and implementation of quadruple floating-point CORDIC. In *2015 IEEE International Symposium on Nanoelectronic and Information Systems*, pages 286–290. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Solovyev:2015:REFa

[6273] Alexey Solovyev, Charles Jacobsen, Zvonimir Rakamarić, and Ganesh Gopalakrishnan. Rigorous estimation of floating-point round-off errors with symbolic Taylor expansions. Technical Report UUCS-15-001, School of Computing, University of Utah, Salt Lake City, UT 84112 USA, April 6, 2015. 31 pp. URL http://formalverification.cs.utah.edu/papers/fptaylor_report.pdf.

Solovyev:2015:REFb

[6274] Alexey Solovyev, Charles Jacobsen, Zvonimir Rakamarić, and Ganesh Gopalakrishnan. Rigorous estimation of floating-point round-off errors with symbolic Taylor expansions. In *20th International Symposium on Formal Methods (FM 2015), Oslo, Norway*, pages 532–550. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., June 6, 2015. URL http://formalverification.cs.utah.edu/papers/fptaylor_report.pdf. Extended version available in [6273].

Sullivan:2015:LCD

[6275] Michael B. Sullivan and Earl E. Swartzlander. Low-cost duplicate multiplication. In Muller et al. [8091], pages 2–9. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7193754.

Thomas:2015:GPM

[6276] David B. Thomas. A general-purpose method for faithfully rounded floating-point function approximation in FPGAs. In Muller et al. [8091], pages 42–49. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7193754.

Trefethen:2015:CNF

[6277] Lloyd N. Trefethen. Computing numerically with functions instead of numbers. *Communications of the Association for Computing Machinery*, 58(10):91–97, October 2015. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL http://cacm.acm.org/magazines/2015/10/192390/fulltext.

vanderHoeven:2015:FFM

[6278] Joris van der Hoeven and Grégoire Lecerf. Faster FFTs in medium precision. In Muller et al. [8091], pages 75–82. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7193754.

Volkova:2015:REW

[6279] Anastasia Volkova, Thibault Hilaire, and Christoph Lauter. Reliable evaluation of the worst-case peak gain matrix in multiple precision. In

Muller et al. [8091], pages 96–103. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7193754.

Wilczak:2015:CAP

[6280] Daniel Wilczak et al. Computer assisted proofs in dynamics. Web site and software., June 2015. URL http://sourceforge.net/projects/capd/.

Wittmann:2015:SNC

[6281] Markus Wittmann, Thomas Zeiser, Georg Hager, and Gerhard Wellein. Short note on costs of floating point operations on current x86-64 architectures: Denormals, overflow, underflow, and division by zero. *arXiv.org*, ??(??):??, June 12, 2015. CODEN ???? ISSN ???? URL http://arxiv.org/abs/1506.03997.

Yamazaki:2015:MPC

[6282] Ichitaro Yamazaki, Stanimire Tomov, and Jack Dongarra. Mixed-precision Cholesky QR factorization and its case studies on multicore CPU with multiple GPUs. *SIAM Journal on Scientific Computing*, 37 (3):C307–C330, ???? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yin:2015:NRT

[6283] Hongxu Yin, Bah Hwee Gwee, Zhiping Lin, Anil Kumar, Sirajudeen Gulam Razul, and Chong Meng Samson See. Novel real-time system design for floating-point sub-nyquist multi-coset signal blind reconstruction. In *2015 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 954–957. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Ahmed:2016:ILM

[6284] Syed Ershad Ahmed, Sanket Kadam, and M. B. Srinivas. An iterative logarithmic multiplier with improved precision. In Montuschi et al. [8095], pages 104–111. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Ahrens:2016:ERF

[6285] Peter Ahrens, Hong Diep Nguyen, and James Demmel. Efficient reproducible floating point summation and BLAS. Report UCB/EECS-2016-121, EECS Department, UC Berkeley, Berkeley, CA, USA, June 18,

2016. URL http://www.eecs.berkeley.edu/Pubs/TechRpts/2016/EECS-2016-121.html.

Almeida:2016:VCT

[6286] José Bacelar Almeida, Manuel Barbosa, Gilles Barthe, François Dupressoir, and Michael Emmi. Verifying constant-time implementations. In T. Holz and S. Savage, editors, *Proceedings of the 25th USENIX Security 2016, August 10–12, 2016, Austin, TX*, pages 53–70. USENIX, San Francisco, CA, USA, 2016. URL https://github.com/kmowery/libfixedtimefixedpoint; https://www.usenix.org/system/files/conference/usenixsecurity16/sec16_paper_almeida.pdf.

Andrysco:2016:PFP

[6287] Marc Andrysco, Ranjit Jhala, and Sorin Lerner. Printing floating-point numbers: a faster, always correct method. *ACM SIGPLAN Notices*, 51 (1):555–567, January 2016. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Anonymous:2016:KTS

[6288] Anonymous. Keynote talks and special sessions. In Montuschi et al. [8095], pages xv–xxi. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Area:2016:ACS

[6289] Iván Area, Dimitar K. Dimitrov, Eduardo Godoy, and Vanessa G. Paschoa. Approximate calculation of sums II: Gaussian type quadrature. *SIAM Journal on Numerical Analysis*, 54(4):2210–2227, ???? 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Avenel:2016:STM

[6290] Christophe Avenel, Pierre Fortin, Mourad Gouicem, and Samia Zaidi. Solving the Table Maker's dilemma on current SIMD architectures. *Scalable Computing: Practice and Experience*, 17(3):237–250, ???? 2016. CODEN ???? ISSN 1895-1767. URL https://www.scpe.org/index.php/scpe/article/view/1183.

Bagnara:2016:EBF

[6291] Roberto Bagnara, Matthieu Carlier, Roberta Gori, and Arnaud Gotlieb. Exploiting binary floating-point representations for constraint propagation. *INFORMS Journal on Computing*, 28(1):31–46, Winter 2016. CODEN ???? ISSN 1091-9856 (print), 1526-5528 (electronic). URL https://pubsonline.informs.org/doi/abs/10.1287/ijoc.2015.0663.

Bailey:2016:FRS

[6292] David H. Bailey, Jonathan M. Borwein, and Victoria Stodden. Facilitating reproducibility in scientific computing: Principles and practice. In Harald Atmanspacher and Sabine Maasen, editors, *Reproducibility: Principles, Problems, Practices, and Prospects*, pages 205–231. Wiley, New York, NY, USA, 2016. ISBN 1-118-86506-5.

Bajard:2016:MFA

[6293] Jean-Claude Bajard, Julien Eynard, and Nabil Merkiche. Multi-fault attack detection for RNS cryptographic architecture. In Montuschi et al. [8095], pages 16–23. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Ballard:2016:INS

[6294] Grey Ballard, Austin R. Benson, Alex Druinsky, Benjamin Lipshitz, and Oded Schwartz. Improving the numerical stability of fast matrix multiplication. *SIAM Journal on Matrix Analysis and Applications*, 37 (4):1382–1418, ???? 2016. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

BEBOP:2016:RRB

[6295] Berkeley Benchmarking and OPtimization Group (BEBOP). ReproBLAS: Reproducible BLAS. Web site with software downloads., January 2016. URL http://bebop.cs.berkeley.edu/reproblas/.

Bigou:2016:BTP

[6296] Karim Bigou and Arnaud Tisserand. Binary-ternary plus-minus modular inversion in RNS. *IEEE Transactions on Computers*, 65(11):3495–3501, November 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Bigou:2016:HPR

[6297] Karim Bigou and Arnaud Tisserand. Hybrid position-residues number system. In Montuschi et al. [8095], pages 126–133. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Biham:2016:BA

[6298] Eli Biham, Yaniv Carmeli, and Adi Shamir. Bug attacks. *Journal of Cryptology: the journal of the International Association for Cryptologic Research*, 29(4):775–805, October 2016. CODEN JOCREQ. ISSN 0933-2790 (print), 1432-1378 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00145-015-9209-1; http://link.springer.com/article/10.1007/s00145-015-9209-1`.

Boldo:2016:RFA

[6299] Sylvie Boldo, Stef Graillat, and Jean-Michel Muller. On the robustness of the 2Sum and Fast2Sum algorithms. Report ensl-01310023, Inria, LRI, CNRS & Université Paris-Sud, Université Paris-Saclay, France, May 1, 2016. 1 + 17 pp. URL `https://hal-ens-lyon.archives-ouvertes.fr/ensl-01310023`.

Brisebarre:2016:CBB

[6300] Nicolas Brisebarre, Christoph Lauter, Marc Mezzarobba, and Jean-Michel Muller. Comparison between binary and decimal floating-point numbers. *IEEE Transactions on Computers*, 65(7):2032–2044, ???? 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Brzicova:2016:LMD

[6301] Marta Brzicová, Christiane Frougny, Edita Pelantová, and Milena Svobodová. On-line multiplication and division in real and complex bases. In Montuschi et al. [8095], pages 134–141. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7562813`.

Cervantes:2016:IOC

[6302] Adrian Cervantes, Francis Lopez, Jeffry Quiros, Diego Rodriguez, Carlos Salazar-Garcia, Carlos Meza, and Alfonso Chacon-Rodriguez. Implementation of an open core IEEE 754-based FPU with non-linear arithmetic support. In *2016 IEEE 36th Central American and Panama Convention (CONCAPAN XXXVI)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Chen:2016:CFP

[6303] Jiyang Chen, Yuanwu Lei, Yuanxi Peng, Tingting He, and Ziye Deng. Configurable floating-point FFT accelerator on FPGA based multiple-rotation CORDIC. *Chinese Journal of Electronics*, 25(6):1063–1070, 2016. URL `https://onlinelibrary.wiley.com/doi/abs/10.1049/cje.2016.08.002`.

Chen:2016:DAR

[6304] Linbin Chen, Jie Han, Weiqiang Liu, and Fabrizio Lombardi. On the design of approximate restoring dividers for error-tolerant applications. *IEEE Transactions on Computers*, 65(8):2522–2533, August 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Chen:2016:PSA

[6305] D. D. Chen, G. X. Yao, R. C. Cheung, D. Pao, and C. K. Koc. Parameter space for the architecture of FFT-based Montgomery modular multiplication. *IEEE Transactions on Computers*, 65(1):147–160, ???? 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Coleman:2016:LCT

[6306] J. N. Coleman and R. Che Ismail. LNS with co-transformation competes with floating-point. *IEEE Transactions on Computers*, 65(1):136–146, ???? 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Collange:2016:PFP

[6307] Caroline Collange, Mioara Joldes, Jean-Michel Muller, and Valentina Popescu. Parallel floating-point expansions for extended-precision GPU computations. In IEEE, editor, *2016 IEEE 27th International Conference on Application-Specific Systems, Architectures and Processors (ASAP). July 6–8, 2016. Imperial College London*, pages 139–146. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016. ISBN 1-5090-1503-5. ISSN 2160-0511 (print), 2160-052X (electronic).

Cui:2016:PDM

[6308] Xiaoping Cui, Weiqiang Liu, Dong Wenwen, and Fabrizio Lombardi. A parallel decimal multiplier using hybrid binary coded decimal (BCD) codes. In Montuschi et al. [8095], pages 150–155. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7562813`.

Damouche:2016:TSB

[6309] Nasrine Damouche, Matthieu Martel, Pavel Panchekha, Jason Qiu, Alex Sanchez-Stern, and Zachary Tatlock. Toward a standard benchmark format and suite for floating-point analysis. Report ??, Université de Perpignan Via Domitia and University of Washington, Perpignan, France and Seattle, WA, USA, July 2016. 15

pp. URL https://fpbench.org/; https://homes.cs.washington.edu/~ztatlock/pubs/fpbench-damouche-nsv16.pdf.

DelBarrio:2016:PCS

[6310] Alberto A. Del Barrio, Román Hermida, and Seda Ogrenci Memik. A partial carry-save on-the-fly correction multispeculative multiplier. *IEEE Transactions on Computers*, 65(11):3251–3264, November 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Demmel:2016:ERF

[6311] James Demmel, Peter Ahrens, and Hong Diep Nguyen. Efficient reproducible floating point summation and BLAS. Technical Report UCB/EECS-2016-121, EECS Department, University of California, Berkeley, Berkeley, CA, USA, 2016. URL https://www2.eecs.berkeley.edu/Pubs/TechRpts/2016/EECS-2016-121.html.

Denis:2016:VCF

[6312] Christophe Denis, Pablo de Oliveira Castro, and Eric Petit. Verificarlo: Checking floating point accuracy through Monte Carlo arithmetic. In Montuschi et al. [8095], pages 55–62. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

DHollander:2016:HLS

[6313] Erik H. D'Hollander. High-level synthesis optimization for blocked floating-point matrix multiplication. *ACM SIGARCH Computer Architecture News*, 44(4):74–79, September 2016. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Du:2016:AEB

[6314] Peibing Du, Hao Jiang, Housen Li, Lizhi Cheng, and Canqun Yang. Accurate evaluation of bivariate polynomials. In Hong Shen, Yingpeng Sang, and Hui Tian, editors, *Proceedings of the Seventeenth International Conference on Parallel and Distributed Computing, Applications and Technologies, PDCAT 2016, Guangzhou, China, December 16–18, 2016*, pages 51–56. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016. ISBN 1-5090-5081-7, 1-5090-5082-5 (print). URL https://ieeexplore.ieee.org/document/7943331/.

Dukhan:2016:WFP

[6315] M. Dukhan, R. Vuduc, and J. Riedy. Wanted: Floating-point add round-off error instruction. In ????, editor, *Proceedings of the*

2nd International Workshop on Performance Modeling: Methods and Applications (PMMA16) at ISC High Performance, Frankfurt, Germany, [June or] July 2016, page ?? ????, ????, 2016. URL `http://arxiv.org/abs/1603.00491`.

El-Razouk:2016:NAD

[6316] Hayssam El-Razouk and Arash Reyhani-Masoleh. New architectures for digit-level single, hybrid-double, hybrid-triple field multiplications and exponentiation using Gaussian normal bases. *IEEE Transactions on Computers*, 65(8):2495–2509, August 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Emmart:2016:OMM

[6317] Niall Emmart, Justin Luitjens, Charles Weems, and Cliff Woolley. Optimizing modular multiplication for NVIDIA's Maxwell GPUs. In Montuschi et al. [8095], pages 47–54. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7562813`.

Fang:2016:OSV

[6318] Xin Fang and Miriam Leeser. Open-source variable-precision floating-point library for major commercial FPGAs. *ACM Transactions on Reconfigurable Technology and Systems*, 9(3):1–17, July 2016. ISSN 1936-7406 (print), 1936-7414 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/2851507`.

Fevotte:2016:VAF

[6319] François Févotte and Bruno Lathuilière. VERROU: Assessing floating-point accuracy without recompiling. Working paper ??, ????, ????, October 2016. URL `https://hal.archives-ouvertes.fr/hal-01383417`.

Fritz:2016:IPM

[6320] Christopher Fritz and Adly T. Fam. Interlaced partition multiplier. *IEEE Transactions on Computers*, 65(8):2672–2677, August 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Garcia-Vega:2016:DMO

[6321] Carlos Garcia-Vega, Sonia Gonzalez-Navarro, Pedro Balboa-La Chica, and Julio Villalba-Moreno. Decimal multiformat online addition. *IEEE Transactions on Computers*, 65(10):3203–3209, ???? 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Garrido:2016:CIN

[6322] Mario Garrido, Petter Källström, Martin Kumm, and Oscar Gustafsson. CORDIC II: A new improved CORDIC algorithm. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 63(2):186–190, February 2016. ISSN 1549-7747 (print), 1558-3791 (electronic).

Garrido:2016:MUG

[6323] Mario Garrido, Rikard Andersson, Fahad Qureshi, and Oscar Gustafsson. Multiplierless unity-gain SDF FFTs. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 24(9):3003–3007, 2016. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Geran:2016:CBC

[6324] Amir Ali Kouzeh Geran and Arash Reyhani-Masoleh. A CRC-based concurrent fault detection architecture for Galois/Counter Mode (GCM). In Montuschi et al. [8095], pages 24–31. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Gueron:2016:ABI

[6325] Shay Gueron and Vlad Krasnov. Accelerating big integer arithmetic using Intel IFMA extensions. In Montuschi et al. [8095], pages 32–38. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Gueron:2016:HIA

[6326] Shay Gueron and Sanu Mathew. Hardware implementation of AES using area-optimal polynomials for composite-field representation $GF(2^4)^2$ of $GF(2^8)$. In Montuschi et al. [8095], pages 112–117. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Gustafson:2016:BFP

[6327] John L. Gustafson. Beyond floating point: Next generation computer arithmetic. Stanford seminar video., 2016. URL http://www.johngustafson.net/pdfs/DebateTranscription.pdf; https://www.youtube.com/watch?v=aP0Y1uAA-2Y.

Gustafson:2016:RAC

[6328] John L. Gustafson. A radical approach to computation with real numbers. *Supercomputing Frontiers and Innovations*, 3(2):38–53, ????

2016. CODEN ???? ISSN 2409-6008 (print), 2313-8734 (electronic). URL http://superfri.org/superfri/article/view/94.

Gustafson:2016:TGD

[6329] John Gustafson and William Kahan. Transcription of “The great debate”: John Gustafson vs. William Kahan on unum arithmetic. Web document., July 12, 2016. URL http://www.johngustafson.net/pdfs/DebateTranscription.pdf; https://www.youtube.com/watch?v=KEAKYDyUua4.

Hopkins:2016:WMN

[6330] David Hopkins. Will my numbers add up correctly if I round them? *The Mathematical Gazette*, 100(549):396–409, November 2016. CODEN MAGAAS. ISSN 0025-5572 (print), 2056-6328 (electronic). URL https://www.cambridge.org/core/product/88F5753DFE9F0DDDEAD1F2552B0F8B22. The probability that rounding after
fixed-point summation of n terms gives the same result as summation of rounded terms is given by $p(n) = (2/\pi)\int_0^\infty (\sin(x)/x)^{n+1}\,dx$, and that function is always a rational number. Its values are $p(n) = 1, 3/4, 2/3, 115/192, 11/20, 5887/11520, 151/315, 259723/573440, \ldots$ for $n = 1$ to 8.

Hormigo:2016:MIW

[6331] Javier Hormigo and Julio Villalba-Moreno. Measuring improvement when using HUB formats to implement floating-point systems under round-to-nearest. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 24(6):2369–2377, June 2016. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic). URL https://ieeexplore.ieee.org/document/7349231.

Hormigo:2016:NFC

[6332] Javier Hormigo and Julio Villalba. New formats for computing with real-numbers under round-to-nearest. *IEEE Transactions on Computers*, 65 (7):2158–2168, ???? 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Hsu:2016:TPE

[6333] J. Hsu. Three paths to exascale supercomputing. *IEEE Spectrum*, 53 (1):14–15, January 2016. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Hunhold:2016:UNF

[6334] Laslo Hunhold. The Unum number format: Mathematical foundations, implementation and comparison to IEEE 754 floating-point numbers. Bachelorarbeit, Universität zu Köln, Köln, Germany, November 8, 2016. iv + 91 pp. URL http://frign.de/publications/2016-11-08-the_unum_number_format.pdf.

Isupov:2016:AMC

[6335] Konstantin Isupov. An algorithm for magnitude comparison in RNS based on mixed-radix conversion II. *International Journal of Computer Applications*, 141(??):1–4, May 2016. CODEN ???? ISSN 0975-8887. URL https://www.ijcaonline.org/archives/volume141/number5/24777-2016909626/.

Jaberipur:2016:FFC

[6336] Ghassem Jaberipur, Behrooz Parhami, and Dariush Abedi. A formulation of fast carry chains suitable for efficient implementation with majority elements. In Montuschi et al. [8095], pages 8–15. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Jaeger:2016:OHQ

[6337] Andreas Jaeger. OpenLibm: A high quality system independent, portable, open source libm implementation. Web site, 2016. URL http://openlibm.org/.

Jeannerod:2016:RIE

[6338] Claude-Pierre Jeannerod. A radix-independent error analysis of the Cornea–Harrison–Tang method. *ACM Transactions on Mathematical Software*, 42(3):19:1–19:20, May 2016. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Jeannerod:2016:SEB

[6339] Claude-Pierre Jeannerod, Nicolas Louvet, Jean-Michel Muller, and Antoine Plet. Sharp error bounds for complex floating-point inversion. *Numerical Algorithms*, 73(3):735–760, November 2016. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL http://link.springer.com/article/10.1007/s11075-016-0115-x.

Jiang:2016:ARB

[6340] Honglan Jiang, Jie Han, Fei Qiao, and Fabrizio Lombardi. Approximate radix-8 Booth multipliers for low-power and high-performance operation.

IEEE Transactions on Computers, 65(8):2638–2644, August 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Joldes:2016:AAE

[6341] Mioara Joldes, Olivier Marty, Jean-Michel Muller, and Valentina Popescu. Arithmetic algorithms for extended precision using floating-point expansions. *IEEE Transactions on Computers*, 65(4):1197–1210, ???? 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kadric:2016:APF

[6342] Edin Kadric, Paul Gurniak, and André DeHon. Accurate parallel floating-point accumulation. *IEEE Transactions on Computers*, 65(11): 3224–3238, November 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kneusel:2016:NC

[6343] Ronald T. Kneusel. *Numbers and Computers*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2016. ISBN 3-319-35940-1 (softcover), 3-319-17260-3 (e-book). xi + 231 pp. LCCN QA241 .K54 2016.

Kumm:2016:MCM

[6344] Martin Kumm. *Multiple Constant Multiplication Optimizations for Field Programmable Gate Arrays*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2016. ISBN 3-658-13322-8 (print), 3-658-13323-6 (e-book). xxxiii + 206 + 47 pp. LCCN TK7895.G36. URL https://link.springer.com/book/10.1007/978-3-658-13323-8.

Langhammer:2016:SPN

[6345] Martin Langhammer and Bogdan Pasca. Single precision natural logarithm architecture for hard floating-point and DSP-enabled FPGAs. In Montuschi et al. [8095], pages 164–171. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Langlois:2016:RNR

[6346] Philippe Langlois, Rafife Nheili, and Christophe Denis. Recovering numerical reproducibility in hydrodynamic simulations. In Montuschi et al. [8095], pages 63–70. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Lee:2016:VBM

[6347] Wonyeol Lee, Rahul Sharma, and Alex Aiken. Verifying bit-manipulations of floating-point. Report, Stanford University, Stanford, CA, USA, April 15, 2016. 15 pp. URL `http://theory.stanford.edu/~aiken/publications/papers/pldi16b.pdf`.

Lefevre:2016:CRA

[6348] Vincent Lefèvre. Correctly rounded arbitrary-precision floating-point summation. In Montuschi et al. [8095], pages 71–78. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7562813`.

Lefevre:2016:OBB

[6349] Vincent Lefèvre and Paul Zimmermann. Optimized Binary64 and Binary128 arithmetic with GNU MPFR. Report hal-01502326, Inria Grenoble — Rhône-Alpes, LIP — Laboratoire de l'Informatique du Parallélisme and Inria Nancy — Grand Est, LORIA — ALGO — Department of Algorithms, Computation, Image and Geometry, April 2016. 10 pp. URL `https://hal.inria.fr/hal-01502326`. To appear in IEEE ARITH'2016 proceedings London, UK (24–26 July, 2016).

LeMaire:2016:CFP

[6350] Julien Le Maire, Nicolas Brunie, Florent de Dinechin, and Jean-Michel Muller. Computing floating-point logarithms with fixed-point operations. In Montuschi et al. [8095], pages 156–163. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7562813`.

Li:2016:SDT

[6351] Ang Li, Shuaiwen Leon Song, Mark Wijtvliet, Akash Kumar, and Henk Corporaal. SFU-driven transparent approximation acceleration on GPUs. In *ICS'16: Proceedings of the 2016 International Conference on Supercomputing, Istanbul Turkey, June 1–3, 2016*, pages 1–14. ACM Press, New York, NY 10036, USA, June 2016. ISBN 1-4503-4361-9. LCCN QA76.88.

Lichtenau:2016:QPF

[6352] Cedric Lichtenau, Steven Carlough, and Silvia Melitta Mueller. Quad precision floating point on the IBM z13. In Montuschi et al. [8095], pages 87–94. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7562813`.

Liu:2016:DAI

[6353] W. Liu, L. Chen, C. Wang, M. O'Neill, and F. Lombardi. Design and analysis of inexact floating-point adders. *IEEE Transactions on Computers*, 65(1):308–314, ???? 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Martin-Dorel:2016:PTB

[6354] Érik Martin-Dorel and Guillaume Melquiond. Proving tight bounds on univariate expressions with elementary functions in Coq. *Journal of Automated Reasoning*, 57(3):187–217, October 2016. CODEN JAREEW. ISSN 0168-7433 (print), 1573-0670 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s10817-015-9350-4.

Mascarenhas:2016:FPN

[6355] W. F. Mascarenhas. Floating point numbers are real numbers. *arxiv.org*, page 57, May 2016. URL http://arxiv.org/abs/1605.09202.

Meloni:2016:RDR

[6356] Nicolas Méloni and M. Anwar Hasan. Random digit representation of integers. In Montuschi et al. [8095], pages 118–125. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Montuschi:2016:MCA

[6357] Paolo Montuschi and Jean-Michel Muller. Modern computer arithmetic. *IEEE Computer Graphics and Applications*, 49(9):12, September 2016. CODEN ICGADZ. ISSN 0272-1716 (print), 1558-1756 (electronic). URL https://www.computer.org/csdl/mags/co/2016/09/mco2016090012.html.

Morancho:2016:UAF

[6358] Enric Morancho. Unum: Adaptive floating-point arithmetic. In *2016 Euromicro Conference on Digital System Design (DSD)*, pages 651–656. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Moroz:2016:FCI

[6359] Leonid V. Moroz, Cezary J. Walczyk, Andriy Hrynchyshyn, Vijay Holimath, and Jan L. Cieśliński. Fast calculation of inverse square root with the use of magic constant — analytical approach. *arXiv.org*, ??(??): 1–23, March 14, 2016. URL https://arxiv.org/pdf/1603.04483.pdf.

Mukunoki:2016:RPF

[6360] Daichi Mukunoki and Toshiyuki Imamura. Reduced-precision floating-point formats on GPUs for high performance and energy efficient computation. In *2016 IEEE International Conference on Cluster Computing (CLUSTER)*, pages 144–145. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Muller:2016:NMA

[6361] Jean-Michel Muller, Valentina Popescu, and Ping Tak Peter Tang. A new multiplication algorithm for extended precision using floating-point expansions. In Montuschi et al. [8095], pages 39–46. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7562813`.

Munshi:2016:OCS

[6362] Aaftab Munshi, Lee Howes, Bartosz Sochacki, and Khronos OpenCL Working Group. The OpenCL C specification version: 2.0 document revision: 33. Web document., April 13, 2016. URL `https://www.khronos.org/registry/OpenCL/specs/opencl-2.0-openclc.pdf`.

Nannarelli:2016:PPS

[6363] Alberto Nannarelli. Performance/power space exploration for Binary64 division units. *IEEE Transactions on Computers*, 65(5):1671–1677, May 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Notzli:2016:LVP

[6364] Andres Nötzli and Fraser Brown. LifeJacket: Verifying precise floating-point optimizations in LLVM. *arxiv.org*, ??(??):??, March 30, 2016. URL `http://arxiv.org/abs/1603.09290`.

Ozaki:2016:EFT

[6365] Katsuhisa Ozaki, Takeshi Ogita, and Shin'ichi Oishi. Error-free transformation of matrix multiplication with a posteriori validation. *Numerical Linear Algebra with Applications*, 23(5):931–946, October 2016. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Ozaki:2016:SFP

[6366] Katsuhisa Ozaki, Florian Bünger, and Takeshi Ogita. Simple floating-point filters for the two-dimensional orientation problem. *BIT Numerical Mathematics*, 56(2):729–749, June 2016. CODEN BITTEL, NBITAB.

ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://link.springer.com/article/10.1007/s10543-015-0574-9.

Parfieniuk:2016:VQM

[6367] Marek Parfieniuk and Sang Yoon Park. A versatile quaternion multiplier based on sparse-iteration 4D CORDIC. In *2016 14th IEEE International New Circuits and Systems Conference (NEWCAS)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Paulk:2016:IFP

[6368] Mark Paulk and Lori Cameron. IEEE floating point standard. *Computer*, 49(6):10, June 2016. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). URL http://csdl.computer.org/csdl/mags/co/2016/06/mco2016060010.html.

Petrovsky:2016:CLF

[6369] Nick Petrovsky, Andrew Stankevich, and Alexander Petrovsky. CORDIC-lifting factorization of paraunitary filter banks based on the quaternionic multipliers for lossless image coding. *Multidimensional Syst. Signal Process.*, 27(3):667–695, 2016. ISSN 0923-6082.

Phatak:2016:NDA

[6370] Dhananjay S. Phatak and Steven D. Houston. New distributed algorithms for fast sign detection in residue number systems (RNS). *Journal of Parallel and Distributed Computing*, 97(??):78–95, November 2016. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0743731516300703.

Rane:2016:SPF

[6371] Ashey Rane, Calvin Lin, and Mohit Tiwari. Secure, precise, and fast floating-point operations on x86 processors. In T. Holz and S. Savage, editors, *Proceedings of the 25th USENIX Security 2016, August 10–12, 2016, Austin, TX*, pages 71–86. USENIX, San Francisco, CA, USA, 2016. URL https://www.usenix.org/conference/usenixsecurity16/technical-sessions/presentation/rane.

Rashidi:2016:HSH

[6372] Bahram Rashidi, Sayed Masoud Sayedi, and Reza Rezaeian Farashahi. High-speed hardware architecture of scalar multiplication for binary elliptic curve cryptosystems. *Microelectronics Journal*, 52:49–65, June 2016. CODEN MICEB9. ISSN 0026-2692 (print), 1879-2391 (electronic).

Revy:2016:ADF

[6373] Guillaume Revy. Automated design of floating-point logarithm functions on integer processors. In Montuschi et al. [8095], pages 172–180. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7562813`.

Roux:2016:FPR

[6374] Pierre Roux. Formal proofs of rounding error bounds: With application to an automatic positive definiteness check. *Journal of Automated Reasoning*, 57(2):135–156, August 2016. CODEN JAREEW. ISSN 0168-7433 (print), 1573-0670 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s10817-015-9339-z`.

Rubio-Gonzalez:2016:FPP

[6375] Cindy Rubio-González, Cuong Nguyen, Benjamin Mehne, Koushik Sen, James Demmel, William Kahan, Costin Iancu, Wim Lavrijsen, David H. Bailey, and David Hough. Floating-point precision tuning using blame analysis. In *Proceedings of the 38th International Conference on Software Engineering*, pages 1074–1085. ACM Press, New York, NY 10036, USA, 2016.

Rump:2016:DUR

[6376] Siegfried M. Rump and Marko Lange. On the definition of unit roundoff. *BIT Numerical Mathematics*, 56(1):309–317, March 2016. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://link.springer.com/article/10.1007/s10543-015-0554-0`.

Rump:2016:IAF

[6377] Siegfried M. Rump, Takeshi Ogita, Yusuke Morikura, and Shin'ichi Oishi. Interval arithmetic with fixed rounding mode. *Nonlinear Theory and Its Applications, IEICE*, 7(3):362–373, 2016. CODEN ???? ISSN 2185-4106.

Rump:2016:IEB

[6378] Siegfried M. Rump, Florian Bünger, and Claude-Pierre Jeannerod. Improved error bounds for floating-point products and Horner's scheme. *BIT Numerical Mathematics*, 56(1):293–307, March 2016. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://link.springer.com/article/10.1007/s10543-015-0555-z`.

Sayed:2016:WCR

[6379] Wafaa S. Sayed and Hossam A. H. Fahmy. What are the correct results for the special values of the operands of the power operation? *ACM*

Transactions on Mathematical Software, 42(2):14:1–14:17, June 2016. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Schaffner:2016:APT

[6380] Michael Schaffner, Michael Gautschi, Frank K. Gürkaynak, and Luca Benini. Accuracy and performance trade-offs of logarithmic number units in multi-core clusters. In Montuschi et al. [8095], pages 95–103. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Schkufza:2016:SPO

[6381] Eric Schkufza, Rahul Sharma, and Alex Aiken. Stochastic program optimization. *Communications of the Association for Computing Machinery*, 59(2):114–122, February 2016. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL http://cacm.acm.org/magazines/2016/2/197428/fulltext.

Seo:2016:HMR

[6382] Hwajeong Seo, Zhe Liu, Yasuyuki Nogami, Jongseok Choi, and Howon Kim. Hybrid Montgomery reduction. *ACM Transactions on Embedded Computing Systems*, 15(3):58:1–58:??, July 2016. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic).

Sohn:2016:FFP

[6383] Jongwook Sohn and Earl E. Swartzlander, Jr. A fused floating-point four-term dot product unit. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 63(3):370–378, March 2016. ISSN 1549-8328 (print), 1558-0806 (electronic). URL https://ieeexplore.ieee.org/document/7416176.

Tada:2016:ESG

[6384] Jubee Tada, Maiki Hosokawa, Ryusuke Egawa, and Hiroaki Kobayashi. Effects of stacking granularity on 3-D stacked floating-point fused multiply-add units. *ACM SIGARCH Computer Architecture News*, 44(4):62–67, September 2016. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Tay:2016:NIM

[6385] T. Fatt Tay and C. Chang. A non-iterative multiple residue digit error detection and correction algorithm in RRNS. *IEEE Transactions on Computers*, 65(2):396–408, ???? 2016. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Ugurdag:2016:ECC

[6386] H. Fatih Ugurdag, Anil Bayram, Vecdi Emre Levent, and Sezer Gören. Efficient combinational circuits for division by small integer constants. In Montuschi et al. [8095], pages 1–7. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

vanderHoeven:2016:ESL

[6387] Joris van der Hoeven and Grégoire Lecerf. Evaluating straight-line programs over balls. In Montuschi et al. [8095], pages 142–149. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

vanderHoeven:2016:MSA

[6388] Joris van der Hoeven, Grégoire Lecerf, and Guillaume Quintin. Modular SIMD arithmetic in Mathemagix. *ACM Transactions on Mathematical Software*, 43(1):5:1–5:37, August 2016. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL http://dl.acm.org/citation.cfm?id=2876503.

Villalba-Moreno:2016:DRF

[6389] Julio Villalba-Moreno. Digit recurrence floating-point division under HUB format. In Montuschi et al. [8095], pages 79–86. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7562813.

Wang:2016:DFP

[6390] Ran Wang, Daming Zou, Xinrui He, Yingfei Xiong, Lu Zhang, and Gang Huang. Detecting and fixing precision-specific operations for measuring floating-point errors. In *Proceedings of the 2016 24th ACM SIGSOFT International Symposium on Foundations of Software Engineering — FSE 2016*. ACM Press, New York, NY 10036, USA, 2016.

Wilson:2016:UAA

[6391] David Wilson and Greg Stitt. The unified accumulator architecture: a configurable, portable, and extensible floating-point accumulator. *ACM Transactions on Reconfigurable Technology and Systems*, 9(3):21:1–21:??, July 2016. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic).

Zhou:2016:PUH

[6392] Yuanyuan Zhou. Programming uncertain <T> hings. *ACM SIGARCH Computer Architecture News*, 44(2):1–2, May 2016. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Aliasgari:2017:SCH

[6393] Mehrdad Aliasgari, Marina Blanton, and Fattaneh Bayatbabolghani. Secure computation of hidden Markov models and secure floating-point arithmetic in the malicious model. *International Journal of Information Security*, 16(6):577–601, November 2017. CODEN ???? ISSN 1615-5262 (print), 1615-5270 (electronic). URL http://link.springer.com/article/10.1007/s10207-016-0350-0.

Anderson:2017:EMF

[6394] Andrew Anderson, Servesh Muralidharan, and David Gregg. Efficient multibyte floating point data formats using vectorization. *IEEE Transactions on Computers*, 66(12):2081–2096, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/document/7950938/.

Angerd:2017:FAC

[6395] Alexandra Angerd, Erik Sintorn, and Per Stenström. A framework for automated and controlled floating-point accuracy reduction in graphics applications on GPUs. *ACM Transactions on Architecture and Code Optimization*, 14(4):46:1–46:??, December 2017. CODEN ???? ISSN 1544-3566 (print), 1544-3973 (electronic).

Anonymous:2017:AI

[6396] Anonymous. Author index. In Burgess et al. [8096], page 196. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Anonymous:2017:C

[6397] Anonymous. Committees. In Burgess et al. [8096], page x. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Anonymous:2017:CN

[6398] Anonymous. [Copyright notice]. In Burgess et al. [8096], page iv. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Anonymous:2017:F

[6399] Anonymous. Foreword. In Burgess et al. [8096], pages viii–ix. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889.

LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Anonymous:2017:FC

[6400] Anonymous. [Front cover]. In Burgess et al. [8096], page c1. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Anonymous:2017:PCM

[6401] Anonymous. Program committee members. In Burgess et al. [8096], page xi. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Anonymous:2017:PI

[6402] Anonymous. [Publisher's information]. In Burgess et al. [8096], page 198. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Anonymous:2017:SC

[6403] Anonymous. Steering committee. In Burgess et al. [8096], page xii. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Anonymous:2017:TC

[6404] Anonymous. Table of contents. In Burgess et al. [8096], pages v–vii. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Anonymous:2017:TP

[6405] Anonymous. [Title page i]. In Burgess et al. [8096], page i. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Anonymous:2017:TPI

[6406] Anonymous. [Title page iii]. In Burgess et al. [8096], page iii. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889.

LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Aurentz:2017:CCS

[6407] Jared L. Aurentz and Lloyd N. Trefethen. Chopping a Chebyshev series. *ACM Transactions on Mathematical Software*, 43(4):33:1–33:21, March 2017. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

B:2017:GML

[6408] Sudeepa K. B. and Ganesh Aithal. Generation of maximum length non-binary key sequence and its application for stream cipher based on residue number system. *Journal of Computational Science*, 21: 379–386, July 2017. CODEN ???? ISSN 1877-7503 (print), 1877-7511 (electronic). URL https://www.sciencedirect.com/science/article/pii/S1877750316302071.

Beebe:2017:MFC

[6409] Nelson H. F. Beebe. *The Mathematical-Function Computation Handbook: Programming Using the MathCW Portable Software Library*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2017. ISBN 3-319-64109-3 (hardcover), 3-319-64110-7 (e-book). xxxvi + 1114 pp. LCCN QA75.5-76.95. URL http://www.springer.com/us/book/9783319641096.

Bocco:2017:HSU

[6410] Andrea Bocco, Yves Durand, and Florent de Dinechin. Hardware support for UNUM floating point arithmetic. In *2017 13th Conference on Ph.D. Research in Microelectronics and Electronics (PRIME)*, pages 93–96. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Boehm:2017:SDC

[6411] Hans-J. Boehm. Small-data computing: correct calculator arithmetic. *Communications of the Association for Computing Machinery*, 60(8):44–49, August 2017. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Boldo:2017:CAF

[6412] Sylvie Boldo and Guillaume Melquiond. *Computer arithmetic and formal proofs: verifying floating-point algorithms with the Coq system*. ISTE Press, London, UK, 2017. ISBN 1-78548-112-6, 0-08-101170-9 (e-book). LCCN QA76.9.C62. URL http://iste.co.uk/book.php?id=1238.

Boldo:2017:REA

[6413] Sylvie Boldo, Florian Faissole, and Alexandre Chapoutot. Round-off error analysis of explicit one-step numerical integration methods. In Burgess et al. [8096], pages 82–89. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Boldo:2017:RFA

[6414] Sylvie Boldo, Stef Graillat, and Jean-Michel Muller. On the robustness of the 2Sum and Fast2Sum algorithms. *ACM Transactions on Mathematical Software*, 44(1):4:1–4:14, July 2017. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Bos:2017:FAM

[6415] Joppe W. Bos and Simon Friedberger. Fast arithmetic modulo $2^x p^y \pm 1$. In Burgess et al. [8096], pages 148–155. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Brisebarre:2017:ESC

[6416] Nicolas Brisebarre, Guillaume Hanrot, and Olivier Robert. Exponential sums and correctly-rounded functions. *IEEE Transactions on Computers*, 66(12):2044–2057, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/7891945/`.

Brisebarre:2017:PTN

[6417] Nicolas Brisebarre. *Un peu de théorie des nombres et de calcul formel au service de l'arithmétique des ordinateurs. (French) [A little number theory and computer algebra in the service of computer arithmetic]*. Habilitation à diriger des recherches, LIP — Laboratoire de l'Informatique du Parallélisme, Lyon, France, 2017. 125 pp. URL `https://theses.hal.science/tel-01658342v3`.

Brunie:2017:MFM

[6418] Nicolas Brunie. Modified fused multiply and add for exact low precision product accumulation. In Burgess et al. [8096], pages 106–113. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Carter:2017:PAO

[6419] John B. Carter, Bruce G. Mealey, Karthick Rajamani, Eric E. Retter, and Jeffrey A. Stuecheli. Performing arithmetic operations using both large and small floating point values. US Patent 9,665,346, May 30, 2017. URL `https://patents.google.com/patent/US9665346B2`.

Chapp:2017:SIN

[6420] Dylan Chapp. Study of the impact of non-determinism on numerical reproducibility and debugging at the exascale. Master of science in computer science, University of Delaware, Newark, DE, USA, Spring 2017. 69 pp. URL `http://udspace.udel.edu/handle/19716/24492`; `https://search.proquest.com/pqdtglobal/docview/1957944576`.

Chiang:2017:RFP

[6421] Wei-Fan Chiang, Mark Baranowski, Ian Briggs, Alexey Solovyev, Ganesh Gopalakrishnan, and Zvonimir Rakamarić. Rigorous floating-point mixed-precision tuning. In *Proceedings of the ACM SIGPLAN Symposium on Principles of Programming Languages (POPL)*, pages 300–315. ACM Press, New York, NY 10036, USA, 2017.

Chohra:2017:RAR

[6422] Chemseddine Chohra, Philippe Langlois, and David Parello. Reproducible, accurately rounded and efficient BLAS. In Desprez et al. [8097], pages 609–620. ISBN 3-319-58943-1 (e-book), 3-319-58943-1 (hardcover). LCCN QA76.9.E94; QA76.758TK.

Constantinides:2017:AAC

[6423] George Anthony Constantinides. Algorithms and arithmetic: Choose wisely. In Burgess et al. [8096], pages 142–143. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Cornea:2017:URE

[6424] Marius Cornea. ULPs and relative error. In Burgess et al. [8096], pages 90–97. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Cui:2017:HPP

[6425] Xiaoping Cui, Wenwen Dong, Weiqiang Liu, Earl E. Swartzlander, and Fabrizio Lombardi. High performance parallel decimal multipliers using hybrid BCD codes. *IEEE Transactions on Computers*, 66(12):1994–2004, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/7931610/`.

Dai:2017:ATE

[6426] Wangchen Dai, Donald Donglong Chen, Ray C. C. Cheung, and Çetin Kaya Koç. Area-time efficient architecture of FFT-based Montgomery multiplication. *IEEE Transactions on Computers*, 66(3): 375–388, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Damouche:2017:INA

[6427] Nasrine Damouche, Matthieu Martel, and Alexandre Chapoutot. Improving the numerical accuracy of programs by automatic transformation. *International Journal on Software Tools for Technology Transfer: STTT*, 19(4):427–448, August 2017. CODEN ???? ISSN 1433-2779 (print), 1433-2787 (electronic). URL `https://link.springer.com/article/10.1007/s10009-016-0435-0`.

Darulova:2017:TCR

[6428] Eva Darulova and Viktor Kuncak. Towards a compiler for reals. *ACM Transactions on Programming Languages and Systems*, 39(2):8:1–8:??, May 2017. CODEN ATPSDT. ISSN 0164-0925 (print), 1558-4593 (electronic).

David:2017:LLD

[6429] Jean Pierre David. Low latency and division free Gauss–Jordan solver in floating point arithmetic. *Journal of Parallel and Distributed Computing*, 106(??):185–193, August 2017. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0743731516301897`.

Dawson:2017:RVE

[6430] Andrew Dawson and Peter D. Düben. rpe v5: an emulator for reduced floating-point precision in large numerical simulations. *Geoscientific Model Development*, 10(6):2221–2230, June 2017. ISSN 1991-959X (print), 1991-9603 (electronic).

Dimitrov:2017:PMC

[6431] Vassil Dimitrov, Viduneth Ariyarathna, Diego F. G. Coelho, Logan Rakai, Arjuna Madanayake, and Renato J. Cintra. A parallel method for the computation of matrix exponential based on truncated Neumann series. In Burgess et al. [8096], pages 35–42. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Du:2017:AQD

[6432] Peibing Du, Roberto Barrio, Hao Jiang, and Lizhi Cheng. Accurate quotient-difference algorithm: Error analysis, improvements and applications. *Applied Mathematics and Computation*, 309(??):245–271, September 15, 2017. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300317302394`.

Esmay:2017:HNS

[6433] Gabriel Esmay. *The History of Number Systems*. Teacher Created Materials, Huntington Beach, CA, 2017. ISBN 0-7439-2834-2 (e-book), 1-0876-2972-1, 1-4807-5794-2 (paperback), 1-4807-5858-2 (e-book). 32 pp. LCCN QA141.3 .E86 2018.

Fevotte:2017:LLI

[6434] François Févotte and Bruno Lathuilière. LibEFT: a library implementing error-free transformations. Web site., 2017. URL `https://github.com/ffevotte/libeft`.

Fu:2017:AHC

[6435] Zhoulai Fu and Zhendong Su. Achieving high coverage for floating-point code via unconstrained programming. *ACM SIGPLAN Notices*, 52(6):306–319, June 2017. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Fumex:2017:AVF

[6436] Clément Fumex, Claude Marché, and Yannick Moy. Automating the verification of floating-point programs. *Lecture Notes in Computer Science*, 10712:102–119, 2017. ISBN 3-319-72308-1. ISSN 1611-3349.

Gonzalez-Navarro:2017:NNO

[6437] Sonia Gonzalez-Navarro and Javier Hormigo. Normalizing or not normalizing? An open question for floating-point arithmetic in embedded systems. In Burgess et al. [8096], pages 188–195. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Gorantla:2017:DAC

[6438] Anusha Gorantla and Deepa P. Design of approximate compressors for multiplication. *ACM Journal on Emerging Technologies in Computing Systems (JETC)*, 13(3):44:1–44:??, May 2017. CODEN ???? ISSN 1550-4832 (print), 1550-4840 (electronic).

Graillat:2017:AAE

[6439] Stef Graillat. An accurate algorithm for evaluating rational functions. Report HAL-01578486, Laboratoire d'Informatique de Paris 6, Université Sorbonne, Campus Pierre et Marie Curie, 4, place Jussieu, F-75252 Paris Cedex 05, France, August 29, 2017. URL https://hal.archives-ouvertes.fr/hal-01578486.

Guney:2017:OMM

[6440] Murat Efe Guney, Kazushige Goto, Timothy B. Costa, Sarah Knepper, Louise Huot, Arthur Mitrano, and Shane Story. Optimizing matrix multiplication on Intel Xeon Phi TH x200 architecture. In Burgess et al. [8096], pages 144–145. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Gustafson:2017:BFPa

[6441] John Gustafson. Beyond floating point: Next generation computer arithmetic. Web video, February 2017. URL http://insidehpc.com/2017/02/john-gustafson-presents-beyond-floating-point-next-generation-computer-arithmetic.

Gustafson:2017:BFPb

[6442] John Gustafson and Isaac Yonemoto. Beating floating point at its own game: Posit arithmetic. Report, A*STAR Computational Resources Centre and National University of Singapore (joint appointment) [JG], Singapore Interplanetary Robot and Electric Brain Company, Saratoga, California USA [IY], June 12, 2017. 16 pp. URL http://www.johngustafson.net/pdfs/BeatingFloatingPoint.pdf.

Gustafson:2017:BFPc

[6443] John L. Gustafson and Isaac Yonemoto. Beating floating point at its own game: Posit arithmetic. *Supercomputing Frontiers and Innovations*, 4(2):71–86, 2017. CODEN ???? ISSN 2313-8734 (print), 2409-6008 (electronic). URL https://superfri.org/index.php/superfri/article/view/137/232.

Gustafson:2017:PA

[6444] John L. Gustafson. Posit arithmetic. Web PDF file., October 10, 2017. URL https://posithub.org/docs/Posits4.pdf.

Gustafsson:2017:ANS

[6445] Oscar Gustafsson, Erik Bertilsson, Johannes Klasson, and Carl Ingemarsson. Approximate Neumann series or exact matrix inversion for massive MIMO? In Burgess et al. [8096], pages 62–63. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Gustafsson:2017:LBF

[6446] Oscar Gustafsson. On lifting-based fixed-point complex multiplications and rotations. In Burgess et al. [8096], pages 43–49. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Haidar:2017:IHP

[6447] Azzam Haidar, Panruo Wu, Stanimire Tomov, and Jack Dongarra. Investigating half precision arithmetic to accelerate dense linear system solvers. In *Proceedings of the 8th Workshop on Latest Advances in Scalable Algorithms for Large-Scale Systems — ScalA'17*. ACM Press, New York, NY 10036, USA, 2017. ISBN 1-4503-5125-5 (hardcover). LCCN ????

Hennessy:2017:CAQ

[6448] John L. Hennessy and David A. Patterson. *Computer Architecture: a Quantitative Approach*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, sixth edition, 2017. ISBN 0-12-383873-8, 0-12-811905-5 (paperback), 0-12-811906-3 (e-Pub). xxix + 617 + 55 + 67 + 78 + 36 + 48 pp. LCCN QA76.9.A73.

Hiasat:2017:ERS

[6449] Ahmad Hiasat. Efficient RNS scalers for the extended three-moduli set $(2^n - 1, 2^{n+p}, 2^n + 1)$. *IEEE Transactions on Computers*, 66(7):1253–1260, July 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://www.computer.org/csdl/trans/tc/2017/07/07815319-abs.html.

Higham:2017:MG

[6450] Desmond J. Higham and Nicholas J. Higham. *MATLAB guide*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2017. ISBN 1-61197-465-8. xxvi + 476 pp.

Higham:2017:MW

[6451] Nicholas J. Higham. A multiprecision world. *SIAM News*, 50(8):??, October 2, 2017. ISSN 0036-1437. URL `https://sinews.siam.org/Details-Page/a-multiprecision-world`.

Higham:2017:RMA

[6452] Nicholas John Higham. The rise of multiprecision arithmetic. In Burgess et al. [8096], page 1. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Ho:2017:EHP

[6453] Nhut-Minh Ho and Weng-Fai Wong. Exploiting half precision arithmetic in Nvidia GPUs. In *2017 IEEE High Performance Extreme Computing Conference (HPEC)*, pages 1–7. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Hormigo:2017:ISI

[6454] Javier Hormigo, Jean-Michel Muller, Stuart Oberman, Nathalie Revol, Arnaud Tisserand, and Julio Villalba-Moreno. Introduction to the special issue on computer arithmetic. *IEEE Transactions on Computers*, 66(12): 1991–1993, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Hou:2017:TGF

[6455] Junjie Hou, Yongxin Zhu, Yulan Shen, Mengjun Li, Han Wu, and Han Song. Tackling gaps in floating-point arithmetic: Unum arithmetic implementation on FPGA. In *2017 IEEE 19th International Conference on High Performance Computing and Communications; IEEE 15th International Conference on Smart City; IEEE 3rd International Conference on Data Science and Systems (HPCC/SmartCity/DSS)*, pages 615–616. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Ishii:2017:FMA

[6456] Masahiro Ishii, Jérémie Detrey, Pierrick Gaudry, Atsuo Inomata, and Kazutoshi Fujikawa. Fast modular arithmetic on the Kalray MPPA-256 processor for an energy-efficient implementation of ECM. *IEEE*

Transactions on Computers, 66(12):2019–2030, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/document/7927487/.

Istoan:2017:FFP

[6457] Matei Istoan and Bogdan Pasca. Flexible fixed-point function generation for FPGAs. In Burgess et al. [8096], pages 123–130. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Jaiswal:2017:AEA

[6458] Manish Kumar Jaiswal and Hayden K.-H. So. Area-efficient architecture for dual-mode double precision floating point division. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 64(2):386–398, February 2017. CODEN ???? ISSN 1549-8328 (print), 1558-0806 (electronic). URL https://ieeexplore.ieee.org/document/7590039.

Jeannerod:2017:CRE

[6459] Claude-Pierre Jeannerod, Jean-Michel Muller, and Antoine Plet. The classical relative error bounds for computing $\sqrt(a^2+b^2)$ and $c/\sqrt(a^2+b^2)$ in binary floating-point arithmetic are asymptotically optimal. In Burgess et al. [8096], pages 66–73. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Jeannerod:2017:EBC

[6460] Claude-Pierre Jeannerod, Peter Kornerup, Nicolas Louvet, and Jean-Michel Muller. Error bounds on complex floating-point multiplication with an FMA. *Mathematics of Computation*, 86(304):881–898, 2017. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.ams.org/journals/mcom/2017-86-304/S0025-5718-2016-03123-3; http://www.ams.org/journals/mcom/2017-86-304/S0025-5718-2016-03123-3/S0025-5718-2016-03123-3.pdf; http://www.ams.org/mathscinet/search/author.html?authorName=Kornerup%2C%20Peter; http://www.ams.org/mathscinet/search/author.html?authorName=Muller%2C%20Jean-Michel; http://www.ams.org/mathscinet/search/author.html?mrauthid=644190; http://www.ams.org/mathscinet/search/author.html?mrauthid=893389.

Jeannerod:2017:REC

[6461] Claude-Pierre Jeannerod and Jean-Michel Muller. On the relative error of computing complex square roots in floating-point arithmetic. In Michael B. Matthews, editor, *2017 51st Asilomar Conference on Signals, Systems, and Computers. October 29–November 1, 2017. Pacific Grove, California*, pages 737–740. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017. ISBN 1-5386-1823-0.

Johansson:2017:AEA

[6462] Fredrik Johansson. Arb: Efficient arbitrary-precision midpoint–radius interval arithmetic. *IEEE Transactions on Computers*, 66(8):1281–1292, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/7891956/`.

Joldes:2017:IPE

[6463] Mioara Joldes, Jean-Michel Muller, and Valentina Popescu. Implementation and performance evaluation of an extended precision floating-point arithmetic library for high-accuracy semidefinite programming. In Burgess et al. [8096], pages 27–34. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Joldes:2017:TRE

[6464] Mioara Joldes, Jean-Michel Muller, and Valentina Popescu. Tight and rigorous error bounds for basic building blocks of double-word arithmetic. *ACM Transactions on Mathematical Software*, 44(2):15res:1–15res:27, October 2017. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/citation.cfm?id=3121432`.

Jorgensen:2017:ACR

[6465] Alan A. Jorgensen. Apparatus for calculating and retaining a bound on error during floating point operations and methods thereof. US Patent 9,817,662., November 14, 2017. URL `https://patents.google.com/patent/US9817662B2/`; `https://tinyurl.com/y7ctbsez`. This patent, filed 23 October 2016, was issued despite substantial prior art that should have resulted in its rejection: see [6648]. The inventor does not appear to have published in the area of floating-point arithmetic (apart from this entry, none by him can be found in this bibliography). The only literature references in the patent are [5523, 2760, 5982, 5737].

Kneusel:2017:NC

[6466] Ronald T. Kneusel. *Numbers and Computers*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., second edition, 2017. ISBN 3-319-50507-6, 3-319-50508-4 (e-book). xiii + 346 pp. LCCN ???? URL http://link.springer.com/10.1007/978-3-319-50508-4.

Koenig:2017:HAC

[6467] Jack Koenig, David Biancolin, Jonathan Bachrach, and Krste Asanovic. A hardware accelerator for computing an exact dot product. In Burgess et al. [8096], pages 114–121. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Kohlbrenner:2017:EMA

[6468] David Kohlbrenner and Hovav Shacham. On the effectiveness of mitigations against floating-point timing channels. In Another, editor, *Proceedings of the 26th Usenix Security Symposium, August 16–18, 2017, Vancouver, BC, Canada*, pages 69–81. USENIX, San Francisco, CA, USA, 2017. ISBN 1-931971-40-4. LCCN QA76.9.D5 P76 2005. URL https://github.com/kmowery/libfixedtimefixedpoint; https://www.usenix.org/system/files/conference/usenixsecurity17/sec17-kohlbrenner.pdf.

Kumm:2017:OCM

[6469] Martin Kumm, Martin Hardieck, and Peter Zipf. Optimization of constant matrix multiplication with low power and high throughput. *IEEE Transactions on Computers*, 66(12):2072–2080, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/document/7919250/.

Kumm:2017:ROD

[6470] Martin Kumm, Johannes Kappauf, Matei Istoan, and Peter Zipf. Resource optimal design of large multipliers for FPGAs. In Burgess et al. [8096], pages 131–138. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Lai:2017:DCN

[6471] Liangzhen Lai, Naveen Suda, and Vikas Chandra. Deep convolutional neural network inference with floating-point weights and fixed-point activations. *arXiv.org*, ??(??):1–10, March 8, 2017. URL https://arxiv.org/pdf/1703.03073.pdf.

Lam:2017:FPA

[6472] Mike Lam. Floating-point analysis research. Web site, 2017. URL https://w3.cs.jmu.edu/lam2mo/fpanalysis.html.

Landy:2017:SAS

[6473] Aaron Landy and Greg Stitt. Serial arithmetic strategies for improving FPGA throughput. *ACM Transactions on Embedded Computing Systems*, 16(3):84:1–84:??, July 2017. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic).

Lange:2017:EES

[6474] Marko Lange and Siegfried M. Rump. Error estimates for the summation of real numbers with application to floating-point summation. *BIT Numerical Mathematics*, 57(3):927–941, September 2017. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL https://link.springer.com/article/10.1007/s10543-017-0658-9.

Langhammer:2017:FPT

[6475] Martin Langhammer and Bogdan Pasca. Floating point tangent implementation for FPGAs. In Burgess et al. [8096], pages 64–65. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Langhammer:2017:QPA

[6476] Martin Langhammer. QRD for parallel arithmetic structures. In Burgess et al. [8096], pages 146–147. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Langhammer:2017:SPL

[6477] Martin Langhammer and Bogdan Pasca. Single precision logarithm and exponential architectures for hard floating-point enabled FPGAs. *IEEE Transactions on Computers*, 66(12):2031–2043, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/document/7927449/.

Lauter:2017:ESI

[6478] Christoph Lauter. An efficient software implementation of correctly rounded operations extending FMA: $a+b+c$ and $a\times b+c\times d$. In Matthews [8098], pages 452–456. ISBN 1-5386-1824-9 (print), 1-5386-0666-6, 1-5386-1823-0 (e-book). LCCN TK7801. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8330843.

Lee:2017:APC

[6479] Wonyeol Lee, Rahul Sharma, and Alex Aiken. On automatically proving the correctness of `math.h` implementations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):1–32, December 2017. ISSN 2475-1421.

Lefevre:2017:CRA

[6480] Vincent Lefèvre. Correctly rounded arbitrary-precision floating-point summation. *IEEE Transactions on Computers*, 66(12):2111–2124, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/7891894/; https://inria.hal.science/hal-01394289`.

Lefevre:2017:OBB

[6481] Vincent Lefèvre and Paul Zimmermann. Optimized Binary64 and Binary128 arithmetic with GNU MPFR. In Burgess et al. [8096], pages 18–26. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Lesavourey:2017:ELR

[6482] Andrea Lesavourey, Christophe Negre, and Thomas Plantard. Efficient leak resistant modular exponentiation in RNS. In Burgess et al. [8096], pages 156–163. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Li:2017:MFN

[6483] Yin Li, Xingpo Ma, Yu Zhang, and Chuanda Qi. Mastrovito form of non-recursive Karatsuba multiplier for all trinomials. *IEEE Transactions on Computers*, 66(9):1573–1584, September 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/7870679/`.

Li:2017:URF

[6484] Bingyi Li, Linlin Fang, Yizhuang Xie, He Chen, and Liang Chen. A unified reconfigurable floating-point arithmetic architecture based on CORDIC algorithm. In *2017 International Conference on Field Programmable Technology (ICFPT)*, pages 301–302. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Liu:2017:DAR

[6485] Weiqiang Liu, Liangyu Qian, Chenghua Wang, Honglan Jiang, Jie Han, and Fabrizio Lombardi. Design of approximate radix-4 Booth multipliers for error-tolerant computing. *IEEE Transactions on Computers*, 66(8): 1435–1441, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/document/7862783/.

Liu:2017:MMA

[6486] Zhe Liu, Kimmo Järvinen, Weiqiang Liu, and Hwajeong Seo. Multiprecision multiplication on ARMv8. In Burgess et al. [8096], pages 10–17. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Liu:2017:UMF

[6487] S. Liu, G. Mingas, and C. S. Bouganis. An unbiased MCMC FPGA-based accelerator in the land of custom precision arithmetic. *IEEE Transactions on Computers*, 66(5):745–758, May 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Lockhart:2017:A

[6488] Paul Lockhart. *Arithmetic*. The Belknap Press of Harvard University Press, Cambridge, MA, USA, 2017. ISBN 0-674-97223-6. 223 pp. LCCN QA115 .L713 2017.

Lutz:2017:HPA

[6489] David Raymond Lutz and Christopher Neal Hinds. High-precision anchored accumulators for reproducible floating-point summation. In Burgess et al. [8096], pages 98–105. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Magron:2017:CRE

[6490] Victor Magron, George Constantinides, and Alastair Donaldson. Certified roundoff error bounds using semidefinite programming. *ACM Transactions on Mathematical Software*, 43(4):34:1–34:31, March 2017. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Malaya:2017:AMP

[6491] Nicholas Malaya, Shuai Che, Joseph L. Greathouse, Rene van Oostrum, and Michael J. Schulte. Accelerating matrix processing with GPUs. In

Burgess et al. [8096], pages 139–141. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Martins:2017:AIR

[6492] Paulo Martins, Julien Eynard, Jean-Claude Bajard, and Leonel Sousa. Arithmetical improvement of the round-off for cryptosystems in high-dimensional lattices. *IEEE Transactions on Computers*, 66(12):2005–2018, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/7891511/`.

Mascarenhas:2017:ERE

[6493] Walter F. Mascarenhas and André Pierro de Camargo. The effects of rounding errors in the nodes on barycentric interpolation. *Numerische Mathematik*, 135(1):113–141, January 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-016-0798-x`; `http://link.springer.com/article/10.1007/s00211-016-0798-x`.

Mazahir:2017:PEA

[6494] Sana Mazahir, Osman Hasan, Rehan Hafiz, and Muhammad Shafique. Probabilistic error analysis of approximate recursive multipliers. *IEEE Transactions on Computers*, 66(11):1982–1990, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/7935435/`.

Medhat:2017:MPE

[6495] Ramy Medhat, Michael O. Lam, Barry L. Rountree, Borzoo Bonakdarpour, and Sebastian Fischmeister. Managing the performance/error tradeoff of floating-point intensive applications. *ACM Transactions on Embedded Computing Systems*, 16(5s):184:1–184:??, October 2017. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic).

Merchant:2017:ABL

[6496] Farhad Merchant, Anupam Chattopadhyay, Soumyendu Raha, S. K. Nandy, and Ranjani Narayan. Accelerating BLAS and LAPACK via efficient floating point architecture design. *Parallel Processing Letters*, 27(3–4):1750006, 2017. CODEN PPLTEE. ISSN 0129-6264 (print), 1793-642X (electronic).

Mian:2017:HPC

[6497] Riaz ul Haque Mian. High precision computation of decimal logarithm. Master of engineering in information and communication technology, Institute of Information and Communication Technology, Bangladesh University of Engineering and Technology, January 2017. 52 pp. URL https://www.researchgate.net/publication/323265326_High_precision_computation_of_decimal_logarithm.

Micikevicius:2017:MPT

[6498] Paulius Micikevicius, Sharan Narang, Jonah Alben, Gregory Diamos, Erich Elsen, David Garcia, Boris Ginsburg, Michael Houston, Oleksii Kuchaiev, Ganesh Venkatesh, and Hao Wu. Mixed precision training. *arXiv.org*, October 10, 2017. URL https://arxiv.org/abs/1710.03740.

Moler:2017:CCB

[6499] Cleve Moler. Cleve's corner: Bug in half-precision floating point object. MathWorks Web site., December 20, 2017. URL https://blogs.mathworks.com/cleve/2017/12/20/bug-in-half-precision-floating-point-object/. See [6500].

Moler:2017:CCH

[6500] Cleve Moler. Cleve's corner: "Half precision" 16-bit floating point arithmetic. MathWorks Web site., May 8, 2017. URL https://blogs.mathworks.com/cleve/2017/05/08/half-precision-16-bit-floating-point-arithmetic/. See bug fix [6499].

Moler:2017:CCQ

[6501] Cleve Moler. Cleve's corner: Quadruple precision, 128-bit floating point arithmetic. MathWorks Web site., May 22, 2017. URL https://blogs.mathworks.com/cleve/2017/05/22/quadruple-precision-128-bit-floating-point-arithmetic/.

Monfared:2017:NMI

[6502] Amin Monfared, Hayssam El-Razouk, and Arash Reyhani-Masoleh. A new multiplicative inverse architecture in normal basis using novel concurrent serial squaring and multiplication. In Burgess et al. [8096], pages 164–171. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Mopuri:2017:LCM

[6503] Suresh Mopuri and Amit Acharyya. Low-complexity methodology for complex square-root computation. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 25(11):3255–3259, 2017. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Mustapha:2017:RSA

[6504] Khalid Shahabdeen Mustapha and Edem Kwedzo Bankas. RNS scaling algorithm for a new moduli set $\{2^{(2n+1)} + 1, 2^{(2n+1)}, 2^{(2n+1)} - 1\}$. *International Journal of Computer Applications*, 165(??):21–28, May 2017. CODEN ???? ISSN 0975-8887. URL `https://www.ijcaonline.org/archives/volume165/number10/27609-2017913974/`.

Numahata:2017:ASN

[6505] Dai Numahata and Hiroshi Sekigawa. An algorithm for symbolic–numeric sparse interpolation of multivariate polynomials whose degree bounds are unknown. *ACM Communications in Computer Algebra*, 51 (1):18–20, March 2017. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Patterson:2017:COD

[6506] David A. Patterson and John L. Hennessy. *Computer Organization and Design: the Hardware/Software Interface*. Morgan Kaufmann series in computer architecture and design. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, RISC-V edition, 2017. ISBN 0-12-812275-7 (paperback), 0-12-812276-5 (e-book). xxiv + 565 + a-86 + i + 22 pp. LCCN QA76.9.C643. URL `https://www.elsevier.com/books-and-journals/book-companion/9780128119051`; `https://www.elsevier.com/books/computer-architecture/hennessy/978-0-12-811905-1`.

Rafferty:2017:ELI

[6507] Ciara Rafferty, Máire O'Neill, and Neil Hanley. Evaluation of large integer multiplication methods on hardware. *IEEE Transactions on Computers*, 66(8):1369–1382, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/7869256/`.

Rieu-Helft:2017:HGE

[6508] Raphaël Rieu-Helft, Claude Marché, and Guillaume Melquiond. How to get an efficient yet verified arbitrary-precision integer library. In Andrei Paskevich and Thomas Wies, editors, *Verified Software. Theories,* *Tools, and Experiments: 9th International Conference, VSTTE 2017, Heidelberg, Germany, July 22–23, 2017, Revised Selected Papers*, volume 10712 of *Lecture Notes in Computer Science*, pages 84–101. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2017. ISBN 3-319-72308-1. LCCN QA76.758. URL https://link.springer.com/chapter/10.1007/978-3-319-72308-2_6.

Rioual:2017:LSN

[6509] Jean-Christophe Rioual. Large scale numerical simulations of the climate. In Burgess et al. [8096], page 122. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Risse:2017:BEG

[6510] Thomas Risse. Better is the enemy of good: Unums: An alternative to IEEE 754 floats and doubles. In *2017 8th International Conference on Information Technology (ICIT)*, pages 200–204. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Rocca:2017:CRE

[6511] Alexandre Rocca, Victor Magron, and Thao Dang. Certified roundoff error bounds using Bernstein expansions and sparse Krivine–Stengle representations. In Burgess et al. [8096], pages 74–81. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Rovers:2017:IPP

[6512] Kenneth C. Rovers and Sam Elliott. On improving the performance per area of ASTC with a multi-output decoder. In Burgess et al. [8096], pages 58–59. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Rump:2017:IPK

[6513] Siegfried M. Rump. IEEE754 precision-k base-β arithmetic inherited by precision-m base-β arithmetic for $k < m$. *ACM Transactions on Mathematical Software*, 43(3):20:1–20:15, January 2017. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL https://dl.acm.org/citation.cfm?id=2785965.

Russell:2017:LBR

[6514] Brian M. Russell. Lost bits regained? *Resurrection: The Journal of the Computer Conservation Society*, ??(79):??, Autumn 2017. ISSN 0958-7403. URL `https://computerconservationsociety.org/resurrection/res79.htm#d`.

Saint-Genies:2017:ELT

[6515] Hugues de Lassus Saint-Geniès, David Defour, and Guillaume Revy. Exact lookup tables for the evaluation of trigonometric and hyperbolic functions. *IEEE Transactions on Computers*, 66(12):2058–2071, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/7927421/`.

Sanchez-Stern:2017:FRC

[6516] Alex Sanchez-Stern, Pavel Panchekha, Sorin Lerner, and Zachary Tatlock. Finding root causes of floating point error with Herbgrind. *arXiv.org*, page 15, 2017. URL `http://arxiv.org/abs/1705.10416`.

Sano:2017:FBS

[6517] Kentaro Sano and Satoru Yamamoto. FPGA-based scalable and power-efficient fluid simulation using floating-point DSP blocks. *IEEE Transactions on Parallel and Distributed Systems*, 28(10):2823–2837, October 2017. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic). URL `https://www.computer.org/csdl/trans/td/2017/10/07893769-abs.html`.

Schleicher:2017:NMP

[6518] Dierk Schleicher and Robin Stoll. Newton's method in practice: Finding all roots of polynomials of degree one million efficiently. *Theoretical Computer Science*, 681(??):146–166, June 12, 2017. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0304397517302475`.

Serre:2017:OSL

[6519] François Serre and Markus Puschel. Optimal streamed linear permutations. In Burgess et al. [8096], pages 60–61. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Stoutemyer:2017:APC

[6520] David R. Stoutemyer. AskConstants proposes concise non-floats close to floats. *ACM Communications in Computer Algebra*, 51(1):32–34, March 2017. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Thevenoux:2017:ASS

[6521] Laurent Thévenoux, Philippe Langlois, and Matthieu Martel. Automatic source-to-source error compensation of floating-point programs: code synthesis to optimize accuracy and time. *Concurrency and Computation: Practice and Experience*, 29(7):??, April 10, 2017. CODEN CCPEBO. ISSN 1532-0626 (print), 1532-0634 (electronic).

Thornes:2017:USD

[6522] Tobias Thornes, Peter Düben, and Tim Palmer. On the use of scale-dependent precision in Earth System modelling. *Quarterly journal of the Royal Meteorological Society*, 143(703):897–908, January 2017. CODEN QJRMAM. ISSN 0035-9009 (print), 1477-870X (electronic).

Titolo:2017:AIF

[6523] Laura Titolo, Marco A. Feliú, Mariano Moscato, and César A. Muñoz. An abstract interpretation framework for the round-off error analysis of floating-point programs. In Isil Dillig and Jens Palsberg, editors, *Verification, Model Checking, and Abstract Interpretation, 19th International Conference, VMCAI 2018, Los Angeles, CA, USA, January 7–9, 2018, Proceedings*, volume 10747 of *Lecture Notes in Computer Science*, pages 516–537. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., December 2017. ISBN 3-319-73720-1 (print), 3-319-73721-X (e-book).

Ueno:2017:BCF

[6524] Tomohiro Ueno, Kentaro Sano, and Satoru Yamamoto. Bandwidth compression of floating-point numerical data streams for FPGA-based high-performance computing. *ACM Transactions on Reconfigurable Technology and Systems*, 10(3):18:1–18:??, July 2017. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic).

Uguen:2017:BHL

[6525] Yohann Uguen, Florent de Dinechin, and Steven Derrien. Bridging high-level synthesis and application-specific arithmetic: The case study of floating-point summations. In *2017 27th International Conference on Field Programmable Logic and Applications (FPL)*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, September 2017. ISSN 1946-147X (print), 1946-1488 (electronic).

Ugurdag:2017:HDS

[6526] H. Fatih Ugurdag, Florent de Dinechin, Y. Serhan Gener, Sezer Gören, and Laurent-Stéphane Didier. Hardware division by small integer constants. *IEEE Transactions on Computers*, 66(12):2097–2110, December 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/7933010/`.

vanderHoeven:2017:MPF

[6527] Joris van der Hoeven. Multiple precision floating-point arithmetic on SIMD processors. In Burgess et al. [8096], pages 2–9. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

VanZee:2017:IHP

[6528] Field G. Van Zee and Tyler M. Smith. Implementing high-performance complex matrix multiplication via the 3m and 4m methods. *ACM Transactions on Mathematical Software*, 44(1):7:1–7:36, July 2017. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/citation.cfm?id=3086466`.

Vazquez:2017:SED

[6529] Alvaro Vázquez and Elisardo Antelo. A sum error detection scheme for decimal arithmetic. In Burgess et al. [8096], pages 172–179. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Vo-Thi:2017:FPF

[6530] Phuong-Thao Vo-Thi, Trong-Thuc Hoang, Cong-Kha Pham, and Duc-Hung Le. A floating-point FFT twiddle factor implementation based on adaptive angle recoding CORDIC. In *2017 International Conference on Recent Advances in Signal Processing, Telecommunications & Computing (SigTelCom)*, pages 21–26. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Volkova:2017:RVD

[6531] Anastasia Volkova, Christoph Lauter, and Thibault Hilaire. Reliable verification of digital implemented filters against frequency specifications.

In Burgess et al. [8096], pages 180–187. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Vzquez:2017:NSA

[6532] Alvaro Vázquez and Elisardo Antelo. A number system approach for adder topologies. In Burgess et al. [8096], pages 50–57. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8019911.

Wahba:2017:AEF

[6533] Ahmed A. Wahba and Hossam A. H. Fahmy. Area efficient and fast combined binary/decimal floating point fused multiply add unit. *IEEE Transactions on Computers*, 66(2):226–239, ???? 2017. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Zhu:2017:LLL

[6534] Baozhou Zhu, Yuanwu Lei, Yuanxi Peng, and Tingting He. Low latency and low error floating-point sine/cosine function based TCORDIC algorithm. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 64(4):892–905, 2017. ISSN 1549-8328 (print), 1558-0806 (electronic).

Adams:2018:RFF

[6535] Ulf Adams. Ryū: fast float-to-string conversion. *ACM SIGPLAN Notices*, 53(4):270–282, April 2018. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Afriyie:2018:MBE

[6536] Yaw Afriyie and M. I. Daabo. Multiple bits error detection and correction in RRNS architecture using the MRC and HD techniques. *International Journal of Computer Applications*, 180(??):18–23, May 2018. CODEN ???? ISSN 0975-8887. URL https://www.ijcaonline.org/archives/volume180/number39/29387-2018917030/.

Alaghi:2018:CR

[6537] A. Alaghi and J. P. Hayes. Computing with randomness. *IEEE Spectrum*, 55(3):46–51, March 2018. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Amanollahi:2018:ERD

[6538] Saba Amanollahi and Ghassem Jaberipur. Extended redundant-digit instruction set for energy-efficient processors. *ACM Transactions on Embedded Computing Systems*, 17(3):70:1–70:??, June 2018. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic).

Anders:2018:WRD

[6539] Mark Anders, Himanshu Kaul, Sanu Mathew, Vikram Suresh, Sudhir Satpathy, Amit Agarwal, Steven Hsu, and Ram Krishnamurthy. 2.9TOPS/W reconfigurable dense/sparse matrix-multiply accelerator with unified INT8/INTI6/FP16 datapath in 14nm tri-gate CMOS. In *2018 IEEE Symposium on VLSI Circuits*, pages 39–40. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Anderson:2018:EVM

[6540] Cristina S. Anderson, Jingwei Zhang, and Marius Cornea. Enhanced vector math support on the Intel AVX-512 architecture. In Tenca and Takagi [8100], pages 120–124. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Anonymous:2018:DRD

[6541] Anonymous. Driverless racecar drives straight into a wall. Web site, 2018. URL `https://www.reddit.com/r/formula1/comments/jk9jrg/comment/gai295l/`. The report describes how an unanticipated floating-point NaN caused the steering wheel to lock to its maximum right. From the report: "the [controller] output values are transferred via control area network (CAN) to the actuators, but there is no definition for a NaN in the CAN specs, so it just transformed it into a normal number, albeit a very large one.".

Anonymous:2018:FVF

[6542] Anonymous. Formal verification of floating-point hardware with assertion-based VIP. Web site., 2018. URL `https://www.onespin.com/fpu/`.

Anonymous:2018:HFF

[6543] Anonymous. Herbie: Find and fix floating-point problems. Web site and software source., 2018. URL `https://herbie.uwplse.org/`.

Anonymous:2018:OLA

[6544] Anonymous. OneSpin launches “App” for formal verification of floating-point hardware critical for machine learning and deep learning chips: Offers exhaustive coverage of floating-point arithmetic operations compliant with IEEE 754 Standard. Web site, November 27, 2018. URL `https://globenewswire.com/news-release/2018/11/27/1657662/0/en/OneSpin-Launches-App-for-Formal-Verification-of-Floating-Point-Hardware-Critical-for-Machine-Learning-and-Deep-Learning-Chips.html`.

Babuska:2018:REG

[6545] Ivo Babuska and Gustaf Söderlind. On roundoff error growth in elliptic problems. *ACM Transactions on Mathematical Software*, 44(3):33:1–33:22, April 2018. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/citation.cfm?id=3134444`.

Bajard:2018:MRW

[6546] Jean-Claude Bajard, Julien Eynard, and Nabil Merkiche. Montgomery reduction within the context of residue number system arithmetic. *Journal of Cryptographic Engineering*, 8(3):189–200, September 2018. CODEN ???? ISSN 2190-8508 (print), 2190-8516 (electronic). URL `http://link.springer.com/article/10.1007/s13389-017-0154-9`.

Barthel:2018:HIB

[6547] Moritz Bärthel, Jochen Rust, and Steffen Paul. Hardware implementation of basic arithmetics and elementary functions for unum computing. In *2018 52nd Asilomar Conference on Signals, Systems, and Computers*, pages 125–129. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Baruah:2018:EVI

[6548] Rashmita Baruah, Preetisudha Meher, and Ashwini Kumar Pradhan. *Efficient VLSI Implementation of CORDIC-Based Multiplier Architecture*, pages 441–450. Springer Singapore, December 2018. ISBN 981-13-3329-7. ISSN 2194-5365.

Becker:2018:NOS

[6549] Ruben Becker, Michael Sagraloff, Vikram Sharma, and Chee Yap. A near-optimal subdivision algorithm for complex root isolation based on the Pellet test and Newton iteration. *Journal of Symbolic Computation*, 86(??):51–96, May/June 2018. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0747717117300378`.

Boldo:2018:FPA

[6550] Sylvie Boldo, Florian Faissole, and Vincent Tourneur. A formally-proved algorithm to compute the correct average of decimal floating-point numbers. In Tenca and Takagi [8100], pages 69–75. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Bradbury:2018:RSR

[6551] Jonathan D. Bradbury, Steven R. Carlough, Brian R. Prasky, and Eric M. Schwarz. Reproducible stochastic rounding for out of order processors. U.S. Patent US10209958B2, July 23, 2018. Patent granted 19 February 2019; expired (fee related).

Brisebarre:2018:HTP

[6552] Nicolas Brisebarre, George Constantinides, Miloš Ercezovac, Silviu-Ioan Filip, Matei Istoan, and Jean-Michel Muller. A high throughput polynomial and rational function approximations evaluator. In Tenca and Takagi [8100], pages 99–106. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Bruguera:2018:PII

[6553] J. D. Bruguera. Radix-64 floating-point divider. In *Proceedings of the 25th IEEE International Symposium on Computer Arithmetic*, pages 87–94. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Bruguera:2018:RFP

[6554] Javier D. Bruguera. Radix-64 floating-point divider. In Tenca and Takagi [8100], pages 84–91. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Cannizzo:2018:FVA

[6555] Fabio Cannizzo. A fast and vectorizable alternative to binary search in $O(1)$ with wide applicability to arrays of floating point numbers. *Journal of Parallel and Distributed Computing*, 113(??):37–54, March 2018. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0743731517302836`.

Canto-Navarro:2018:FPA

[6556] E. Cantó-Navarro, M. López-García, and R. Ramos-Lara. Floating-point accelerator for biometric recognition on FPGA embedded systems.

Journal of Parallel and Distributed Computing, 112 (part 1)(??):20–34, February 2018. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0743731517302642`.

Chatelain:2018:VCE

[6557] Yohan Chatelain, Pablo De Oliveira Castro, Eric Petit, David Defour, Jordan Bieder, and Marc Torrent. VeriTracer: Context-enriched tracer for floating-point arithmetic analysis. In Tenca and Takagi [8100], pages 61–68. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Chaurasiya:2018:PPA

[6558] Rohit Chaurasiya, John Gustafson, Rahul Shrestha, Jonathan Neudorfer, Sangeeth Nambiar, Kaustav Niyogi, Farhad Merchant, and Rainer Leupers. Parameterized posit arithmetic hardware generator. In IEEE, editor, *2018 IEEE 36th International Conference on Computer Design (ICCD)*, pages 334–341. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Chen:2018:MMU

[6559] Jianyu Chen and Zaid Al-Ars. A matrix-multiply unit for posits in reconfigurable logic using (OPEN)CAPI. In ACM [8099], pages 1–5.

Cherkaev:2018:SLN

[6560] Annie Cherkaev. The secret life of NaN. Web site, March 2018. URL `https://anniecherkaev.com/the-secret-life-of-nan`.

Chung:2018:PCP

[6561] Shin Yee Chung. Provably correct posit arithmetic with fixed-point big integer. In ACM [8099], pages 1–5.

Cococcioni:2018:EPA

[6562] Marco Cococcioni, Emanuele Ruffaldi, and Sergio Saponara. Exploiting posit arithmetic for deep neural networks in autonomous driving applications. In IEEE, editor, *2018 International Conference of Electrical and Electronic Technologies for Automotive*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Costello:2018:MCT

[6563] Craig Costello and Benjamin Smith. Montgomery curves and their arithmetic. *Journal of Cryptographic Engineering*, 8(3):227–240, September 2018. CODEN ???? ISSN 2190-8508 (print), 2190-8516 (electronic). URL http://link.springer.com/article/10.1007/s13389-017-0157-6.

Dai:2018:FBM

[6564] Wangchen Dai, Donglong Chen, Ray C. C. Cheung, and Çetin Kaya Koç. FFT-based McLaughlin's Montgomery exponentiation without conditional selections. *IEEE Transactions on Computers*, 67(9):1301–1314, September 2018. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL https://ieeexplore.ieee.org/document/8307235/.

Dai:2018:SAM

[6565] Wangchen Dai and Ray C. C. Cheung. Spectral arithmetic in Montgomery modular multiplication. *Journal of Cryptographic Engineering*, 8(3):211–226, September 2018. CODEN ???? ISSN 2190-8508 (print), 2190-8516 (electronic). URL http://link.springer.com/article/10.1007/s13389-017-0151-z.

Das:2018:MPT

[6566] Dipankar Das, Naveen Mellempudi, Dheevatsa Mudigere, Dhiraj Kalamkar, Sasikanth Avancha, Kunal Banerjee, Srinivas Sridharan, Karthik Vaidyanathan, Bharat Kaul, Evangelos Georganas, Alexander Heinecke, Pradeep Dubey, Jesus Corbal, Nikita Shustrov, Roma Dubtsov, Evarist Fomenko, and Vadim Pirogov. Mixed precision training of convolutional neural networks using integer operations. *arXiv.org*, page 11, February 3, 2018. URL https://arxiv.org/abs/1802.00930.

De:2018:MLH

[6567] Debaprasad De, Archisman Ghosh, K. Gaurav Kumar, Anurup Saha, and Mrinal Kanti Naskar. Multiplier-less hardware realization of trigonometric functions for high speed applications. In *2018 IEEE Applied Signal Processing Conference (ASPCON)*, pages 149–152. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Defour:2018:FAR

[6568] David Defour. FP-ANR: A representation format to handle floating-point cancellation at run-time. In Tenca and Takagi [8100], pages 76–83. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Demmel:2018:RBM

[6569] James Demmel, Jason Riedy, and Peter Ahrens. Reproducible BLAS: Make addition associative again! *SIAM News*, 51(8):??, October 2018. ISSN 0036-1437. URL https://sinews.siam.org/Details-Page/reproducible-blas-make-addition-associative-again.

Dolbeau:2018:TPF

[6570] Romain Dolbeau. Theoretical peak FLOPS per instruction set: a tutorial. *The Journal of Supercomputing*, 74(3):1341–1377, March 2018. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic).

Doliskani:2018:SCR

[6571] Javad Doliskani, Pascal Giorgi, Romain Lebreton, and Eric Schost. Simultaneous conversions with the residue number system using linear algebra. *ACM Transactions on Mathematical Software*, 44(3):27:1–27:21, April 2018. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL https://dl.acm.org/citation.cfm?id=3145573.

Dosso:2018:EAC

[6572] Yssouf Dosso, Fabien Herbaut, Nicolas Méloni, and Pascal Véron. Euclidean addition chains scalar multiplication on curves with efficient endomorphism. *Journal of Cryptographic Engineering*, 8(4):351–367, November 2018. CODEN ???? ISSN 2190-8508 (print), 2190-8516 (electronic). URL http://link.springer.com/article/10.1007/s13389-018-0190-0.

Drucker:2018:CRS

[6573] Nir Drucker, Shay Gueron, and Vlad Krasnov. The comeback of Reed–Solomon codes. In Tenca and Takagi [8100], pages 125–129. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Drucker:2018:FMB

[6574] Nir Drucker, Shay Gueron, and Vlad Krasnov. Fast multiplication of binary polynomials with the forthcoming vectorized VPCLMULQDQ instruction. In Tenca and Takagi [8100], pages 115–119. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Dutt:2018:ADA

[6575] Sunil Dutt, Sukumar Nandi, and Gaurav Trivedi. Analysis and design of adders for approximate computing. *ACM Transactions on Embedded*

Computing Systems, 17(2):40:1–40:??, April 2018. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic).

Emmart:2018:FME

[6576] Niall Emmart, Fangyu Zhengt, and Charles Weems. Faster modular exponentiation using double precision floating point arithmetic on the GPU. In Tenca and Takagi [8100], pages 130–137. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Emmart:2018:NVB

[6577] Niall Emmart, Fangyu Zheng, and Charles Weems. A new variant of the Barrett algorithm applied to quotient selection. In Tenca and Takagi [8100], pages 138–144. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Ferguson:2018:DSM

[6578] Warren E. Ferguson, Jesse Bingham, Levent Erkök, John R. Harrison, and Joe Leslie-Hurd. Digit serial methods with applications to division and square root. *IEEE Transactions on Computers*, 67(3):449–456, March 2018. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/8060979/`.

Garland:2018:LCM

[6579] James Garland and David Gregg. Low complexity multiply-accumulate units for convolutional neural networks with weight-sharing. *ACM Transactions on Architecture and Code Optimization*, 15(3):31:1–31:??, October 2018. CODEN ???? ISSN 1544-3566 (print), 1544-3973 (electronic).

Glaser:2018:MMU

[6580] Florian Glaser, Stefan Mach, Abbas Rahimi, Frank K. Gürkaynak, Qiuting Huang, and Luca Benini. An 826 MOPS, 210uW/MHz unum ALU in 65nm. In *2018 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Graillat:2018:NVC

[6581] Stef Graillat, Fabienne Jézéquel, and Romain Picot. Numerical validation of compensated algorithms with stochastic arithmetic. *Applied Mathematics and Computation*, 329(??):339–363, July 15,

2018. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0096300318300985.

Haidar:2018:DFE

[6582] Azzam Haidar, Ahmad Abdelfattah, Mawussi Zounon, Panruo Wu, Srikara Pranesh, Stanimire Tomov, and Jack Dongarra. The design of fast and energy-efficient linear solvers: on the potential of half-precision arithmetic and iterative refinement techniques. In *Computational science—ICCS 2018. Part I*, volume 10860 of *Lecture Notes in Computer Science*, pages 586–600. Springer, Cham, Switzerland, 2018.

Haidar:2018:HGT

[6583] Azzam Haidar, Stanimire Tomov, Jack Dongarra, and Nicholas J. Higham. Harnessing GPU Tensor Cores for fast FP16 arithmetic to speed up mixed-precision iterative refinement solvers. In IEEE, editor, *SC '18 Proceedings of the International Conference for High Performance Computing, Networking, Storage, and Analysis, Dallas, Texas, November 11–16, 2018*, pages 603–613. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018. ISBN 1-5386-8384-9. LCCN ???? URL https://dl.acm.org/citation.cfm?id=3291656.3291719.

Hanson:2018:RAM

[6584] Richard J. Hanson and Tim Hopkins. Remark on Algorithm 539: A Modern Fortran Reference Implementation for Carefully Computing the Euclidean Norm. *ACM Transactions on Mathematical Software*, 44(3): 24:1–24:23, April 2018. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL https://dl.acm.org/citation.cfm?id=3134441.

Hasanikhah:2018:EIS

[6585] Narjes Hasanikhah, Siavash Amin-Nejad, Ghafar Darvish, and M. R. Moniri. Efficient implementation of space-time adaptive processing for adaptive weights calculation based on floating point FPGAs. *The Journal of Supercomputing*, 74(7):3193–3210, July 2018. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic).

Higham:2018:HPA

[6586] Nicholas J. Higham. Half precision arithmetic: fp16 versus bfloat16. Web site., December 3, 2018. URL https://nickhigham.wordpress.com/2018/12/03/half-precision-arithmetic-fp16-versus-bfloat16/.

Higham:2018:UN

[6587] Nicholas J. Higham. The unwinding number. *SIAM News*, 51(8): ??, October 2018. ISSN 0036-1437. URL `https://sinews.siam.org/Details-Page/the-unwinding-number`.

Hines:2018:MPS

[6588] Jonathan Hines. Mixed precision: A strategy for new science opportunities. *Computing in Science and Engineering*, 20(6):67–71, November/December 2018. CODEN CSENFA. ISSN 1521-9615 (print), 1558-366X (electronic). URL `https://www.computer.org/csdl/mags/cs/2018/06/08625902-abs.html`.

Hoang:2018:VDF

[6589] Trong-Thuc Hoang, Duc-Hung Le, and Cong-Kha Pham. VLSI design of floating-point twiddle factor using adaptive CORDIC on various iteration limitations. In *2018 IEEE 12th International Symposium on Embedded Multicore/Many-core Systems-on-Chip (MCSoC)*, pages 225–232. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Hou:2018:EAD

[6590] Junjie Hou, Yongxin Zhu, Sen Du, and Shijin Song. Enhancing accuracy and dynamic range of scientific data analytics by implementing posit arithmetic on FPGA. *Journal of Signal Processing Systems*, 91(10):1137–1148, November 2018. ISSN 1939-8018 (print), 1939-8115 (electronic).

Hrycak:2018:ECP

[6591] Tomasz Hrycak and Sebastian Schmutzhard. Evaluation of Chebyshev polynomials by a three-term recurrence in floating-point arithmetic. *BIT Numerical Mathematics*, 58(2):317–330, June 2018. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `https://link.springer.com/article/10.1007/s10543-017-0683-8`.

Hutter:2018:FMP

[6592] Michael Hutter and Erich Wenger. Fast multi-precision multiplication for public-key cryptography on embedded microprocessors. *Journal of Cryptology: the journal of the International Association for Cryptologic Research*, 31(4):1164–1182, October 2018. CODEN JOCREQ. ISSN 0933-2790 (print), 1432-1378 (electronic). URL `https://link.springer.com/article/10.1007/s00145-018-9298-8`.

Ichimura:2018:FSI

[6593] Tsuyoshi Ichimura, Kohei Fujita, Takuma Yamaguchi, Akira Naruse, Jack C. Wells, Thomas C. Schulthess, Tjerk P. Straatsma, Christopher J. Zimmer, Maxime Martinasso, Kengo Nakajima, Muneo Hori, and Lalith Maddegedara. A fast scalable implicit solver for nonlinear time-evolution earthquake city problem on low-ordered unstructured finite elements with artificial intelligence and transprecision computing. In *SC18: International Conference for High Performance Computing, Networking, Storage and Analysis*, pages 627–637. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Intel:2018:BHN

[6594] Intel Corporation. BFLOAT16 — hardware numerics definition. White paper 338302-001US, Intel Corporation, Santa Clara, CA, USA, November 2018. 7 pp. URL `https://software.intel.com/en-us/download/bfloat16-hardware-numerics-definition`.

Jaiswal:2018:AGT

[6595] Manish Kumar Jaiswal and Hayden K.-H So. Architecture generator for Type-3 unum posit adder/subtractor. In IEEE, editor, *2018 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Jaiswal:2018:UNP

[6596] Manish Kumar Jaiswal and Hayden K.-H So. Universal number posit arithmetic generator on FPGA. In IEEE, editor, *2018 Design, Automation & Test in Europe Conference & Exhibition (DATE)*, pages 1159–1162. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Jeangoudoux:2018:CRM

[6597] Clothilde Jeangoudoux and Christoph Lauter. A correctly rounded mixed-radix fused-multiply-add. In Tenca and Takagi [8100], pages 21–28. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Jeannerod:2018:REF

[6598] Claude-Pierre Jeannerod and Siegfried M. Rump. On relative errors of floating-point operations: Optimal bounds and applications. *Mathematics of Computation*, 87(310): 803–819, 2018. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.ams.org/journals/mcom/2018-87-310/S0025-5718-2017-03234-8; http://www.ams.org/journals/mcom/2018-87-310/S0025-5718-2017-03234-8/S0025-5718-2017-03234-8.pdf; https://www.ams.org/mathscinet/search/authors.html?authorName=Rump%2C%20Siegfried%20M.; https://www.ams.org/mathscinet/search/authors.html?mrauthid=644190.

Jeannerod:2018:VWS

[6599] Claude-Pierre Jeannerod, Jean-Michel Muller, and Paul Zimmermann. On various ways to split a floating-point number. In Tenca and Takagi [8100], pages 53–60. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Jeon:2018:HMP

[6600] Dong-Ik Jeon, Kyeong-Bin Park, and Ki-Seok Chung. HMC-MAC: Processing-in memory architecture for multiply–accumulate operations with hybrid memory cube. *IEEE Computer Architecture Letters*, 17(1): 5–8, January/June 2018. CODEN ???? ISSN 1556-6056 (print), 1556-6064 (electronic).

Jiang:2018:EFD

[6601] Xiaoyu Jiang and Kicheon Hong. Explicit form of determinants and inverse matrices of Tribonacci r-circulant type matrices. *Journal of Mathematical Chemistry*, 56(4):1234–1249, April 2018. CODEN JMCHEG. ISSN 0259-9791 (print), 1572-8897 (electronic). URL https://link.springer.com/article/10.1007/s10910-017-0843-8.

Johnson:2018:RFP

[6602] Jeff Johnson. Rethinking floating point for deep learning. *arXiv.org*, page 8, November 1, 2018. URL https://arxiv.org/abs/1811.01721.

Kohlbecker:2018:SNF

[6603] Ignaz Kohlbecker. The slide number format. In ACM [8099], pages 1–6.

Kromer:2018:AQO

[6604] Pavel Krömer, Jan Platoš, Jana Nowaková, and Václav Snášel. An acceleration of quasigroup operations by residue arithmetic. *Concurrency and Computation: Practice and Experience*, 30(2):??, January 25, 2018. CODEN CCPEBO. ISSN 1532-0626 (print), 1532-0634 (electronic).

Kumari:2018:RLS

[6605] Aishwarya Kumari and D. P. Acharya. *Reduced Latency Square-Root Calculation for Signal Processing Using Radix-4 Hyperbolic CORDIC*, pages 219–225. Springer Singapore, 2018. ISBN 981-10-8636-2. ISSN 2194-5365.

Kumm:2018:KRM

[6606] Martin Kumm, Oscar Gustafsson, Florent de Dinechin, Johannes Kappauf, and Peter Zipf. Karatsuba with rectangular multipliers for FPGAs. In Tenca and Takagi [8100], pages 13–20. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Kumm:2018:OSC

[6607] Martin Kumm, Oscar Gustafsson, Mario Garrido, and Peter Zipf. Optimal single constant multiplication using ternary adders. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 65(7):928–932, July 2018. ISSN 1549-7747 (print), 1558-3791 (electronic).

Kwon:2018:IJX

[6608] Oh-Jin Kwon, Seungcheol Choi, and Dongkyoo Shin. Improvement of JPEG XT floating-point HDR image coding using region adaptive prediction. *IEEE Access*, 6:3321–3335, 2018. ISSN 2169-3536.

Lam:2018:FGF

[6609] Michael O. Lam and Jeffrey K. Hollingsworth. Fine-grained floating-point precision analysis. *The International Journal of High Performance Computing Applications*, 32(2):231–245, 2018. CODEN IHPCFL. ISSN 1094-3420 (print), 1741-2846 (electronic). URL `http://journals.sagepub.com/doi/full/10.1177/1094342016652462`.

Langhammer:2018:HDP

[6610] Martin Langhammer and Gregg Baeckler. High density and performance multiplication for FPGA. In Tenca and Takagi [8100], pages 5–12. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Langroudi:2018:DLI

[6611] Seyed Hamed Fatemi Langroudi, Tej Pandit, and Dhireesha Kudithipudi. Deep learning inference on embedded devices: Fixed-point vs posit. In IEEE, editor, *2018 1st Workshop on Energy Efficient Machine Learning and Cognitive Computing for Embedded Applications (EMC2)*, pages 19–23. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Lee:2018:APC

[6612] Wonyeol Lee, Rahul Sharma, and Alex Aiken. On automatically proving the correctness of `math.h` implementations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):47:1–47:??, January 2018. CODEN ???? ISSN 2475-1421.

Lehoczky:2018:HLN

[6613] Zoltán Lehóczky, András Retzler, Richárd Tóth, Álmos Szabó, Benedek Farkas, and Krisztián Somogyi. High-level .NET software implementations of unum Type I and posit with simultaneous FPGA implementation using Hastlayer. In ACM [8099], pages 1–7.

Leong:2018:SV

[6614] Cerlane Leong. SoftPosit version 0.4.1rc. Web source code., 2018. URL `https://gitlab.com/cerlane/SoftPosit`.

Li:2018:DEA

[6615] He Li, James J. Davis, John Wickerson, and George A. Constantinides. Digit elision for arbitrary-accuracy iterative computation. In Tenca and Takagi [8100], pages 107–114. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Lie:2018:FPU

[6616] Sean Lie, Michael Edwin James, Michael Morrison, Gary R. Lauterbach, and Srikanth Arekapudi. Floating-point unit stochastic rounding for accelerated deep learning. U.S. Patent US11449574B2, April 13, 2018. Patent granted 20 September 2022; expires 29 November 2038.

Lindstrom:2018:UCR

[6617] Peter Lindstrom, Scott Lloyd, and Jeffrey Hittinger. Universal coding of the reals: Alternatives to IEEE floating point. In ACM [8099], pages 1–14.

Liu:2018:CRA

[6618] Weiqiang Liu, Jing Li, Tao Xu, Chenghua Wang, Paolo Montuschi, and Fabrizio Lombardi. Combining restoring array and logarithmic dividers into an approximate hybrid design. In Tenca and Takagi [8100], pages 92–98. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Loeffler:2018:WBP

[6619] John Loeffler. When bad programming turns deadly: A look at programming disasters and how bad programming can be deadly. *Interesting Engineering*, ??(??):??, November 22, 2018. URL `https://interestingengineering.com/when-bad-programming-turns-deadly`.

Marchese:2018:ACM

[6620] Sergio Marchese. AI chips must get the floating-point math right: Formal verification of FPUs is no longer a prerogative of big companies spending big bucks. Web site., September 27, 2018.

Markidis:2018:NTC

[6621] Stefano Markidis, Steven Wei Der Chien, Erwin Laure, Ivy Bo Peng, and Jeffrey S. Vetter. NVIDIA tensor core programmability, performance & precision. In *2018 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW)*, pages 522–531. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, May 2018.

Mikaitis:2018:AFP

[6622] Mantas Mikaitis, David R. Lester, Delong Shang, Steve Furber, Gengting Liu, Jim Garside, Stefan Scholze, Sebastian Höppner, and Andreas Dixius. Approximate fixed-point elementary function accelerator for the SpiNNaker-2 neuromorphic chip. In Tenca and Takagi [8100], pages 37–44. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Mokhtar:2018:ITF

[6623] A. S. N. Mokhtar, M. I. Ayub, N. Ismail, and N. G. Nik Daud. Implementation of trigonometric function using CORDIC algorithms. In *AIP Conference Proceedings*, volume 1930, page 020040. American Institute of Physics, Woodbury, NY, USA, 2018. ISSN 0094-243X.

Moroz:2018:FCI

[6624] Leonid V. Moroz, Cezary J. Walczyk, Andriy Hrynchyshyn, Vijay Holimath, and Jan L. Cieśliński. Fast calculation of inverse square root with the use of magic constant — analytical approach. *Applied Mathematics and Computation*, 316(??):245–255, January 1, 2018. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300317305763`.

Muller:2018:HFP

[6625] Jean-Michel Muller, Nicolas Brunie, Florent de Dinechin, Claude-Pierre Jeannerod, Mioara Joldes, Vincent Lefèvre, Guillaume Melquiond, Nathalie Revol, and Serge Torres. *Handbook of Floating-Point Arithmetic*. Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, second edition, 2018. ISBN 3-319-76525-6, 3-319-76526-4 (e-book). xxv + 627 pp. LCCN QA76.9.C62.

Munoz-Coreas:2018:CQO

[6626] Edgard Muñoz-Coreas and Himanshu Thapliyal. T-count and qubit optimized quantum circuit design of the non-restoring square root algorithm. *ACM Journal on Emerging Technologies in Computing Systems (JETC)*, 14(3):36:1–36:15, October 2018. CODEN ???? ISSN 1550-4832 (print), 1550-4840 (electronic).

Nannarelli:2018:TFP

[6627] Alberto Nannarelli. Tunable floating-point for energy efficient accelerators. In Tenca and Takagi [8100], pages 29–36. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Nguyen:2018:EFP

[6628] Hong-Thu Nguyen, Xuan-Thuan Nguyen, and Cong-Kha Pham. An efficient fixed-point arithmetic processor using a hybrid CORDIC algorithm. In *2018 23rd Asia and South Pacific Design Automation Conference (ASP-DAC)*, pages 327–328. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Numahata:2018:RAS

[6629] Dai Numahata and Hiroshi Sekigawa. Robust algorithms for sparse interpolation of multivariate polynomials. *ACM Communications in Computer Algebra*, 52(4):145–147, December 2018. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Oliveira:2018:MLB

[6630] Thomaz Oliveira, Julio López, and Francisco Rodríguez-Henríquez. The Montgomery ladder on binary elliptic curves. *Journal of Cryptographic Engineering*, 8(3):241–258, September 2018. CODEN ???? ISSN 2190-8508 (print), 2190-8516 (electronic). URL `http://link.springer.com/article/10.1007/s13389-017-0163-8`.

Omari:2018:ICB

[6631] Mohammed Omari and Salah Yaichi. Image compression based on mapping image fractals to rational numbers. *IEEE Access*, 6:47062–47074, 2018. ISSN 2169-3536.

Pendem:2018:ECA

[6632] Suganda Pendem and Rajshekar B. Shettar. Enhancing computational accuracy and performance of interval arithmetic double rotation CORDIC algorithm. In *2018 International Conference on Networking, Embedded and Wireless Systems (ICNEWS)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Peou:2018:CSO

[6633] Kenny Peou, Alan Kelly, Joel Falcou, and Cecile Germain. A case study on optimizing accurate half precision average. In IEEE, editor, *2018 30th International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD): Lyon, France, 24–27 September 2018*, pages 356–363. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, September 2018. ISBN 1-5386-7769-5.

Podobas:2018:HIP

[6634] Artur Podobas and Satoshi Matsuoka. Hardware implementation of POSITs and their application in FPGAs. In IEEE, editor, *2018 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW)*, pages 138–145. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Popescu:2018:FPN

[6635] Valentina Popescu, Marcel Nassar, Xin Wang, Evren Tumer, and Tristania Webb. Flexpoint: Predictive numerics for deep learning. In Tenca and Takagi [8100], pages 1–4. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Radford:2018:FIF

[6636] Peter Radford. A "Feature" of IBM 360 floating point. *Resurrection: The Journal of the Computer Conservation Society*, ??(82):??, Summer 2018. ISSN 0958-7403. URL `https://computerconservationsociety.org/resurrection/res82.htm#f`.

Ram:2018:FVF

[6637] Ravi Ram, Adam Elkins, Adnan Pratama, Sasa Stamenkovic, Sven Beyer, and Sergio Marchese. Formal verification of floating-point hardware with assertion-based VIP. In ????, editor, *Proceedings of DVCon US 2018*, pages 1–9. ????, ????, June 5, 2018. URL `https://www.onespin.com/fileadmin/user_upload/pdf/whitepapers/Formal_Verification_of_Floating_Point_Hardware.pdf`.

Reddy:2018:DAD

[6638] K. Manikantta Reddy, M. H. Vasantha, Y. B. Nithin Kumar, and Devesh Dwivedi. Design of approximate dividers for error tolerant applications. In *2018 IEEE 61st International Midwest Symposium on Circuits and Systems (MWSCAS)*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, August 2018.

Reyhani-Masoleh:2018:NAR

[6639] Arash Reyhani-Masoleh, Mostafa Taha, and Doaa Ashmawy. New area record for the AES combined S-box/inverse S-box. In Tenca and Takagi [8100], pages 145–152. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Riedy:2018:AAO

[6640] Jason Riedy and James Demmel. Augmented arithmetic operations proposed for IEEE-754 2018. In Tenca and Takagi [8100], pages 45–52. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Rodriguez-Henriquez:2018:SIH

[6641] Francisco Rodríguez-Henríquez and Erkay Savas. Special issue in honor of Peter Lawrence Montgomery. *Journal of Cryptographic Engineering*, 8(3):185–187, September 2018. CODEN ???? ISSN 2190-8508 (print), 2190-8516 (electronic). URL `http://link.springer.com/article/10.1007/s13389-017-0168-3; https://link.springer.com/content/pdf/10.1007/s13389-017-0168-3.pdf`.

Saadat:2018:MBM

[6642] Hassaan Saadat, Haseeb Bokhari, and Sri Parameswaran. Minimally biased multipliers for approximate integer and floating-point multiplication. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 37(11):2623–2635, November 2018. CODEN ITCSDI. ISSN 0278-0070 (print), 1937-4151 (electronic).

Sanchez-Stern:2018:FRC

[6643] Alex Sanchez-Stern, Pavel Panchekha, Sorin Lerner, and Zachary Tatlock. Finding root causes of floating point error. *ACM SIGPLAN Notices*, 53(4):256–269, April 2018. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Savas:2018:MI

[6644] Erkay Savas and Çetin Kaya Koç. Montgomery inversion. *Journal of Cryptographic Engineering*, 8(3):201–210, September 2018. CODEN ???? ISSN 2190-8508 (print), 2190-8516 (electronic). URL http://link.springer.com/article/10.1007/s13389-017-0161-x.

Schneider:2018:USS

[6645] D. Schneider. U.S. supercomputing strikes back. *IEEE Spectrum*, 55 (1):52–53, January 2018. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).

Seo:2018:FBM

[6646] Jungjoo Seo and Kunsoo Park. Fast batch modular exponentiation with common-multiplicand multiplication. *Information Processing Letters*, 129(??):5–10, January 2018. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0020019017301527.

Shirriff:2018:TBP

[6647] Ken Shirriff. Two bits per transistor: high-density ROM in Intel's 8087 floating point chip. Blog posting, September 2018. URL https://ieeemilestones.ethw.org/w/images/6/66/Shirriff_8087_two_bit_transistors.pdf; https://www.righto.com/2018/09/two-bits-per-transistor-high-density.html. Analysis of the transistors invented by the 8087 team in order to reduce the footprint of the microcode ROM on the die. See patent [1488].

Trader:2018:ICS

[6648] Tiffany Trader. Inventor claims to have solved floating point error problem. HPC Web site., January 17, 2018. URL https://www.hpcwire.com/2018/01/17/inventor-claims-solved-floating-point-error-problem/. From the HPC editor: "After this article was published, a number of readers raised concerns about the originality of Jorgensen's techniques, noting the existence of prior art going back years. Specifically, there is precedent in John Gustafson's work on unums and interval arithmetic both at Sun and in his 2015 book, *The End of Error*, which was published 19 months before Jorgensen's patent application was filed. ".

Villalba-Moreno:2018:FHF

[6649] Julio Villalba-Moreno, Javier Hormigo, and Sonia González-Navarro. Fast HUB floating-point adder for FPGA. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 66(6):1028–1032, June 2018. CODEN ???? ISSN 1549-7747 (print), 1558-3791 (electronic). URL `https://ieeexplore.ieee.org/document/8477084`.

Villalba-Moreno:2018:URH

[6650] Julio Villalba-Moreno, Javier Hormigo, and Sonia González-Navarro. Unbiased rounding for HUB floating-point addition. *IEEE Transactions on Computers*, 67(9):1359–1365, September 2018. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/8300633/`.

Walczyk:2018:IAF

[6651] Cezary J. Walczyk, Leonid V. Moroz, and Jan L. Cieśliński. Improving the accuracy of the fast inverse square root algorithm. *arXiv.org*, ??(??): 1–21, February 17, 2018. URL `https://arxiv.org/abs/1802.06302`.

Wang:2018:TDN

[6652] Naigang Wang, Jungwook Choi, Daniel Brand, Chia-Yu Chen, and Kailash Gopalakrishnan. Training Deep Neural Networks with 8-bit floating point numbers. In S. Bengio et al., editors, *Proceedings of the 32nd Conference on Neural Information Processing Systems (NeurIPS 2018), Montréal, Canada*, pages 7675–7684. Curran Associates, Inc., ????, 2018. URL `https://arxiv.org/abs/1812.08011; https://papers.nips.cc/paper/7994-training-deep-neural-networks-with-8-bit-floating-point-numbers.pdf`.

Yang:2018:OMP

[6653] Xiong Yang, Hongbin Zhang, Tianyou Cheng, Xuebin Ni, Chenhao Wu, Huaizhi Zong, Haojian Lu, Zhiguo Lu, and Yajing Shen. An omnidirectional and movable palletizing robot based on computer vision positing. In IEEE, editor, *2018 IEEE International Conference on Intelligence and Safety for Robotics (ISR)*, pages 423–428. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Yeshwanth:2018:HSS

[6654] Balaji Yeshwanth, Vutukuri Venkatesh, and Repala Akhil. High-speed single precision floating point multiplier using CORDIC algorithm. In

2018 International Conference on Electrical, Electronics, Communication, Computer, and Optimization Techniques (ICEECCOT), pages 135–141. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Zhang:2018:HSA

[6655] Yunxiang Zhang, Xiaokun Yang, Lei Wu, Archit Gajjar, and Han He. Hierarchical synthesis of approximate multiplier design for field-programmable gate arrays (FPGA)-CSRmesh system. *International Journal of Computer Applications*, 180(??):1–7, February 2018. CODEN ???? ISSN 0975-8887. URL `https://www.ijcaonline.org/archives/volume180/number17/29021-2018916380/`.

Abdelfattah:2019:THP

[6656] Ahmad Abdelfattah, Stanimire Tomov, and Jack Dongarra. Towards half-precision computation for complex matrices: a case study for mixed precision solvers on GPUs. In *2019 IEEE/ACM 10th Workshop on Latest Advances in Scalable Algorithms for Large-Scale Systems (ScalA)*, pages 17–24. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Adams:2019:RRP

[6657] Ulf Adams. Ryū revisited: `printf` floating point conversion. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):169:1–169:23, October 2019. ISSN 2475-1421. URL `https://dl.acm.org/doi/abs/10.1145/3360595`.

Adams:2019:URP

[6658] Ulf Adams, Stephan T. Lavavej, Alexander Bolz, Vinnie Falco, David Tolnay, Mitchell Blank, Jr., Mara Bos, Caleb Spare, and Alexander Iljin. ulfjack/ryu: Printf support. Web site, August 12, 2019. URL `https://github.com/ulfjack/ryu/tree/v2.0`; `https://zenodo.org/record/3366212`.

Agrawal:2019:DBF

[6659] Ankur Agrawal, Silvia M. Mueller, Bruce M. Fleischer, Xiao Sun, Naigang Wang, Jungwook Choi, and Kailash Gopalakrishnan. DLFloat: A 16-b floating point format designed for deep learning training and inference. In Takagi et al. [8102], pages 92–95. ISBN 1-72813-366-1. ISSN 1063-6889.

Anderson:2019:SAM

[6660] Andrew Anderson, Michael Doyle, and David Gregg. Scalar arithmetic multiple data: Customizable precision for deep neural networks. In Takagi et al. [8102], pages 61–68. ISBN 1-72813-366-1. ISSN 1063-6889.

Andrlon:2019:OBF

[6661] Mak Andrlon, Peter Schachte, Harald Søndergaard, and Peter J. Stuckey. Optimal bounds for floating-point addition in constant time. In Takagi et al. [8102], pages 159–166. ISBN 1-72813-366-1. ISSN 1063-6889.

Anonymous:2019:CPC

[6662] Anonymous. Computational 'pathology' could hamper climate and fusion simulations. *Physics World*, September 26, 2019. CODEN PHWOEW. ISSN 0953-8585 (print), 2058-7058 (electronic). URL `https://physicsworld.com/a/computational-pathology-could-hamper-climate-and-fusion-simulations/`. See [6678].

Anonymous:2019:MCT

[6663] Anonymous. Multiprecision computing toolbox for MATLAB. Web site, September 26, 2019. URL `https://www.advanpix.com/`.

Anonymous:2019:RMV

[6664] Anonymous. Realtime Math v1.0 open sourced. Web site, January 19, 2019. URL `https://www.gamedev.net/news/realtime-math-v10-open-sourced-r740/`.

Anonymous:2019:SOL

[6665] Anonymous. SiSoftware official live ranker: Top processor arithmetic ranks. Web site, 2019. Floating-point performance ranking of more than 94,500 CPU models.

Anonymous:2019:UFP

[6666] Anonymous. Universal floating-point instruction set architecture, method, and language for computing directly with decimal character sequences and binary formats in any combination. Attorney Docket No. 6324-5986, August 14, 2019. URL `https://drive.google.com/file/d/1-gx_P5vBRppa6T3rdv8h6RNXz2Q_ILwg/view`; `https://drive.google.com/file/d/1fOhVAwdhiebumKkgljKfLqyOaFpUDhQL/view`.

Anonymous:2019:YAF

[6667] Anonymous. Yet another floating point tutorial. Web site, 2019. URL `https://wordsandbuttons.online/yet_another_floating_point_tutorial.html`.

Arnold:2019:UOD

[6668] Mark G. Arnold, Ioannis Kouretas, Vassilis Paliouras, and John R. Cowles. Under- and overflow detection in the residue logarithmic number system. In Takagi et al. [8102], pages 112–115. ISBN 1-72813-366-1. ISSN 1063-6889.

Arzelier:2019:EAE

[6669] Denis Arzelier, Florent Bréhard, and Mioara Joldes. Exchange algorithm for evaluation and approximation error-optimized polynomials. In Takagi et al. [8102], pages 30–37. ISBN 1-72813-366-1. ISSN 1063-6889.

Bailey:2019:AM

[6670] David H. Bailey. An $n\log(n)$ algorithm for multiplication. Math Scholar blog, April 12, 2019. URL `https://mathscholar.org/2019/04/an-n-log-n-algorithm-for-multiplication/`.

Barthel:2019:SAM

[6671] Moritz Bärthel, Pascal Seidel, Jochen Rust, and Steffen Paul. SORN arithmetic for MIMO symbol detection — exploration of the Type-2 unum format. In *2019 17th IEEE International New Circuits and Systems Conference (NEWCAS)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Beame:2019:TVN

[6672] Paul Beame and Vincent Liew. Toward verifying nonlinear integer arithmetic. *Journal of the Association for Computing Machinery*, 66 (3):22:1–22:??, June 2019. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3319396`.

Bellal:2019:IAA

[6673] R. Bellal, E. Lamini, H. Belbachir, S. Tagzout, and A. Belouchrani. Improved affine arithmetic-based precision analysis for polynomial function evaluation. *IEEE Transactions on Computers*, 68(5):702–712, May 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Blanchard:2019:MPB

[6674] Pierre Blanchard, Nicholas J. Higham, Florent Lopez, Theo Mary, and Srikara Pranesh. Mixed precision block fused multiply-add: Error analysis and application to GPU tensor cores. MIMS EPrint 2019.18, Manchester Institute for Mathematical Sciences, School of Mathematics, The University of Manchester, Manchester, UK, September 24, 2019. URL `http://eprints.maths.manchester.ac.uk/2733/`; `https://en.wikipedia.org/wiki/Bfloat16_floating-point_format`.

Bocco:2019:BAF

[6675] Andrea Bocco, Tiago T. Jost, Albert Cohen, Florent de Dinechin, Yves Durand, and Christian Fabre. Byte-aware floating-point operations through a UNUM computing unit. In *2019 IFIP/IEEE 27th International Conference on Very Large Scale Integration (VLSI-SoC)*, pages 323–328. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Bocco:2019:DPN

[6676] Andrea Bocco, Yves Durand, and Florent de Dinechin. Dynamic precision numerics using a variable-precision UNUM Type I HW coprocessor. In Takagi et al. [8102], pages 104–107. ISBN 1-72813-366-1. ISSN 1063-6889.

Bocco:2019:SSM

[6677] Andrea Bocco, Yves Durand, and Florent de Dinechin. SMURF: Scalar Multiple-precision Unum RISC-V Floating-point accelerator for scientific computing. In Gustafson and Dimitrov [8101], pages 1:1–1:8. ISBN 1-4503-7139-6. LCCN ???? URL `https://hal.inria.fr/hal-02087098`.

Boghosian:2019:NPS

[6678] Bruce M. Boghosian, Peter V. Coveney, and Hongyan Wang. A new pathology in the simulation of chaotic dynamical systems on digital computers. *Advanced Theory and Simulations*, page 1900125, September 2019. CODEN ATSDCW. ISSN 2513-0390. URL `https://onlinelibrary.wiley.com/journal/25130390`. See also news releases [6692, 6691, 6804, 6662, 6706, 6716].

Borges:2019:IAH

[6679] Carlos F. Borges. An improved algorithm for `hypot(a,b)`. *arXiv.org*, ?? (??):1–15, June 14, 2019. URL `https://arxiv.org/abs/1904.09481`.

Bos:2019:ACI

[6680] J. W. Bos and S. J. Friedberger. Arithmetic considerations for isogeny-based cryptography. *IEEE Transactions on Computers*, 68(7):979–990, July 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Bright:2019:CEN

[6681] Peter Bright. `calc.exe` is now open source; there's surprising depth in its ancient code. The actual calculation engine is more than 20 years old. Web site, March 7, 2019. URL `https://arstechnica.com/gadgets/2019/03/calc-exe-is-now-open-source-theres-surprising-depth-in-its-ancient-code/`; `https://github.com/Microsoft/calculator`.

Brown:2019:RCF

[6682] Erin Clare Brown. Rust and C++ on floating-point intensive code. Web site., October 19, 2019. URL `https://upshed.com/2019/10/24/rust-and-c-on-floating-point-intensive-code/`.

Bruguera:2019:GEI

[6683] J. D. Bruguera and F. de Dinechin. Guest Editors introduction: Special section on computer arithmetic. *IEEE Transactions on Computers*, 68 (7):951–952, July 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Bui:2019:VMS

[6684] Ngoc-Tu Bui, Trong-Thuc Hoang, Duc-Hung Le, and Cong-Kha Pham. A 0.75-v 32-MHz 181-μW SOTB-65nm floating-point twiddle factor using adaptive CORDIC. In *2019 IEEE International Conference on Industrial Technology (ICIT)*, pages 835–840. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Burgess:2019:BPN

[6685] Neil Burgess, Jelena Milanovic, Nigel Stephens, Konstantinos Monachopoulos, and David Mansell. Bfloat16 processing for neural networks. In Takagi et al. [8102], pages 88–91. ISBN 1-72813-366-1. ISSN 1063-6889.

Burgess:2019:HPA

[6686] Neil Burgess, Chris Goodyer, Christopher N. Hinds, and David R. Lutz. High-precision anchored accumulators for reproducible floating-point summation. *IEEE Transactions on Computers*, 68(7):967–978, July 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Cappello:2019:UCL

[6687] Franck Cappello, Sheng Di, Sihuan Li, Xin Liang, Ali Murat Gok, Dingwen Tao, Chun Hong Yoon, Xin-Chuan Wu, Yuri Alexeev, and Frederic T. Chong. Use cases of lossy compression for floating-point data in scientific data sets. *The International Journal of High Performance Computing Applications*, 33(6):1201–1220, November 1, 2019. CODEN IHPCFL. ISSN 1094-3420 (print), 1741-2846 (electronic). URL `https://journals.sagepub.com/doi/full/10.1177/1094342019853336`.

Carlough:2019:DBF

[6688] Steven R. Carlough, Juergen Haess, Michael Klein, Klaus M. Kroener, Petra Leber, Silvia M. Mueller, and Kerstin Schelm. Decimal and binary floating point arithmetic calculations. US Patent 10,416,962, September 17, 2019. URL `https://patents.google.com/patent/US10416962B2`.

Carmichael:2019:DPD

[6689] Zachariah Carmichael, Hamed F. Langroudi, Char Khazanov, Jeffrey Lillie, John L. Gustafson, and Dhireesha Kudithipudi. Deep Positron: a deep neural network using the posit number system. In IEEE, editor, *2019 Design, Automation & Test in Europe Conference & Exhibition (DATE)*, pages 1421–1426. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Carmichael:2019:PET

[6690] Zachariah Carmichael, Hamed F. Langroudi, Char Khazanov, Jeffrey Lillie, John L. Gustafson, and Dhireesha Kudithipudi. Performance-efficiency trade-off of low-precision numerical formats in deep neural networks. In Gustafson and Dimitrov [8101], pages 3:1–3:9. ISBN 1-4503-7139-6. LCCN ????

Caygill:2019:DCF

[6691] Rebecca Caygill. Digital computers fail to accurately model chaos because of fundamental numbers limit. University College London news release., September 23, 2019. URL `https://scitechdaily.com/digital-computers-fail-to-accurately-model-chaos-because-of-fundamental-numbers-limit/`. See [6678].

Caygill:2019:NLH

[6692] Rebecca Caygill. Numbers limit how accurately digital computers model chaos. University College London news release., September 23, 2019. URL `https://www.eurekalert.org/pub_releases/2019-09/ucl-nlh092019.php`. See [6678].

Chen:2019:EIR

[6693] K. Chen, L. Chen, P. Reviriego, and F. Lombardi. Efficient implementations of reduced precision redundancy (RPR) multiply and accumulate (MAC). *IEEE Transactions on Computers*, 68(5):784–790, May 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Cheng:2019:TCI

[6694] Xi Cheng, Min Zhou, Xiaoyu Song, Ming Gu, and Jiaguang Sun. Tolerating C integer error via precision elevation. *IEEE Transactions on Computers*, 68(2):270–286, February 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://ieeexplore.ieee.org/document/8443077/`.

Cornea:2019:NTI

[6695] Marius Cornea. New technologies for improved computing. In Takagi et al. [8102], page 96. ISBN 1-72813-366-1. ISSN 1063-6889.

Courtois:2019:RRR

[6696] J. Courtois, L. Abbas-Turki, and J. Bajard. Resilience of randomized RNS arithmetic with respect to side-channel leaks of cryptographic computation. *IEEE Transactions on Computers*, 68(12):1720–1730, December 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Covanov:2019:FIM

[6697] Svyatoslav Covanov and Emmanuel Thomé. Fast integer multiplication using generalized Fermat primes. *Mathematics of Computation*, 88(317): 1449–1477, January 2019. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `https://www.ams.org/journals/mcom/2019-88-317/S0025-5718-2018-03367-1`; `https://www.ams.org/journals/mcom/2019-88-317/S0025-5718-2018-03367-1/S0025-5718-2018-03367-1.pdf`; `https://www.ams.org/mathscinet/search/authors.html?authorName=Thome%2C%20Emmanuel`; `https://www.ams.org/mathscinet/search/authors.html?mrauthid=1105937`.

Cowlishaw:2019:AIS

[6698] Mike Cowlishaw and David Hough. ANSI/IEEE Std 754-2019. Web site, June 13, 2019. URL `http://754r.ucbtest.org/remote/background/`.

Das:2019:FSA

[6699] Sambit Das, Phani Motamarri, Vikram Gavini, Bruno Turcksin, Ying Wai Li, and Brent Leback. Fast, scalable and accurate finite-element based ab initio calculations using mixed precision computing: 46 PFLOPS simulation of a metallic dislocation system. In *SC19: International Conference for High Performance Computing, Networking, Storage and Analysis*, pages 1–11. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

deDinechin:2019:PGB

[6700] Florent de Dinechin, Luc Forget, Jean-Michel Muller, and Yohann Uguen. Posits: The good, the bad and the ugly. In Gustafson and Dimitrov [8101], pages 6:1–6:10. ISBN 1-4503-7139-6. LCCN ????

deDinechin:2019:RYF

[6701] Florent de Dinechin. Reflections on 10 years of FloPoCo. In Takagi et al. [8102], pages 187–189. ISBN 1-72813-366-1. ISSN 1063-6889.

deDinechin:2019:TBV

[6702] Florent de Dinechin, Silviu-Ioan Filip, Martin Kumm, and Luc Forget. Table-based versus shift-and-add constant multipliers for FPGAs. In Takagi et al. [8102], pages 151–158. ISBN 1-72813-366-1. ISSN 1063-6889.

Didier:2019:RAP

[6703] Laurent-Stephane Didier, Fangan-Yssouf Dosso, Nadia El Mrabet, Jeremy Marrez, and Pascal Véron. Randomization of arithmetic over polynomial modular number system. In Takagi et al. [8102], pages 199–206. ISBN 1-72813-366-1. ISSN 1063-6889.

Diffenderfer:2019:EAZ

[6704] James Diffenderfer, Alyson L. Fox, Jeffrey A. Hittinger, Geoffrey Sanders, and Peter G. Lindstrom. Error analysis of ZFP compression for floating-point data. *SIAM Journal on Scientific Computing*, 41(3): A1867–A1898, ???? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Djath:2019:HAR

[6705] Libey Djath, Karim Bigou, and Arnaud Tisserand. Hierarchical approach in RNS base extension for asymmetric cryptography. In Takagi et al. [8102], pages 46–53. ISBN 1-72813-366-1. ISSN 1063-6889.

Dockrill:2019:CMH

[6706] Peter Dockrill. Computers are making huge mistakes because they can't understand chaos, scientists warn. ScienceAlert Web site, September 27, 2019. URL `https://www.sciencealert.com/computers-are-making-huge-mistakes-because-they-can-t-understand-chaos-scientists-warn`. See [6678].

Ensor:2019:BNB

[6707] Andrew Ensor. Big numbers for a big universe. In Takagi et al. [8102], page 99. ISBN 1-72813-366-1. ISSN 1063-6889.

Fabiano:2019:ATW

[6708] Nicolas Fabiano, Jean-Michel Muller, and Joris Picot. Algorithms for triple-word arithmetic. *IEEE Transactions on Computers*, 68(11):1573–1583, November 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL `https://hal.archives-ouvertes.fr/hal-01869009v2`.

Fang:2019:GSC

[6709] Linlin Fang, Yizhuang Xie, Bingyi Li, and He Chen. Generation scheme of chirp scaling phase functions based on floating-point CORDIC processor. *The Journal of Engineering*, 2019(21):7436–7439, 2019. URL `https://onlinelibrary.wiley.com/doi/abs/10.1049/joe.2019.0623`.

Feldman:2019:NAC

[6710] Michael Feldman. New approach could sink floating point computation. Web site, July 8, 2019. URL `https://www.nextplatform.com/2019/07/08/new-approach-could-sink-floating-point-computation/`.

Flegar:2019:FCL

[6711] Goran Flegar, Florian Scheidegger, Vedran Novaković, Giovani Mariani, Andrés E. Tomás, A. Cristiano I. Malossi, and Enrique S. Quintana-Ortí. FloatX: A C++ library for customized floating-point arithmetic. *ACM Transactions on Mathematical Software*, 45(4):40:1–40:??, December 2019. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/citation.cfm?id=3368086`.

Fog:2019:ITL

[6712] Agner Fog. *4. Instruction tables: Lists of instruction latencies, throughputs and micro-operation breakdowns for Intel, AMD, and VIA CPUs*. Technical University of Denmark, Lyngby, Denmark, August 15,

2019. 367 pp. URL `https://www.agner.org/optimize/instruction_tables.pdf`.

Gallin:2019:GFP

[6713] G. Gallin and A. Tisserand. Generation of finely-pipelined GF(PP) multipliers for flexible curve based cryptography on FPGAs. *IEEE Transactions on Computers*, 68(11):1612–1622, November 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Gorodecky:2019:EIM

[6714] Danila Gorodecky and Tiziano Villa. Efficient implementation of modular division by input bit splitting. In Takagi et al. [8102], pages 54–60. ISBN 1-72813-366-1. ISSN 1063-6889.

Graillat:2019:ATF

[6715] Stef Graillat, Fabienne Jézéquel, Romain Picot, François Févotte, and Bruno Lathuilière. Auto-tuning for floating-point precision with Discrete Stochastic Arithmetic. *Journal of Computational Science*, 36: ??, September 2019. CODEN ???? ISSN 1877-7503 (print), 1877-7511 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S1877750318309475`.

Grossman:2019:CSC

[6716] David Grossman. Computers suck at creating chaos. Popular Mechanics Web site, September 30, 2019. URL `https://www.popularmechanics.com/science/a29271351/computers-chaotic-systems/`. See [6678].

Gu:2019:GRM

[6717] Z. Gu and S. Li. A generalized RNS Mclaughlin modular multiplication with non-coprime moduli sets. *IEEE Transactions on Computers*, 68(11): 1689–1696, November 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Guerreiro:2019:MDG

[6718] João Guerreiro, Aleksandar Ilic, Nuno Roma, and Pedro Tomás. Modeling and decoupling the GPU power consumption for cross-domain DVFS. *IEEE Transactions on Parallel and Distributed Systems*, 30(11): 2494–2506, 2019. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic).

Han:2019:FFE

[6719] Dong Han, Shengyuan Zhou, Tian Zhi, Yibo Wang, and Shaoli Liu. Float-Fix: An efficient and hardware-friendly data type for deep neural network. *International Journal of Parallel Programming*, 47(3):345–359, June 2019. CODEN IJPPE5. ISSN 0885-7458 (print), 1573-7640 (electronic).

Hanuman:2019:IMP

[6720] C. R. S. Hanuman, J. Kamala, and A. R. Aruna. Implementation of multi-precision floating point divider for high speed signal processing applications. *The Journal of Supercomputing*, 75(9):6038–6054, September 2019. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic).

Hao:2019:VID

[6721] Liu Hao, Wang Ming-Jiang, Chen Mo-Ran, and Liu Ming. A VLSI implementation of double precision floating-point logarithmic function. In *2019 IEEE 4th International Conference on Signal and Image Processing (ICSIP)*, pages 345–349. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Harase:2019:CMT

[6722] Shin Harase. Conversion of Mersenne Twister to double-precision floating-point numbers. *Mathematics and Computers in Simulation*, 161: 76–83, July 2019. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0378475418302040`.

Harthcock:2019:BUF

[6723] Jerry D. Harthcock. 64-bit-Universal-Floating-Point-ISA-Compute-Engine. Github Web site., October 8, 2019. URL `https://github.com/jerry-D/64-bit-Universal-Floating-Point-ISA-Compute-Engine`.

Harvey:2019:FIM

[6724] David Harvey and Joris van der Hoeven. Faster integer multiplication using plain vanilla FFT primes. *Mathematics of Computation*, 88(315): 501–514, July 2019. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `https://www.ams.org/journals/mcom/2019-88-315/S0025-5718-2018-03328-2`; `https://www.ams.org/journals/mcom/2019-88-315/S0025-5718-2018-03328-2/S0025-5718-2018-03328-2.pdf`; `https://www.ams.org/mathscinet/search/authors.html?mrauthid=621578`; `https://www.ams.org/mathscinet/search/authors.html?mrauthid=734771`.

Harvey:2019:IMT

[6725] David Harvey and Joris Van Der Hoeven. Integer multiplication in time $O(n \log n)$. Report hal-02070778, School of Mathematics and Statistics, University of New South Wales, and CNRS, Laboratoire d'informatique, École polytechnique, Sydney, NSW 2052, Australia and 91128 Palaiseau, France, March 18, 2019. URL `https://hal.archives-ouvertes.fr/hal-02070778/document`.

Hayes:2019:DCB

[6726] Ari B. Hayes, Fei Hua, Jin Huang, Yanhao Chen, and Eddy Z. Zhang. Decoding CUDA binary. In Mahmut Taylan Kandemir, Alexandra Jimborean, and Tipp Moseley, editors, *CGO'19: Proceedings of the 2019 IEEE/ACM International Symposium on Code Generation and Optimization, 16–20 February 2019, Washington, DC, USA*, pages 229–241. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019. ISBN 1-72811-436-5, 1-72811-437-3. LCCN QA76.76.G46 I57 2019. URL `https://ieeexplore.ieee.org/document/8661186`. IEEE Catalog Number CFP19CGO-ART.

Henry:2019:LBA

[6727] Greg Henry, Ping Tak Peter Tang, and Alexander Heinecke. Leveraging the bfloat16 artificial intelligence datatype for higher-precision computations. In Takagi et al. [8102], pages 69–76. ISBN 1-72813-366-1. ISSN 1063-6889.

Hiasat:2019:DRI

[6728] Ahmad Hiasat and Leonel Sousa. On the design of RNS inter-modulo processing units for the arithmetic-friendly moduli sets 2^{n+k}, $2^n - 1$, $2^{n+1} - 1$. *The Computer Journal*, 62(2):292–300, February 1, 2019. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://academic.oup.com/comjnl/article/62/2/292/5224762`.

Hickmann:2019:EAM

[6729] Brian Hickmann and Dennis Bradford. Experimental analysis of matrix multiplication functional units. In Takagi et al. [8102], pages 116–119. ISBN 1-72813-366-1. ISSN 1063-6889.

Higham:2019:NAP

[6730] Nicholas J. Higham and Theo Mary. A new approach to probabilistic rounding error analysis. *SIAM Journal on Scientific Computing*, 41(5): A2815–A2835, ???? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Higham:2019:SLP

[6731] Nicholas J. Higham and Srikara Pranesh. Simulating low precision floating-point arithmetic. *SIAM Journal on Scientific Computing*, 41 (5):C585–C602, ???? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Higham:2019:SMH

[6732] Nicholas J. Higham, Srikara Pranesh, and Mawussi Zounon. Squeezing a matrix into half precision, with an application to solving linear systems. *SIAM Journal on Scientific Computing*, 41(4):A2536–A2551, ???? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hoang:2019:LPF

[6733] Trong-Thuc Hoang, Xuan-Thuan Nguyen, Duc-Hung Le, and Cong-Kha Pham. Low-power floating-point adaptive-CORDIC-based FFT twiddle factor on 65-nm Silicon-on-Thin-BOX (SOTB) with back-gate bias. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 66 (10):1723–1727, 2019. ISSN 1549-7747 (print), 1558-3791 (electronic).

Horyachyy:2019:SEF

[6734] Oleh Horyachyy, Leonid Moroz, and Viktor Otenko. Simple effective fast inverse square root algorithm with two magic constants. *International Journal of Computing*, 18(4):461–470, December 2019. ISSN 1727-6209 (print), 2312-5381 (electronic). URL `https://www.computingonline.net/computing/article/view/1616; https://www.researchgate.net/publication/349173096_SIMPLE_EFFECTIVE_FAST_INVERSE_SQUARE_ROOT_ALGORITHM_WITH_TWO_MAGIC_CONSTANTS`.

Hou:2019:LLF

[6735] Nanxin Hou, Mingjiang Wang, Xiafeng Zou, and Ming Liu. A low latency floating point CORDIC algorithm for sin/cosine function. In *2019 IEEE 4th International Conference on Signal and Image Processing (ICSIP)*, pages 751–755. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Hough:2019:ISO

[6736] David G. Hough. The IEEE Standard 754: One for the history books. *Computer*, 52(12):109–112, December 2019. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic). URL `http://grouper.ieee.org/groups/msc/ANSI_IEEE-Std-754-2019/background/ieee-computer.pdf; https://www.computer.org/csdl/magazine/co/2019/12/08909942/1f8KFWxbTCU`.

Hrycak:2019:AEC

[6737] Tomasz Hrycak and Sebastian Schmutzhard. Accurate evaluation of Chebyshev polynomials in floating-point arithmetic. *BIT Numerical Mathematics*, 59(2):403–416, June 2019. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://link.springer.com/article/10.1007/s10543-018-0738-5`.

IEEE-754:2019:ISF

[6738] IEEE-754. *IEEE 754-2019, Standard for Floating-Point Arithmetic*. IEEE, New York, NY, USA, June 13, 2019. ISBN 1-5044-5925-3 (print), 1-5044-5924-5 (e-PDF). 82 pp.

IEEE:2019:PDA

[6739] IEEE. P754/D2.50, Apr 2019 — IEEE Approved Draft Standard for Floating-Point Arithmetic: Revision of IEEE Std 754-2008. Web site, April 2019. URL `https://ieeexplore.ieee.org/document/8739150`.

Issa:2019:FIF

[6740] Hanady Hussein Issa and Saleh Mohamed Eisa Ahmed. FPGA implementation of floating point based cuckoo search algorithm. *IEEE Access*, 7:134434–134447, 2019. ISSN 2169-3536.

Jaberipur:2019:MPP

[6741] Ghassem Jaberipur and Sahar Moradi Cherati. Modulo-$(2n+3)$ parallel prefix addition via diminished-3 representation of residues. In Takagi et al. [8102], pages 135–142. ISBN 1-72813-366-1. ISSN 1063-6889.

Jaiswal:2019:PHP

[6742] Manish Kumar Jaiswal and Hayden K.-H. So. PACoGen: a hardware posit arithmetic core generator. *IEEE Access*, 7:74586–74601, 2019. ISSN 2169-3536.

Jia:2019:DNT

[6743] Zhe Jia, Marco Maggioni, Jeffrey Smith, and Daniele Paolo Scarpazza. Dissecting the NVidia Turing T4 GPU via microbenchmarking. *arXiv.org*, ??(??):65, March 18, 2019. URL `https://arxiv.org/abs/1903.07486`.

Jiang:2019:LPU

[6744] H. Jiang, L. Liu, F. Lombardi, and J. Han. Low-power unsigned divider and square root circuit designs using adaptive approximation. *IEEE Transactions on Computers*, 68(11):1635–1646, November 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Johansson:2019:FAP

[6745] Fredrik Johansson. Faster arbitrary-precision dot product and matrix multiplication. In Takagi et al. [8102], pages 15–22. ISBN 1-72813-366-1. ISSN 1063-6889.

Jugade:2019:MEE

[6746] Chaitanya Jugade, Deepak Ingole, Dayaram Sonawane, Michal Kvasnica, and John Gustafson. A memory-efficient explicit model predictive control using posits. In IEEE, editor, *2019 Sixth Indian Control Conference (ICC)*, pages 188–193. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Kalamkar:2019:SBD

[6747] Dhiraj D. Kalamkar, Dheevatsa Mudigere, Naveen Mellempudi, Dipankar Das, Kunal Banerjee, Sasikanth Avancha, Dharma Teja Vooturi, Nataraj Jammalamadaka, Jianyu Huang, Hector Yuen, Jiyan Yang, Jongsoo Park, Alexander Heinecke, Evangelos Georganas, Sudarshan Srinivasan, Abhisek Kundu, Misha Smelyanskiy, Bharat Kaul, and Pradeep Dubey. A study of BFLOAT16 for deep learning training. *arXiv.org*, ??(??):1–10, May 29, 2019. URL `http://arxiv.org/abs/1905.12322`.

Katajainen:2019:HMP

[6748] Jyrki Katajainen. Hacker's multiple-precision integer-division program in close scrutiny. In I. Kotsireas, P. Pardalos, K. Parsopoulos, D. Souravlias, and A. Tsokas, editors, *Analysis of Experimental Algorithms. SEA 2019*, Lecture Notes in Computer Science, pages 376–391. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2019. URL `http://www.cphstl.dk/Paper/Division/division.pdf`.

Kaul:2019:OFF

[6749] Himanshu Kaul, Mark Anders, Sanu Mathew, Seongjong Kim, and Ram Krishnamurthy. Optimized fused floating-point many-term dot-product hardware for machine learning accelerators. In Takagi et al. [8102], pages 84–87. ISBN 1-72813-366-1. ISSN 1063-6889.

Kim:2019:CEI

[6750] HyunJin Kim, Min Soo Kim, Alberto A. Del Barrio, and Nader Bagherzadeh. A cost-efficient iterative truncated logarithmic multiplication for convolutional neural networks. In Takagi et al. [8102], pages 108–111. ISBN 1-72813-366-1. ISSN 1063-6889.

Kim:2019:EMA

[6751] M. S. Kim, A. A. D. Barrio, L. T. Oliveira, R. Hermida, and N. Bagherzadeh. Efficient Mitchell's approximate log multipliers for convolutional neural networks. *IEEE Transactions on Computers*, 68 (5):660–675, May 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Klower:2019:PAF

[6752] Milan Klöwer, Peter D. Düben, and Tim N. Palmer. Posits as an alternative to floats for weather and climate models. In Gustafson and Dimitrov [8101], pages 1:1–1:8. ISBN 1-4503-7139-6. LCCN ????

Kostic:2019:UNV

[6753] Dusan Kostic and Shay Gueron. Using the new VPMADD instructions for the new post quantum key encapsulation mechanism SIKE. In Takagi et al. [8102], pages 215–218. ISBN 1-72813-366-1. ISSN 1063-6889.

Kouya:2019:PEE

[6754] Tomonori Kouya. Performance evaluation of an efficient double-double BLAS1 function with error-free transformation and its application to explicit extrapolation methods. In Takagi et al. [8102], pages 120–123. ISBN 1-72813-366-1. ISSN 1063-6889.

Kulisch:2019:MSI

[6755] Ulrich Kulisch. Mathematics and speed for interval arithmetic: A complement to IEEE 1788. *ACM Transactions on Mathematical Software*, 45(1):5:1–5:22, March 2019. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL https://dl.acm.org/citation.cfm?id=3264448.

Laguna:2019:FDF

[6756] Ignacio Laguna. FPChecker: Detecting floating-point exceptions in GPU applications. In IEEE/ACM, editor, *ASE'19: 34th IEEE/ACM International Conference on Automated Software Engineering, San Diego, California, November 10–15, 2019*, pages 1126–1129. ACM Press, New York, NY 10036, USA, November 2019. ISBN 1-72812-508-1. LCCN QA76.758 .Z566 2019.

Laguna:2019:GPD

[6757] Ignacio Laguna, Paul C. Wood, Ranvijay Singh, and Saurabh Bagchi. GPUMixer: Performance-driven floating-point tuning for GPU scientific applications. Report, Lawrence

Livermore National Laboratory, Livermore CA 94550, USA, 2019. URL http://lagunaresearch.org/docs/isc-2019.pdf; https://www.hpcwire.com/2019/08/05/llnl-purdue-researchers-harness-gpu-mixed-precision-for-accuracy-performance-tradeoff/.

Lange:2019:SEP

[6758] Marko Lange and Siegfried M. Rump. Sharp estimates for perturbation errors in summations. *Mathematics of Computation*, 88(315):349–368, July 2019. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL https://www.ams.org/journals/mcom/2019-88-315/S0025-5718-2018-03355-5; https://www.ams.org/journals/mcom/2019-88-315/S0025-5718-2018-03355-5/S0025-5718-2018-03355-5.pdf; https://www.ams.org/mathscinet/search/authors.html?mrauthid=1082372; https://www.ams.org/mathscinet/search/authors.html?mrauthid=151815.

Lee:2019:EES

[6759] Jinsu Lee, Juhyoung Lee, Donghyeon Han, Jinmook Lee, Gwangtae Park, and Hoi-Jun Yoo. An energy-efficient sparse deep-neural-network learning accelerator with fine-grained mixed precision of FP8–FP16. *IEEE Solid-State Circuits Letters*, 2(11):232–235, 2019.

Lee:2019:LWS

[6760] Jinsu Lee, Juhyoung Lee, Donghyeon Han, Jinmook Lee, Gwangtae Park, and Hoi-Jun Yoo. 7.7 LNPU: a 25.3TFLOPS/W sparse deep-neural-network learning processor with fine-grained mixed precision of FP8–FP16. In *2019 IEEE International Solid-State Circuits Conference — (ISSCC)*, pages 142–144. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Lefevre:2019:ACM

[6761] Vincent Lefèvre and Jean-Michel Muller. Accurate complex multiplication in floating-point arithmetic. In Takagi et al. [8102], pages 23–29. ISBN 1-72813-366-1. ISSN 1063-6889.

Lemire:2019:FRD

[6762] Daniel Lemire, Owen Kaser, and Nathan Kurz. Faster remainder by direct computation: Applications to compilers and software libraries. *Software—Practice and Experience*, 49(6):953–970, June 2019. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic).

Lindstrom:2019:UCR

[6763] Peter Lindstrom. Universal coding of the reals using bisection. In Gustafson and Dimitrov [8101], pages 7:1–7:10. ISBN 1-4503-7139-6. LCCN ????

Liu:2019:DAA

[6764] W. Liu, T. Cao, P. Yin, Y. Zhu, C. Wang, E. E. Swartzlander, and F. Lombardi. Design and analysis of approximate redundant binary multipliers. *IEEE Transactions on Computers*, 68(6):804–819, June 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Lourenco:2019:ESS

[6765] Christopher Lourenco, Adolfo R. Escobedo, Erick Moreno-Centeno, and Timothy A. Davis. Exact solution of sparse linear systems via left-looking roundoff-error-free *LU* factorization in time proportional to arithmetic work. *SIAM Journal on Matrix Analysis and Applications*, 40(2):609–638, ???? 2019. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Lu:2019:TDN

[6766] Jinming Lu, Siyuan Lu, Zhisheng Wang, Chao Fang, Jun Lin, Zhongfeng Wang, and Li Du. Training deep neural networks using posit number system. In IEEE, editor, *2019 32nd IEEE International System-on-Chip Conference (SOCC)*, pages 62–67. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Lutz:2019:AFP

[6767] David Lutz. ARM floating point 2019: Latency, area, power. In Takagi et al. [8102], pages 97–98. ISBN 1-72813-366-1. ISSN 1063-6889.

Lutz:2019:AMP

[6768] David Raymond Lutz, Neil Burgess, Christopher Neal Hinds, and Andreas Due Engh-Halstvedt. Apparatus and method for performing arithmetic operations to accumulate floating-point numbers. US Patent 10,216,479, February 26, 2019. URL `https://patents.google.com/patent/US10216479B2`.

Mach:2019:FSB

[6769] Stefan Mach, Fabian Schuiki, Florian Zaruba, and Luca Benini. A 0.80pJ/flop, 1.24Tflop/sW 8-to-64 bit transprecision floating-point unit for a 64 bit RISC-V processor in 22nm FD-SOI. In IEEE, editor, *2019 IFIP/IEEE 27th International Conference on Very Large Scale*

Integration (VLSI-SoC), pages 95–98. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Magron:2019:CRE

[6770] V. Magron, A. Rocca, and T. Dang. Certified roundoff error bounds using Bernstein expansions and sparse Krivine–Stengle representations. *IEEE Transactions on Computers*, 68(7):953–966, July 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Martins:2019:HHR

[6771] Paulo Martins, Jeremy Marrez, Jean-Claude Bajard, and Leonel Sousa. HyPoRes: An hybrid representation system for ECC. In Takagi et al. [8102], pages 207–214. ISBN 1-72813-366-1. ISSN 1063-6889.

Matula:2019:PCG

[6772] David W. Matula and Zizhen Chen. Precise and concise graphical representation of the natural numbers. In Takagi et al. [8102], pages 100–103. ISBN 1-72813-366-1. ISSN 1063-6889.

Maynard:2019:MPA

[6773] C. M. Maynard and D. N. Walters. Mixed-precision arithmetic in the ENDGame dynamical core of the Unified Model, a numerical weather prediction and climate model code. *Computer Physics Communications*, 244(??):69–75, November 2019. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0010465519302127`.

McCullough:2019:WTS

[6774] B. D. McCullough, Taha Mokfi, and Mahsa Almaeenjad. Wilkinson's tests and SQL packages. *SIGMOD Record (ACM Special Interest Group on Management of Data)*, 48(3):17–22, September 2019. CODEN SRECD8. ISSN 0163-5808 (print), 1943-5835 (electronic).

McKinstry:2019:DLP

[6775] Jeffrey L. McKinstry, Steven K. Esser, Rathinakumar Appuswamy, Deepika Bablani, John V. Arthur, Izzet B. Yildiz, and Dharmendra S. Modha. Discovering low-precision networks close to full-precision networks for efficient inference. In *2019 Fifth Workshop on Energy Efficient Machine Learning and Cognitive Computing — NeurIPS Edition (EMC2-NIPS)*, pages 6–9. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Melquiond:2019:FVS

[6776] Guillaume Melquiond and Raphael Rieu-Helft. Formal verification of a state-of-the-art integer square root. In Takagi et al. [8102], pages 183–186. ISBN 1-72813-366-1. ISSN 1063-6889.

Melquiond:2019:NVN

[6777] Guillaume Melquiond. *Normal Verification for Numerical Computations, and the Other Way Around*. Habilitation à Diriger des Recherches, Université Paris Sud, 2, Paris, France, July 25, 2019. x + 163 pp. URL https://theses.hal.science/tel-02194683/document.

Mian:2019:CAE

[6778] Riaz ul-haque Mian, Michihiro Shintani, and Michiko Inoue. Cycle-accurate evaluation of software-hardware co-design of decimal computation in RISC-V ecosystem. In IEEE, editor, *2019 32nd IEEE International System-on-Chip Conference (SOCC)*, pages 412–417. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Moler:2019:CCF

[6779] Cleve Moler. Cleve's corner: Floating point arithmetic before IEEE 754. MathWorks Web site., January 18, 2019. URL https://blogs.mathworks.com/cleve/2019/01/18/floating-point-arithmetic-before-ieee-754/.

Moler:2019:CCV

[6780] Cleve Moler. Cleve's corner: Variable format half precision floating point arithmetic. MathWorks Web site., January 16, 2019. URL https://blogs.mathworks.com/cleve/2019/01/16/variable-format-half-precision-floating-point-arithmetic/.

Mopuri:2019:CRB

[6781] Suresh Mopuri, Swati Bhardwaj, and Amit Acharyya. Coordinate rotation-based design methodology for square root and division computation. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 66(7):1227–1231, 2019. ISSN 1549-7747 (print), 1558-3791 (electronic).

Moriai:2019:PPD

[6782] Shiho Moriai. Privacy-preserving deep learning via additively homomorphic encryption. In Takagi et al. [8102], page 198. ISBN 1-72813-366-1. ISSN 1063-6889.

Moroz:2019:EFP

[6783] Leonid Moroz and Volodymyr Samotyy. Efficient floating-point division for digital signal processing application [tips & tricks]. *IEEE Signal Processing Magazine*, 36(1):159–163, January 2019. CODEN ISPRE6. ISSN 1053-5888 (print), 1558-0792 (electronic).

Munoz-Coreas:2019:QCD

[6784] E. Muñoz-Coreas and H. Thapliyal. Quantum circuit design of a T-count optimized integer multiplier. *IEEE Transactions on Computers*, 68(5):729–739, May 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Nabavinejad:2019:CDP

[6785] Seyed Morteza Nabavinejad, Hassan Hafez-Kolahi, and Sherief Reda. Coordinated DVFS and precision control for deep neural networks. *IEEE Computer Architecture Letters*, 18(2):136–140, 2019. ISSN 1556-6056 (print), 1556-6064 (electronic).

Nannarelli:2019:TFP

[6786] A. Nannarelli. Tunable floating-point adder. *IEEE Transactions on Computers*, 68(10):1553–1560, October 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Nogami:2019:OWV

[6787] Wakana Nogami, Tsutomu Ikegami, Shin ichi O'uchi, Ryousei Takano, and Tomohiro Kudoh. Optimizing weight value quantization for CNN inference. In *2019 International Joint Conference on Neural Networks (IJCNN)*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Nurvitadhi:2019:WCW

[6788] Eriko Nurvitadhi, Dongup Kwon, Ali Jafari, Andrew Boutros, Jaewoong Sim, Phillip Tomson, Huseyin Sumbul, Gregory Chen, Phil Knag, Raghavan Kumar, Ram Krishnamurthy, Sergey Gribok, Bogdan Pasca, Martin Langhammer, Debbie Marr, and Aravind Dasu. Why compete when you can work together: FPGA-ASIC integration for persistent RNNs. In *2019 IEEE 27th Annual International Symposium on Field-Programmable Custom Computing Machines (FCCM)*, pages 199–207. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Pandey:2019:UFP

[6789] Kumar Sambhav Pandey, Dinesh Kumar B, Neeraj Goel, and Hitesh Shrimali. An ultra-fast parallel prefix adder. In Takagi et al. [8102], pages 125–134. ISBN 1-72813-366-1. ISSN 1063-6889.

Parhi:2019:CAF

[6790] Keshab K. Parhi and Yin Liu. Computing arithmetic functions using stochastic logic by series expansion. *IEEE Transactions on Emerging Topics in Computing*, 7(1):44–59, January/March 2019. ISSN 2168-6750 (print), 2376-4562 (electronic).

Parry:2019:PSO

[6791] Katherine Parry. A perspective into squarer optimization. In Takagi et al. [8102], page 124. ISBN 1-72813-366-1. ISSN 1063-6889.

Pasca:2019:HDP

[6792] Bogdan Pasca. Hybrid dot-product design for FP-enabled FPGAs. In Takagi et al. [8102], pages 194–196. ISBN 1-72813-366-1. ISSN 1063-6889.

Pranesh:2019:LPF

[6793] Srikara Pranesh. Low precision floating-point formats: The Wild West of computer arithmetic. *SIAM News*, 52(9):12, November 2019. ISSN 0036-1437. URL `https://sinews.siam.org/Details-Page/low-precision-floating-point-formats-the-wild-west-of-computer-arithmetic`.

Qi:2019:GGI

[6794] Meng Qi, Ke Yan, and Yuanjie Zheng. GPredicates: GPU implementation of robust and adaptive floating-point predicates for computational geometry. *IEEE Access*, 7:60868–60876, 2019. ISSN 2169-3536.

Reyhani-Masoleh:2019:NMI

[6795] A. Reyhani-Masoleh, H. El-Razouk, and A. Monfared. New multiplicative inverse architectures using Gaussian normal basis. *IEEE Transactions on Computers*, 68(7):991–1006, July 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Rohloff:2019:CAR

[6796] Kurt Rohloff. Computer arithmetic research to accelerate privacy-protecting encrypted computing such as homomorphic encryption. In Takagi et al. [8102], page 197. ISBN 1-72813-366-1. ISSN 1063-6889.

Roughan:2019:PSS

[6797] Matthew Roughan. Practically surreal: Surreal arithmetic in Julia. *SoftwareX*, 9(??):293–298, January/June 2019. CODEN ???? ISSN 2352-7110. URL http://www.sciencedirect.com/science/article/pii/S2352711018302152.

Rump:2019:EBC

[6798] Siegfried M. Rump. Error bounds for computer arithmetics. In Takagi et al. [8102], pages 1–14. ISBN 1-72813-366-1. ISSN 1063-6889.

Salamati:2019:MEM

[6799] Mahmoud Salamati, Rocco Salvia, Eva Darulova, Sadegh Soudjani, and Rupak Majumdar. Memory-efficient mixed-precision implementations for robust explicit model predictive control. *ACM Transactions on Embedded Computing Systems*, 18(5s):100:1–100:??, October 2019. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic). URL https://dl.acm.org/ft_gateway.cfm?id=3358223.

Sarkar:2019:RAP

[6800] Souradip Sarkar, Purushotham Murugappa Velayuthan, and Manil Dev Gomony. A reconfigurable architecture for posit arithmetic. In IEEE, editor, *2019 22nd Euromicro Conference on Digital System Design (DSD)*, pages 82–87. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Seo:2019:HTM

[6801] Jihee Seo and Dae Hyun Kim. High-throughput multiplier architectures enabled by intra-unit fast forwarding. In Takagi et al. [8102], pages 143–150. ISBN 1-72813-366-1. ISSN 1063-6889.

Serre:2019:DBM

[6802] François Serre and Markus Püschel. DSL-based modular IP core generators: Example FFT and related structures. In Takagi et al. [8102], pages 190–191. ISBN 1-72813-366-1. ISSN 1063-6889.

Sherman:2019:SRS

[6803] Benjamin Sherman, Jesse Michel, and Michael Carbin. Sound and robust solid modeling via exact real arithmetic and continuity. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):99:1–99:29, July 2019. ISSN 2475-1421. URL https://dl.acm.org/doi/abs/10.1145/3341703.

Silver:2019:CCN

[6804] Mike Silver and Kalimah Redd Knight. Cutting corners on numbers. TuftsNow Web site., September 24, 2019. URL `https://now.tufts.edu/articles/cutting-corners-numbers-computation`. See [6678].

Singh:2019:LPP

[6805] Gagandeep Singh, Dionysios Diamantopoulos, Sander Stuijk, Christoph Hagleitner, and Henk Corporaal. Low precision processing for high order stencil computations. In *Embedded Computer Systems: Architectures, Modeling, and Simulation*, pages 403–415. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2019. ISBN 3-030-27562-0. ISSN 0302-9743 (print), 1611-3349 (electronic).

Solovyev:2019:REF

[6806] Alexey Solovyev, Marek S. Baranowski, Ian Briggs, Charles Jacobsen, Zvonimir Rakamarić, and Ganesh Gopalakrishnan. Rigorous estimation of floating-point round-off errors with symbolic Taylor expansions. *ACM Transactions on Programming Languages and Systems*, 41(1):2:1–2:??, March 2019. CODEN ATPSDT. ISSN 0164-0925 (print), 1558-4593 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3230733`.

Stephens:2019:BPN

[6807] Nigel Stephens. BFloat16 processing for neural networks on Armv8-A. Web site., August 29, 2019. URL `https://community.arm.com/developer/ip-products/processors/b/ml-ip-blog/posts/bfloat16-processing-for-neural-networks-on-armv8_2d00_a`.

Takagi:2019:AI

[6808] Naofumi Takagi, Sylvie Boldo, and Martin Langhammer. Author index. In *2019 IEEE 26th Symposium on Computer Arithmetic ARITH-26 (2019), Kyoto, Japan, 10–12 June 2019* [8102], pages 219–220. ISBN 1-72813-366-1. ISSN 1063-6889.

Takagi:2019:CN

[6809] Naofumi Takagi, Sylvie Boldo, and Martin Langhammer. [Copyright notice]. In *2019 IEEE 26th Symposium on Computer Arithmetic ARITH-26 (2019), Kyoto, Japan, 10–12 June 2019* [8102], page 4. ISBN 1-72813-366-1. ISSN 1063-6889.

Takagi:2019:CO

[6810] Naofumi Takagi, Sylvie Boldo, and Martin Langhammer. Conference organization. In *2019 IEEE 26th Symposium on Computer Arithmetic*

ARITH-26 (2019), Kyoto, Japan, 10–12 June 2019 [8102], page 11. ISBN 1-72813-366-1. ISSN 1063-6889.

Takagi:2019:F

[6811] Naofumi Takagi, Sylvie Boldo, and Martin Langhammer. Foreword. In *2019 IEEE 26th Symposium on Computer Arithmetic ARITH-26 (2019), Kyoto, Japan, 10–12 June 2019* [8102], page 10. ISBN 1-72813-366-1. ISSN 1063-6889.

Takagi:2019:PC

[6812] Naofumi Takagi, Sylvie Boldo, and Martin Langhammer. Program committee. In *2019 IEEE 26th Symposium on Computer Arithmetic ARITH-26 (2019), Kyoto, Japan, 10–12 June 2019* [8102], page 12. ISBN 1-72813-366-1. ISSN 1063-6889.

Takagi:2019:Sa

[6813] Naofumi Takagi, Sylvie Boldo, and Martin Langhammer. Sponsors. In *2019 IEEE 26th Symposium on Computer Arithmetic ARITH-26 (2019), Kyoto, Japan, 10–12 June 2019* [8102], page 14. ISBN 1-72813-366-1. ISSN 1063-6889.

Takagi:2019:Sb

[6814] Naofumi Takagi, Sylvie Boldo, and Martin Langhammer. Supporters. In *2019 IEEE 26th Symposium on Computer Arithmetic ARITH-26 (2019), Kyoto, Japan, 10–12 June 2019* [8102], page 15. ISBN 1-72813-366-1. ISSN 1063-6889.

Takagi:2019:SC

[6815] Naofumi Takagi, Sylvie Boldo, and Martin Langhammer. Steering committee. In *2019 IEEE 26th Symposium on Computer Arithmetic ARITH-26 (2019), Kyoto, Japan, 10–12 June 2019* [8102], page 13. ISBN 1-72813-366-1. ISSN 1063-6889.

Takagi:2019:TC

[6816] Naofumi Takagi, Sylvie Boldo, and Martin Langhammer. Table of contents. In *2019 IEEE 26th Symposium on Computer Arithmetic ARITH-26 (2019), Kyoto, Japan, 10–12 June 2019* [8102], pages 5–9. ISBN 1-72813-366-1. ISSN 1063-6889.

Takagi:2019:TPI

[6817] Naofumi Takagi, Sylvie Boldo, and Martin Langhammer. [Title page iii]. In *2019 IEEE 26th Symposium on Computer Arithmetic ARITH-26 (2019), Kyoto, Japan, 10–12 June 2019* [8102], page 3. ISBN 1-72813-366-1. ISSN 1063-6889.

Thibault:2019:OWL

[6818] Hilaire Thibault, Hacene Ouzia, and Benoit Lopez. Optimal word-length allocation for the fixed-point implementation of linear filters and controllers. In Takagi et al. [8102], pages 175–182. ISBN 1-72813-366-1. ISSN 1063-6889.

Thomas:2019:CTG

[6819] David B. Thomas. Compile-time generation of custom-precision floating-point IP using HLS tools. In Takagi et al. [8102], pages 192–193. ISBN 1-72813-366-1. ISSN 1063-6889.

Tiwari:2019:PPE

[6820] Sugandha Tiwari, Neel Gala, Chester Rebeiro, and V. Kamakoti. PERI: A posit enabled RISC-V core. *arXiv.org*, ??(??):1–14, November 2019. URL `https://arxiv.org/pdf/1908.01466.pdf`.

Uguen:2019:EHC

[6821] Yohann Uguen, Luc Forget, and Florent de Dinechin. Evaluating the hardware cost of the posit number system. In IEEE, editor, *2019 29th International Conference on Field Programmable Logic and Applications (FPL)*, pages 106–113. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

vanDam:2019:APA

[6822] Laurens van Dam, Johan Peltenburg, Zaid Al-Ars, and H. Peter Hofstee. An accelerator for posit arithmetic targeting posit level 1 BLAS routines and Pair-HMM. In Gustafson and Dimitrov [8101], pages 5:1–5:10. ISBN 1-4503-7139-6. LCCN ????

vanWyk:2019:RVT

[6823] Leonard van Wyk. Rounding versus truncation estimates in difference calculations. *The Mathematical Gazette*, 103(557):285–292, July 2019. CODEN MAGAAS. ISSN 0025-5572 (print), 2056-6328 (electronic). URL `https://www.cambridge.org/core/journals/mathematical-gazette/article/rounding-versus-truncation-estimates-in-difference-calculations/57BD92568C03F0FCDE63BBBDB5E6FF6D`.

Vazquez:2019:NPT

[6824] Alvaro Vázquez and Elisardo Antelo. New 3D projection transformation for point clouds. In Takagi et al. [8102], pages 77–83. ISBN 1-72813-366-1. ISSN 1063-6889.

Venkatachalam:2019:DAA

[6825] S. Venkatachalam, E. Adams, H. J. Lee, and S. Ko. Design and analysis of area and power efficient approximate Booth multipliers. *IEEE Transactions on Computers*, 68(11):1697–1703, November 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Verheyde:2019:BDD

[6826] Arne Verheyde. BFloat16 deep dive: ARM brings BF16 deep learning data format to ARMv8-A. Tom's Hardware Web site., September 21, 2019. URL `https://www.tomshardware.com/news/bfloat16-deep-dive-arm-bf16-support-armv8-a,40305.html`.

Villa:2019:NDB

[6827] Oreste Villa, Mark Stephenson, David Nellans, and Stephen W. Keckler. Nvbit: A dynamic binary instrumentation framework for NVIDIA GPUs. In IEEE/ACM, editor, *MICRO '52: Proceedings of the 52nd Annual IEEE/ACM International Symposium on Microarchitecture, Columbus OH, USA, October 12–16, 2019*, pages 372–383. ACM Press, New York, NY 10036, USA, 2019. ISBN 1-4503-6938-3. LCCN QA76.6 .A568.

Villalba-Moreno:2019:RSU

[6828] Julio Villalba-Moreno, Javier Hormigo, and Francisco Jaime. Reproducible summation under HUB format. In Takagi et al. [8102], pages 38–45. ISBN 1-72813-366-1. ISSN 1063-6889.

Volkova:2019:SAI

[6829] Anastasia Volkova and Jean-Michel Muller. Semi-automatic implementation of the complementary error function. In Takagi et al. [8102], pages 167–174. ISBN 1-72813-366-1. ISSN 1063-6889.

Walczyk:2019:MFI

[6830] Cezary J. Walczyk, Leonid V. Moroz, and Jan L. Cieśliński. A modification of the fast inverse square root algorithm. *Computation*, 7(3):41, August 2019. ISSN 2079-3197.

Walther:2019:VNR

[6831] Christoph Walther. Verified Newton–Raphson iteration for multiplicative inverses modulo powers of any base. *ACM Transactions on Mathematical Software*, 45(1):9:1–9:7, March 2019. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/citation.cfm?id=3301317`. See [6127].

Wang:2019:BSH

[6832] Shibo Wang and Pankaj Kanwar. BFloat16: The secret to high performance on cloud TPUs. Web site, August 23, 2019. URL https://cloud.google.com/blog/products/ai-machine-learning/bfloat16-the-secret-to-high-performance-on-cloud-tpus.

Wang:2019:PAA

[6833] Shouxiang Wang, Kai Wang, Lei Wu, and Chengshan Wang. Polar affine arithmetic: Optimal affine approximation and operation development for computation in polar form under uncertainty. *ACM Transactions on Mathematical Software*, 45(1):6:1–6:29, March 2019. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL https://dl.acm.org/citation.cfm?id=3274659.

Ye:2019:NCA

[6834] T. Ye, Y. Wei, and W. Meier. A new cube attack on MORUS by using division property. *IEEE Transactions on Computers*, 68(12):1731–1740, December 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Zhang:2019:EMP

[6835] H. Zhang, D. Chen, and S. Ko. Efficient multiple-precision floating-point fused multiply-add with mixed-precision support. *IEEE Transactions on Computers*, 68(7):1035–1048, July 2019. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Zhang:2019:EPM

[6836] Hao Zhang, Jiongrui He, and Seok-Bum Ko. Efficient posit multiply-accumulate unit generator for deep learning applications. In IEEE, editor, *2019 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, May 2019.

Zhu:2019:DPS

[6837] Weibin Zhu, Shengjin Ye, Yao Huang, and Zi Xue. Design of a precise subdivision system for gratings using a modified CORDIC algorithm. *IET Circuits, Devices & Systems*, 13(8):1284–1291, 2019. URL https://onlinelibrary.wiley.com/doi/abs/10.1049/iet-cds.2019.0150.

Zorn:2019:SPD

[6838] Bill Zorn, Dan Grossman, and Zach Tatlock. Sinking point: Dynamic precision tracking for floating-point. In Gustafson and Dimitrov [8101], pages 4:1–4:8. ISBN 1-4503-7139-6. LCCN ????

Abdelfattah:2020:IBF

[6839] Ahmad Abdelfattah, Stan Tomov, and Jack Dongarra. Investigating the benefit of FP16-enabled mixed-precision solvers for symmetric positive definite matrices using GPUs. In Krzhizhanovskaya et al. [8105], pages 237–250. ISBN 3-030-50416-6, 3-030-50417-4 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). URL https://link.springer.com/book/10.1007/978-3-030-50417-5.

Abdelfattah:2020:MMB

[6840] Ahmad Abdelfattah, Stanimire Tomov, and Jack Dongarra. Matrix multiplication on batches of small matrices in half and half-complex precisions. *Journal of Parallel and Distributed Computing*, 145(??):188–201, November 2020. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0743731520303300.

Adams:2020:ARD

[6841] E. Adams, S. Venkatachalam, and S. Ko. Approximate restoring dividers using inexact cells and estimation from partial remainders. *IEEE Transactions on Computers*, 69(4):468–474, April 2020. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Agrawal:2020:FAH

[6842] Rashmi Agrawal, Lake Bu, and Michel A. Kinsy. Fast arithmetic hardware library for RLWE-Based homomorphic encryption. In *2020 IEEE 28th Annual International Symposium on Field-Programmable Custom Computing Machines (FCCM)*, page 206. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Ahrens:2020:AER

[6843] Peter Ahrens, James Demmel, and Hong Diep Nguyen. Algorithms for efficient reproducible floating point summation. *ACM Transactions on Mathematical Software*, 46(3):22:1–22:49, September 2020. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL https://dl.acm.org/doi/10.1145/3389360.

Anonymous:2020:ACa

[6844] Anonymous. ARITH 2020 committees. In Cornea et al. [8103], page i. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Anonymous:2020:ACb

[6845] Anonymous. ARITH 2020 committees. In Cornea et al. [8103], page i. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Anonymous:2020:ACN

[6846] Anonymous. [ARITH 2020 copyright notice]. In Cornea et al. [8103], page i. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Anonymous:2020:AI

[6847] Anonymous. ARITH 2020 index. In Cornea et al. [8103], page i. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Anonymous:2020:ALR

[6848] Anonymous. ARITH 2020 list reviewer page. In Cornea et al. [8103], page i. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Anonymous:2020:RVE

[6849] Anonymous. RISC-V embedded variant RV32E now fully supported by SEGGER's floating-point library. Web site, September 21, 2020. URL https://www.design-reuse.com/news/48672/segger-s-floating-point-library-risc-v-rv32e.html.

Anonymous:2020:SA

[6850] Anonymous. Sponsors ARITH 2020. In Cornea et al. [8103], page i. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Anonymous:2020:TC

[6851] Anonymous. Table of contents. In Cornea et al. [8103], pages i–iii. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Anonymous:2020:TPa

[6852] Anonymous. [Title page]. In Cornea et al. [8103], page i. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Anonymous:2020:TPb

[6853] Anonymous. [Title page]. In Cornea et al. [8103], page i. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Arnold:2020:IRL

[6854] M. G. Arnold, V. Paliouras, and I. Kouretas. Implementing the residue logarithmic number system using interpolation and cotransformation. *IEEE Transactions on Computers*, 69(12):1719–1732, December 2020. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Bajard:2020:AFV

[6855] Jean-Claude Bajard, Julien Eynard, Paulo Martins, Leonel Sousa, and Vincent Zucca. An asymptotically faster version of FV supported on HPR. In Cornea et al. [8103], pages 80–87. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Barthel:2020:ASA

[6856] Moritz Bärthel, Jochen Rust, and Steffen Paul. Application-specific analysis of different SORN datatypes for unum type-2-based arithmetic. In *2020 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Boldo:2020:CRF

[6857] Sylvie Boldo, Diane Gallois-Wong, and Thibault Hilaire. A correctly-rounded fixed-point-arithmetic dot-product algorithm. In Cornea et al. [8103], pages 9–16. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Bottcher:2020:HDL

[6858] Andreas Böttcher, Keanu Kullmann, and Martin Kumm. Heuristics for the design of large multipliers for FPGAs. In Cornea et al. [8103], pages 17–24. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Boyvalenkov:2020:CMS

[6859] Peter Boyvalenkov, Nikolay I. Chervyakov, Pavel Lyakhov, Nataliya Semyonova, Anton Nazarov, Maria Valueva, Georgi Boyvalenkov, Danil

Bogaevskiy, and Dmitrii Kaplun. Classification of moduli sets for residue number system with special diagonal functions. *IEEE Access*, 8:156104–156116, 2020. ISSN 2169-3536.

Brisebarre:2020:EAS

[6860] Nicolas Brisebarre, Mioara Joldes, Jean-Michel Muller, Ana-Maria Nanes, and Joris Picot. Error analysis of some operations involved in the Cooley–Tukey Fast Fourier Transform. *ACM Transactions on Mathematical Software*, 46(2):11:1–11:27, June 2020. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3368619`.

Bruguera:2020:LLF

[6861] J. D. Bruguera. Low latency floating-point division and square root unit. *IEEE Transactions on Computers*, 69(2):274–287, February 2020. CODEN ITCOB4. ISSN 2326-3814.

Brunie:2020:TFP

[6862] Hugo Brunie, Costin Iancu, Khaled Z. Ibrahim, Philip Brisk, and Brandon Cook. Tuning floating-point precision using dynamic program information and temporal locality. In IEEE [8104], pages 1–14. ISBN 1-72819-998-0, 1-72819-999-9 (printondemand). LCCN QA76.88.

Buoncristiani:2020:ENS

[6863] Nicholas Buoncristiani, Sanjana Shah, David Donofrio, and John Shalf. Evaluating the numerical stability of posit arithmetic. In IEEE, editor, *2020 IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, pages 612–621. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Calligo:2020:PNU

[6864] Calligo Technologies. Posit numeric unit (PNU-IP). Web software., 2020. URL `https://calligotech.com/posit-numeric-unit-pnu-ip`.

Cavalcante:2020:AGS

[6865] Matheus Cavalcante, Fabian Schuiki, Florian Zaruba, Michael Schaffner, and Luca Benini. Ara: a 1-GHz+ scalable and energy-efficient RISC-V vector processor with multiprecision floating-point support in 22-nm FD-SOI. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 28(2):530–543, 2020. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Cherubin:2020:TRP

[6866] Stefano Cherubin and Giovanni Agosta. Tools for reduced precision computation: a survey. *ACM Computing Surveys*, 53(2):33:1–33:35, July 2020. CODEN CMSVAN. ISSN 0360-0300 (print), 1557-7341 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3381039`.

Chien:2020:PNA

[6867] Steven W. D. Chien, Ivy B. Peng, and Stefano Markidis. Posit NPB: Assessing the precision improvement in HPC scientific applications. In Wyrzykowski et al. [8106], pages 301–310. ISBN 3-030-43229-7. ISSN 0302-9743 (print), 1611-3349 (electronic).

Chowdhary:2020:DDN

[6868] Sangeeta Chowdhary, Jay P. Lim, and Santosh Nagarakatte. Debugging and detecting numerical errors in computation with posits. In *PLDI 2020: Proceedings of the 41st ACM SIGPLAN Conference on Programming Language Design and Implementation*, pages 731–746. ACM Press, New York, NY 10036, USA, June 2020.

Cococcioni:2020:FAH

[6869] Marco Cococcioni, Federico Rossi, Emanuele Ruffaldi, and Sergio Saponara. A fast approximation of the hyperbolic tangent when using posit numbers and its application to deep neural networks. In *Applications in Electronics Pervading Industry, Environment and Society*, pages 213–221. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2020. ISBN 3-030-37277-4. ISSN 1876-1119.

Cococcioni:2020:FDN

[6870] Marco Cococcioni, Federico Rossi, Emanuele Ruffaldi, and Sergio Saponara. Fast deep neural networks for image processing using posits and ARM scalable vector extension. *Journal of Real-Time Image Processing*, 17(3):759–771, May 2020. ISSN 1861-8219.

Cococcioni:2020:NPB

[6871] Marco Cococcioni, Federico Rossi, Emanuele Ruffaldi, and Sergio Saponara. A novel posit-based fast approximation of ELU activation function for deep neural networks. In IEEE, editor, *2020 IEEE International Conference on Smart Computing (SMARTCOMP)*, pages 244–246. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Cornea:2020:FA

[6872] Marius Cornea, Weiqiang Liu, and Arnaud Tisserand. Foreword ARITH 2020. In *2020 27th IEEE Symposium on Computer Arithmetic: ARITH 2020: proceedings: Portland, Oregon, USA, 7–10 June 2020* [8103], page i. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Coward:2020:ADS

[6873] Samuel Coward, Theo Drane, and Yoav Harel. Automatic design space exploration for an error tolerant application. In Cornea et al. [8103], pages 117–120. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Das:2020:SYR

[6874] Arnab Das, Ian Briggs, Ganesh Gopalakrishnan, Sriram Krishnamoorthy, and Pavel Panchekha. Scalable yet rigorous floating-point error analysis. In IEEE [8104], pages 1–14. ISBN 1-72819-998-0, 1-72819-999-9 (printondemand). LCCN QA76.88.

deCamargo:2020:REA

[6875] André Pierro de Camargo. Rounding error analysis of divided differences schemes: Newton's divided differences; Neville's algorithm; Richardson extrapolation; Romberg quadrature; etc. *Numerical Algorithms*, 85(2): 591–606, October 2020. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL http://link.springer.com/article/10.1007/s11075-019-00828-1.

Defour:2020:CPM

[6876] David Defour, Pablo de Oliveira Castro, Matei Iştoan, and Eric Petit. Custom-precision mathematical library explorations for code profiling and optimization. In Cornea et al. [8103], pages 121–124. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Dinda:2020:SFP

[6877] Peter Dinda, Alex Bernat, and Conor Hetland. Spying on the floating point behavior of existing, unmodified scientific applications. In ????, editor, *Proceedings of the 29th International Symposium on High-Performance Parallel and Distributed Computing*, pages 5–16. ????, ????, 2020.

Dolgov:2020:PCI

[6878] Sergey Dolgov and Dmitry Savostyanov. Parallel cross interpolation for high-precision calculation of high-dimensional integrals. *Computer Physics Communications*, 246 (??):Article 106869, January 2020. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0010465519302565.

Dutt:2020:HSL

[6879] Rashi Dutt and Amit Acharyya. A high speed and low complexity architecture design methodology for square root unscented Kalman filter based SLAM. In *2020 European Conference on Circuit Theory and Design (ECCTD)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Elkhatib:2020:HOM

[6880] Rami Elkhatib, Reza Azarderakhsh, and Mehran Mozaffari-Kermani. Highly optimized Montgomery multiplier for SIKE primes on FPGA. In Cornea et al. [8103], pages 64–71. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Erickson:2020:GNF

[6881] Jack Erickson. Generate native floating-point FPGA implementations for field-oriented control of motors. MathWorks Web site., February 17, 2020. URL https://www.mathworks.com/videos/generate-native-floating-point-fpga-implementations-for-field-oriented-control-of-motors.html.

Fang:2020:URC

[6882] Linlin Fang, Bingyi Li, Yizhuang Xie, He Chen, and Long Pang. A unified reconfigurable CORDIC processor for floating-point arithmetic. *International Journal of Electronics Theoretical & Experimental*, 107(9): 1436–1450, February 2020. CODEN IJELA2. ISSN 1362-3060.

Fog:2020:FPE

[6883] Agner Fog. Floating point exception tracking and NAN propagation. Report, Technical University of Denmark, Lyngby, Denmark, April 27, 2020. 10 pp. URL https://www.agner.org/optimize/nan_propagation.pdf.

Gallois-Wong:2020:OIP

[6884] Diane Gallois-Wong, Sylvie Boldo, and Pascal Cuoq. Optimal inverse projection of floating-point addition. *Numerical Algorithms*, 83(3):957–986, March 2020. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Godunov:2020:ACC

[6885] A. Godunov. Algorithms for calculating correctly rounded exponential function in double-precision arithmetic. *IEEE Transactions on Computers*, 69(9):1388–1400, September 2020. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Gonzalez-Navarro:2020:NRN

[6886] S. González-Navarro and J. Hormigo. New results on non-normalized floating-point formats. *IEEE Transactions on Computers*, 69(12):1733–1744, December 2020. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Goualard:2020:GRF

[6887] Frédéric Goualard. Generating random floating-point numbers by dividing integers: a case study. In Krzhizhanovskaya et al. [8105], pages 15–28. ISBN 3-030-50416-6, 3-030-50417-4 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). URL `https://link.springer.com/book/10.1007/978-3-030-50417-5`.

Graillat:2020:ASF

[6888] Stef Graillat, Vincent Lefèvre, and Jean-Michel Muller. Alternative split functions and Dekker's product. In Cornea et al. [8103], pages 41–47. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9146973`.

Grutzmacher:2020:APC

[6889] Thomas Grützmacher, Terry Cojean, Goran Flegar, Hartwig Anzt, and Enrique S. Quintana-Ortí. Acceleration of PageRank with customized precision based on mantissa segmentation. *ACM Transactions on Parallel Computing (TOPC)*, 7(1):4:1–4:19, April 2020. CODEN ???? ISSN 2329-4949 (print), 2329-4957 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3380934`.

Gu:2020:NMM

[6890] Zhen Gu and Shuguo Li. A novel method of modular multiplication based on Karatsuba-like multiplication. In Cornea et al. [8103], pages 33–40.

ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9146973`.

Guo:2020:EGE

[6891] Hui Guo and Cindy Rubio-González. Efficient generation of error-inducing floating-point inputs via symbolic execution. In *Proceedings of the ACM/IEEE 42nd International Conference on Software Engineering*. ACM Press, New York, NY 10036, USA, June 2020.

Guo:2020:PIL

[6892] Hui Guo, Ignacio Laguna, and Cindy Rubio-González. pLiner: isolating lines of floating-point code for compiler-induced variability. In IEEE [8104], pages 1–14. ISBN 1-72819-998-0, 1-72819-999-9 (printondemand). LCCN QA76.88.

Harris:2020:APN

[6893] Charles R. Harris, K. Jarrod Millman, Stéfan J. van der Walt, Ralf Gommers, Pauli Virtanen, David Cournapeau, Eric Wieser, Julian Taylor, Sebastian Berg, Nathaniel J. Smith, Robert Kern, Matti Picus, Stephan Hoyer, Marten H. van Kerkwijk, Matthew Brett, Allan Haldane, Jaime Fernández del Río, Mark Wiebe, Pearu Peterson, Pierre Gérard-Marchant, Kevin Sheppard, Tyler Reddy, Warren Weckesser, Hameer Abbasi, Christoph Gohlke, and Travis E. Oliphant. Array programming with NumPy. *Nature*, 585(7825):357–362, September 2020. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic).

Harvey:2020:IMT

[6894] David Harvey and Joris van der Hoeven. Integer multiplication in time $O(n \log n)$. Report hal-02070778, School of Mathematics and Statistics, University of New South Wales, Sydney NSW 2052, Australia, November 28, 2020. 45 pp. URL `https://hal.science/hal-02070778v2`.

Hickmann:2020:INN

[6895] Brian Hickmann, Jieasheng Chen, Michael Rotzin, Andrew Yang, Maciej Urbanski, and Sasikanth Avancha. Intel Nervana Neural Network Processor-T (NNP-T) fused floating point many-term dot product. In Cornea et al. [8103], pages 133–136. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9146973`.

Hopkins:2020:SRR

[6896] Michael Hopkins, Mantas Mikaitis, Dave R. Lester, and Steve Furber. Stochastic rounding and reduced-precision fixed-point arithmetic for solving neural ordinary differential equations. *Philosophical Transactions of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 378(2166):20190052, January 2020. CODEN PTRMAD, PTMSFB. ISSN 1364-503X (print), 1471-2962 (electronic).

Hormigo:2020:FPF

[6897] Javier Hormigo, Julio Villalba-Moreno, and Sonia Gonzalez-Navarro. Floating point fused multiply add under HUB format. In Cornea et al. [8103], pages 1–8. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9146973`.

Hrycak:2020:ELP

[6898] Tomasz Hrycak and Sebastian Schmutzhard. Evaluation of Legendre polynomials by a three-term recurrence in floating-point arithmetic. *IMA Journal of Numerical Analysis*, 40(1):587–605, January 2020. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL `http://academic.oup.com/imajna/article/40/1/587/5162990`.

Ipsen:2020:PEA

[6899] Ilse C. F. Ipsen and Hua Zhou. Probabilistic error analysis for inner products. *SIAM Journal on Matrix Analysis and Applications*, 41(4):1726–1741, ???? 2020. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

ISO:2020:III

[6900] ISO. *ISO/IEC 60559:2020 Information technology — Microprocessor Systems — Floating-Point arithmetic*. International Organization for Standardization, Geneva, Switzerland, 2020. 74 pp. URL `https://www.iso.org/standard/80985.html`.

Isono:2020:TWM

[6901] Takanori Isono, Makoto Yamakura, Satoshi Shimaya, Isao Kawamoto, Nobuhiro Tsuboi, Masaaki Mineo, Wataru Nakajima, Kenichi Ishida, Shin Sasaki, Toshio Higuchi, Masahiro Hoshaku, Daisuke Murakami, Toshifumi Iwasaki, and Hiroshi Hirai. A 12.1 TOPS/W mixed-precision quantized deep convolutional neural network accelerator for low power on edge/endpoint device. In *2020 IEEE Asian Solid-State Circuits Conference (A-SSCC)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Isupov:2020:DIM

[6902] Konstantin Isupov, Vladimir Knyazkov, and Alexander Kuvaev. Design and implementation of multiple-precision BLAS Level 1 functions for graphics processing units. *Journal of Parallel and Distributed Computing*, 140(??):25–36, June 2020. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0743731519303302.

Isupov:2020:MPB

[6903] Konstantin Isupov and Vladimir Knyazkov. Multiple-precision BLAS library for graphics processing units. TechRxiv preprint., June 30, 2020.

Isupov:2020:UFP

[6904] Konstantin Isupov. Using floating-point intervals for non-modular computations in residue number system. *IEEE Access*, 8:58603–58619, 2020. ISSN 2169-3536.

Jeannerod:2020:RAX

[6905] Claude-Pierre Jeannerod. The relative accuracy of $(x + y) * (x - y)$. *Journal of Computational and Applied Mathematics*, 369(??):Article 112613, May 1, 2020. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042719306181.

Johnson:2020:EAHa

[6906] Jeff Johnson. Efficient, arbitrarily high precision hardware logarithmic arithmetic for linear algebra. *arxiv.org*, ??(??):1–8, May 14, 2020. URL https://arxiv.org/pdf/2004.09313.pdf.

Johnson:2020:EAHb

[6907] Jeff Johnson. Efficient, arbitrarily high precision hardware logarithmic arithmetic for linear algebra. In Cornea et al. [8103], pages 25–32. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Joldes:2020:AMQ

[6908] Mioara Joldeş and Jean-Michel Muller. Algorithms for manipulating quaternions in floating-point arithmetic. In Cornea et al. [8103], pages 48–55. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Jugade:2020:FEM

[6909] Chaitanya Jugade, Deepak Ingole, Dayaram Sonawane, Michal Kvasnica, and John Gustafson. A framework for embedded model predictive control using posits. In IEEE, editor, *2020 59th IEEE Conference on Decision and Control (CDC)*, pages 2509–2514. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Kim:2020:PPC

[6910] Boyeal Kim, Sang Hyun Lee, Hyun Kim, Duy-Thanh Nguyen, Minh-Son Le, Ik Joon Chang, Dohun Kwon, Jin Hyeok Yoo, Jun Won Choi, and Hyuk-Jae Lee. PCM: Precision-controlled memory system for energy efficient deep neural network training. In *2020 Design, Automation & Test in Europe Conference & Exhibition (DATE)*, pages 1199–1204. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Klarreich:2020:NMH

[6911] Erica Klarreich. News: Multiplication hits the speed limit. *Communications of the Association for Computing Machinery*, 63(1):11–13, January 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3371387`.

Klower:2020:NFE

[6912] Milan Klöwer, Peter D. Düben, and Tim N. Palmer. Number formats, error mitigation, and scope for 16-bit arithmetics in weather and climate modeling analyzed with a shallow water model. *Journal of Advances in Modeling Earth Systems*, 12(10):1–17, October 2020. ISSN 1942-2466 (print), 1942-2466 (electronic).

Knobbe:2020:CRS

[6913] Simon Knobbe, Moritz Bärthel, Steffen Paul, and Jochen Rust. Complexity reduction for sphere decoding using Unum-Type-II-based SORN-arithmetic. In *2020 9th International Conference on Modern Circuits and Systems Technologies (MOCAST)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Koc:2020:AIM

[6914] Çetin Kaya Koç. Algorithms for inversion mod p^k. *IEEE Transactions on Computers*, 69(6):907–913, 2020. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Kudo:2020:INT

[6915] Shuhei Kudo, Keigo Nitadori, Takuya Ina, and Toshiyuki Imamura. Implementation and numerical techniques for one eflop/s HPL-AI benchmark on Fugaku. In *2020 IEEE/ACM 11TH Workshop on Latest Advances in Scalable Algorithms for Large-Scale Systems (SCALA)*, pages 69–76. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Kudo:2020:PRE

[6916] Shuhei Kudo, Keigo Nitadori, Takuya Ina, and Toshiyuki Imamura. Prompt report on exa-scale HPL-AI benchmark. In *2020 IEEE International Conference on Cluster Computing (CLUSTER)*, pages 418–419. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Laguna:2020:VQF

[6917] Ignacio Laguna. Varity: Quantifying floating-point variations in HPC systems through randomized testing. In *2020 IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, pages 622–633. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, May 2020.

Lange:2020:FRF

[6918] Marko Lange and Siegfried M. Rump. Faithfully rounded floating-point computations. *ACM Transactions on Mathematical Software*, 46 (3):21:1–21:20, September 2020. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/doi/10.1145/3290955`.

Lange:2020:NDF

[6919] Marko Lange and Shin'ichi Oishi. A note on Dekker's FastTwoSum algorithm. *Numerische Mathematik*, 145(2):383–403, June 2020. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-020-01114-2`. See correction [7044].

Langroudi:2020:APP

[6920] Hamed F. Langroudi, Vedant Karia, John L. Gustafson, and Dhireesha Kudithipudi. Adaptive posit: Parameter aware numerical format for deep learning inference on the edge. In IEEE, editor, *2020 IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW)*, pages 3123–3131. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Lauter:2020:FSA

[6921] Christoph Lauter and Anastasia Volkova. A framework for semi-automatic precision and accuracy analysis for fast and rigorous deep learning. In Cornea et al. [8103], pages 103–110. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Lindstrom:2020:VRC

[6922] Peter Lindstrom. Variable-radix coding of the reals. In Cornea et al. [8103], pages 111–116. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Luo:2020:ADN

[6923] Y. Luo and S. Yu. Accelerating deep neural network in-situ training with non-volatile and volatile memory based hybrid precision synapses. *IEEE Transactions on Computers*, 69(8):1113–1127, 2020. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Lyakhov:2020:HPD

[6924] Pavel Lyakhov, Maria Valueva, Georgii Valuev, and Nikolai Nagornov. High-performance digital filtering on truncated multiply-accumulate units in the residue number system. *IEEE Access*, 8:209181–209190, 2020. ISSN 2169-3536.

Marquer:2020:HLI

[6925] Yoann Marquer and Tania Richmond. A hole in the ladder: Interleaved variables in iterative conditional branching. In Cornea et al. [8103], pages 56–63. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=9146973.

Meurant:2020:PFM

[6926] Gérard Meurant. FLOATP_toolbox, Matlab software, variable precision floating point arithmetic. Report ????, Commissariat a l'Énergie Atomique (CEA), ????, France, 2020. URL https://gerard-meurant.pagesperso-orange.fr/soft_meurant_n.html.

Mikaitis:2020:IRG

[6927] Mantas Mikaitis. Issues with rounding in the GCC implementation of the ISO 18037:2008 standard fixed-point arithmetic. In Cornea et al.

[8103], pages 129–132. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9146973`.

Mikaitis:2020:SRA

[6928] Mantas Mikaitis. Stochastic rounding: Algorithms and hardware accelerator. *arXiv.org*, ??(??):1–6, June 29, 2020. URL `https://arxiv.org/abs/2001.01501#`.

Muller:2020:EFA

[6929] Jean-Michel Muller. Elementary functions and approximate computing. *Proceedings of the IEEE*, 108(12):2136–2149, December 2020. CODEN IEEPAD. ISSN 0018-9219 (print), 1558-2256 (electronic).

Murillo:2020:CPA

[6930] Raul Murillo, Alberto A. Del Barrio, and Guillermo Botella. Customized posit adders and multipliers using the FloPoCo core generator. In IEEE, editor, *IEEE International Symposium on Circuits and Systems (ISCAS): Seville, Spain, October 11–14, 2020*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020. ISBN 1-72813-320-3. ISSN 0271-4302 (print), 2158-1525 (electronic).

Murillo:2020:DPD

[6931] R. Murillo, A. A. Del Barrio, and G. Botella. Deep PeNSieve: a deep learning framework based on the posit number system. *Digital Signal Processing*, 102:1–8, July 2020. CODEN DSPREJ. ISSN 1051-2004 (print), 1095-4333 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S105120042030107X`.

Nannarelli:2020:VPB

[6932] Alberto Nannarelli. Variable precision 16-bit floating-point vector unit for embedded processors. In Cornea et al. [8103], pages 96–102. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9146973`.

Nass:2020:GUL

[6933] Rich Nass. GreenWaves ultra-low power GAP9 IoT apps processor suits intelligence at the edge. Web site, January 21, 2020. URL `https://www.embedded-computing.com/guest-blogs/greenwaves-ultra-low-power-gap9-iot-apps-processor-suits-intelligence-at-the-edge`. GAP9 offers vectorized 2-bit and 4-bit fixed-point arithmetic, and 8-, 16-, and 32-bit floating-point arithmetic.

Neves:2020:DFM

[6934] Nuno Neves, Pedro Tomás, and Nuno Roma. Dynamic fused multiply-accumulate posit unit with variable exponent size for low-precision DSP applications. In IEEE, editor, *2020 IEEE Workshop on Signal Processing Systems (SiPS)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Neves:2020:RSB

[6935] Nuno Neves, Pedro Tomás, and Nuno Roma. Reconfigurable stream-based tensor unit with variable-precision posit arithmetic. In IEEE, editor, *2020 IEEE 31st International Conference on Application-specific Systems, Architectures and Processors (ASAP)*, pages 149–156. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Niasar:2020:FSA

[6936] Mojtaba Bisheh Niasar, Rami El Khatib, Reza Azarderakhsh, and Mehran Mozaffari-Kermani. Fast, small, and area-time efficient architectures for key-exchange on Curve25519. In Cornea et al. [8103], pages 72–79. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9146973`.

Papachatzopoulos:2020:MDM

[6937] Kleanthis Papachatzopoulos and Vassilis Paliouras. Maximum delay models for parallel-prefix adders in the presence of threshold voltage variations. In Cornea et al. [8103], pages 88–95. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9146973`.

Payer:2020:SMF

[6938] Stefan Payer, Cedric Lichtenau, Michael Klein, Kerstin Schelm, Petra Leber, Nicol Hofmann, and Tina Babinsky. SIMD multi format floating-point unit on the IBM z15. In Cornea et al. [8103], pages 125–128. ISBN 1-72817-120-2, 1-72817-121-0. ISSN 2576-2265. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9146973`.

RAos:2020:EMP

[6939] John Osorio Ríos, Adrià Armejach, Gulrukh Khattak, Eric Petit, Sofia Vallecorsa, and Marc Casas. Evaluating mixed-precision arithmetic for 3D generative adversarial networks to simulate high energy physics detectors. In *2020 19th IEEE International Conference on Machine*

Learning and Applications (ICMLA), pages 49–56. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Raveendran:2020:NPF

[6940] Aneesh Raveendran, Sandra Jean, J. Mervin, D. Vivian, and David Selvakumar. A novel parametrized fused division and square-root POSIT arithmetic architecture. In IEEE, editor, *2020 33rd International Conference on VLSI Design and 2020 19th International Conference on Embedded Systems (VLSID), Bengaluru, India, 4–8 January 2020*, pages 207–212. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, January 2020. ISBN 1-72815-701-3. ISSN 1063-9667 (print), 2380-6923 (electronic).

Saadat:2020:WWC

[6941] Hassaan Saadat, Haris Javaid, Aleksandar Ignjatovic, and Sri Parameswaran. WEID: Worst-case error improvement in approximate dividers. In *2020 25th Asia and South Pacific Design Automation Conference (ASP-DAC)*, pages 8D–1–8D–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, January 2020.

SEGGER:2020:SFP

[6942] SEGGER
Microcontroller. SEGGER floating-point library. Web site., January 2020. URL `https://www.segger.com/products/development-tools/runtime-library/technology/floating-point-library/`.

Sharma:2020:CRV

[6943] Niraj Sharma, Riya Jain, Madhumita Mohan, Sachin Patkar, Rainer Leupers, Nikhil Rishiyur, and Farhad Merchant. CLARINET: A RISC-V based framework for posit arithmetic empiricism. *arXiv.org*, ??(??): 1–20, May 30, 2020. URL `https://arxiv.org/abs/2006.00364`.

Shibata:2020:SPV

[6944] Naoki Shibata and Francesco Petrogalli. SLEEF: A portable vectorized library of C standard mathematical functions. *IEEE Transactions on Parallel and Distributed Systems*, 31(6):1316–1327, June 2020. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic).

Shirriff:2020:AMC

[6945] Ken Shirriff. Die analysis of the 8087 math coprocessor's fast bit shifter. Blog post, May 2020.

URL https://ieeemilestones.ethw.org/w/images/0/0c/Shirriff_8087_barrel_shifter.pdf; https://www.righto.com/2020/05/die-analysis-of-8087-math-coprocessors.html. Analysis of the barrel shifter at the heart of both the arithmetic operations and the CORDIC-like transcendental functions in the 8087. See patent [1944].

Shirriff:2020:ERC

[6946] Ken Shirriff. Extracting ROM constants from the 8087 math coprocessor's die. Blog posting, May 2020. URL https://ieeemilestones.ethw.org/w/images/8/87/Shirriff_8087_ROM_constants.pdf.

Smith:2020:HMC

[6947] Ernie Smith. How a minor calculation error cost Intel half a billion dollars: How one of the most famous computer bugs of all time, the Intel Pentium floating-point division glitch, blew out of proportion into a PR crisis. Web site., September 14, 2020. URL https://www.vice.com/en/article/dyzqdj/how-a-minor-calculation-error-cost-intel-half-a-billion-dollars.

Sommer:2020:CAN

[6948] Lukas Sommer, Lukas Weber, Martin Kumm, and Andreas Koch. Comparison of arithmetic number formats for inference in sum–product networks on FPGAs. In *2020 IEEE 28th Annual International Symposium on Field-Programmable Custom Computing Machines (FCCM)*, pages 75–83. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Sousa:2020:TIR

[6949] L. Sousa, R. Paludo, P. Martins, and H. Pettenghi. Towards the integration of reverse converters into the RNS channels. *IEEE Transactions on Computers*, 69(3):342–348, March 2020. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Stine:2020:AIV

[6950] James E. Stine, Milo D. Ercegovac, and Jean-Michel Muller. An architecture for improving variable radix real and complex division using recurrence division. In Michael B. Matthews, editor, *2020 54th Asilomar Conference on Signals, Systems, and Computers. November 1–5, 2020. Pacific Grove, California*, pages 529–533. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020. ISBN 0-7381-3126-1.

Sun:2020:ULP

[6951] Xiao Sun, Naigang Wang, Chia-Yu Chen, Jiamin Ni, Ankur Agrawal, Xiaodong Cui, Swagath Venkataramani, Kaoutar El Maghraoui, Vijayalakshmi (Viji) Srinivasan, and Kailash Gopalakrishnan. Ultra-low precision 4-bit training of deep neural networks. In H. Larochelle, M. Ranzato, R. Hadsell, M. F. Balcan, and H. Lin, editors, *Advances in Neural Information Processing Systems (NeurIPS 2020)*, pages 1796–1807. Curran Associates, Inc., Red Hook, NY, USA, 2020. ISBN 1-71382-954-1. LCCN ???? URL `https://proceedings.neurips.cc/paper_files/paper/2020/file/13b919438259814cd5be8cb45877d577-Paper.pdf`.

Ternovoy:2020:CAF

[6952] E. Ternovoy, Mikhail G. Popov, Dmitrii V. Kaleev, Yurii V. Savchenko, and Alexey L. Pereverzev. Comparative analysis of floating-point accuracy of IEEE 754 and posit standards. In IEEE, editor, *2020 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering (EIConRus)*, pages 1883–186. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

ThoughtWorks:2020:PER

[6953] ThoughtWorks. Posit Enhanced Rocket Chip (PERC). Web software., 2020. URL `https://www.thoughtworks.com/engineering-research/perc`.

Turley:2020:WBA

[6954] Jim Turley. What is bfloat16, anyway? New floating-point format is suddenly popular for machine learning. Electronic Engineering journal Web site, March 23, 2020. URL `https://www.eejournal.com/article/what-is-bfloat16-anyway/`.

Uguen:2020:ASA

[6955] Yohann Uguen, Florent De Dinechin, Victor Lezaud, and Steven Derrien. Application-specific arithmetic in high-level synthesis tools. *ACM Transactions on Architecture and Code Optimization*, 17(1):5:1–5:23, March 2020. CODEN ???? ISSN 1544-3566 (print), 1544-3973 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3377403`.

Valueva:2020:ARN

[6956] M. V. Valueva, N. N. Nagornov, P. A. Lyakhov, G. V. Valuev, and N. I. Chervyakov. Application of the residue number system to reduce hardware costs of the convolutional neural network implementation. *Mathematics and Computers in Simulation*, 177:232–243, November 2020. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic). URL https://www.sciencedirect.com/science/article/pii/S0378475420301580.

Volkova:2020:AAR

[6957] A. Volkova, T. Hilaire, and C. Lauter. Arithmetic approaches for rigorous design of reliable fixed-point LTI filters. *IEEE Transactions on Computers*, 69(4):489–504, April 2020. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Wang:2020:GCB

[6958] Yuxuan Wang, Yuanyong Luo, Zhongfeng Wang, Qinghong Shen, and Hongbing Pan. GH CORDIC-based architecture for computing N-th root of single-precision floating-point number. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 28(4):864–875, 2020. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Ward-Foxton:2020:AIG

[6959] Sally Ward-Foxton. Artificial intelligence gets its own system of numbers. *EE Times*, ??(??):??, February 14, 2020. URL https://www.eetimes.com/artificial-intelligence-gets-its-own-system-of-numbers/.

Xiao:2020:PAH

[6960] Feibao Xiao, Feng Liang, Bin Wu, Junzhe Liang, Shuting Cheng, and Guohe Zhang. Posit arithmetic hardware implementations with the minimum cost divider and square root. *Electronics*, 9(10):1622:1–1622:16, October 2020. ISSN 2079-9292.

Yin-Di:2020:HMH

[6961] Zhang Yin-Di, Liu Ming, and Wang Ming-Jiang. A hardware modeling of high precision floating point arcsine/arccosine function based on CORDIC algorithm. In *2020 IEEE 5th International Conference on Signal and Image Processing (ICSIP)*, pages 1040–1044. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Yun:2020:LEP

[6962] Juwon Yun, Jinyoung Lee, Woo-Nam Chung, Cheong Ghil Kim, and Woo-Chan Park. A latency-effective pipelined divider for double-precision floating-point numbers. *IEEE Access*, 8:165740–165747, 2020. ISSN 2169-3536.

Zaruba:2020:CRV

[6963] Florian Zaruba, Fabian Schuiki, and Luca Benini. A 4096-core RISC-V chiplet architecture for ultra-efficient floating-point computing. In IEEE, editor, *2020 IEEE Hot Chips 32 Symposium (HCS)*, pages 1–24. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Zhang:2020:DPE

[6964] Hao Zhang and Seok-Bum Ko. Design of power efficient posit multiplier. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 67(5): 861–865, 2020. ISSN 1549-7747 (print), 1558-3791 (electronic).

Zhang:2020:NAE

[6965] N. Zhang, Q. Qin, H. Yuan, C. Zhou, S. Yin, S. Wei, and L. Liu. NTTU: An area-efficient low-power NTT-uncoupled architecture for NTT-based multiplication. *IEEE Transactions on Computers*, 69(4):520–533, April 2020. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Zhang:2020:NFM

[6966] H. Zhang, D. Chen, and S. Ko. New flexible multiple-precision multiply-accumulate unit for deep neural network training and inference. *IEEE Transactions on Computers*, 69(1):26–38, January 2020. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Zhang:2020:SAA

[6967] Longlong Zhang, Yuanxi Peng, Ahui Huang, and Xiao Hu. A scalable architecture for accelerating multi-operation and continuous floating-point matrix computing on FPGAs. *IEEE Access*, 8:92469–92478, 2020. ISSN 2169-3536.

Zimmermann:2020:AMFa

[6968] Paul Zimmermann. Accuracy of mathematical functions in single precision. Technical report, ????, February 3, 2020. 2 pp. URL `https://members.loria.fr/PZimmermann/papers/accuracy.pdf`. Previous versions dated 4 February 2020, 10 May 2020, 26 May 2020, 7 August 2020, 25 August 2020, 28 August 2020, 15 September 2020, 17 September 2020.

Zimmermann:2020:AMFb

[6969] Paul Zimmermann. Accuracy of mathematical functions in single, double, and quadruple precision. Technical report, ????, December 4,

2020. 14 pp. URL `https://members.loria.fr/PZimmermann/papers/accuracy.pdf`. Revised February 4, May 10, May 26 and August 7 [2020].

Zou:2020:DFP

[6970] Daming Zou, Muhan Zeng, Yingfei Xiong, Zhoulai Fu, Lu Zhang, and Zhendong Su. Detecting floating-point errors via atomic conditions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (POPL):60:1–60:27, January 2020. ISSN 2475-1421. URL `https://dl.acm.org/doi/abs/10.1145/3371128`.

Agrawal:2021:CAC

[6971] Ankur Agrawal, Sae Kyu Lee, Joel Silberman, Matthew Ziegler, Mingu Kang, Swagath Venkataramani, Nianzheng Cao, Bruce Fleischer, Michael Guillorn, Matthew Cohen, Silvia Mueller, Jinwook Oh, Martin Lutz, Jinwook Jung, Siyu Koswatta, Ching Zhou, Vidhi Zalani, James Bonanno, Robert Casatuta, Chia-Yu Chen, Jungwook Choi, Howard Haynie, Alyssa Herbert, Radhika Jain, Monodeep Kar, Kyu-Hyoun Kim, Yulong Li, Zhibin Ren, Scot Rider, Marcel Schaal, Kerstin Schelm, Michael Scheuermann, Xiao Sun, Hung Tran, Naigang Wang, Wei Wang, Xin Zhang, Vinay Shah, Brian Curran, Vijayalakshmi Srinivasan, Pong-Fei Lu, Sunil Shukla, Leland Chang, and Kailash Gopalakrishnan. 9.1 a 7nm 4-core AI chip with 25.6TFLOPS hybrid FP8 training, 102.4TOPS INT4 inference and workload-aware throttling. In *2021 IEEE International Solid-State Circuits Conference (ISSCC)*, volume 64, pages 144–146. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Ahn:2021:KSK

[6972] Dong H. Ahn, Allison H. Baker, Michael Bentley, Ian Briggs, Ganesh Gopalakrishnan, Dorit M. Hammerling, Ignacio Laguna, Gregory L. Lee, Daniel J. Milroy, and Mariana Vertenstein. Keeping science on keel when software moves. *Communications of the Association for Computing Machinery*, 64(2):66–74, February 2021. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3382037`.

Alouani:2021:IIR

[6973] Ihsen Alouani, Anouar Ben Khalifa, Farhad Merchant, and Rainer Leupers. An investigation on inherent robustness of posit data representation. In IEEE, editor, *2021 34th International Conference on VLSI Design and 2021 20th International Conference on Embedded*

Systems (VLSID), pages 276–281. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Andrysco:2021:SFP

[6974] Marc Andrysco, David Kohlbrenner, Keaton Mowery, Ranjit Jhala, Sorin Lerner, and Hovav Shacham. On subnormal floating point and abnormal timing. Report, Department of Computer Science and Engineering University of California, San Diego, La Jolla, California, USA, January 2, 2021. 17 pp.

Anonymous:2021:AI

[6975] Anonymous. Author index. In IEEE [8107], page 141. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Anonymous:2021:CN

[6976] Anonymous. [Copyright notice]. In IEEE [8107], page 1. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Anonymous:2021:FC

[6977] Anonymous. [Front cover]. In IEEE [8107], page 1. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Anonymous:2021:IPA

[6978] Anonymous. Industry panel ARITH 2021: Processors for the computing of the 2020s. In IEEE [8107], page xv. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Anonymous:2021:PCA

[6979] Anonymous. Program committee ARITH 2021. In IEEE [8107], page xii. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Anonymous:2021:SA

[6980] Anonymous. Sponsors ARITH 2021. In IEEE [8107], page xviii. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Anonymous:2021:SCA

[6981] Anonymous. Steering committee ARITH 2021. In IEEE [8107], page xiii. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Anonymous:2021:TC

[6982] Anonymous. Table of contents. In IEEE [8107], pages v–viii. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Anonymous:2021:TP

[6983] Anonymous. [Title page]. In IEEE [8107], page 1. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Ashmawy:2021:FHI

[6984] Doaa Ashmawy and Arash Reyhani-Masoleh. A faster hardware implementation of the AES S-box. In IEEE [8107], pages 123–130. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Bagnara:2021:PAV

[6985] Roberto Bagnara, Michele Chiari, Roberta Gori, and Abramo Bagnara. A practical approach to verification of floating-point C/C++ programs with `math.h/cmath` functions. *ACM Transactions on Software Engineering and Methodology*, 30(1):9:1–9:53, January 2021. CODEN ATSMER. ISSN 1049-331X (print), 1557-7392 (electronic). URL `https://dl.acm.org/doi/10.1145/3410875`.

Bailey:2021:PMN

[6986] David H. Bailey. `MPFUN2020`: A new thread-safe arbitrary precision package. Web document, May 18, 2021. URL `https://www.davidhbailey.com/dhbpapers/mpfun2020.pdf`.

Bajard:2021:GRN

[6987] Jean-Claude Bajard, Kazuhide Fukushima, Shinsaku Kiyomoto, Thomas Plantard, Arnaud Sipasseuth, and Willy Susilo. Generating residue number system bases. In IEEE [8107], pages 86–93. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Bertaccini:2021:TFL

[6988] Luca Bertaccini, Matteo Perotti, Stefan Mach, Pasquale Davide Schiavone, Florian Zaruba, and Luca Benini. Tiny-FPU: Low-cost floating-point support for small RISC-V MCU cores. In IEEE, editor, *2021 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Bigou:2021:ERA

[6989] Karim Bigou, Mojtaba Bisheh Niasar, Luís Fiolhais, Rogerio Paludo, and Hwajeong Seo. External reviewers ARITH 2021. In IEEE [8107], page xiv. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Bisheh-Niasar:2021:HSN

[6990] Mojtaba Bisheh-Niasar, Reza Azarderakhsh, and Mehran Mozaffari-Kermani. High-speed NTT-based polynomial multiplication accelerator for post-quantum cryptography. In IEEE [8107], pages 94–101. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Boldo:2021:ERN

[6991] Sylvie Boldo, Christoph Quirin Lauter, and Jean-Michel Muller. Emulating round-to-nearest-ties-to-zero "augmented" floating-point operations using round-to-nearest-ties-to-even arithmetic. *IEEE Transactions on Computers*, 70(7):1046–1058, July 2021. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Boldo:2021:SFT

[6992] Sylvie Boldo and Guillaume Melquiond. Some formal tools for computer arithmetic: Flocq and Gappa. In IEEE [8107], pages 111–114. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Borges:2021:AIA

[6993] Carlos F. Borges. Algorithm 1014: an improved algorithm for `hypot(x,y)`. *ACM Transactions on Mathematical Software*, 47(1):9:1–9:12, January 2021. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/doi/10.1145/3428446`.

Borges:2021:CRN

[6994] Carlos F. Borges. A correctly rounded Newton step for the reciprocal square root. *arXiv.org*, ??(??):1–8, December 28, 2021. URL `https://arxiv.org/abs/2112.14321`.

Borges:2021:FCA

[6995] Carlos F. Borges. Fast compensated algorithms for the reciprocal square root, the reciprocal hypotenuse, and Givens rotations. *arXiv.org*, ??(??):1–11, February 23, 2021. URL `https://arxiv.org/abs/2103.08694`.

Bos:2021:MPM

[6996] Joppe W. Bos and Kristin E. Lauter. In memoriam: Peter L. Montgomery (1947–2020). *Notices of the American Mathematical Society*, 68(4):538–545, April 2021. CODEN AMNOAN. ISSN 0002-9920 (print), 1088-9477 (electronic).

Bottcher:2021:ROT

[6997] Andreas Böttcher, Martin Kumm, and Florent de Dinechin. Resource optimal truncated multipliers for FPGAs. In IEEE [8107], pages 102–109. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Brun:2021:SEBa

[6998] Emeric Brun, David Defour, Pablo de Oliveira Castro, Matei Iştoan, Davide Mancusi, Eric Petit, and Alan Vaquet. A study of the effects and benefits of custom-precision mathematical libraries for HPC codes. *IEEE Transactions on Emerging Topics in Computing*, 9(3):1467–1478, July/September 2021. ISSN 2168-6750 (print), 2376-4562 (electronic). See [6999].

Brun:2021:SEBb

[6999] Emeric Brun, David Defour, Pablo De Oliveira Castro, Matei Istoan, Davide Mancusi, Eric Petit, and Alan Vaquet. A study of the effects and benefits of custom-precision mathematical libraries for HPC codes. In IEEE [8107], page 62. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ???? See [6998].

Brunie:2021:MAE

[7000] Nicolas Brunie. Manifest for an approximation exchange format. In IEEE [8107], pages 63–68. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Chen:2021:QIL

[7001] Lin Chen, Kang He, Hao Jiang, Roberto Barrio, Jie Liu, and Tiejun Li. Quantization improvements for *LU* decomposition to solve linear equations. In *2021 IEEE Intl Conf on Parallel & Distributed Processing with Applications, Big Data & Cloud Computing, Sustainable Computing & Communications, Social Computing & Networking (ISPA/BDCloud/SocialCom/SustainCom)*, pages 1075–1082. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Ciocirlan:2021:AEPa

[7002] Stefan Dan Ciocirlan, Dumitrel Loghin, Lavanya Ramapantulu, Nicolae Tapus, and Yong Meng Teo. The accuracy and efficiency of posit arithmetic. *arXiv.org*, ??(??), September 16, 2021.

Ciocirlan:2021:AEPb

[7003] Stefan Dan Ciocirlan, Dumitrel Loghin, Lavanya Ramapantulu, Nicolae Ţăpuş, and Yong Meng Teo. The accuracy and efficiency of posit arithmetic. In IEEE, editor, *2021 IEEE 39th International Conference on Computer Design (ICCD)*, pages 83–87. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Cococcioni:2021:VPO

[7004] Marco Cococcioni, Federico Rossi, Emanuele Ruffaldi, and Sergio Saponara. Vectorizing posit operations on RISC-V for faster deep neural networks: experiments and comparison with ARM SVE. *Neural Computing and Applications*, 33(16):10575–10585, February 2021. ISSN 1433-3058.

Coladon:2021:MFR

[7005] Titouan Coladon, Philippe Elbaz-Vincent, and Cyril Hugounenq. MPHELL: a fast and robust library with unified and versatile arithmetics for elliptic curves cryptography. In IEEE [8107], pages 78–85. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Connolly:2021:SRP

[7006] Michael P. Connolly, Nicholas J. Higham, and Theo Mary. Stochastic rounding and its probabilistic backward error analysis. *SIAM Journal on Scientific Computing*, 43(1):A566–A585, ???? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Czachor:2021:NNM

[7007] Marek Czachor. Non-Newtonian mathematics instead of non-Newtonian physics: Dark matter and dark energy from a mismatch of arithmetics. *Foundations of Science*, 26(1):75–95, March 2021. CODEN FOSCFI. ISSN 1233-1821 (print), 1572-8471 (electronic). URL `https://link.springer.com/article/10.1007/s10699-020-09687-9`.

Darcy:2021:FPA

[7008] Joseph D. Darcy. Floating-point arithmetic: What every Java programmer should know! Web site 29m37s video., 2021. URL `https://youtu.be/ajaHQ9S4uTA`.

deDinechin:2021:TAC

[7009] Florent de Dinechin, Silviu-Ioan Filip, Martin Kumm, and Anastasia Volkova. Towards arithmetic-centered filter design. In IEEE [8107], pages 115–118. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Defour:2021:SCB

[7010] David Defour, Pablo de Oliveira Castro, Matei Iştoan, and Eric Petit. Shadow computation with BFloat16 to estimate the numerical accuracy of summations. In IEEE [8107], pages 33–36. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

delaFraga:2021:DEU

[7011] Luis Gerardo de la Fraga. Differential evolution under fixed point arithmetic and FP16 numbers. *Mathematical and Computational Applications*, 26(1):13–??, March 2021. CODEN ???? ISSN 2297-8747. URL `https://www.mdpi.com/2297-8747/26/1/13`.

Demeure:2021:TET

[7012] Nestor Demeure, Cédric Chevalier, Christophe Denis, and Pierre Dossantos-Uzarralde. Tagged error: tracing numerical error through computations. In IEEE [8107], pages 9–16. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Demmel:2021:NIS

[7013] James Demmel and Jason Riedy. A new IEEE 754 standard for floating-point arithmetic in an ever-changing world. *SIAM News*, 54(6):??, July/August 2021. ISSN 0036-1437. URL `https://sinews.siam.org/Details-Page/a-new-ieee-754-standard-for-floating-point-arithmetic-in-an-ever-changing-world`.

Dimitrakopoulos:2021:SPAa

[7014] Giorgos Dimitrakopoulos, Kleanthis Papachatzopoulos, and Vassilis Paliouras. Sum propagate adders. *IEEE Transactions on Emerging Topics in Computing*, 9(3):1479–1488, July/September 2021. ISSN 2168-6750 (print), 2376-4562 (electronic). See [7015].

Dimitrakopoulos:2021:SPAb

[7015] Giorgos Dimitrakopoulos, Kleanthis Papachatzopoulos, and Vassilis Paliouras. Sum propagate adders. In IEEE [8107], page 110. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ???? See [7014].

Druck:2021:NSB

[7016] Philip Druck. A novel set of base-prime floating point numbers. TechRxiv preprint., February 16, 2021.

Eliahu:2021:MME

[7017] Adi Eliahu, Ronny Ronen, Pierre-Emmanuel Gaillardon, and Shahar Kvatinsky. multiPULPly: a multiplication engine for accelerating neural networks on ultra-low-power architectures. *ACM Journal on Emerging Technologies in Computing Systems (JETC)*, 17(2):24:1–24:27, April 2021. CODEN ???? ISSN 1550-4832 (print), 1550-4840 (electronic). URL `https://dl.acm.org/doi/10.1145/3432815`.

Elkhatib:2021:ARV

[7018] Rami Elkhatib, Reza Azarderakhsh, and Mehran Mozaffari-Kermani. Accelerated RISC-V for SIKE. In IEEE [8107], pages 131–138. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Fasi:2021:ASRa

[7019] Massimiliano Fasi and Mantas Mikaitis. Algorithms for stochastically rounded elementary arithmetic operations in IEEE 754 floating-point arithmetic. *IEEE Transactions on Emerging Topics in Computing*, 9(3): 1451–1466, July/September 2021. ISSN 2168-6750 (print), 2376-4562 (electronic). See [7020].

Fasi:2021:ASRb

[7020] Massimiliano Fasi and Mantas Mikaitis. Algorithms for stochastically rounded elementary arithmetic operations in IEEE 754 floating-point arithmetic. In IEEE [8107], page 69. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ???? See [7019].

Fasi:2021:NBN

[7021] Massimiliano Fasi, Nicholas J. Higham, Mantas Mikaitis, and Srikara Pranesh. Numerical behavior of NVIDIA tensor cores. *PeerJ Computer Science*, 7:e330:1–e330:19, February 2021. ISSN 2376-5992.

Fortin:2021:HPS

[7022] Pierre Fortin, Ambroise Fleury, François Lemaire, and Michael Monagan. High-performance SIMD modular arithmetic for polynomial evaluation. *Concurrency and Computation: Practice and Experience*, 33(16): e6270:1–e6270:??, August 25, 2021. CODEN CCPEBO. ISSN 1532-0626 (print), 1532-0634 (electronic).

Garofalo:2021:XEEa

[7023] Angelo Garofalo, Giuseppe Tagliavini, Francesco Conti, Luca Benini, and Davide Rossi. XpulpNN: Enabling energy efficient and flexible inference of quantized neural networks on RISC-V based IoT end nodes. *IEEE*

Transactions on Emerging Topics in Computing, 9(3):1489–1505, July/September 2021. ISSN 2168-6750 (print), 2376-4562 (electronic). See [7024].

Garofalo:2021:XEEb

[7024] Angelo Garofalo, Giuseppe Tagliavini, Francesco Conti, Luca Benini, and Davide Rossi. XpulpNN: Enabling energy efficient and flexible inference of quantized neural networks on RISC-V based IoT end nodes. In IEEE [8107], page 53. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ???? See [7023].

Gohil:2021:FPF

[7025] Varun Gohil, Sumit Walia, Joycee Mekie, and Manu Awasthi. Fixed-posit: a floating-point representation for error-resilient applications. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 68(10): 3341–3345, 2021. ISSN 1549-7747 (print), 1558-3791 (electronic).

Gopalakrishnan:2021:GNA

[7026] Ganesh Gopalakrishnan, Ignacio Laguna, Ang Li, Pavel Panchekha, Cindy Rubio-González, and Zachary Tatlock. Guarding numerics amidst rising heterogeneity. In ????, editor, *Correctness 2021: Fifth International Workshop on Software Correctness for HPC Applications, November 19, 2021, America's Center Convention Complex St. Louis, MO, USA*, page ???? IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021. URL `https://correctness-workshop.github.io/2021/`.

Gustafsson:2021:AFP

[7027] Oscar Gustafsson and Noah Hellman. Approximate floating-point operations with integer units by processing in the logarithmic domain. In IEEE [8107], pages 45–52. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Haigh:2021:NHM

[7028] Thomas Haigh and Paul E. Ceruzzi. *A New History of Modern Computing*. History of computing. The MIT Press, Cambridge, MA, 2021. ISBN 0-262-54290-0 (paperback), 0-262-36647-9 (e-book). x + 528 pp. LCCN QA76.17 .H34 2021.

Held:2021:KRP

[7029] James P. Held and Théo Mary. Keynote 1: Realizing the promise of quantum computing. In IEEE [8107], page xvi. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Hellman:2021:MBA

[7030] Noah Hellman. Mitchell-based approximate operations on floating-point numbers. Master of Science Thesis in Electrical Engineering, Department of Electrical Engineering, Linköping University, Linköping, Sweden, June 19, 2021. 56 pp. URL http://liu.diva-portal.org/smash/get/diva2:1590166/FULLTEXT01.pdf; http://liu.diva-portal.org/smash/record.jsf?pid=diva2%3A1590166&dswid=5128.

Ho:2021:GFD

[7031] Nhut-Minh Ho, Himeshi De Silva, and Weng-Fai Wong. GRAM: a framework for dynamically mixing precisions in GPU applications. *ACM Transactions on Architecture and Code Optimization*, 18(2):19:1–19:24, March 2021. CODEN ???? ISSN 1544-3566 (print), 1544-3973 (electronic). URL https://dl.acm.org/doi/10.1145/3441830.

Ho:2021:PAT

[7032] Nhut-Minh Ho, Duy-Thanh Nguyen, Himeshi De Silva, John L. Gustafson, Weng-Fai Wong, and Ik Joon Chang. Posit arithmetic for the training and deployment of generative adversarial networks. In IEEE, editor, *2021 Design, Automation & Test in Europe Conference & Exhibition (DATE)*, pages 1350–1355. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Hormigo:2021:FAB

[7033] Javier Hormigo and Gabriel Caffarena. FPGA acceleration of bit-true simulations for word-length optimization. In IEEE [8107], pages 119–122. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Hough:2021:ISO

[7034] David G. Hough. The IEEE Standard 754: One for the history books. *ComputingEdge*, ??(4):42–46, August 2021. ISSN 2469-7087. URL http://grouper.ieee.org/groups/msc/ANSI_IEEE-Std-754-2019/background/ieee-computer.pdf; https://www.computer.org/csdl/magazine/co/2019/12/08909942/1f8KFWxbTCU.

Ina:2021:IMM

[7035] T. Ina, Y. Idomura, T. Imamura, S. Yamashita, and N. Onodera. Iterative methods with mixed-precision preconditioning for ill-conditioned linear systems in multiphase CFD simulations. In *2021 12th Workshop on Latest Advances in Scalable Algorithms for Large-Scale Systems (ScalA)*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Jain:2021:M

[7036] Riya Jain and Niraj Nayan Sharma. Melodica. Web software., 2021. URL `https://github.com/HPC-Lab-IITB/Melodica`.

Jean:2021:PFN

[7037] Sandra Jean, Aneesh Raveendran, A. David Selvakumar, Gagandeep Kaur, Shankar G. Dharani, Shashikala Gunderao Pattanshetty, and Vivian Desalphine. P-FMA: a novel parameterized posit fused multiply-accumulate arithmetic processor. In IEEE, editor, *2021 34th International Conference on VLSI Design and 2021 20th International Conference on Embedded Systems (VLSID)*, pages 282–287. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Joldes:2021:FA

[7038] Mioara Joldes and Fabrizio Lambert. Foreword ARITH 2021. In IEEE [8107], pages ix–x. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Joldes:2021:SSE

[7039] Mioara Joldes, Fabrizio Lamberti, and Alberto Nannarelli. Special section on emerging and impacting trends on computer arithmetic. *IEEE Transactions on Emerging Topics in Computing*, 9(3):1449–1450, July/ September 2021. ISSN 2168-6750 (print), 2376-4562 (electronic).

Kant:2021:IPI

[7040] Manash Kant and Rajeev Thakur. Implementation and performance improvement of POSIT multiplier for advance DSP applications. In IEEE, editor, *2021 Fifth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC)*, pages 1730–1736. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Kaplun:2021:TAA

[7041] Dmitrii Kaplun, Alexander Voznesensky, Alexander V. Veligosha, Igor A. Kalmykov, and Kandarpa Kumar Sarma. Technique to adjust adaptive digital filter coefficients in residue number system based filters. *IEEE Access*, 9:82402–82416, 2021. ISSN 2169-3536.

Kouya:2021:ALD

[7042] Tomonori Kouya. Acceleration of *LU* decomposition supporting double–double, triple–double, and quadruple–double precision floating-point arithmetic with AVX2. In IEEE [8107], pages 54–61. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Kulkarni:2021:PVS

[7043] Annarao Kulkarni, Shashikala Pattanshetty, Aneesh Raveendran, David Selvakumar, Sandra Jean, and Vivian Desalphine. PositGen — a verification suite for posit arithmetic. In IEEE, editor, *2021 34th International Conference on VLSI Design and 2021 20th International Conference on Embedded Systems (VLSID)*, pages 204–209. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Lange:2021:CND

[7044] Marko Lange and Shin'ichi Oishi. Correction to: A note on Dekker's FastTwoSum algorithm. *Numerische Mathematik*, 149(1):227–228, September 2021. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-021-01213-8; https://link.springer.com/content/pdf/10.1007/s00211-021-01213-8.pdf. See [6919].

Langroudi:2021:AAQ

[7045] Hamed F. Langroudi, Vedant Karia, Zachariah Carmichael, Abdullah Zyarah, Tej Pandit, John L. Gustafson, and Dhireesha Kudithipudi. Alps: Adaptive quantization of deep neural networks with GeneraLized PositS. In IEEE, editor, *2021 IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW)*, pages 3094–3103. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Lemire:2021:NPG

[7046] Daniel Lemire. Number parsing at a gigabyte per second. *Software —Practice and Experience*, 51(8):1700–1727, August 2021. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic). See improvement [7353].

Leon:2021:IPD

[7047] Vasileios Leon, Theodora Paparouni, Evangelos Petrongonas, Dimitrios Soudris, and Kiamal Pekmestzi. Improving power of DSP and CNN hardware accelerators using approximate floating-point multipliers. *ACM Transactions on Embedded Computing Systems*, 20(5):39:1–39:21, July 2021. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic). URL https://dl.acm.org/doi/10.1145/3448980.

Li:2021:MPF

[7048] Kai Li, Wei Mao, Xinang Xie, Quan Cheng, Huan Xie, Zhenjiang Dong, and Hao Yu. Multiple-precision floating-point dot product unit for efficient convolution computation. In *2021 IEEE 3rd International Conference on Artificial Intelligence Circuits and Systems (AICAS)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Lim:2021:HPC

[7049] Jay P. Lim and Santosh Nagarakatte. High performance correctly rounded math libraries for 32-bit floating point representations. In Stephen N. Freund and Eran Yahav, editors, *PLDI '21: Proceedings of the 42nd ACM SIGPLAN International Conference on Programming Language Design and Implementation, June 20–25, 2021 [virtual meeting]*, pages 359–374. ACM Press, New York, NY 10036, USA, June 2021. ISBN 1-4503-8391-2. LCCN QA76.7 G878.

Lim:2021:RAN

[7050] Jay P. Lim and Santosh Nagarakatte. RLibm-All: A novel polynomial approximation method to produce correctly rounded results for multiple representations and rounding modes. *arXiv.org*, ??(??):1–28, November 30, 2021. URL `https://arxiv.org/pdf/2108.06756`. Also available as Rutgers Department of Computer Science Technical Report DCS-TR-757.

Liu:2021:DAM

[7051] Weiqiang Liu, Tingting Zhang, Emma McLarnon, Maire O'Neill, Paolo Montuschi, and Fabrizio Lombardi. Design and analysis of majority logic-based approximate adders and multipliers. *IEEE Transactions on Emerging Topics in Computing*, 9(3):1609–1624, July/September 2021. ISSN 2168-6750 (print), 2376-4562 (electronic).

Lu:2021:EDN

[7052] Jinming Lu, Chao Fang, Mingyang Xu, Jun Lin, and Zhongfeng Wang. Evaluations on deep neural networks training using posit number system. *IEEE Transactions on Computers*, 70(2):174–187, 2021. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Mach:2021:FOS

[7053] Stefan Mach, Fabian Schuiki, Florian Zaruba, and Luca Benini. FPnew: an open-source multiformat floating-point unit architecture for energy-proportional transprecision computing. *IEEE Transactions on Very*

Large Scale Integration (VLSI) Systems, 29(4):774–787, 2021. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Mao:2021:RMP

[7054] Wei Mao, Kai Li, Xinang Xie, Shirui Zhao, He Li, and Hao Yu. A reconfigurable multiple-precision floating-point dot product unit for high-performance computing. In *2021 Design, Automation & Test in Europe Conference & Exhibition (DATE)*, pages 1793–1798. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Mary:2021:KOM

[7055] Théo Mary. Keynote 2: Opportunities for mixed precision arithmetic in numerical linear algebra. In IEEE [8107], page xvii. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Matos:2021:EFP

[7056] José A. O. Matos and Paulo B. Vasconcelos. Effectiveness of floating-point precision on the numerical approximation by spectral methods. *Mathematical and Computational Applications*, 26(2):42–??, June 2021. CODEN ???? ISSN 2297-8747. URL `https://www.mdpi.com/2297-8747/26/2/42`.

MPFR:2021:MLA

[7057] The MPFR Team. The MPFR library: Algorithms and proofs. Report, ????, ????, November 5, 2021. 69 pp. URL `https://www.mpfr.org/algorithms.pdf`.

Muller:2021:X

[7058] Jean-Michel Muller. $a \cdot (x \cdot\ x)$ or $(a \cdot x) \cdot x$?. In IEEE [8107], pages 17–24. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Muntean:2021:IIR

[7059] Paul Muntean, Martin Monperrus, Hao Sun, Jens Grossklags, and Claudia Eckert. IntRepair: Informed repairing of integer overflows. *IEEE Transactions on Software Engineering*, 47(10):2225–2241, October 2021. CODEN IESEDJ. ISSN 0098-5589 (print), 1939-3520 (electronic).

Murillo:2021:EEM

[7060] Raul Murillo, David Mallasen, Alberto A. Del Barrio, and Guillermo Botella. Energy-efficient MAC units for fused posit arithmetic. In IEEE, editor, *2021 IEEE 39th International Conference on Computer Design*

(ICCD): 24–27 October 2021, Storrs, CT, USA, pages 138–145. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, October 2021.

Nambi:2021:EDE

[7061] Suresh Nambi, Salim Ullah, Siva Satyendra Sahoo, Aditya Lohana, Farhad Merchant, and Akash Kumar. ExPAN(N)D: Exploring posits for efficient artificial neural network design in FPGA-based systems. *IEEE Access*, 9:103691–103708, 2021. ISSN 2169-3536.

Nannarelli:2021:OCA

[7062] Alberto Nannarelli, Mioara Joldes, Fabrizio Lamberti, Flemming Stassen, Daniele Jahier Pagliari, and Alberto Cannavò. Organizing committee ARITH 2021. In IEEE [8107], page xi. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Nevarez:2021:ASS

[7063] Yarib Nevarez, David Rotermund, Klaus R. Pawelzik, and Alberto Garcia-Ortiz. Accelerating spike-by-spike neural networks on FPGA with hybrid custom floating-point and logarithmic dot-product approximation. *IEEE Access*, 9:80603–80620, 2021. ISSN 2169-3536.

Norris:2021:AIP

[7064] Cameron James Norris and Sunwoong Kim. An approximate and iterative posit multiplier architecture for FPGAs. In IEEE, editor, *2021 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Parrot:2021:POU

[7065] Rémi Parrot, Mikaël Briday, and Olivier H. Roux. Pipeline optimization using a cost extension of timed petri nets. In IEEE [8107], pages 37–44. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Patankar:2021:RBC

[7066] Udayan S. Patankar and Ants Koel. Review of basic classes of dividers based on division algorithm. *IEEE Access*, 9:23035–23069, 2021. ISSN 2169-3536.

Peric:2021:FPF

[7067] Zoran Peric, Milan Savic, Milan Dincic, Nikola Vucic, Danijel Djosic, and Srdjan Milosavljevic. Floating point and fixed point 32-bits quantizers for quantization of weights of neural networks. In *2021 12th International*

Symposium on Advanced Topics in Electrical Engineering (ATEE), pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Pisha:2021:ANP

[7068] Louis Pisha and ukasz Ligowski. Accelerating non-power-of-2 size Fourier transforms with GPU Tensor Cores. In *2021 IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, pages 507–516. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Plantard:2021:EWSa

[7069] Thomas Plantard. Efficient word size modular arithmetic. *IEEE Transactions on Emerging Topics in Computing*, 9(3):1506–1518, July/ September 2021. ISSN 2168-6750 (print), 2376-4562 (electronic). See [7070].

Plantard:2021:EWSb

[7070] Thomas Plantard. Efficient word size modular arithmetic. In IEEE [8107], page 139. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ???? See [7069].

Rao:2021:PND

[7071] Dhage Navaneet Rao, Ganne Sai Charan, Degala Veera Venkata Sairam, and Kamatchi S. Posit number division using Newton–Raphson method. In *2021 International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, February 2021.

RAos:2021:DAF

[7072] John Osorio Ríos, Adrià Armejach, Eric Petit, Greg Henry, and Marc Casas. Dynamically adapting floating-point precision to accelerate deep neural network training. In *2021 20th IEEE International Conference on Machine Learning and Applications (ICMLA)*, pages 980–987. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Raposo:2021:PTD

[7073] Gonçalo Raposo, Pedro Tomás, and Nuno Roma. Positnn: Training deep neural networks with mixed low-precision posit. In IEEE, editor, *ICASSP 2021 - 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 7908–7912. IEEE Computer Society

Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Reichenbach:2021:RVR

[7074] Marc Reichenbach, Johannes Knödtel, Sebastian Rachuj, and Dietmar Fey. RISC-V3: a RISC-V compatible CPU with a data path based on redundant number systems. *IEEE Access*, 9:43684–43700, 2021. ISSN 2169-3536.

Revy:2021:AIF

[7075] Guillaume Revy. Analyzing the impact of floating-point precision adaptation in iterative programs. In IEEE [8107], pages 25–32. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Rodriguez:2021:DLS

[7076] Andres Rodriguez. *Deep Learning Systems: Algorithms, Compilers, and Processors for Large-Scale Production*. Synthesis Lectures on Computer Architecture. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2021. ISBN 3-031-01769-2. ISSN 1935-3243.

Romanov:2021:APB

[7077] Aleksandr Yu. Romanov, Alexander L. Stempkovsky, Ilia V. Lariushkin, Georgy E. Novoselov, Roman A. Solovyev, Vladimir A. Starykh, Irina I. Romanova, Dmitry V. Telpukhov, and Ilya A. Mkrtchan. Analysis of posit and Bfloat arithmetic of real numbers for machine learning. *IEEE Access*, 9:82318–82324, 2021. ISSN 2169-3536.

Sahu:2021:DFP

[7078] Ajay Kumar Sahu, Vishnumurthy Kedlaya K., and Subramanya G. Nayak. Development of floating-point MAC engine for 2-D convolution of image. *IEEE Access*, 9:138849–138857, 2021. ISSN 2169-3536.

Saiki:2021:CPT

[7079] Brett Saiki, Oliver Flatt, Chandrakana Nandi, Pavel Panchekha, and Zachary Tatlock. Combining precision tuning and rewriting. In IEEE [8107], pages 1–8. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Saxena:2021:BOF

[7080] Vinay Saxena, Ankitha Reddy, Jonathan Neudorfer, John Gustafson, Sangeeth Nambiar, Rainer Leupers, and Farhad Merchant. Brightening the optical flow through posit arithmetic. In IEEE, editor, *2021 22nd International Symposium on Quality Electronic Design (ISQED)*, pages

463–468. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Sergiyenko:2021:FIC

[7081] Anatoliy Sergiyenko, Leonid Moroz, Lesya Mychuda, and Volodymir Samotyj. FPGA implementation of CORDIC algorithms for sine and cosine floating-point calculations. In *2021 11th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS)*, volume 1, pages 383–386. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Shah:2021:PWS

[7082] Nimish Shah, Laura Isabel Galindez Olascoaga, Shirui Zhao, Wannes Meert, and Marian Verhelst. 9.4 PIU: a 248GOPS/W stream-based processor for irregular probabilistic inference networks using precision-scalable posit arithmetic in 28nm. In IEEE, editor, *2021 IEEE International Solid-State Circuits Conference (ISSCC)*, volume 64, pages 150–152. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Shekhawat:2021:HGP

[7083] Diksha Shekhawat, Apoorva Jangir, and Jai Gopal Pandey. A hardware generator for posit arithmetic and its FPGA prototyping. In IEEE, editor, *2021 25th International Symposium on VLSI Design and Test (VDAT)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Singha:2021:NAT

[7084] Satrughna Singha and Amitabha Sinha. A new architecture for transformation of binary to double base number system (DBNS) with bases 2 and 5 using different search algorithms. *IOP Conference Series: Materials Science and Engineering*, 1084(1):012057, March 2021. ISSN 1757-8981 (print), 1757-899X (electronic).

SmallPositHDL:2021:CBS

[7085] SmallPositHDL. Chisel-based SmallPositHDL. Web software, 2021. URL `https://github.com/starbrilliance/SmallPositHDL`.

Sohier:2021:CIS

[7086] Devan Sohier, Pablo De Oliveira Castro, François Févotte, Bruno Lathuilière, Eric Petit, and Olivier Jamond. Confidence intervals for stochastic arithmetic. *ACM Transactions on Mathematical Software*, 47(2):10:1–10:33, April 2021. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL https://dl.acm.org/doi/10.1145/3432184.

Soylu:2021:IAC

[7087] Gültekin Soylu. Improved arithmetic of complex fans. *ACM Transactions on Mathematical Software*, 47(2):11:1–11:10, April 2021. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL https://dl.acm.org/doi/10.1145/3434400.

Thapliyal:2021:QCD

[7088] Himanshu Thapliyal, Edgard Muñoz-Coreas, T. S. S. Varun, and Travis S. Humble. Quantum circuit designs of integer division optimizing T-count and T-depth. *IEEE Transactions on Emerging Topics in Computing*, 9(2):1045–1056, April/June 2021. ISSN 2168-6750 (print), 2376-4562 (electronic).

Tiwari:2021:PCP

[7089] Sugandha Tiwari, Neel Gala, Chester Rebeiro, and V. Kamakoti. PERI: a configurable posit enabled RISC-V core. *ACM Transactions on Architecture and Code Optimization*, 18(3):25:1–25:26, June 2021. CODEN ???? ISSN 1544-3566 (print), 1544-3973 (electronic). URL https://dl.acm.org/doi/10.1145/3446210.

Ullah:2021:AOA

[7090] S. Ullah, H. Schmidl, S. S. Sahoo, S. Rehman, and A. Kumar. Area-optimized accurate and approximate softcore signed multiplier architectures. *IEEE Transactions on Computers*, 70(3):384–392, 2021. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Valueva:2021:DFA

[7091] Maria Valueva, Pavel Lyakhov, Georgii Valuev, and Nikolay Nagornov. Digital filter architecture with calculations in the residue number system by Winograd method $F(2 \times 2, 2 \times 2)$. *IEEE Access*, 9:143331–143340, 2021. ISSN 2169-3536.

VanZee:2021:SMD

[7092] Field G. Van Zee, Devangi N. Parikh, and Robert A. Van De Geijn. Supporting mixed-domain mixed-precision matrix multiplication within the BLIS framework. *ACM Transactions on Mathematical Software*, 47(2):12:1–12:26, April 2021. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL https://dl.acm.org/doi/10.1145/3402225.

Venkataramani:2021:RAA

[7093] Swagath Venkataramani, Vijayalakshmi Srinivasan, Wei Wang, Sanchari Sen, Jintao Zhang, Ankur Agrawal, Monodeep Kar, Shubham Jain, Alberto Mannari, Hoang Tran, Yulong Li, Eri Ogawa, Kazuaki Ishizaki, Hiroshi Inoue, Marcel Schaal, Mauricio Serrano, Jungwook Choi, Xiao Sun, Naigang Wang, Chia-Yu Chen, Allison Allain, James Bonano, Nianzheng Cao, Robert Casatuta, Matthew Cohen, Bruce Fleischer, Michael Guillorn, Howard Haynie, Jinwook Jung, Mingu Kang, Kyu hyoun Kim, Siyu Koswatta, Saekyu Lee, Martin Lutz, Silvia Mueller, Jinwook Oh, Ashish Ranjan, Zhibin Ren, Scot Rider, Kerstin Schelm, Michael Scheuermann, Joel Silberman, Jie Yang, Vidhi Zalani, Xin Zhang, Ching Zhou, Matt Ziegler, Vinay Shah, Moriyoshi Ohara, Pong-Fei Lu, Brian Curran, Sunil Shukla, Leland Chang, and Kailash Gopalakrishnan. RaPiD: AI accelerator for ultra-low precision training and inference. In *2021 ACM/IEEE 48th Annual International Symposium on Computer Architecture (ISCA)*, pages 153–166. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Vestias:2021:DMF

[7094] Mário P. Véstias and Horácio C. Neto. Decimal multiplication in FPGA with a novel decimal adder/subtractor. *Algorithms (Basel)*, 14(7), July 2021. CODEN ALGOCH. ISSN 1999-4893 (electronic). URL https://www.mdpi.com/1999-4893/14/7/198.

Walczyk:2021:IAF

[7095] Cezary J. Walczyk, Leonid V. Moroz, and Jan L. Cieśliński. Improving the accuracy of the fast inverse square root by modifying Newton–Raphson corrections. *Entropy*, 23(1):86:1–86:20, January 2021. CODEN ENTRFG. ISSN 1099-4300.

Wang:2021:LLP

[7096] Yang Wang, Dazheng Deng, Leibo Liu, Shaojun Wei, and Shouyi Yin. LPE: Logarithm posit processing element for energy-efficient edge-device training. In IEEE, editor, *2021 IEEE 3rd International Conference on Artificial Intelligence Circuits and Systems (AICAS)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Ward-Foxton:2021:BBT

[7097] Sally
Ward-Foxton. Bringing 8-bit training breakthroughs to AI hardware.

EET Asia Web site, March 2, 2021. URL `https://www.eetasia.com/bringing-8-bit-training-breakthroughs-to-ai-hardware/`.

Wong:2021:LBC

[7098] Yuk Wong, Zhenjiang Dong, and Wei Zhang. Low bitwidth CNN accelerator on FPGA using Winograd and block floating point arithmetic. In *2021 IEEE Computer Society Annual Symposium on VLSI (ISVLSI)*, pages 218–223. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Wu:2021:DCH

[7099] Chai Wah Wu. Dither computing: a hybrid deterministic-stochastic computing framework. In IEEE [8107], pages 70–77. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Xia:2021:EDA

[7100] Yuanyuan Xia, Shaozhong Guo, and Jinchen Xu. Error detection of arithmetic expressions. *The Journal of Supercomputing*, 77(6):5492–5509, June 2021. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL `https://link.springer.com/article/10.1007/s11227-020-03469-7`.

Xiang:2021:MNP

[7101] Yiyao Xiang, Lei Li, Shiwei Yuan, Wanting Zhou, and Benqing Guo. Metrics, noise propagation models, and design framework for floating-point approximate computing. *IEEE Access*, 9:71039–71052, 2021. ISSN 2169-3536.

Xu:2021:LCA

[7102] Jin Xu, Lin Jiang, Hui Chen, Yuxiang Fu, and Li Li. A low-complexity architecture for implementing square to tenth root of complex numbers. In *2021 18th International SoC Design Conference (ISOCC)*, pages 15–16. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Yamaguchi:2021:TDN

[7103] Hisakatsu Yamaguchi, Makiko Ito, Katsuhiro Yoda, and Atsushi Ike. Training deep neural networks in 8-bit fixed point with dynamic shared exponent management. In *2021 Design, Automation & Test in Europe Conference & Exhibition (DATE)*, pages 1536–1541. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Yang:2021:AAE

[7104] Yuheng Yang, Qing Yuan, and Jian Liu. An architecture of area-effective high radix floating-point divider with low-power consumption. *IEEE Access*, 9:40039–40048, 2021. ISSN 2169-3536.

Zaruba:2021:MCR

[7105] Florian Zaruba, Fabian Schuiki, and Luca Benini. Manticore: A 4096-core RISC-V chiplet architecture for ultraefficient floating-point computing. *IEEE Micro*, 41(2):36–42, March/April 2021. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Zaruba:2021:STP

[7106] Florian Zaruba, Fabian Schuiki, Torsten Hoefler, and Luca Benini. Snitch: A tiny pseudo dual-issue processor for area and energy efficient execution of floating-point intensive workloads. *IEEE Transactions on Computers*, 70(11):1845–1860, November 2021. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Zhang:2021:EMP

[7107] Hao Zhang and Seok-Bum Ko. Efficient multiple-precision posit multiplier. In IEEE, editor, *2021 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Zhu:2021:PBP

[7108] Yongwen Zhu. The plum-blossom product method of large digit multiplication and its application to computer science. *International Journal of Computer Applications*, 183(??):17–23, December 2021. CODEN ???? ISSN 0975-8887. URL `https://www.ijcaonline.org/archives/volume183/number41/32202-2021921805/`.

Ziols:2021:HPB

[7109] Ryan Ziols and Kathryn L. Kirchgasler. Health and pathology: a brief history of the biopolitics of US mathematics education. *Educational Studies in Mathematics*, 108(1–2):123–142, October 2021. CODEN EDSMAN. ISSN 1573-0816.

Zlatopolski:2021:MES

[7110] Dmitry M. Zlatopolski. Method for extracting square and cubic roots in the binary number system. (Russian). *Inform. School*, 1(??):42–45, ???? 2021.

Abdulah:2022:AGM

[7111] Sameh Abdulah, Qinglei Cao, Yu Pei, George Bosilca, Jack Dongarra, Marc G. Genton, David E. Keyes, Hatem Ltaief, and Ying Sun. Accelerating geostatistical modeling and prediction with mixed-precision computations: a high-productivity approach with PaRSEC. *IEEE Transactions on Parallel and Distributed Systems*, 33(4):964–976, 2022. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic).

Ahmadinejad:2022:EQE

[7112] Mohammad Ahmadinejad and Mohammad Hossein Moaiyeri. Energy- and quality-efficient approximate multipliers for neural network and image processing applications. *IEEE Transactions on Emerging Topics in Computing*, 10(2):1105–1116, April/June 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

Ahmadpour:2022:BMM

[7113] Zabihollah Ahmadpour and Ghassem Jaberipur. Up to $8k$-bit modular Montgomery multiplication in residue number systems with fast 16-bit residue channels. *IEEE Transactions on Computers*, 71(6):1399–1410, June 2022. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Alder:2022:FPU

[7114] Fritz Alder, Jo Van Bulck, Jesse Spielman, David Oswald, and Frank Piessens. Faulty point unit: ABI poisoning attacks on trusted execution environments. *Digital Threats: Research and Practice (DTRAP)*, 3(2): 13:1–13:26, June 2022. CODEN ???? ISSN 2692-1626 (print), 2576-5337 (electronic). URL `https://dl.acm.org/doi/10.1145/3491264`.

AMD:2022:AIM

[7115] AMD Corporation. "AMD Instinct MI200" instruction set architecture reference guide. Web document, February 4, 2022. URL `https://www.amd.com/content/dam/amd/en/documents/instinct-tech-docs/instruction-set-architectures/instinct-mi200-cdna2-instruction-set-architecture.pdf`.

Anonymous:2022:AI

[7116] Anonymous. Author index. In IEEE [8109], pages 133–134. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Anonymous:2022:C

[7117] Anonymous. Copyright. In IEEE [8109], page 1. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Anonymous:2022:PCA

[7118] Anonymous. Program committee: ARITH 2022. In IEEE [8109], page ix. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Anonymous:2022:SA

[7119] Anonymous. Sponsors: ARITH 2022. In IEEE [8109], page xi. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Anonymous:2022:SCA

[7120] Anonymous. Steering committee: ARITH 2022. In IEEE [8109], page x. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Anonymous:2022:TC

[7121] Anonymous. Table of contents. In IEEE [8109], pages iv–vi. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Anonymous:2022:TP

[7122] Anonymous. Title page I. In IEEE [8109], page 1. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Anonymous:2022:TPI

[7123] Anonymous. Title page III. In IEEE [8109], page 1. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Aoki:2022:EWS

[7124] Daichi Aoki, Kazuhiko Minematsu, Toshihiko Okamura, and Tsuyoshi Takagi. Efficient word size modular multiplication over signed integers. In IEEE [8109], pages 94–101. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Arnold:2022:TQL

[7125] Mark G. Arnold. Towards quantum logarithm number systems. In IEEE [8109], pages 76–83. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Bajard:2022:GVL

[7126] Jean-Claude Bajard, Kazuhide Fukushima, Thomas Plantard, and Arnaud Sipasseuth. Generating very large RNS bases. In IEEE [8109], page 102. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Barthel:2022:TIO

[7127] Moritz Bärthel, Nils Hülsmeier, Jochen Rust, and Steffen Paul. On the implementation of edge detection algorithms with SORN arithmetic. In Gustafson and Dimitrov [8108], pages 1–13. ISBN 3-031-09778-5, 3-031-09779-3 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.C62.

Benmouhoub:2022:ESA

[7128] Farah Benmouhoub, Pierre-Loic Garoche, and Matthieu Martel. An efficient summation algorithm for the accuracy, convergence and reproducibility of parallel numerical methods. In *Software Verification: 13th International Conference, VSTTE 2021, New Haven, CT, USA, October 18–19, 2021, and 14th International Workshop, NSV 2021, Los Angeles, CA, USA, July 18–19, 2021*, pages 165–181. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2022. ISBN 3-030-95561-3. ISSN 0302-9743 (print), 1611-3349 (electronic).

BenSalem-Knapp:2022:BRE

[7129] Louise Ben Salem-Knapp, Sylvie Boldo, and William Weens. Bounding the round-off error of the upwind scheme for advection. In IEEE [8109], page 127. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Bertaccini:2022:MNE

[7130] Luca Bertaccini, Gianna Paulin, Tim Fischer, Stefan Mach, and Luca Benini. MiniFloat-NN and ExSdotp: an ISA extension and a modular open hardware unit for low-precision training on RISC-V cores. In IEEE [8109], pages 1–8. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Borges:2022:HLA

[7131] Carlos F. Borges, Claude-Pierre Jeannerod, and Jean-Michel Muller. High-level algorithms for correctly-rounded reciprocal square roots. In IEEE [8109], pages 18–25. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Bruguera:2022:LLH

[7132] Javier D. Bruguera. Low-latency and high-bandwidth pipelined radix-64 division and square root unit. In IEEE [8109], pages 10–17. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Buhrow:2022:PMM

[7133] Benjamin Buhrow, Barry Gilbert, and Clifton Haider. Parallel modular multiplication using 512-bit advanced vector instructions. *Journal of*

Cryptographic Engineering, 12(1):95–105, April 2022. CODEN ???? ISSN 2190-8508 (print), 2190-8516 (electronic). URL `https://link.springer.com/article/10.1007/s13389-021-00256-9`.

Cardarilli:2022:DSE

[7134] Gian Carlo Cardarilli, Luca Di Nunzio, Rocco Fazzolari, Alberto Nannarelli, Massimo Petricca, and Marco Re. Design space exploration based methodology for residue number system digital filters implementation. *IEEE Transactions on Emerging Topics in Computing*, 10(1):186–198, January/March 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

Chen:2022:PPL

[7135] Chuangtao Chen, Weikang Qian, Mohsen Imani, Xunzhao Yin, and Cheng Zhuo. PAM: a piecewise-linearly-approximated floating-point multiplier with unbiasedness and configurability. *IEEE Transactions on Computers*, 71(10):2473–2486, October 2022. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Choi:2022:HFL

[7136] Dahun Choi and Hyun Kim. Hardware-friendly logarithmic quantization with mixed-precision for MobileNetV2. In *2022 IEEE 4th International Conference on Artificial Intelligence Circuits and Systems (AICAS)*, pages 348–351. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Cococcioni:2022:ERO

[7137] Marco Cococcioni, Federico Rossi, Emanuele Ruffaldi, and Sergio Saponara. Experimental results of vectorized posit-based DNNs on a real ARM SVE high performance computing machine. In *Applications in Electronics Pervading Industry, Environment and Society*, pages 61–68. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2022. ISBN 3-030-95498-6. ISSN 1876-1119.

Cococcioni:2022:LPP

[7138] Marco Cococcioni, Federico Rossi, Emanuele Ruffaldi, and Sergio Saponara. A lightweight posit processing unit for RISC-V processors in deep neural network applications. *IEEE Transactions on Emerging Topics in Computing*, 10(4):1898–1908, October/December 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

Cococcioni:2022:SRR

[7139] Marco Cococcioni, Federico Rossi, Emanuele Ruffaldi, and Sergio Saponara. Small reals representations for deep learning at the edge: a comparison. In Gustafson and Dimitrov [8108], pages 117–133. ISBN 3-031-09778-5, 3-031-09779-3 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.C62.

Coward:2022:ADO

[7140] Samuel Coward, George A. Constantinides, and Theo Drane. Automatic datapath optimization using e-graphs. In IEEE [8109], pages 43–50. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Cowlishaw:2022:DAFa

[7141] Mike Cowlishaw. Decimal arithmetic FAQ: Part 1 — general questions. Web site., April 21, 2022. URL `http://speleotrove.com/decimal/decifaq1.html`.

Cowlishaw:2022:DAFb

[7142] Mike Cowlishaw. Decimal arithmetic FAQ: Part 2 — definitions. Web site., April 25, 2022. URL `http://speleotrove.com/decimal/decifaq2.html`.

Cowlishaw:2022:DAFc

[7143] Mike Cowlishaw. Decimal arithmetic FAQ: Part 3 — hardware questions. Web site., April 25, 2022. URL `http://speleotrove.com/decimal/decifaq3.html`.

Cowlishaw:2022:DAFd

[7144] Mike Cowlishaw. Decimal arithmetic FAQ: Part 4 — arithmetic specification questions. Web site., April 25, 2022. URL `http://speleotrove.com/decimal/decifaq4.html`.

Cowlishaw:2022:DAFe

[7145] Mike Cowlishaw. Decimal arithmetic FAQ: Part 5 — encoding questions. Web site., April 25, 2022. URL `http://speleotrove.com/decimal/decifaq1.html`.

Cowlishaw:2022:DAFf

[7146] Mike Cowlishaw. Decimal arithmetic FAQ: Part 5 — miscellaneous questions. Web site., April 25, 2022. URL `http://speleotrove.com/decimal/decifaq6.html`.

Crespo:2022:UPI

[7147] Luís Crespo, Pedro Tomás, Nuno Roma, and Nuno Neves. Unified posit/IEEE-754 vector MAC unit for transprecision computing. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 69(5):2478–2482, 2022. ISSN 1549-7747 (print), 1558-3791 (electronic).

deDinechin:2022:FA

[7148] Florent de Dinechin, Stuart Oberman, Bogdan Pasca, and Leonel Sousa. Foreword: ARITH 2022. In IEEE [8109], page vii. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

deDinechin:2022:OCA

[7149] Florent de Dinechin, Stuart Oberman, Bogdan Pasca, Leonel Sousa, Guillaume Melquiond, Marc Mezzarobba, and Vojin G. Oklobdzija. Organizing committee: ARITH 2022. In IEEE [8109], page viii. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Demmel:2022:PCEa

[7150] James Demmel, Jack Dongarra, Mark Gates, Greg Henry, Julien Langou, Xiaoye Li, Piotr Luszczek, Weslley Pereira, Jason Riedy, and Cindy Rubio-González. Proposed consistent exception handling for the BLAS and LAPACK. *arXiv.org*, ??(??):92, July 19, 2022. URL `https://arxiv.org/abs/2207.09281`.

Demmel:2022:PCEb

[7151] James Demmel, Jack Dongarra, Mark Gates, Greg Henry, Julien Langou, Xiaoye Li, Piotr Luszczek, Weslley Pereira, Jason Riedy, and Cindy Rubio-González. Proposed consistent exception handling for the BLAS and LAPACK. In IEEE, editor, *Correctness 2022: Sixth International Workshop on Software Correctness for HPC Applications: Held in conjunction with SC22: The International Conference for High Performance Computing, Networking, Storage and Analysis. Dallas, Texas, USA, November 13-18, 2022*, page ?? IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022. ISBN 1-66546-335-X. LCCN ????

Desrentes:2022:PDO

[7152] Orégane Desrentes, Diana Resmerita, and Benoît Dupont de Dinechin. A Posit8 decompression operator for deep neural network inference. In Gustafson and Dimitrov [8108], pages 14–30. ISBN 3-031-09778-5, 3-031-09779-3 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.C62.

Didier:2022:SCR

[7153] Laurent-Stéphane Didier, Jean-Marc Robert, Fangan Yssouf Dosso, and Nadia El Mrabet. A software comparison of RNS and PMNS. In IEEE [8109], pages 86–93. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Dieguez:2022:EHP

[7154] Adrian P. Dieguez, Margarita Amor, Ramón Doallo, Akira Nukada, and Satoshi Matsuoka. Efficient high-precision integer multiplication on the GPU. *The International Journal of High Performance Computing Applications*, 36(3):356–369, May 1, 2022. CODEN IHPCFL. ISSN 1094-3420 (print), 1741-2846 (electronic). URL `https://journals.sagepub.com/doi/abs/10.1177/10943420221077964`.

DiMeo:2022:AFP

[7155] Gennaro Di Meo, Gerardo Saggese, Antonio G. M. Strollo, Davide De Caro, and Nicola Petra. Approximate floating-point multiplier based on static segmentation. *Electronics*, 11(11):3005:1–3005:23, 2022. ISSN 2079-9292. URL `https://mdpi-res.com/d_attachment/electronics/electronics-11-03005/article_deploy/electronics-11-03005.pdf`.

Dosso:2022:PEA

[7156] Fangan Yssouf Dosso, Jean-Marc Robert, and Pascal Véron. PMNS for efficient arithmetic and small memory cost. In IEEE [8109], page 84. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Dross:2022:MPF

[7157] Claire Dross and Johannes Kanig. Making proofs of floating-point programs accessible to regular developers. *Lecture Notes in Computer Science*, 13124:7–24, 2022. ISBN 3-030-95561-3. ISSN 0302-9743 (print), 1611-3349 (electronic).

Durand:2022:AVC

[7158] Yves Durand, Eric Guthmuller, Cesar Fuguet, Jérôme Fereyre, Andrea Bocco, and Riccardo Alidori. Accelerating variants of the conjugate gradient with the variable precision processor. In IEEE [8109], pages 51–57. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

ElArar:2022:PES

[7159] El-Mehdi El Arar, Devan Sohier, Pablo de Oliveira Castro, and Eric Petit. The positive effects of stochastic rounding in numerical algorithms. In IEEE [8109], pages 58–65. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Elsaid:2022:OFA

[7160] Kareem Elsaid, Mona Safar, and M. Watheq El-Kharashi. Optimized FPGA architecture for machine learning applications using posit multipliers. In IEEE, editor, *2022 International Conference on Microelectronics (ICM)*, pages 50–53. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Ene:2022:PTS

[7161] Teodor Dumitru Ene and James E. Stine. Point-targeted sparseness and Ling transforms on parallel prefix adder trees. In IEEE [8109], pages 68–75. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Essam:2022:DIL

[7162] Mohammed Essam, Ahmed Shalaby, and Mohamed Taher. Design and implementation of low power posit arithmetic unit for efficient hardware accelerators. In IEEE, editor, *2022 10th International Japan-Africa Conference on Electronics, Communications, and Computations (JAC-ECC)*, pages 68–71. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Evstigneev:2022:CSD

[7163] N. M. Evstigneev, O. I. Ryabkov, A. N. Bocharov, V. P. Petrovskiy, and I. O. Teplyakov. Compensated summation and dot product algorithms for floating-point vectors on parallel architectures: Error bounds, implementation and application in the Krylov subspace methods. *Journal of Computational and Applied Mathematics*, 414(??): ??, November 2022. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042722002047`.

FernandesDosSantos:2022:EIM

[7164] Fernando Fernandes Dos Santos, Paolo Rech, Angeliki Kritikakou, and Olivier Sentieys. Evaluating the impact of mixed-precision on fault propagation for deep neural networks on GPUs. In *2022 IEEE Computer Society Annual Symposium on VLSI (ISVLSI)*, page 327. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Gallet:2022:LGT

[7165] Benoit Gallet and Michael Gowanlock. Leveraging GPU Tensor Cores for double precision Euclidean distance calculations. In *2022 IEEE 29th International Conference on High Performance Computing, Data, and*

Analytics (HiPC), pages 135–144. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Gao:2022:TFI

[7166] Zhanyuan Gao, Laiping Zhao, and Haonan Chen. A trigonometric function instruction set extension method based on RISC-V. In IEEE, editor, *2022 IEEE/ACIS 22nd International Conference on Computer and Information Science (ICIS)*, pages 119–126. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Genkina:2022:PNK

[7167] Dina Genkina. Posits, a new kind of number, improves the math of AI: The first posit-based processor core gave a ten-thousandfold accuracy boost. IEEE Spectrum Web site, September 26, 2022. URL `https://spectrum.ieee.org/floating-point-numbers-posits-processor`.

Greuet:2022:QAM

[7168] Aurélien Greuet, Simon Montoya, and Clémence Vermeersch. Quotient approximation modular reduction. In IEEE [8109], pages 103–110. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Gudivada:2022:NOL

[7169] A. Arunkumar Gudivada and Gnanou Florence Sudha. Novel optimized low power design of single-precision floating-point adder using quantum-dot cellular automata. *The Journal of Supercomputing*, 78(4):6035–6053, March 2022. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL `https://link.springer.com/article/10.1007/s11227-021-04089-5`.

Guo:2022:SCC

[7170] An Guo, Yongliang Zhou, Bo Wang, Tianzhu Xiong, Chen Xue, Yufei Wang, Xin Si, and Jun Yang. ShareFloat CIM: a compute-in-memory architecture with floating-point multiply-and-accumulate operations. In *2022 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 2276–2280. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Higham:2022:MPA

[7171] Nicholas J. Higham and Theo Mary. Mixed precision algorithms in numerical linear algebra. *Acta Numerica*, 31:347–414, May 2022. CODEN ANUMFU. ISSN 0962-4929 (print), 1474-0508 (electronic). URL `https://www.cambridge.org/core/journals/acta-numerica/article/mixed-precision-algorithms-in-numerical-linear-algebra/43CA701BA29251B5790C653E66F46197`.

Ho:2022:QNG

[7172] Nhut-Minh Ho, Himeshi De Silva, John L. Gustafson, and Weng-Fai Wong. Qtorch+: Next generation arithmetic for Pytorch machine learning. In Gustafson and Dimitrov [8108], pages 31–49. ISBN 3-031-09778-5, 3-031-09779-3 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.C62.

Immaneni:2022:PEO

[7173] Amritha Immaneni, Salim Ullah, Suresh Nambi, Siva Satyendra Sahoo, and Akash Kumar. PosAx-O: Exploring operator-level approximations for posit arithmetic in embedded AI/ML. In IEEE, editor, *2022 25th Euromicro Conference on Digital System Design (DSD)*, pages 214–223. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Isupov:2022:MPS

[7174] Konstantin Isupov. Multiple-precision sparse matrix–vector multiplication on GPUs. *Journal of Computational Science*, 61:??, May 2022. CODEN ???? ISSN 1877-7503 (print), 1877-7511 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S1877750322000382`.

Joshi:2022:SAB

[7175] Rajeev Joshi, Lakshmi Kavya Kalyanam, and Srinivas Katkoori. Simulated annealing based integerization of hidden weights for area-efficient IoT edge intelligence. In *2022 IEEE International Symposium on Smart Electronic Systems (iSES)*, pages 427–432. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Keerthi:2022:DIM

[7176] T Keerthi and Yashu Swami. Design and implementation of MAC by using efficient posit multiplier. In IEEE, editor, *2022 IEEE 3rd International Conference on VLSI Systems, Architecture, Technology and Applications (VLSI SATA)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Kim:2022:EAM

[7177] Min Soo Kim, Alberto A. Del Barrio, HyunJin Kim, and Nader Bagherzadeh. The effects of approximate multiplication on convolutional neural networks. *IEEE Transactions on Emerging Topics in Computing*, 10(2):904–916, April/June 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

Knodtel:2022:SID

[7178] Johannes Knödtel, Sebastian Rachuj, and Marc Reichenbach. Suitability of ISAs for data paths based on redundant number systems: Is RISC-V the best? In IEEE, editor, *2022 25th Euromicro Conference on Digital System Design (DSD)*, pages 247–253. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Kuang:2022:HSN

[7179] Honglin Kuang, Yifan Zhao, and Jun Han. A high-speed NTT-based polynomial multiplication accelerator with vector extension of RISC-V for Saber algorithm. In IEEE, editor, *2022 IEEE Asia Pacific Conference on Circuits and Systems (APCCAS)*, pages 592–595. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Laguna:2022:BAF

[7180] Ignacio Laguna, Xinyi Li, and Ganesh Gopalakrishnan. BinFPE: Accurate floating-point exception detection for GPU applications. In ????, editor, *SOAP 2022: Proceedings of the 11th ACM SIGPLAN International Workshop on the State Of the Art in Program Analysis, San Diego, CA, USA, 14 June 2022*, pages 1–8. ACM Press, New York, NY 10036, USA, 2022. ISBN 1-4503-9274-1.

Laguna:2022:FIT

[7181] Ignacio Laguna and Ganesh Gopalakrishnan. Finding inputs that trigger floating-point exceptions in GPUs via Bayesian optimization. In ACM, editor, *SC '22: Proceedings of the International Conference on High Performance Computing, Networking, Storage and Analysis, Dallas, Texas, November 13–18, 2022*, pages 464–475. ACM Press, New York, NY 10036, USA, 2022. ISBN 1-66545-444-X. ISSN 2167-4329 (print), 2167-4337 (electronic).

Langroudi:2022:AAH

[7182] Hamed F. Langroudi, Vedant Karia, Tej Pandit, Becky Mashaido, and Dhireesha Kudithipudi. ACTION: Automated Hardware–Software

Codesign Framework for Low-precision Numerical Format SelecTION in TinyML. In Gustafson and Dimitrov [8108], pages 50–65. ISBN 3-031-09778-5, 3-031-09779-3 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.C62.

Lee:2022:NFC

[7183] Sae Kyu Lee, Ankur Agrawal, Joel Silberman, Matthew Ziegler, Mingu Kang, Swagath Venkataramani, Nianzheng Cao, Bruce Fleischer, Michael Guillorn, Matthew Cohen, Silvia M. Mueller, Jinwook Oh, Martin Lutz, Jinwook Jung, Siyu Koswatta, Ching Zhou, Vidhi Zalani, Monodeep Kar, James Bonanno, Robert Casatuta, Chia-Yu Chen, Jungwook Choi, Howard Haynie, Alyssa Herbert, Radhika Jain, Kyu-Hyoun Kim, Yulong Li, Zhibin Ren, Scot Rider, Marcel Schaal, Kerstin Schelm, Michael R. Scheuermann, Xiao Sun, Hung Tran, Naigang Wang, Wei Wang, Xin Zhang, Vinay Shah, Brian Curran, Vijayalakshmi Srinivasan, Pong-Fei Lu, Sunil Shukla, Kailash Gopalakrishnan, and Leland Chang. A 7-nm four-core mixed-precision AI chip with 26.2-TFLOPS hybrid-FP8 training, 104.9-TOPS INT4 inference, and workload-aware throttling. *IEEE Journal of Solid-State Circuits*, 57(1): 182–197, 2022. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Li:2022:VSAa

[7184] Kai Li, Wei Mao, Junzhuo Zhou, Boyu Li, Zhengke Yang, Shuxing Yang, Laimin Du, Sixiao Huang, and Hao Yu. A vector systolic accelerator for multi-precision floating-point high-performance computing. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 69(10):4123–4127, 2022. ISSN 1549-7747 (print), 1558-3791 (electronic).

Li:2022:VSAb

[7185] Kai Li, Junzhuo Zhou, Boyu Li, Shuxing Yang, Sixiao Huang, Shaobo Luo, Wei Mao, and Hao Yu. A vector systolic accelerator for multi-precision floating-point high-performance computing. In *2022 IEEE 4th International Conference on Artificial Intelligence Circuits and Systems (AICAS)*, pages 226–229. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Lim:2022:OPA

[7186] Jay P. Lim and Santosh Nagarakatte. One polynomial approximation to produce correctly rounded results of an elementary function for multiple representations and rounding modes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):3:1–3:28, January 2022.

CODEN ???? ISSN 2475-1421 (electronic). URL `https://dl.acm.org/doi/10.1145/3498664`.

Lindstrom:2022:MUC

[7187] Peter Lindstrom. MultiPosits: Universal coding of $\mathbf{R}^n$. In Gustafson and Dimitrov [8108], pages 66–83. ISBN 3-031-09778-5, 3-031-09779-3 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.C62.

Liu:2022:DUA

[7188] Weiqiang Liu, Tao Xu, Jing Li, Chenghua Wang, Paolo Montuschi, and Fabrizio Lombardi. Design of unsigned approximate hybrid dividers based on restoring array and logarithmic dividers. *IEEE Transactions on Emerging Topics in Computing*, 10(1):339–350, January/March 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

Mallasen:2022:CCR

[7189] David Mallasén, Raul Murillo, Alberto A. Del Barrio, Guillermo Botella, Luis Piñuel, and Manuel Prieto Matias. Customizing the CVA6 RISC-V core to integrate posit and quire instructions. In IEEE, editor, *2022 37th Conference on Design of Circuits and Integrated Circuits (DCIS)*, pages 01–06. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Mallasen:2022:POSa

[7190] David Mallasén, Raul Murillo, Alberto A. Del Barrio, Guillermo Botella, Luis Piñuel, and Manuel Prieto-Matias. PERCIVAL: Open-source posit RISC-V core with quire capability. *IEEE Transactions on Emerging Topics in Computing*, 10(3):1241–1252, 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

Mallasen:2022:POSb

[7191] David Mallasén, Raul Murillo, Alberto A. Del Barrio, Guillermo Botella, Luis Piñuel, and Manuel Prieto-Matias. PERCIVAL: Open-source posit RISC-V core with quire capability. In IEEE [8109], page 66. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ???? Authors and title only.

Mao:2022:CFP

[7192] Wei Mao, Kai Li, Quan Cheng, Liuyao Dai, Boyu Li, Xinang Xie, He Li, Longyang Lin, and Hao Yu. A configurable floating-point multiple-precision processing element for HPC and AI converged computing. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 30(2):

213–226, 2022. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Mathis:2022:IHP

[7193] Brett Mathis and James E. Stine. Implementation of high performance IEEE 754-posit conversion hardware. In IEEE, editor, *2022 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 934–937. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Mccoid:2022:PRA

[7194] Conor Mccoid and Martin J. Gander. A provably robust algorithm for triangle–triangle intersections in floating-point arithmetic. *ACM Transactions on Mathematical Software*, 48(2):17:1–17:30, June 2022. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL https://dl.acm.org/doi/10.1145/3513264.

Meloni:2022:AAP

[7195] Nicolas Meloni. An alternative approach to polynomial modular number system internal reduction. In IEEE [8109], page 85. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Micikevicius:2022:FFD

[7196] Paulius Micikevicius, Dusan Stosic, Neil Burgess, Marius Cornea, Pradeep Dubey, Richard Grisenthwaite, Sangwon Ha, Alexander Heinecke, Patrick Judd, John Kamalu, Naveen Mellempudi, Stuart Oberman, Mohammad Shoeybi, Michael Siu, and Hao Wu. FP8 formats for deep learning. *arXiv.org*, ??(??):1–9, 2022. URL https://arxiv.org/abs/2209.05433.

Monniaux:2022:FVB

[7197] David Monniaux and Alice Pain. Formally verified 32- and 64-bit integer division using double-precision floating-point arithmetic. In IEEE [8109], pages 128–132. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ???? URL https://hal.science/hal-03722203/.

Montuschi:2022:CAC

[7198] Paolo Montuschi, Jean-Michel Muller, and Florent de Dinechin. Computer arithmetic: Continuing a long and steady emergence. *Computer*, 55(10):4–6, October 2022. CODEN CPTRB4. ISSN 0018-9162 (print), 1558-0814 (electronic).

Muller:2022:FDW

[7199] Jean-Michel Muller and Laurence Rideau. Formalization of double-word arithmetic, and comments on "Tight and Rigorous Error Bounds for Basic Building Blocks of Double-Word Arithmetic". *ACM Transactions on Mathematical Software*, 48(1):9:1–9:24, March 2022. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/doi/10.1145/3484514`.

Murillo:2022:CDD

[7200] Raul Murillo, David Mallasén, Alberto A. Del Barrio, and Guillermo Botella. Comparing different decodings for posit arithmetic. In Gustafson and Dimitrov [8108], pages 84–99. ISBN 3-031-09778-5, 3-031-09779-3 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.C62.

Murillo:2022:PPL

[7201] Raul Murillo, Alberto A. Del Barrio, Guillermo Botella, Min Soo Kim, HyunJin Kim, and Nader Bagherzadeh. PLAM: a posit logarithm-approximate multiplier. *IEEE Transactions on Emerging Topics in Computing*, 10(4):2079–2085, October/December 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

Nath:2022:KVM

[7202] Kaushik Nath and Palash Sarkar. Kummer versus Montgomery face-off over prime order fields. *ACM Transactions on Mathematical Software*, 48(2):13:1–13:28, June 2022. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/doi/10.1145/3503536`.

Nezhadi:2022:SFP

[7203] Ali Nezhadi, Shaahin Angizi, and Arman Roohi. semiMul: Floating-point free implementations for efficient and accurate neural network training. In *2022 21st IEEE International Conference on Machine Learning and Applications (ICMLA)*, pages 837–842. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Noune:2022:BNF

[7204] B. Noune, P. Jones, D. Justus, D. Masters, and C. Luschi. 8-bit numerical formats for deep neural networks. *arXiv.org*, ??(??):1–30, 2022. URL `https://arxiv.org/abs/2206.02915`.

Nunez-Yanez:2022:FAD

[7205] Jose Nunez-Yanez. Fused architecture for dense and sparse matrix processing in TensorFlow Lite. *IEEE Micro*, 42(6):55–66, November/ December 2022. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Oaks:2022:ZNM

[7206] Jeffrey Oaks. Zero and nothing in medieval Arabic arithmetic. *British Journal for the History of Mathematics*, 37(3):179–211, 2022. CODEN ???? ISSN 1749-8430 (print), 1749-8341 (electronic). URL `http://www.tandfonline.com/doi/full/10.1080/26375451.2022.2115745`.

Oberman:2022:GES

[7207] Stuart Oberman, Leonel Sousa, Bogdan Pasca, and Alberto Nannarelli. Guest editorial: Special section on emerging and impacting trends on computer arithmetic. *IEEE Transactions on Emerging Topics in Computing*, 10(3):1239–1240, July/September 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

Oh:2022:EPA

[7208] Hyun Woo Oh, Won Sik Jeong, and Seung Eun Lee. Evaluation of posit arithmetic on machine learning based on approximate exponential functions. In IEEE, editor, *2022 19th International SoC Design Conference (ISOCC)*, pages 358–359. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Ollivier:2022:PRB

[7209] Sébastien Ollivier, Xinyi Zhang, Yue Tang, Chayanika Choudhuri, Jingtong Hu, and Alex K. Jones. Pod-racing: bulk-bitwise to floating-point compute in racetrack memory for machine learning at the edge. *IEEE Micro*, 42(6):9–16, November/December 2022. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Omtzigt:2022:URR

[7210] E. Theodore L. Omtzigt and James Quinlan. Universal: Reliable, reproducible, and energy-efficient numerics. In Gustafson and Dimitrov [8108], pages 100–116. ISBN 3-031-09778-5, 3-031-09779-3 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.C62.

Osorio:2022:BFA

[7211] John Osorio, Adrià Armejach, Eric Petit, Greg Henry, and Marc Casas. A BF16 FMA is all you need for DNN training. *IEEE Transactions on*

Emerging Topics in Computing, 10(3):1302–1314, 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

Osorio:2022:FFA

[7212] John Osorio, Adrià Armejach, Eric Petit, Greg Henry, and Marc Casas. FASE: a fast, accurate and seamless emulator for custom numerical formats. In *2022 IEEE International Symposium on Performance Analysis of Systems and Software (ISPASS)*, pages 144–146. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Park:2022:NNT

[7213] Jeongwoo Park, Sunwoo Lee, and Dongsuk Jeon. A neural network training processor with 8-bit shared exponent bias floating point and multiple-way fused multiply-add trees. *IEEE Journal of Solid-State Circuits*, 57(3):965–977, 2022. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Park:2022:RCR

[7214] Kangkyu Park, Seungkyu Choi, Yeongjae Choi, and Lee-Sup Kim. Rare computing: Removing redundant multiplications from sparse and repetitive data in deep neural networks. *IEEE Transactions on Computers*, 71(4):795–808, April 2022. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Patel:2022:LPG

[7215] Pragnesh Patel, Aman Arora, Earl Swartzlander, and Lizy John. LogGen: a parameterized generator for designing floating-point logarithm units for deep learning. In *2022 23rd International Symposium on Quality Electronic Design (ISQED)*, pages 1–7. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Peng:2022:DNN

[7216] Jiaxin Peng, Yousra Alkabani, Krunal Puri, Xiaoxuan Ma, Volker Sorger, and Tarek El-Ghazawi. A deep neural network accelerator using residue arithmetic in a hybrid optoelectronic system. *ACM Journal on Emerging Technologies in Computing Systems (JETC)*, 18(4):81:1–81:??, October 2022. CODEN ???? ISSN 1550-4832 (print), 1550-4840 (electronic). URL `https://dl.acm.org/doi/10.1145/3550273`.

Puntsri:2022:RAG

[7217] Kidsananapong Puntsri, Bussakorn Bunsri, Yaowarat Pittayang, Tanatip Bubpawan, Wuttichai Partipralam, and Watid Phakphisut. Reconfigurable AWGN generator using Box–Muller method with CORDIC-based square root calculation. In *2022 37th International Technical Conference on Circuits/Systems, Computers and Communications (ITC-CSCC)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

PWG:2022:SPA

[7218] Posit Working Group. Standard for posit^{TM} arithmetic (2022). Report, National Supercomputing Centre (NSCC), Singapore, March 2, 2022. 12 pp. URL `https://posithub.org/docs/posit_standard-2.pdf`.

Ramachandran:2022:PCP

[7219] Akshat Ramachandran, John Gustafson, Anusua Roy, Rizwan Ahmed Ansari, and Rohin Daruwala. PositIV: a configurable posit processor architecture for image and video processing. In IEEE, editor, *2022 25th Euromicro Conference on Digital System Design (DSD)*, pages 93–100. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Roy:2022:AAC

[7220] Avishek Sinha Roy, Hardik Agrawal, and Anindya Sundar Dhar. ACBAM-accuracy-configurable sign inclusive broken array Booth multiplier design. *IEEE Transactions on Emerging Topics in Computing*, 10(4):2072–2078, October/December 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

Russinoff:2022:FVC

[7221] David Russinoff, Javier Bruguera, Cuong Chau, Mayank Manjrekar, Nicholas Pfister, and Harsha Valsaraju. Formal verification of a chained multiply-add design: Combining theorem proving and equivalence checking. In IEEE [8109], pages 120–126. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

S:2022:IRP

[7222] Sathyavathi N S and Augusta Sophy Beulet P. Implementation of Regime-5 posit adder. In IEEE, editor, *2022 Third International Conference on Intelligent Computing Instrumentation and Control Technologies (ICICICT)*, pages 1040–1043. IEEE Computer Society

Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Sadeghimanesh:2022:SSN

[7223] AmirHosein Sadeghimanesh and Matthew England. An SMT solver for non-linear real arithmetic inside Maple. *ACM Communications in Computer Algebra*, 56(2):76–79, June 2022. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic). URL `https://dl.acm.org/doi/10.1145/3572867.3572880`.

Safieh:2022:ERA

[7224] Malek Safieh and Fabrizio De Santis. Efficient reduction algorithms for special Gaussian integer moduli. In IEEE [8109], pages 111–119. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Schober:2022:HAM

[7225] Peter Schober, M. Hassan Najafi, and Nima TaheriNejad. High-accuracy multiply-accumulate (MAC) technique for unary stochastic computing. *IEEE Transactions on Computers*, 71(6):1425–1439, June 2022. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Seidel:2022:EFP

[7226] Raphael Seidel, Nikolay Tcholtchev, Sebastian Bock, Colin Kai-Uwe Becker, and Manfred Hauswirth. Efficient floating point arithmetic for quantum computers. *IEEE Access*, 10:72400–72415, 2022. ISSN 2169-3536.

Shah:2022:DDP

[7227] Nimish Shah, Laura Isabel Galindez Olascoaga, Shirui Zhao, Wannes Meert, and Marian Verhelst. DPU: DAG processing unit for irregular graphs with precision-scalable posit arithmetic in 28 nm. *IEEE Journal of Solid-State Circuits*, 57(8):2586–2596, 2022. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Sibidanov:2022:CMP

[7228] Alexei Sibidanov, Paul Zimmermann, and Stéphane Glondu. The CORE-MATH project. In IEEE [8109], pages 26–34. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Siddamshetty:2022:EHA

[7229] Susheel Ujwal Siddamshetty, Srinivas Boppu, and Debapratim Ghosh. Efficient hardware architecture for posit addition/subtraction. In IEEE, editor, *2022 IEEE 15th International Symposium on Embedded*

Multicore/Many-core Systems-on-Chip (MCSoC), pages 387–394. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Sohn:2022:EFP

[7230] Jongwook Sohn, David K. Dean, Eric Quintana, and Wing Shek Wong. Enhanced floating-point adder with full denormal support. In IEEE [8109], pages 01–08. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Spiridonov:2022:ABE

[7231] Iouri Spiridonov. Arithmetic of binary equivalents of decimal numbers. TechRxiv preprint., November 23, 2022. URL `https://www.techrxiv.org/articles/preprint/The_arithmetic_of_binary_equivalents_of_decimal_numbers/19294511`.

Sravya:2022:HPN

[7232] Alapati Madhu Sravya, N. Swetha, and Asisa Kumar Panigrahy. Hardware posit numeration system primarily based on arithmetic operations. In IEEE, editor, *2022 3rd International Conference for Emerging Technology (INCET)*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Srivastava:2022:FSC

[7233] Nitish Srivastava, Gai Liu, Yi-Hsiang Lai, and Zhiru Zhang. FPGA-specific compilers. In *Handbook of Computer Architecture*, pages 1–37. Springer Nature, Singapore, 2022. ISBN 981-15-6401-9.

Strickland:2022:LBI

[7234] Lloyd Strickland and Harry R. Lewis. *Leibniz on Binary: The Invention of Computer Arithmetic*. MIT Press, Wheaton, MA, USA, 2022. ISBN 0-262-37212-6 (e-book), 0-262-54434-2. 413 pp. LCCN QA141.4.

Tan:2022:SRT

[7235] Bryan Tan, Benjamin Mariano, Shuvendu K. Lahiri, Isil Dillig, and Yu Feng. SolType: refinement types for arithmetic overflow in Solidity. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (POPL):4:1–4:29, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL `https://dl.acm.org/doi/10.1145/3498665`.

Tatar:2022:PEL

[7236] Guner Tatar, Salih Bayar, and Ihsan Cicek. Performance evaluation of low-precision quantized LeNet and ConvNet neural networks. In

2022 International Conference on Innovations in Intelligent SysTems and Applications (INISTA), pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Tortorella:2022:RCF

[7237] Yvan Tortorella, Luca Bertaccini, Davide Rossi, Luca Benini, and Francesco Conti. RedMulE: a compact FP16 matrix-multiplication accelerator for adaptive deep learning on RISC-V-based ultra-low-power SoCs. In IEEE, editor, *2022 Design, Automation & Test in Europe Conference & Exhibition (DATE)*, pages 1099–1102. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Venkataramanaiah:2022:BFP

[7238] Shreyas Kolala Venkataramanaiah, Jian Meng, Han-Sok Suh, Injune Yeo, Jyotishman Saikia, Sai Kiran Cherupally, Yichi Zhang, Zhiru Zhang, and Jae sun Seo. A 28nm 8-bit floating-point Tensor Core based CNN training processor with dynamic activation/weight sparsification. In *ESSCIRC 2022 — IEEE 48th European Solid State Circuits Conference (ESSCIRC)*, pages 89–92. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Verma:2022:RVC

[7239] Anu Verma, Priyamvada Sharma, and Bishnu Prasad Das. RISC-V core with approximate multiplier for error-tolerant applications. In IEEE, editor, *2022 25th Euromicro Conference on Digital System Design (DSD)*, pages 239–246. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Walia:2022:FLP

[7240] Sumit Walia, Bachu Varun Tej, Arpita Kabra, Joydeep Devnath, and Joycee Mekie. Fast and low-power quantized fixed posit high-accuracy DNN implementation. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 30(1):108–111, 2022. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Wang:2022:ARE

[7241] Luming Wang, Defeng Chen, Dongliang Wang, and Chao Wang. Acceleration of radar echo coherent accumulation system based on half-precision format and tensor core. In *2022 IEEE 5th Advanced Information Management, Communicates, Electronic and Automation Control Conference (IMCEC)*, volume 5, pages 990–995. IEEE Computer

Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Wang:2022:PNE

[7242] Yang Wang, Dazheng Deng, Leibo Liu, Shaojun Wei, and Shouyi Yin. PL-NPU: an energy-efficient edge-device DNN training processor with posit-based logarithm-domain computing. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 69(10):4042–4055, 2022. ISSN 1549-8328 (print), 1558-0806 (electronic).

Waris:2022:AAR

[7243] Haroon Waris, Chenghua Wang, Chenyu Xu, and Weiqiang Liu. AxRMs: Approximate recursive multipliers using high-performance building blocks. *IEEE Transactions on Emerging Topics in Computing*, 10(2):1229–1235, April/June 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

Waris:2022:HPP

[7244] Haroon Waris, Chenghua Wang, Weiqiang Liu, Jie Han, and Fabrizio Lombardi. Hybrid partial product-based high-performance approximate recursive multipliers. *IEEE Transactions on Emerging Topics in Computing*, 10(1):507–513, January/March 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

Xie:2022:EHI

[7245] Jiafeng Xie, Pengzhou He, Xiaofang Wang, and José L. Imaña. Efficient hardware implementation of finite field arithmetic $AB + CAB + C$ for binary ring-LWE based post-quantum cryptography. *IEEE Transactions on Emerging Topics in Computing*, 10(2):1222–1228, April/June 2022. ISSN 2168-6750 (print), 2376-4562 (electronic).

You:2022:RVP

[7246] Chao-Xing You, Qi-Tong Wang, Han Zhong, and Cheng Liu. RISC-V processor-based automatic access floating-point computing accelerated dataflow co-processor. In IEEE, editor, *2022 4th International Academic Exchange Conference on Science and Technology Innovation (IAECST)*, pages 647–650. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Zacharelos:2022:ARM

[7247] Efstratios Zacharelos, Italo Nunziata, Gerardo Saggese, Antonio G. M. Strollo, and Ettore Napoli. Approximate recursive multipliers using low power building blocks. In IEEE [8109], page 67. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Zhang:2022:HRD

[7248] Bo Zhang, Zeming Cheng, and Massoud Pedram. High-radix design of a scalable Montgomery modular multiplier with low latency. *IEEE Transactions on Computers*, 71(2):436–449, February 2022. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Zhang:2022:SDF

[7249] Yi Zhang, Mengdi Sun, and Xin Qi. Speedup of discrete Fourier transform by efficient modular arithmetic. *Concurrency and Computation: Practice and Experience*, 34(3):e6564:1–e6564:??, February 1, 2022. CODEN CCPEBO. ISSN 1532-0626 (print), 1532-0634 (electronic).

Zhao:2022:LML

[7250] Jiawei Zhao, Steve Dai, Rangharajan Venkatesan, Brian Zimmer, Mustafa Ali, Ming-Yu Liu, Brucek Khailany, William J. Dally, and Anima Anandkumar. LNS-Madam: Low-precision training in logarithmic number system using multiplicative weight update. *IEEE Transactions on Computers*, 71(12):3179–3190, 2022. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Zolfagharinejad:2022:PPE

[7251] Mohamadreza Zolfagharinejad, Mehdi Kamal, Ali Afzali-Khusha, and Massoud Pedram. Posit process element for using in energy-efficient DNN accelerators. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 30(6):844–848, 2022. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Zou:2022:OFR

[7252] Daming Zou, Yuchen Gu, Yuanfeng Shi, MingZhe Wang, Yingfei Xiong, and Zhendong Su. Oracle-free repair synthesis for floating-point programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):159:1–159:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL `https://dl.acm.org/doi/10.1145/3563322`.

Abad:2023:HAT

[7253] Sudeh Shirkavand Saleh Abad and Mohammad Hossein Moaiyeri. Hardware-accuracy trade-offs for error-resilient applications using an ultra-efficient hybrid approximate multiplier. *The Journal of*

Supercomputing, 79(3):3357–3372, February 2023. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL `https://link.springer.com/article/10.1007/s11227-022-04789-6`.

Abdi:2023:FEF

[7254] Athena Abdi and Sina Shahoveisi. FT-EALU: fault-tolerant arithmetic and logic unit for critical embedded and real-time systems. *The Journal of Supercomputing*, 79(1):626–649, January 2023. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL `https://link.springer.com/article/10.1007/s11227-022-04698-8`.

Adela:2023:DIS

[7255] Noor Alhuda Saad Adela, Amani Najeeb Ben Yousuf, and Mohamed Muftah Eljhani. Design and implementation of single precision floating-point arithmetic logic unit for RISC processor on FPGA. In *2023 IEEE 3rd International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering (MI-STA)*, pages 130–134. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, May 2023.

Alapati:2023:HIP

[7256] Madhu Sravya Alapati, Raghunandan Swain, and Asisa Kumar Panigrahy. Hardware implementation of posit numeration system using FPGA for signal processing applications. In IEEE, editor, *2023 7th International Conference on Trends in Electronics and Informatics (ICOEI)*, pages 278–282. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Allred:2023:FNT

[7257] Taylor Allred, Xinyi Li, Ashton Wiersdorf, Ben Greenman, and Ganesh Gopalakrishnan. FlowFPX: Nimble tools for debugging floating-point exceptions. In ????, editor, *Julia Conference 2023*, page 8. ????, ????, 2023. URL `https://live.juliacon.org/talk/A3LVDS`.

Andrlon:2023:FNB

[7258] Mak Andrlon. Finding normal binary floating-point factors efficiently. *Journal of Automated Reasoning*, 67(1):??, March 2023. CODEN JAREEW. ISSN 0168-7433 (print), 1573-0670 (electronic). URL `https://link.springer.com/article/10.1007/s10817-023-09659-1`.

Anonymous:2023:IWG

[7259] Anonymous. IEEE Working Group P3109 interim report on 8-bit binary floating-point formats. IEEE Web document., September 18,

2023. URL https://github.com/P3109/Public/blob/main/Shared%20Reports/P3109%20WG%20Interim%20report.pdf. Version 0.5.1: 24 November 2023.

Anonymous:2023:TDT

[7260] Anonymous. Tesla Dojo Technology: a guide to Tesla's configurable floating point formats and arithmetic: Tesla Configurable Float8 (CFloat8) & Float16 (CFloat16) formats. Report, Tesla. Inc., 2023. 9 pp. URL https://tesla-cdn.thron.com/static/MXMU3S_tesla-dojo-technology_1WDVZN.pdf.

ARM:2023:ACA

[7261] ARM Corporation. ARM compiler ARM C and C++ libraries and floating-point support user guide version 6.00. Web site, 2023. URL https://developer.arm.com/documentation/dui0808/a/floating-point-support/exception-types-recognized-by-the-arm-floating-point-environment.

Awais:2023:TOS

[7262] Muhammad Awais, Ali Zahir, Syed Ayaz Ali Shah, Pedro Reviriego, Anees Ullah, Nasim Ullah, Adam Khan, and Hazrat Ali. Toward optimal softcore carry-aware approximate multipliers on Xilinx FPGAs. *ACM Transactions on Embedded Computing Systems*, 22(4):76:1–76:??, July 2023. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic). URL https://dl.acm.org/doi/10.1145/3564243.

Badizadegan:2023:NRI

[7263] Nima Badizadegan. Newton–Raphson integer division for area-constrained microcontrollers. In IEEE [8111], pages 9–15. LCCN ????

Bahoo:2023:EEG

[7264] Ali Akbar Bahoo, Omid Akbari, and Muhammad Shafique. An energy-efficient generic accuracy configurable multiplier based on block-level voltage overscaling. *IEEE Transactions on Emerging Topics in Computing*, 11(4):851–867, October/December 2023. ISSN 2168-6750 (print), 2376-4562 (electronic).

Bartels:2023:FFP

[7265] Tinko Bartels, Vissarion Fisikopoulos, and Martin Weiser. Fast floating-point filters for robust predicates. *BIT Numerical Mathematics*, 63(2): ??, June 2023. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL https://link.springer.com/article/10.1007/s10543-023-00975-x.

Bavier:2023:VNF

[7266] Eric Bavier, Nicholas Knight, Hugues de Lassus Saint-Geniès, and Eric Love. Vectorized nonlinear functions with the RISC-V vector extension. In IEEE [8111], pages 127–130. LCCN ????

Belorgey:2023:MFE

[7267] Mariya Georgieva Belorgey, Sergiu Carpov, Kevin Deforth, Dimitar Jetchev, Abson Sae-Tang, Marius Vuille, Nicolas Gama, Jon Katz, Iraklis Leontiadis, and Mohsen Mohammadi. Manticore: A framework for efficient multiparty computation supporting real number and Boolean arithmetic. *Journal of Cryptology: the journal of the International Association for Cryptologic Research*, 36(3):??, July 2023. CODEN JOCREQ. ISSN 0933-2790 (print), 1432-1378 (electronic). URL `https://link.springer.com/article/10.1007/s00145-023-09464-4`.

Beutel:2023:PFA

[7268] Moritz Beutel and Robert Strzodka. A paradigm for interval-aware programming. In Gustafson et al. [8110], pages 38–60. ISBN 3-031-32180-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

Blanchard:2023:NMD

[7269] Jeffrey D. Blanchard and Marc Chamberland. Newton's method without division. *American Mathematical Monthly*, 130(7):606–617, 2023. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Boldo:2023:FPA

[7270] Sylvie Boldo, Claude-Pierre Jeannerod, Guillaume Melquiond, and Jean-Michel Muller. Floating-point arithmetic. *Acta Numerica*, 32:203–290, May 2023. CODEN ANUMFU. ISSN 0962-4929 (print), 1474-0508 (electronic). URL `https://www.cambridge.org/core/journals/acta-numerica/article/floatingpoint-arithmetic/287C4D5F6D4A43FBEEB1ABED2A405AAF`.

Bommana:2023:DST

[7271] Ashish Reddy Bommana, Susheel Ujwal Siddamshetty, Dhilleswararao Pudi, Arvind Thumatti K. R., Srinivas Boppu, M. Sabarimalai Manikandan, and Linga Reddy Cenkeramaddi. Design of synthesis-time vectorized arithmetic hardware for tapered floating-point addition and subtraction. *ACM Transactions on Design Automation of Electronic Systems.*, 28(3):32:1–32:??, May 2023. CODEN ATASFO. ISSN 1084-4309 (print), 1557-7309 (electronic). URL `https://dl.acm.org/doi/10.1145/3567423`.

Bottcher:2023:TGO

[7272] Andreas Böttcher and Martin Kumm. Towards globally optimal design of multipliers for FPGAs. *IEEE Transactions on Computers*, 72(5):1261–1273, May 2023. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Brisebarre:2023:EUMb

[7273] Nicolas Brisebarre, Jean-Michel Muller, and Joris Picot. Error in ulps of the multiplication or division by a correctly-rounded function or constant in binary floating-point arithmetic. In IEEE [8111], page 88. LCCN ???? Published in "IEEE Transactions on Emerging Topics in Computing, Volume: **11**, Issue: 4, 01 October–December 2023" and orally presented at ARITH 2023.

Brisebarre:2023:IPC

[7274] Nicolas Brisebarre and Guillaume Hanrot. Integer points close to a transcendental curve and correctly-rounded evaluation of a function. Preprint, LIP — Laboratoire de l'Informatique du Parallélisme, Lyon, France, 2023. 66 pp. URL `https://hal.science/hal-03240179v4/file/tmd-hal-V4.pdf`.

Brisebarre:2023:TME

[7275] Nicolas Brisebarre and Silviu-Ioan Filip. Towards machine-efficient rational L^{∞}-approximations of mathematical functions. In IEEE [8111], pages 119–126. LCCN ????

Brisebarre:2023:TSK

[7276] Nicolas Brisebarre, Jean-Michel Muller, and Joris Picot. Testing the sharpness of known error bounds on the Fast Fourier Transform. In IEEE [8111], pages 89–92. LCCN ????

Brthel:2023:FTI

[7277] Moritz Bärthel, Chen Yuxing, Nils Hülsmeier, Jochen Rust, and Steffen Paul. Fused three-input SORN arithmetic. In Gustafson et al. [8110], pages 101–113. ISBN 3-031-32180-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

Bruguera:2023:RFP

[7278] Javier D. Bruguera. Radix-64 floating-point division and square root: Iterative and pipelined units. *IEEE Transactions on Computers*, 72(10): 2990–3001, October 2023. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Buckle:2023:HEY

[7279] David Buckle. How the estimate of $\sqrt{2}$ on YBC 7289 may have been calculated. *Historia Mathematica*, 62(??):3–18, February 2023. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0315086022000477`.

Chen:2023:TLM

[7280] Benjamin Chen, Yu Li, and Eugene Zima. On a two-layer modular arithmetic. *ACM Communications in Computer Algebra*, 57(3):133–136, September 2023. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic). URL `https://dl.acm.org/doi/10.1145/3637529.3637534`.

Coonen:2023:IMP

[7281] Jerome Coonen and Rafi Nave. IEEE milestone-proposal: Intel 8087 math coprocessor. Web site, September 21, 2023. URL `https://ieeemilestones.ethw.org/Milestone-Proposal:Intel_8087_Math_Coprocessor`.

Crespo:2023:TPP

[7282] Luís Crespo, Pedro Tomás, Nuno Roma, and Nuno Neves. Trading performance, power, and area on low-precision posit MAC units for CNN training. In IEEE, editor, *2023 IEEE 35th International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD)*, pages 46–56. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Defour:2023:CAN

[7283] David Defour and Franck Vedrine. Chromatic analysis of numerical programs. In IEEE [8111], pages 97–100. LCCN ????

deLamarliere:2023:SFP

[7284] Paul Geneau de Lamarlière, Guillaume Melquiond, and Florian Faissole. Slimmer formal proofs for mathematical libraries. In IEEE [8111], pages 32–35. LCCN ????

Desrentes:2023:EDP

[7285] Orégane Desrentes, Benoît Dupont De Dinechin, and Julien Le Maire. Exact dot product accumulate operators for 8-bit floating-point deep learning. In *2023 26th Euromicro Conference on Digital System Design (DSD)*, pages 642–649. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Desrentes:2023:EFD

[7286] Orégane Desrentes, Benoît Dupont de Dinechin, and Florent de Dinechin. Exact fused dot product add operators. In IEEE [8111], pages 151–158. LCCN ????

Eckert:2023:EMM

[7287] Charles Eckert, Arun Subramaniyan, Xiaowei Wang, Charles Augustine, Ravishankar Iyer, and Reetuparna Das. Eidetic: an in-memory matrix multiplication accelerator for neural networks. *IEEE Transactions on Computers*, 72(6):1539–1553, June 2023. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Edamatsu:2023:FMP

[7288] Takuya Edamatsu and Daisuke Takahashi. Fast multiple-precision integer division using Intel AVX-512. *IEEE Transactions on Emerging Topics in Computing*, 11(1):224–236, January/March 2023. ISSN 2168-6750 (print), 2376-4562 (electronic).

Edavoor:2023:DAP

[7289] Pranose J Edavoor, Aneesh Raveendran, David Selvakumar, Vivian Desalphine, Dharani Shankar G, and Gopal Raut. Design and analysis of posit quire processing engine for neural network applications. In IEEE, editor, *2023 36th International Conference on VLSI Design and 2023 22nd International Conference on Embedded Systems (VLSID)*, pages 252–257. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

ElArar:2023:SRV

[7290] El-Mehdi El Arar, Devan Sohier, Pablo de Oliveira Castro, and Eric Petit. Stochastic rounding variance and probabilistic bounds: a new approach. *SIAM Journal on Scientific Computing*, 45(5):C255–C275, October 2023. CODEN SJOCE3. ISSN 1095-7197.

Fakhreddine:2023:ULT

[7291] Youssef Fakhreddine and Guillaume Revy. Using loop transformations for precision tuning in iterative programs. In IEEE [8111], pages 159–166. LCCN ????

Fan:2023:TFF

[7292] Guang Fan, Fangyu Zheng, Lipeng Wan, Lili Gao, Yuan Zhao, Jiankuo Dong, Yixuan Song, Yuewu Wang, and Jingqiang Lin. Towards faster fully homomorphic encryption implementation with integer and floating-point computing power of GPUs. In *2023 IEEE International Parallel* *and Distributed Processing Symposium (IPDPS)*, pages 798–808. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Fasi:2023:CCL

[7293] Massimiliano Fasi and Mantas Mikaitis. CPFloat: a C library for simulating low-precision arithmetic. *ACM Transactions on Mathematical Software*, 49(2):18:1–18:??, June 2023. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/doi/10.1145/3585515`.

Filippas:2023:RPF

[7294] Dionysios Filippas, Christodoulos Peltekis, Giorgos Dimitrakopoulos, and Chrysostomos Nicopoulos. Reduced-precision floating-point arithmetic in systolic arrays with skewed pipelines. In *2023 IEEE 5th International Conference on Artificial Intelligence Circuits and Systems (AICAS)*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, June 2023.

Flatt:2023:MIA

[7295] Oliver Flatt and Pavel Panchekha. Making interval arithmetic robust to overflow. In IEEE [8111], pages 44–47. LCCN ????

Fog:2023:FPE

[7296] Agner Fog. Floating point exception tracking and NAN propagation. Report, Technical University of Denmark, Lyngby, Denmark, April 27, 2023. 10 pp. URL `https://www.agner.org/optimize/nan_propagation.pdf`.

Gavarini:2023:RRN

[7297] G. Gavarini, A. Ruospo, and E. Sanchez. On the resilience of representative and novel data formats in CNNs. In *2023 IEEE International Symposium on Defect and Fault Tolerance in VLSI and Nanotechnology Systems (DFT)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Glint:2023:HSC

[7298] Tom Glint, Kailash Prasad, Jinay Dagli, Krishil Gandhi, Aryan Gupta, Vrajesh Patel, Neel Shah, and Joycee Mekie. Hardware-software codesign of DNN accelerators using approximate posit multipliers. In IEEE, editor, *2023 28th Asia and South Pacific Design Automation Conference (ASP-DAC)*, pages 469–474. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Gorodecky:2023:SAC

[7299] Danila Gorodecky and Leonel Sousa. Scalable architecture of constant division on FPGA. In IEEE [8111], pages 16–23. LCCN ????

Graillat:2023:PCH

[7300] Stef Graillat, Youness Ibrahimy, Clothilde Jeangoudoux, and Christoph Lauter. A parallel compensated Horner scheme for SIMD architecture. In IEEE [8111], pages 131–138. LCCN ????

Grale:2023:IMM

[7301] Trenton J. Grale and Earl E. Swartzlander. Improved Montgomery multiplication. In IEEE [8111], pages 60–67. LCCN ????

Gunaratne:2023:EUL

[7302] Thushara Kanchana Gunaratne. Evaluation of the use of low precision floating-point arithmetic for applications in radio astronomy. In Gustafson et al. [8110], pages 155–170. ISBN 3-031-32180-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

Gustafson:2023:DFT

[7303] John L. Gustafson, Marco Cococcioni, Federico Rossi, Emanuele Ruffaldi, and Sergio Saponara. Decoding-free two-input arithmetic for low-precision real numbers. In Gustafson et al. [8110], pages 61–76. ISBN 3-031-32180-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

Hallman:2023:PAD

[7304] Eric Hallman and Ilse C. F. Ipsen. Precision-aware deterministic and probabilistic error bounds for floating point summation. *Numerische Mathematik*, 155(1–2):83–119, October 2023. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-023-01370-y`.

Harris:2023:UMR

[7305] David Harris. Unified minimally redundant radix 4 DivSqrt selection intervals and constants. Web document, 2023. URL `https://bit.ly/3fLR81z`.

Ho:2023:BBE

[7306] Nhut-Minh Ho, Duy-Thanh Nguyen, John L. Gustafson, and Weng-Fai Wong. Bedot: Bit efficient dot product for deep generative models. In Gustafson et al. [8110], pages 19–37. ISBN 3-031-32180-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

Hoffmann:2023:ASE

[7307] Alexandre Hoffmann, Yves Durand, and Jérôme Fereyre. Accelerating spectral elements method with extended precision: a case study. *International Journal of Applied Physics and Mathematics*, 14(2):45–58, 2023. CODEN IJAPJ3. ISSN 2010-362X.

Hong:2023:LCH

[7308] Wanyuan Hong, Hui Chen, Lianghua Quan, Yuxiang Fu, and Li Li. Low-cost high-precision architecture for arbitrary floating-point nth root computation. In *2023 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Hu:2023:TWF

[7309] Xianwu Hu, Yu Wang, Zizhao Ma, Gan Wen, Zeming Wang, Zhichao Lu, Yunlong Liu, Yanlei Li, Xingdong Liang, Xiaoyang Zeng, and Yufeng Xie. An 8.8 TFLOPS/W floating-point RRAM-based compute-in-memory macro using low latency triangle-style mantissa multiplication. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 70(11):4216–4220, 2023. ISSN 1549-7747 (print), 1558-3791 (electronic).

Hubrecht:2023:TCRa

[7310] Tom Hubrecht, Claude-Pierre Jeannerod, and Paul Zimmermann. Towards a correctly-rounded and fast power function in binary64 arithmetic. Report, DI-ENS — Département d'informatique — ENS Paris, Paris, France, July 12, 2023. URL `https://inria.hal.science/hal-04159652v1/`.

Hubrecht:2023:TCRb

[7311] Tom Hubrecht, Claude-Pierre Jeannerod, and Paul Zimmermann. Towards a correctly-rounded and fast power function in binary64 arithmetic. In IEEE [8111], pages 111–118. LCCN ???? URL `https://arith2023.arithsymposium.org/slides/S6_PaulZimmermannS6P1.pdf`; `https://inria.hal.science/hal-04159652v1/file/pow.pdf`; `https://inria.hal.science/hal-04326201`.

Hulsmeier:2023:HSH

[7312] Nils Hülsmeier, Moritz Bärthel, Jochen Rust, and Steffen Paul. Hybrid SORN hardware accelerator for support vector machines. In Gustafson et al. [8110], pages 77–87. ISBN 3-031-32180-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

IEEE:2023:MIS

[7313] IEEE. Milestones: IEEE Standard 754 for Binary Floating-Point Arithmetic, 1985. (J. Coonen, proposer). Web site, May 3, 2023.

IEEE:2023:UWG

[7314] IEEE. IEEE Working Group P3109 interim report on 8-bit binary floating-point formats. Web document, November 24, 2023. URL `https://github.com/P3109/Public/blob/main/Shared%20Reports/P3109%20WG%20Interim%20report.pdf`.

Innocente:2023:AMF

[7315] Vincenzo Innocente and Paul Zimmermann. Accuracy of mathematical functions in single, double, double extended, and quadruple precision. Technical report, ????, February 14, 2023. 21 pp. URL `https://inria.hal.science/hal-03141101`; `https://members.loria.fr/PZimmermann/papers/glibc237-20230214.pdf`.

Jaberipur:2023:MMF

[7316] Ghassem Jaberipur, Saeid Gorgin, Navid Ahamadian, and Jeong-A Lee. Modulo-($2^q - 3$) multiplication with fully modular partial product generation and reduction. In IEEE [8111], pages 68–75. LCCN ????

Joshi:2023:AEV

[7317] Rajeev Joshi, Lakshmi Kavya Kalyanam, and Srinivas Katkoori. Area efficient VLSI ASIC implementation of multilayer perceptrons. In *2023 International VLSI Symposium on Technology, Systems and Applications (VLSI-TSA/VLSI-DAT)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

K:2023:DEE

[7318] Lakshmi Bhanuprakash Reddy K, Haripriya R S, Keerthija Puli, Subba Ramkumar Reddy Annapalli, and Vikramkumar Pudi. Design of energy efficient and low delay posit multiplier. In IEEE, editor, *2023 36th International Conference on VLSI Design and 2023 22nd International Conference on Embedded Systems (VLSID)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Kapoor:2023:FVF

[7319] Ashish Kapoor, Warren Ferguson, Himanshu Jain, and Sudipta Kundu. Formal verification of floating-point division. In IEEE [8111], pages 93–96. LCCN ????

Kavvousanos:2023:IRL

[7320] E. Kavvousanos, V. Sakellariou, I. Kouretas, V. Paliouras, and T. Stouraitis. Improving residue-level sparsity in RNS-based neural network hardware accelerators via regularization. In IEEE [8111], pages 102–109. LCCN ????

Kellison:2023:LLF

[7321] Ariel E. Kellison, Andrew W. Appel, Mohit Tekriwal, and David Bindel. LAProof: a library of formal proofs of accuracy and correctness for linear algebra programs. In IEEE [8111], pages 36–43. LCCN ????

Kim:2023:BNL

[7322] Jongho Kim, Young H. Oh, Hyeonsik Kim, Jae W. Lee, and Jintae Kim. A 4-bit 4.5-ns-latency Pseudo-ReRAM computing-in-memory macro with self error-correcting DTC-based WL drivers and 6-bit CDAC-less column ADCs having ultra-narrow pitch. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 70(9):3228–3232, 2023. ISSN 1549-7747 (print), 1558-3791 (electronic).

Kim:2023:MMS

[7323] Whijin Kim, Hana Kim, Jihye Lee, Hyunji Kim, and Ji-Hoon Kim. Multi-mode SpMV accelerator for transprecision PageRank with real-world graphs. *IEEE Access*, 11:6261–6272, 2023. ISSN 2169-3536.

Klower:2023:POC

[7324] Milan Klöwer, Peter V. Coveney, E. Adam Paxton, and Tim N. Palmer. Periodic orbits in chaotic systems simulated at low precision. *Scientific Reports*, 13(1), July 2023. CODEN SRCEC3. ISSN 2045-2322.

Krishna:2023:RNF

[7325] Bharath Krishna. Rounding numbers in the financial domain! Web site, January 1, 2023. URL `https://www.foundingminds.com/rounding-numbers-in-the-financial-domain/`. Includes important mention of financial regulatory sites, with this text taken verbatim from the article, because such information may be hard to find elsewhere: * International Financial Reporting Standards (IFRS): IFRS is a set of accounting standards developed by the International Accounting Standards Board (IASB). It includes guidelines on rounding financial numbers in financial statements, such as the requirement to round amounts to the nearest whole number or the nearest multiple of 10; * Generally Accepted Accounting Principles (GAAP): GAAP is a set of accounting standards used in the United States. It includes similar guidelines on rounding financial numbers as IFRS and requires that any rounding errors should be immaterial and insignificant. * International Organization for Standardization (ISO): ISO has a standard for Rounding off numerical values, which is ISO 80000-1:2009. It provides guidelines on rounding numerical values in general and not specific to the finance domain, but it's widely used in financial systems. * The Federal Reserve Board (FRB): The FRB, the central banking system of the United States, has guidelines on rounding financial numbers for bank reporting and financial statement preparation. * The European Central Bank (ECB): The ECB, the central banking system of the European Union, has similar guidelines on rounding financial numbers as the FRB.

Kuo:2023:CMP

[7326] Pei-Hsuan Kuo, Yu-Hsiang Huang, and Juinn-Dar Huang. Configurable multi-precision floating-point multiplier architecture design for computation in deep learning. In *2023 IEEE 5th International Conference on Artificial Intelligence Circuits and Systems (AICAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Kurian:2023:PER

[7327] Ashley Kurian and M. Ramesh Kini. Posit extended RISC-V processor and its enhancement using data type casting. In *Lecture Notes in Networks and Systems*, pages 571–586. Springer Nature, Singapore, 2023. ISBN 981-19663-4-6. ISSN 2367-3389.

Laguna:2023:FIT

[7328] Ignacio Laguna, Anh Tran, and Ganesh Gopalakrishnan. Finding inputs that trigger floating-point exceptions in heterogeneous computing via Bayesian optimization. *Parallel Computing*, 117(??):103042:1–103042:13, September 2023. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0167819123000480`.

Lee:2023:WFF

[7329] Sunwoo Lee, Jeongwoo Park, and Dongsuk Jeon. A 4.27TFLOPS/W FP4/FP8 hybrid-precision neural network training processor using shift-add MAC and reconfigurable PE array. In *ESSCIRC 2023 — IEEE 49th European Solid State Circuits Conference (ESSCIRC)*, pages 221–224. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Leitersdorf:2023:AHT

[7330] Orian Leitersdorf, Dean Leitersdorf, Jonathan Gal, Mor Dahan, Ronny Ronen, and Shahar Kvatinsky. AritPIM: High-throughput in-memory arithmetic. *IEEE Transactions on Emerging Topics in Computing*, 11 (3):720–735, July/September 2023. ISSN 2168-6750 (print), 2376-4562 (electronic).

Leong:2023:LFU

[7331] Siew Hoon Leong and John L. Gustafson. Lossless FFTs using posit arithmetic. In Gustafson et al. [8110], pages 1–18. ISBN 3-031-32180-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

Li:2023:DEG

[7332] Xinyi Li, Ignacio Laguna, Bo Fang, Katarzyna Swirydowicz, Ang Li, and Ganesh Gopalakrishnan. Design and evaluation of GPU-FPX: a low-overhead tool for floating-point exception detection in NVIDIA GPUs. In *Proceedings of the 32nd International Symposium on High-Performance Parallel and Distributed Computing*, pages 59–71. ACM Press, New York, NY 10036, USA, August 2023. URL `https://dl.acm.org/doi/10.1145/3588195.3592991; https://github.com/LLNL/GPU-FPX`.

Li:2023:DSE

[7333] He Li, Jiawei Liang, Hongxiang Fan, and Yongming Tang. Design space exploration for efficient quantum most-significant digit-first arithmetic. *IEEE Transactions on Computers*, 72(6):1822–1829, June 2023. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Li:2023:EEB

[7334] Ruiyuan Li, Zheng Li, Yi Wu, Chao Chen, and Yu Zheng. Elf: Erasing-based lossless floating-point compression. *Proceedings of the VLDB Endowment*, 16(7):1763–1776, March 2023. CODEN ???? ISSN 2150-8097. URL `https://dl.acm.org/doi/10.14778/3587136.3587149`.

Li:2023:POS

[7335] Qiong Li, Chao Fang, and Zhongfeng Wang. PDPU: an open-source posit dot-product unit for deep learning applications. In IEEE, editor, *2023 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Liu:2023:CHR

[7336] Zixuan Liu, Xiaoyu Song, Zhuowei Wang, Yan Wang, and Jian-Tao Zhou. Constructing high radix quotient digit selection tables for SRT division and square root. *IEEE Transactions on Computers*, 72(7):2111–2119, July 2023. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Livesay:2023:AFF

[7337] Neal Livesay, Gilbert Jonatan, Evelio Mora, Kaustubh Shivdikar, Rashmi Agrawal, Ajay Joshi, José L. Abellán, John Kim, and David Kaeli. Accelerating finite field arithmetic for homomorphic encryption on GPUs. *IEEE Micro*, 43(5):55–63, September/October 2023. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Lo:2023:BGB

[7338] Yun-Chen Lo and Ren-Shuo Liu. Bucket Getter: a bucket-based processing engine for low-bit block floating point (BFP) DNNs. In *2023 56th IEEE/ACM International Symposium on Microarchitecture (MICRO)*, pages 1002–1015. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Mai:2023:TWC

[7339] Yangzhan Mai, Mingyu Wang, Chuanghao Zhang, Baiqing Zhong, and Zhiyi Yu. A 1.97 TFLOPS/W configurable SRAM-based floating-point computation-in-memory macro for energy-efficient AI chips. In *2023 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Malathi:2023:DRV

[7340] D Malathi, R Sneha, M Shanmugapriya, and S Sethurajan. Design of RISC-V processing unit using posit number system. In IEEE, editor, *2023 4th International Conference on Signal Processing and Communication (ICSPC)*, pages 427–431. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Mansfield:2023:MSR

[7341] Daniel F. Mansfield. Mesopotamian square root approximation by a sequence of rectangles. *British Journal for the History of Mathematics*, 38(3):175–188, 2023. CODEN ???? ISSN 1749-8430 (print), 1749-8341 (electronic). URL `http://www.tandfonline.com/doi/full/10.1080/26375451.2023.2215652`.

Martin-Dorel:2023:EFP

[7342] Érik Martin-Dorel, Guillaume Melquiond, and Pierre Roux. Enabling floating-point arithmetic in the Coq proof assistant. *Journal of*

Automated Reasoning, 67(4):??, December 2023. CODEN JAREEW. ISSN 0168-7433 (print), 1573-0670 (electronic). URL https://link.springer.com/article/10.1007/s10817-023-09679-x.

Melquiond:2023:WFV

[7343] Guillaume Melquiond and Raphaël Rieu-Helft. WhyMP, a formally verified arbitrary-precision integer library. *Journal of Symbolic Computation*, 115(??):74–95, March/April 2023. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic). URL http://www.sciencedirect.com/science/article/pii/S0747717122000657.

Mezzarobba:2023:REA

[7344] Marc Mezzarobba. Rounding error analysis of linear recurrences using generating series. *Electronic Transactions on Numerical Analysis*, 58:196–227, 2023. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL https://etna.math.kent.edu/vol.58.2023/pp196-227.dir/pp196-227.pdf; https://etna.math.kent.edu/volumes/2021-2030/vol58/abstract.php?vol=58&pages=196-227.

Micikevicius:2023:OBF

[7345] Paulius Micikevicius, Stuart Oberman, Marius Cornea Pradeep Dubey, Andres Rodriguez, Ian Bratt, Richard Grisenthwaite, Chiachen Chou Norm Jouppi, Amber Huffman, Michael Schulte, Ralph Wittig, Dharmesh Jani, and Summer Deng. OCP 8-bit floating point specification (OFP8): Revision 1.0. Technical report, Open Compute Project, ????, June 20, 2023. 16 pp. URL https://www.opencompute.org/documents/ocp-8-bit-floating-point-specification-ofp8-revision-1-0-2023-06-20-pdf.

Mikaitis:2023:MMT

[7346] Mantas Mikaitis. Monotonicity of multi-term floating-point adders. *arxiv.org*, ??(??):1–13, April 3, 2023. URL https://arxiv.org/pdf/2304.01407.pdf.

Mirsalari:2023:OSO

[7347] Seyed Ahmad Mirsalari, Saba Yousefzadeh, Giuseppe Tagliavini, Dimitrios Stathis, and Ahmed Hemani. Optimizing self-organizing maps for bacterial genome identification on parallel ultra-low-power platforms. In *2023 30th IEEE International Conference on Electronics, Circuits and Systems (ICECS)*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Mudawar:2023:EVI

[7348] Muhamed F. Mudawar. Exact versus inexact decimal floating-point numbers and arithmetic. *IEEE Access*, 11:17891–17905, 2023. ISSN 2169-3536.

Murillo:2023:GPB

[7349] Raul Murillo, Alberto A. Del Barrio, Guillermo Botella, and Christian Pilato. Generating posit-based accelerators with high-level synthesis. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 70(10): 4040–4052, 2023. ISSN 1549-8328 (print), 1558-0806 (electronic).

Murillo:2023:HMP

[7350] Raul Murillo, Javier Hormigo, Alberto A. Del Barrio, and Guillermo Botella. HUB meets posit: Arithmetic units implementation. *IEEE Transactions on Circuits and Systems II: Express Briefs*, page 1, 2023. ISSN 1549-7747 (print), 1558-3791 (electronic).

Murillo:2023:PPL

[7351] Raul Murillo, David Mallasén, Alberto A. Del Barrio, and Guillermo Botella. PLAUs: Posit logarithmic approximate units to implement low-cost operations with real numbers. In Gustafson et al. [8110], pages 171–188. ISBN 3-031-32180-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

Murillo:2023:SDA

[7352] Raul Murillo, Alberto A. Del Barrio, and Guillermo Botella. A suite of division algorithms for posit arithmetic. In IEEE, editor, *2023 IEEE 34th International Conference on Application-specific Systems, Architectures and Processors (ASAP): ASAP 2023, 19–21 July 2023, Porto, Portugal*, pages 41–44. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Mushtak:2023:FNP

[7353] Noble Mushtak and Daniel Lemire. Fast number parsing without fallback. *Software—Practice and Experience*, 53(7):1467–1471, July 2023. CODEN SPEXBL. ISSN 0038-0644 (print), 1097-024X (electronic). See original work [7046].

Nadalini:2023:RPF

[7354] Davide Nadalini, Manuele Rusci, Luca Benini, and Francesco Conti. Reduced precision floating-point optimization for Deep Neural Network On-Device Learning on microcontrollers. *Future Generation Computer Systems*, 149(??):212–226, December 2023. CODEN FGSEVI.

ISSN 0167-739X (print), 1872-7115 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0167739X23002728.

Nadalini:2023:TWR

[7355] Alessandro Nadalini, Georg Rutishauser, Alessio Burrello, Nazareno Bruschi, Angelo Garofalo, Luca Benini, Francesco Conti, and Davide Rossi. A 3 TOPS/W RISC-V parallel cluster for inference of fine-grain mixed-precision quantized neural networks. In IEEE, editor, *2023 IEEE Computer Society Annual Symposium on VLSI (ISVLSI)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Nazareth:2023:CGN

[7356] John Lawrence Nazareth. *Concise Guide to Numerical Algorithmics: The Foundations and Spirit of Scientific Computing*. SpringerBriefs in Computer Science. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2023. ISBN 3-031-21762-4. ISSN 2191-5776.

Noh:2023:FFD

[7357] Seock-Hwan Noh, Jahyun Koo, Seunghyun Lee, Jongse Park, and Jaeha Kung. FlexBlock: a flexible DNN training accelerator with multi-mode block floating point support. *IEEE Transactions on Computers*, 72(9): 2522–2535, September 2023. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

NVIDIA:2023:FPI

[7358] NVIDIA Corporation. Floating point and IEEE 754 compliance for NVIDIA GPUs. NVIDIA Web site., October 2023. URL https://docs.nvidia.com/cuda/floating-point/.

Oh:2023:RLR

[7359] Hyun Woo Oh, Seongmo An, Won Sik Jeong, and Seung Eun Lee. RF2P: a lightweight RISC processor optimized for rapid migration from IEEE-754 to posit. In IEEE, editor, *2023 IEEE/ACM International Symposium on Low Power Electronics and Design (ISLPED)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Oliver:2023:ASF

[7360] José Oliver, Carlos Álvarez, Teresa Cervero, Xavier Martorell, John D. Davis, and Eduard Ayguadé. Accelerating SpMV on FPGAs through block-row compress: a task-based approach. In *2023 33rd International*

Conference on Field-Programmable Logic and Applications (FPL), pages 151–158. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

P:2023:AOF

[7361] Gayathri G P, Jaya S, and Krishnakumar Rao S. An area optimized floating-point coprocessor for RISC-V processor. In IEEE, editor, *2023 International Conference on Control, Communication and Computing (ICCC)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

P:2023:ITO

[7362] Ponsuganth Ilangovan P., Rohan Rayan, and Vinay Shankar Saxena. Improving the stability of Kalman filters with posit arithmetic. In Gustafson et al. [8110], pages 134–154. ISBN 3-031-32180-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

Park:2023:FDL

[7363] Jina Park, Kyuseung Han, Eunjin Choi, Sukho Lee, Jae-Jin Lee, Woojoo Lee, and Massoud Pedram. Florian: Developing a low-power RISC-V multicore processor with a shared lightweight FPU. In IEEE, editor, *2023 IEEE/ACM International Symposium on Low Power Electronics and Design (ISLPED)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Pasca:2023:ELP

[7364] Bogdan Pasca and Martin Langhammer. Extracting low-precision floating-point adders from embedded hard FP DSP blocks on FPGAs. In IEEE [8111], pages 139–142. LCCN ????

Perez:2023:TIL

[7365] Sergio P. Perez, Yan Zhang, James Briggs, Charlie Blake, Josh Levy-Kramer, Paul Balanca, Carlo Luschi, Stephen Barlow, and Andrew William Fitzgibbon. Training and inference of large language models using 8-bit floating point. *arXiv.org*, ??(??):1–22, September 29, 2023. URL `https://arxiv.org/abs/2309.17224`.

Perotti:2023:YOS

[7366] Matteo Perotti, Matheus Cavalcante, Alessandro Ottaviano, Jiantao Liu, and Luca Benini. Yun: an open-source, 64-bit RISC-V-based vector processor with multi-precision integer and floating-point support in 65-nm CMOS. *IEEE Transactions on Circuits and Systems II: Express*

Briefs, 70(10):3732–3736, 2023. ISSN 1549-7747 (print), 1558-3791 (electronic).

Pilipovic:2023:EEN

[7367] Ratko Pilipović, Patricio Bulić, and Uroš Lotrič. Energy-efficient neural network learning with accuracy-adjustable floating-point multiplier. TechRxiv preprint., February 19, 2023. URL `https://www.techrxiv.org/articles/preprint/Energy-efficient_neural_network_learning_with_accuracy-adjustable_floating-point_multiplier/22123127`.

Postpischil:2023:WDI

[7368] Eric Postpischil. Why does the integer representation of a floating point number offer a piecewise linear approximation to the logarithm? Stack Overflow Web site., 2023. URL `https://stackoverflow.com/questions/75772363/why-does-the-integer-representation-of-a-floating-point-number-offer-a-piecewise`.

Reinsch:2023:SVD

[7369] Christian Reinsch and Mathias Richter. Singular value decomposition in extended double precision arithmetic. *Numerical Algorithms*, 93(3): 1137–1155, 2023. CODEN NUALEG. ISSN 1017-1398,1572-9265.

Ren:2023:EAM

[7370] Pengchang Ren, Reiji Suda, and Vorapong Suppakitpaisarn. Efficient additions and Montgomery reductions of large integers for SIMD. In IEEE [8111], pages 48–59. LCCN ????

Robert:2023:FMM

[7371] Jean-Marc Robert and Pascal Véron. Faster multiplication over $\mathbf{F}_2[X]$ using AVX512 instruction set and VPCLMULQDQ instruction. *Journal of Cryptographic Engineering*, 13(1):37–55, April 2023. CODEN ???? ISSN 2190-8508 (print), 2190-8516 (electronic). URL `https://link.springer.com/article/10.1007/s13389-021-00278-3`.

Rump:2023:IPP

[7372] Siegfried M. Rump. IEEE-754 precision-p base-β arithmetic implemented in binary. *ACM Transactions on Mathematical Software*, 49(4):32:1–32:??, December 2023. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/doi/10.1145/3596218`; `https://www.tuhh.de/ti3/paper/rump/Ru23b.pdf`.

Rydahl:2023:PPA

[7373] Anton Rydahl, Joseph Huber, Ethan Luis Mcdonough, and Johannes Doerfert. Precision and performance analysis of C standard math library functions on GPUs. In *Proceedings of the SC 23 Workshops of The International Conference on High Performance Computing, Network, Storage, and Analysis*. ACM Press, New York, NY 10036, USA, November 2023.

Safieh:2023:EBR

[7374] Malek Safieh, Andreas Furch, and Fabrizio De Santis. An efficient Barrett reduction algorithm for Gaussian integer moduli. In IEEE [8111], pages 76–83. LCCN ????

Saikia:2023:FIA

[7375] Jyotishman Saikia, Amitesh Sridharan, Injune Yeo, Shreyas Venkataramanaiah, Deliang Fan, and Jae-Sun Seo. FP-IMC: a 28nm all-digital configurable floating-point in-memory computing macro. In *ESSCIRC 2023 — IEEE 49th European Solid State Circuits Conference (ESSCIRC)*, pages 405–408. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Sajid:2023:ODN

[7376] Shoaib Sajid, Sereiwatha Ros, and Hyung-Won Kim. Optimizing deep neural network with brain floating half-precision format. In *2023 IEEE International Conference on Consumer Electronics-Asia (ICCE-Asia)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Sakellariou:2023:MFR

[7377] Vasilis Sakellariou, Vassilis Paliouras, Ioannis Kouretas, Hani Saleh, and Thanos Stouraitis. A multiplier-free RNS-based CNN accelerator exploiting bit-level sparsity. In IEEE [8111], page 101. LCCN ????

Schilling:2023:BSR

[7378] Jonathan Schilling, Jakob Svensson, Udo Höfel, Joachim Geiger, and Henning Thomsen. Biot–Savart routines with minimal floating point error. *Computer Physics Communications*, 287(??):Article 108692, June 2023. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465523000371`.

Seo:2023:DPHa

[7379] Jihee Seo and Dae Hyun Kim. Dual-purpose hardware algorithms and architectures. Part 1: Floating-point division. In IEEE [8111], pages 24–31. LCCN ????

Seo:2023:DPHb

[7380] Jihee Seo and Dae Hyun Kim. Dual-purpose hardware algorithms and architectures. Part 2: Integer division. In IEEE [8111], pages 1–8. LCCN ????

Shah:2023:DPU

[7381] Nimish Shah, Wannes Meert, and Marian Verhelst. DAG processing unit version 1 (DPU): Efficient execution of irregular workloads on a multicore processor. In *Efficient Execution of Irregular Dataflow Graphs*, pages 69–88. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2023. ISBN 3-031-33136-2.

Shah:2023:EEI

[7382] Nimish Shah, Wannes Meert, and Marian Verhelst. *Efficient Execution of Irregular Dataflow Graphs: Hardware/Software Co-optimization for Probabilistic AI and Sparse Linear Algebra*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2023. ISBN 3-031-33136-2.

Shah:2023:IWR

[7383] Nimish Shah, Wannes Meert, and Marian Verhelst. Irregular workloads at risk of losing the hardware lottery. In *Efficient Execution of Irregular Dataflow Graphs*, pages 1–21. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2023. ISBN 3-031-33136-2.

Shah:2023:SDR

[7384] Nimish Shah, Wannes Meert, and Marian Verhelst. Suitable data representation: A study of fixed-point, floating-point, and PositTM formats for probabilistic AI. In *Efficient Execution of Irregular Dataflow Graphs*, pages 23–41. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2023. ISBN 3-031-33136-2.

Shahbazi:2023:OHI

[7385] Karim Shahbazi and Seok-Bum Ko. An optimized hardware implementation of modular multiplication of binary ring LWE. *IEEE Transactions on Emerging Topics in Computing*, 11(3):817–821, July/ September 2023. ISSN 2168-6750 (print), 2376-4562 (electronic).

Sharma:2023:CQE

[7386] Niraj N. Sharma, Riya Jain, Mohana Madhumita Pokkuluri, Sachin B. Patkar, Rainer Leupers, Rishiyur S. Nikhil, and Farhad Merchant. CLARINET: A quire-enabled RISC-V-based framework for posit arithmetic empiricism. *Journal of Systems Architecture*, 135: 102801, 2023. CODEN JSARFB. ISSN 1383-7621 (print), 1873-6165 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S1383762122002867`.

Shekhawat:2023:PPH

[7387] Diksha Shekhawat, Jugal Gandhi, M. Santosh, and Jai Gopal Pandey. PHAc: Posit hardware accelerator for efficient arithmetic logic operations. In Gustafson et al. [8110], pages 88–100. ISBN 3-031-32180-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

Shen:2023:CCA

[7388] Shiyu Shen, Hao Yang, Yu Liu, Zhe Liu, and Yunlei Zhao. CARM: CUDA-Accelerated RNS Multiplication in word-wise homomorphic encryption schemes for Internet of Things. *IEEE Transactions on Computers*, 72(7):1999–2010, July 2023. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Silva:2023:TAB

[7389] Himeshi De Silva, Hongshi Tan, Nhut-Minh Ho, John L. Gustafson, and Weng-Fai Wong. Towards a better 16-bit number representation for training neural networks. In Gustafson et al. [8110], pages 114–133. ISBN 3-031-32180-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

Sohn:2023:EFP

[7390] Jongwook Sohn, David K. Dean, Eric Quintana, and Wing Shek Wong. Enhanced floating-point multiply-add with full denormal support. In IEEE [8111], pages 143–150. LCCN ????

Sukop:2023:HDB

[7391] Juraj Sukop and Niels Möller. On HGCD-D bounds, February 7, 2023. URL `https://hal.science/hal-03976898`.

Taka:2023:MME

[7392] Endri Taka, Aman Arora, Kai-Chiang Wu, and Diana Marculescu. MaxEVA: Maximizing the efficiency of matrix multiplication on Versal AI Engine. In *2023 International Conference on Field Programmable*

Technology (ICFPT), pages 96–105. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Talpes:2023:MDT

[7393] Emil Talpes, Debjit Das Sarma, Doug Williams, Sahil Arora, Thomas Kunjan, Benjamin Floering, Ankit Jalote, Christopher Hsiong, Chandrasekhar Poorna, Vaidehi Samant, John Sicilia, Anantha Kumar Nivarti, Raghuvir Ramachandran, Tim Fischer, Ben Herzberg, Bill McGee, Ganesh Venkataramanan, and Pete Banon. The microarchitecture of DOJO, Tesla's exa-scale computer. *IEEE Micro*, 43 (3):31–39, May/June 2023. CODEN IEMIDZ. ISSN 0272-1732 (print), 1937-4143 (electronic).

Tompazi:2023:ABT

[7394] Styliani Tompazi and Georgios Karakonstantis. AI-based timing error modelling: a case study on a pipelined floating-point core. In IEEE [8111], page 110. LCCN ????

Towhidy:2023:DIA

[7395] Ahmad Towhidy, Reza Omidi, and Karim Mohammadi. On the design of iterative approximate floating-point multipliers. *IEEE Transactions on Computers*, 72(6):1623–1635, June 2023. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Tu:2023:TGW

[7396] Fengbin Tu, Yiqi Wang, Zihan Wu, Weiwei Wu, Leibo Liu, Yang Hu, Shaojun Wei, and Shouyi Yin. 16.4 TensorCIM: a 28nm 3.7nJ/gather and 8.3TFLOPS/W FP32 digital-CIM tensor processor for MCM-CIM-based beyond-NN acceleration. In *2023 IEEE International Solid-State Circuits Conference (ISSCC)*, pages 254–256. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Ullah:2023:DRE

[7397] Salim Ullah, Siva Satyendra Sahoo, and Akash Kumar. Designing resource-efficient hardware arithmetic for FPGA-based accelerators leveraging approximations and mixed quantizations. In *Embedded Machine Learning for Cyber-Physical, IoT, and Edge Computing*, pages 89–119. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., October 2023. ISBN 3-031-19568-X.

V:2023:IFP

[7398] Velmurugan V M, Ayub Khan A, and Bharanidharan S. Implementation of floating point CORDIC algorithm using 45 nm technology for COS SINE generation. In *2023 International Conference on Next Generation Electronics (NEleX)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Valuev:2023:DFA

[7399] Georgii Valuev, Maria Valueva, Mikhail Babenko, and Andrei Tchernykh. Digital filter architecture based on modified Winograd method f(2× 2, 5× 5) and residue number system. *IEEE Access*, 11: 26807–26819, 2023. ISSN 2169-3536.

Venkataramanaiah:2023:NBF

[7400] Shreyas Kolala Venkataramanaiah, Jian Meng, Han-Sok Suh, Injune Yeo, Jyotishman Saikia, Sai Kiran Cherupally, Yichi Zhang, Zhiru Zhang, and Jae-Sun Seo. A 28-nm 8-bit floating-point Tensor Core-based programmable CNN training processor with dynamic structured sparsity. *IEEE Journal of Solid-State Circuits*, 58(7):1885–1897, 2023. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Vollmer:2023:UHA

[7401] Morgane Vollmer, Karim Bigou, and Arnaud Tisserand. Using hierarchical approach to speed-up RNS base extensions in homomorphic encryption context. In IEEE [8111], pages 84–87. LCCN ????

Weihong:2023:SDM

[7402] Bi Weihong, Jin Yun, Li Jiaxin, Sun Lingling, Fu Guangwei, and Jin Wa. In-situ detection method of jellyfish based on improved faster R-CNN and FP16. *IEEE Access*, 11:81803–81814, 2023. ISSN 2169-3536.

Whitehead:2023:FPI

[7403] Nathan Whitehead and Alex Fit-florea. *Floating Point and IEEE 754 Compliance for NVIDIA GPUs*. NVIDIA, ????, August 24, 2023. 28 pp. URL `https://docs.nvidia.com/cuda/floating-point/`; `https://docs.nvidia.com/cuda/pdf/Floating_Point_on_NVIDIA_GPU.pdf`.

Wilkinson:2023:REA

[7404] J. H. (James Hardy) Wilkinson. *Rounding Errors in Algebraic Processes*, volume 89 of *Classics in applied mathematics*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2023. ISBN 1-61197-751-7. xiii + 161 pp. LCCN QA275 .W64 2023. New foreword by N. J. Higham.

Wong:2023:KNS

[7405] Zheng-Yan Wong, Denis C.-K. Wong, Wai-Kong Lee, Kai-Ming Mok, Wun-She Yap, and Ayesha Khalid. KaratSaber: New speed records for Saber polynomial multiplication using efficient Karatsuba FPGA architecture. *IEEE Transactions on Computers*, 72(7):1830–1842, July 2023. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Yang:2023:ATF

[7406] Chun-Chieh Yang, Yi-Ru Chen, Hui-Hsin Liao, Yuan-Ming Chang, and Jenq-Kuen Lee. Auto-tuning fixed-point precision with TVM on RISC-V packed SIMD extension. *ACM Transactions on Design Automation of Electronic Systems.*, 28(3):33:1–33:??, May 2023. CODEN ATASFO. ISSN 1084-4309 (print), 1557-7309 (electronic). URL `https://dl.acm.org/doi/10.1145/3569939`.

Zhang:2023:EAP

[7407] Hao Zhang and Seok-Bum Ko. Efficient approximate posit multipliers for deep learning computation. *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, 13(1):201–211, 2023. ISSN 2156-3357 (print), 2156-3365 (electronic).

Zhuang:2023:HPL

[7408] Jinming Zhuang, Zhuoping Yang, and Peipei Zhou. High performance, low power matrix multiply design on ACAP: from architecture, design challenges and DSE perspectives. In *2023 60th ACM/IEEE Design Automation Conference (DAC)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Zlatopolski:2023:PAV

[7409] Dmitry Zlatopolski. “Perfect Arithmetic” by Vaclav Josef Pelikan. *Historia Mathematica*, 62(??):40–50, February 2023. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0315086022000659`.

Aggarwal:2024:SBP

[7410] Shivam Aggarwal, Hans Jakob Damsgaard, Alessandro Pappalardo, Giuseppe Franco, Thomas B. Preußer, Michaela Blott, and Tulika Mitra. Shedding the bits: Pushing the boundaries of quantization with minifloats on FPGAs. In *2024 34th International Conference on Field-Programmable Logic and Applications (FPL)*, pages 297–303. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Ahmadpour:2024:MMM

[7411] Zabihollah Ahmadpour, Ghassem Jaberipur, and Jeong-A Lee. Montgomery modular multiplication via single-base residue number systems. In IEEE [8112], pages 17–23. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Alsuhli:2024:NSD

[7412] Ghada Alsuhli, Vasilis Sakellariou, Hani Saleh, Mahmoud Al-Qutayri, Baker Mohammad, and Thanos Stouraitis. *Number Systems for Deep Neural Network Architectures*. Synthesis Lectures on Engineering, Science, and Technology. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2024. ISBN 3-031-38133-5. ISSN 2690-0327.

Angioli:2024:DIE

[7413] Marco Angioli, Marcello Barbirotta, Abdallah Cheikh, Antonio Mastrandrea, Francesco Menichelli, Saeid Jamili, and Mauro Olivieri. Design, implementation and evaluation of a new variable latency integer division scheme. *IEEE Transactions on Computers*, 73(7):1767–1779, July 2024. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Anonymous:2024:CP

[7414] Anonymous. [Copyright page]. In IEEE [8112], page 4. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Anonymous:2024:OCA

[7415] Anonymous. Organizing Committee: ARITH 2024. In IEEE [8112], page 10. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Anonymous:2024:PCA

[7416] Anonymous. Program Committee: ARITH 2024. In IEEE [8112], page 11. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Anonymous:2024:RLA

[7417] Anonymous. Reviewers List: ARITH 2024. In IEEE [8112], pages 14–15. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

Anonymous:2024:SA

[7418] Anonymous. Sponsors: ARITH 2024. In IEEE [8112], pages 16–17. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

Anonymous:2024:SCA

[7419] Anonymous. Steering Committee: ARITH 2024. In IEEE [8112], pages 12–13. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

Anonymous:2024:TPa

[7420] Anonymous. [Title page 1]. In IEEE [8112], page 1. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

Anonymous:2024:TPb

[7421] Anonymous. [Title page 2]. In IEEE [8112], page 3. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

Aonishi:2024:HVF

[7422] Toru Aonishi, Tatsuya Nagasawa, Toshiyuki Koizumi, Mastiyage Don Sudeera Hasaranga Gunathilaka, Kazushi Mimura, Masato Okada, Satoshi Kako, and Yoshihisa Yamamoto. Highly versatile FPGA-implemented Cyber Coherent Ising Machine. *IEEE Access*, 12:175843–175865, 2024. ISSN 2169-3536.

Arzelier:2024:REA

[7423] Denis Arzelier, Florent Bréhard, Mioara Joldes, and Marc Mezzarobba. Rounding error analysis of an orbital collision probability evaluation algorithm. In IEEE [8112], pages 96–103. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Bandil:2024:HIU

[7424] Lalit Bandil and Bal Chand Nagar. Hardware implementation of unsigned approximate hybrid square rooters for error-resilient applications. *IEEE Transactions on Computers*, 73(12):2734–2746, 2024. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Basavaraju:2024:EHA

[7425] Mahati Basavaraju, Vinay Rayapati, and Madhav Rao. Exploring hardware activation function design: CORDIC architecture in diverse floating formats. In *2024 25th International Symposium on Quality Electronic Design (ISQED)*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

BenAli:2024:SRE

[7426] Sami Ben Ali, Silviu-Ioan Filip, and Olivier Sentieys. A stochastic rounding-enabled low-precision floating-point MAC for DNN training. In *2024 Design, Automation & Test in Europe Conference & Exhibition (DATE)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Benmaghnia:2024:CGN

[7427] Hanane Benmaghnia, Matthieu Martel, and Yassamine Seladji. Code generation for neural networks based on fixed-point arithmetic. *ACM Transactions on Embedded Computing Systems*, 23(5):68:1–68:??, September 2024. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic). URL `https://dl.acm.org/doi/10.1145/3563945`.

Bertaccini:2024:ERV

[7428] Luca Bertaccini, Siyuan Shen, Torsten Hoefler, and Luca Benini. Extending RISC-V for efficient overflow recovery in mixed-precision computations. In *2024 IEEE 42nd International Conference on Computer Design (ICCD)*, pages 268–275. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Bertaccini:2024:MRV

[7429] Luca Bertaccini, Gianna Paulin, Matheus Cavalcante, Tim Fischer, Stefan Mach, and Luca Benini. MiniFloats on RISC-V cores: ISA extensions with mixed-precision short dot products. *IEEE Transactions* *on Emerging Topics in Computing*, 12(4):1040–1055, 2024. ISSN 2168-6750 (print), 2376-4562 (electronic).

Bottcher:2024:SLB

[7430] Andreas Böttcher and Martin Kumm. Small logic-based multipliers with incomplete sub-multipliers for FPGAs. In IEEE [8112], pages 124–131. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Brisebarre:2024:CRE

[7431] Nicolas Brisebarre, Guillaume Hanrot, Jean-Michel Muller, and Paul Zimmermann. Correctly-rounded evaluation of a function: why, how, and at what cost? Report hal-04474530, CNRS — Centre National de la Recherche Scientifique and others, Paris, France, February 23, 2024. 29 pp. URL `https://hal.science/hal-04474530`.

Brisebarre:2024:EUM

[7432] Nicolas Brisebarre, Jean-Michel Muller, and Joris Picot. Error in ulps of the multiplication or division by a correctly-rounded function or constant in binary floating-point arithmetic. *IEEE Transactions on Emerging Topics in Computing*, 12(2):656–666, 2024. ISSN 2168-6750 (print), 2376-4562 (electronic).

Brogi:2024:FPP

[7433] F. Brogi, S. Bnà, G. Boga, G. Amati, T. Esposti Ongaro, and M. Cerminara. On floating point precision in computational fluid dynamics using OpenFOAM. *Future Generation Computer Systems*, 152 (??):1–16, March 2024. CODEN FGSEVI. ISSN 0167-739X (print), 1872-7115 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0167739X23003813`.

Cai:2024:TEV

[7434] Luwei Cai, Fu Song, and Taolue Chen. Towards efficient verification of constant-time cryptographic implementations. *Proceedings of the ACM on Software Engineering*, 1(FSE):1019–1042, July 2024. ISSN 2994-970X.

Cameron:2024:AHM

[7435] Thomas R. Cameron and Stef Graillat. Accurate Horner methods in real and complex floating-point arithmetic. *BIT Numerical Mathematics*, 64 (2):??, June 2024. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `https://link.springer.com/article/10.1007/s10543-024-01017-w`.

Campos:2024:FGC

[7436] Nelson Campos, Eran Edirisinghe, Slava Chesnokov, and Daniel Larkin. Fast generation of custom floating-point spatial filters on FPGAs. *IEEE Access*, 12:167059–167071, 2024. ISSN 2169-3536.

Caprioli:2024:ACM

[7437] Paul Caprioli, Vincenzo Innocente, and Paul Zimmermann. Accuracy of complex mathematical operations and functions in single and double precision. Report hal-04714173, High Performance Kernels LLC, ????, September 30, 2024. 8 pp. URL `https://inria.hal.science/hal-04714173v1`.

Chen:2024:HCH

[7438] Hui Chen, Lianghua Quan, and Weiqiang Liu. HGH-CORDIC: a High-Radix Generalized Hyperbolic COordinate Rotation Digital Computer. In IEEE [8112], pages 88–95. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Chen:2024:MPF

[7439] Jianxin Chen, Hong Hao, Shuai Wang, Lele Li, Xinxin Zhao, Fan Yu, Jing Wang, Guilong Xu, Zongqi Sun, and Kai Jiang. A multiple precision floating-point arithmetic unit based on the RISC-V instruction set. In *2024 4th International Conference on Electronic Information Engineering and Computer (EIECT)*, pages 573–578. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Chu:2024:NNR

[7440] Yu-Da Chu, Pei-Hsuan Kuo, Lyu-Ming Ho, and Juinn-Dar Huang. A novel number representation and its hardware support for accurate low-bit quantization on large recommender systems. In *2024 IEEE 6th International Conference on AI Circuits and Systems (AICAS)*, pages 437–441. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Coward:2024:CPA

[7441] Samuel Coward, Theo Drane, Emiliano Morini, and George A. Constantinides. Combining power and arithmetic optimization via datapath rewriting. In IEEE [8112], pages 24–31. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Cui:2024:TEC

[7442] Ziying Cui, Ke Chen, Bi Wu, Chenggang Yan, Yu Gong, and Weiqiang Liu. A time efficient comprehensive model of approximate multipliers for design space exploration. In IEEE [8112], pages 116–123. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

deDinechin:2024:ASA

[7443] Florent de Dinechin and Martin Kumm. *Application-specific Arithmetic: Computing Just Right for the Reconfigurable Computer and the Dark Silicon Era*. Springer-Verlag, Cham, Switzerland, 2024. ISBN 3-031-42807-2, 3-031-42808-0 (e-book), 3-031-42809-9, 3-031-42810-2. xxiii + 804 pp. LCCN QA76.9.C62 D56 2024. URL `http://perso.citi-lab.fr/fdedinec/ASA-book/errata.pdf`; `https://link.springer.com/book/10.1007/978-3-031-42808-1`.

Demmel:2024:EDS

[7444] Jim Demmel. Exploring the design space of exception handling. Posting to STDS-754 mailing list., August 22, 2024. URL `ExceptionHandling_22Aug2024.pdf`. Lecture slides on progress in research on floating-point exception handling, notably in LAPACK and the BLAS (Basic Linear Algebra Subroutines).

Deng:2024:FPE

[7445] Bobin Deng, Bhargava Nadendla, Kun Suo, Yixin Xie, and Dan Chia-Tien Lo. Fixed-point encoding and architecture exploration for residue number systems. *ACM Transactions on Architecture and Code Optimization*, 21(3):53:1–53:??, September 2024. CODEN ???? ISSN 1544-3566 (print), 1544-3973 (electronic). URL `https://dl.acm.org/doi/10.1145/3664923`.

deSousa:2024:PFF

[7446] José T. de Sousa, João D. Lopes, Micaela Serôdio, Horácio C. Neto, and Mário P. Véstias. PT-Float: a floating-point unit with dynamically varying exponent and fraction sizes. In IEEE [8112], pages 139–146. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Dimitrov:2024:MBL

[7447] Vassil Dimitrov, Richard Ford, Laurent Imbert, Arjuna Madanayake, Nilan Udayanga, and Will Wray. Multiple-base logarithmic quantization and application in reduced precision AI computations. In IEEE [8112], pages 48–51. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

Drane:2024:SCF

[7448] Theo Drane, Samuel Coward, Mertcan Temel, and Joe Leslie-Hurd. On the systematic creation of faithfully rounded commutative truncated Booth multipliers. In IEEE [8112], pages 108–115. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

Duarte:2024:DNB

[7449] Luiz F. H. Duarte, George B. Nardes, Wesley Grignani, Douglas R. Melo, and Cesar A. Zeferino. Deep Nibble: a 4-bit number format for efficient DNN training and inference in FPGA. In *2024 37th SBC/SBMicro/IEEE Symposium on Integrated Circuits and Systems Design (SBCCI)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

DuPont:2024:HAP

[7450] David Du Pont, Jonas Bertels, Furkan Turan, Michiel Van Beirendonck, and Ingrid Verbauwhede. Hardware acceleration of the prime-factor and rader NTT for BGV fully homomorphic encryption. In IEEE [8112], pages 1–8. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

ElArar:2024:BNE

[7451] E-M. El Arar, D. Sohier, P. de Oliveira Castro, and E. Petit. Bounds on nonlinear errors for variance computation with stochastic rounding. *SIAM Journal on Scientific Computing*, 46(5):B579–B599, ???? 2024. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL https://epubs.siam.org/doi/10.1137/23M1563001.

Elrefai:2024:CML

[7452] Hisham M. Elrefai, Sara S. Abou Zeid, Wafaa S. Sayed, Lobna A. Said, and Ahmed G. Radwan. Compact multiplier-less CORDIC-based FPGA implementation of sine and modified sine chaotic maps. In *Advances in Nonlinear Dynamics, Volume III*, NODYCON Conference Proceedings Series, pages 153–161. Springer-Verlag, Cham, Switzerland, 2024. ISBN 3-031-50634-0; 3-031-50635-9. ISSN 2730-7697.

Faissole:2024:FVR

[7453] Florian Faissole. Formally-verified round-off error analysis of Runge–Kutta methods. *Journal of Automated Reasoning*, 68(1):??, March 2024. CODEN JAREEW. ISSN 0168-7433 (print), 1573-0670 (electronic). URL https://link.springer.com/article/10.1007/s10817-023-09686-y.

Fog:2024:FPE

[7454] Agner Fog. Floating point exception tracking and NAN propagation. Report, Technical University of Denmark, Lyngby, Denmark, August 15, 2024. 11 pp. URL https://www.agner.org/optimize/nan_propagation.pdf.

Fuengfusin:2024:NAB

[7455] Ninnart Fuengfusin and Hakaru Tamukoh. NaN attacks: Bit-flipping deep neural network parameters to NaN or Infinity. In *2024 1st International Conference on Robotics, Engineering, Science, and Technology (RESTCON)*, pages 33–37. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

GazzoniFilho:2024:PAA

[7456] Décio Luiz Gazzoni Filho, Guilherme Brandão, Gora Adj, Arwa Alblooshi, Isaac A. Canales-Martínez, Jorge Chávez-Saab, and Julio López. PQC-AMX: Accelerating Saber and FrodoKEM on the Apple M1 and M3 SoCs. In IEEE [8112], pages 9–16. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

Giles:2024:REU

[7457] Michael B. Giles and Oliver Sheridan-Methven. Rounding error using low precision approximate random variables. *SIAM Journal on Scientific Computing*, 46(4):B502–B526, ???? 2024. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL https://epubs.siam.org/doi/10.1137/23M1552814.

Gladman:2024:AMFa

[7458] Brian Gladman, Vincenzo Innocente, John Mather, and Paul Zimmermann. Accuracy of mathematical functions in single, double, double extended, and quadruple precision. Technical report, ????, February 15, 2024. 25 pp. URL https://hal.inria.fr/hal-03141101; https://members.loria.fr/PZimmermann/papers/accuracy.pdf.

Gladman:2024:AMFb

[7459] Brian Gladman, Vincenzo Innocente, John Mather, and Paul Zimmermann. Accuracy of mathematical functions in single, double, double extended, and quadruple precision. Technical report, ????, August 26, 2024. 25 pp. URL https://members.loria.fr/PZimmermann/papers/accuracy.pdf.

Guthmuller:2024:XRV

[7460] Eric Guthmuller, César Fuguet, Andrea Bocco, Jérôme Fereyre, Riccardo Alidori, Ihsane Tahir, and Yves Durand. Xvpfloat: RISC-V ISA extension for variable extended precision floating point computation. *IEEE Transactions on Computers*, 73(7):1683–1697, July 2024. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Haghi:2024:BGB

[7461] Pouya Haghi, Chunshu Wu, Zahra Azad, Yanfei Li, Andrew Gui, Yuchen Hao, Ang Li, and Tony Tong Geng. Bridging the gap between LLMs and LNS with dynamic data format and architecture codesign. In *2024 57th IEEE/ACM International Symposium on Microarchitecture (MICRO)*, pages 1617–1631. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Haghiri:2024:MIF

[7462] Saeed Haghiri, Salah I. Yahya, Abbas Rezaei, and Arash Ahmadi. Multiplierless implementation of Fitz-Hugh Nagumo (FHN) modeling using CORDIC approach. *IEEE Transactions on Emerging Topics in Computational Intelligence*, 8(1):279–287, 2024.

Haider:2024:DRA

[7463] Muhammad Hamis Haider, Hao Zhang, and Seok-Bum Ko. Decoder reduction approximation scheme for Booth multipliers. *IEEE Transactions on Computers*, 73(3):735–746, March 2024. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Harris:2024:UDS

[7464] David Harris, James Stine, Milo Ercegovac, Alberto Nannarelli, Katherine Parry, and Cedar Turek. Unified digit selection for radix-4 recurrence division and square root. *IEEE Transactions on Computers*, 73(1):292–300, January 2024. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Harvey:2024:FTI

[7465] David Harvey. Faster truncated integer multiplication. *Mathematics of Computation*, 93(347):1265–1296, July 2024. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `https://www.ams.org/journals/mcom/2024-93-347/S0025-5718-2024-03939-X`.

He:2024:RFP

[7466] Pengyu He, Yuanzhe Zhao, Heng Xie, Yang Wang, Shouyi Yin, Li Li, Yan Zhu, Rui P. Martins, Chi-Hang Chan, and Minglei Zhang. A reconfigurable floating-point compute-in-memory with analog exponent preprocesses. *IEEE Solid-State Circuits Letters*, 7:271–274, 2024.

Henriksson:2024:AAD

[7467] Mikael Henriksson, Theodor Lindberg, and Oscar Gustafsson. APyTypes: Algorithmic data types in Python for efficient simulation of finite word-length effects. In IEEE [8112], pages 72–75. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Hingu:2024:BFF

[7468] Chanakya Hingu, Xingang Fu, Praneeth Vangala, Ramkrishna Mishan, and Poria Fajri. 32-bit fixed and floating-point hardware implementation for enhanced inverter control: Leveraging FPGA in recurrent neural network applications. *IEEE Access*, 12:111097–111110, 2024. ISSN 2169-3536.

Hsieh:2024:MAP

[7469] Mong-Yung Hsieh, Alan Liu, and Zih-Jyun Chen. Multi-agent pruning and quantization in mixed-precision models. In *2024 IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, pages 5367–5372. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Huang:2024:IPF

[7470] Paul Xuanyuanliang Huang, Yannis Tsividis, and Mingoo Seok. INTIACC: a programmable floating-point accelerator for partial differential equations. *IEEE Journal of Solid-State Circuits*, 59(9):3058–3069, 2024. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Hubrecht:2024:TCR

[7471] Tom Hubrecht, Claude-Pierre Jeannerod, Paul Zimmermann, Laurence Rideau, and Laurent Théry. Towards a correctly-rounded and fast power function in binary64 arithmetic. Report, DI-ENS — Département d'informatique — ENS Paris, Paris, France, February 8, 2024. URL `https://inria.hal.science/hal-04159652v2/`.

Hubrecht:2024:UACa

[7472] Tom Hubrecht, Claude-Pierre Jeannerod, and Jean-Michel Muller. Useful applications of correctly-rounded operators of the form $ab+cd+e$. Report hal-04461089, DI-ENS (Départment d'informatique — ENS Paris) and Université de Lyon, Paris, France and Lyon France, February 16, 2024. URL `https://inria.hal.science/hal-04461089`.

Hubrecht:2024:UACb

[7473] Tom Hubrecht, Claude-Pierre Jeannerod, and Jean-Michel Muller. Useful applications of correctly-rounded operators of the form $ab + cd + e$. In IEEE [8112], pages 32–39. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Jabbarpour:2024:FEE

[7474] Mohammad Reza Jabbarpour, Bahman Javadi, Philip H. W. Leong, Rodrigo N. Calheiros, and David Boland. FedOrbit: Energy efficient federated learning for orbital edge computing using block minifloat arithmetic. *IEEE Transactions on Services Computing*, 17(6):3657–3671, 2024.

Jonnalagadda:2024:ADP

[7475] Aditya Anirudh Jonnalagadda, Uppugunduru Anil Kumar, Rishi Thotli, Satvik Sardesai, Sreehari Veeramachaneni, and Syed Ershad Ahmed. ADEPNET: A dynamic-precision efficient posit multiplier for neural networks. *IEEE Access*, 12:31036–31046, 2024. ISSN 2169-3536.

K:2024:FPC

[7476] Padmakumar K, Lalu V, and Shiny G. Floating-point CORDIC coprocessor with dynamic iterations. In *2024 International Conference on Advancements in Power, Communication and Intelligent Systems (APCI)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Kaya:2024:NAP

[7477] Zeynep Kaya and Mario Garrido. Novel access patterns based on overlapping loading and processing times to reduce latency and increase throughput in memory-based FFTs. In IEEE [8112], pages 52–59. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Khwa:2024:IFP

[7478] Win-San Khwa, Ping-Chun Wu, Jui-Jen Wu, Jian-Wei Su, Ho-Yu Chen, Zhao-En Ke, Ting-Chien Chiu, Jun-Ming Hsu, Chiao-Yen Cheng, Yu-Chen Chen, Chung-Chuan Lo, Ren-Shuo Liu, Chih-Cheng Hsieh, Kea-Tiong Tang, and Meng-Fan Chang. 34.2 a 16nm 96Kb integer/floating-point dual-mode-gain-cell-computing-in-memory macro achieving 73.3-163.3TOPS/W and 33.2-91.2TFLOPS/W for AI–Edge devices. In *2024 IEEE International Solid-State Circuits Conference (ISSCC)*, volume 67, pages 568–570. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Kim:2024:MCA

[7479] Kwang Ho Kim, Sihem Mesnager, and Kyong Il Pak. Montgomery curve arithmetic revisited. *Journal of Cryptographic Engineering*, 14 (2):343–362, June 2024. CODEN ???? ISSN 2190-8508 (print), 2190-8516 (electronic). URL `https://link.springer.com/article/10.1007/s13389-024-00353-5`. See [2160].

Kluska:2024:QEG

[7480] Piotr Kluska, Adrián Castelló, Florian Scheidegger, A. Cristiano I. Malossi, and Enrique S. Quintana-Ortí. QAttn: Efficient GPU kernels for mixed-precision Vision Transformers. In *2024 IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW)*, pages 3648–3657. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Kohl:2024:MMU

[7481] Nils Kohl, Stephen F. McCormick, and Rasmus Tamstorf. Multigrid methods using block floating point arithmetic. *SIAM Journal on Scientific Computing*, 46(5):S202–S224, ???? 2024. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `https://epubs.siam.org/doi/10.1137/23M1581819`.

Langhammer:2024:MAC

[7482] Martin Langhammer, Bogdan Pasca, and Igor Kucherenko. Multiplier architecture with a carry-based partial product encoding. In IEEE [8112], pages 104–107. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

Laudadio:2024:CIE

[7483] Teresa Laudadio, Nicola Mastronardi, and Donatella Occorsio. Computing integrals with an exponential weight on the real axis in floating point arithmetic. *Applied Numerical Mathematics*, 200(??):309–317, June 2024. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0168927423001551.

Lee:2024:ODF

[7484] Seunghwan Lee and Dong-Joon Shin. Overflow-detectable floating-point fully homomorphic encryption. *IEEE Access*, 12:6160–6180, 2024. ISSN 2169-3536.

Lefevre:2024:ECS

[7485] Vincent Lefèvre. An Emacs–Cairo scrolling bug due to floating-point inaccuracy. In IEEE [8112], pages 76–79. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

Lefevre:2024:TMF

[7486] Vincent Lefèvre. Test of mathematical functions of the Standard C Library. Web site., September 27, 2024. URL https://www.vinc17.net/research/testlibm/; https://www.vinc17.net/research/testlibm/hrcases/.

Lemire:2024:ESP

[7487] Daniel Lemire. Exact short products from truncated multipliers. *The Computer Journal*, 67(4):1514–1520, April 2024. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://academic.oup.com/comjnl/article/67/4/1514/7306807; https://arxiv.org/abs/2303.14321v1.

Li:2024:DFPa

[7488] Xinyi Li, Ang Li, Bo Fang, Katarzyna Swirydowicz, Ignacio Laguna, and Ganesh Gopalakrishnan. Discovery of floating-point differences between

NVIDIA and AMD GPUs. In *2024 IEEE 24th International Symposium on Cluster, Cloud and Internet Computing (CCGrid)*, pages 663–666. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Li:2024:DFPb

[7489] Jiancong Li, Shengguang Ren, Yi Li, Wenlong Peng, Zhiwei Zhou, Yibai Xue, Yu Zhang, Zhiwen Cao, Jiayi Sun, Yuhui He, and Xiangshui Miao. Demonstration of a floating-point deep neural matrix equation solver using 3D vertical ReRAM with high energy- and area-efficiency. In *2024 IEEE International Electron Devices Meeting (IEDM)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Li:2024:LLB

[7490] Yike Li, Zheng Wang, Wenhui Ou, Chen Liang, Weiyu Zhou, Yongkui Yang, and Chao Chen. Low-latency buffering for mixed-precision neural network accelerator with MulTAP and FQPipe. In *2024 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Li:2024:MFM

[7491] Hongyan Li, Hang Lu, and Xiaowei Li. Mortar-FP8: Morphing the existing FP32 infrastructure for high-performance deep learning acceleration. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 43(3):878–891, 2024. CODEN ITCSDI. ISSN 0278-0070 (print), 1937-4151 (electronic).

Li:2024:RPE

[7492] Boyu Li, Kai Li, Jiajun Zhou, Yuan Ren, Wei Mao, Hao Yu, and Ngai Wong. A reconfigurable processing element for multiple-precision floating/fixed-point HPC. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 71(3):1401–1405, 2024. ISSN 1549-7747 (print), 1558-3791 (electronic).

Lin:2024:FHP

[7493] Xian Lin, Heming Liu, Xin Zheng, Huaien Gao, Shuting Cai, and Xiaoming Xiong. FPUx: High-performance floating-point support for cost-constrained RISC-V cores. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 32(10):1945–1949, 2024. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Liu:2024:ACA

[7494] Haobo Liu, Zhengyang Qian, Wei Wu, Hongwei Ren, Zhiwei Liu, and Leibin Ni. AFPR-CIM: an analog-domain floating-point RRAM-based compute-in-memory architecture with dynamic range adaptive FP-ADC. In *2024 Design, Automation & Test in Europe Conference & Exhibition (DATE)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Ltaief:2024:TCG

[7495] Hatem Ltaief, Rabab Alomairy, Qinglei Cao, Jie Ren, Lotfi Slim, Thorsten Kurth, Benedikt Dorschner, Salim Bougouffa, Rached Abdelkhalak, and David E. Keyes. Toward capturing genetic epistasis from multivariate genome-wide association studies using mixed-precision kernel ridge regression. In *SC24: International Conference for High Performance Computing, Networking, Storage and Analysis*, pages 1–12. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Luo:2024:BDN

[7496] Weile Luo, Ruibo Fan, Zeyu Li, Dayou Du, Qiang Wang, and Xiaowen Chu. Benchmarking and dissecting the Nvidia Hopper GPU architecture. In *2024 IEEE International Parallel and Distributed Processing Symposium (IPDPS)*, pages 656–667. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Lutz:2024:FFW

[7497] David R. Lutz, Anisha Saini, Mairin Kroes, Thomas Elmer, and Harsha Valsaraju. Fused FP8 4-way dot product with scaling and FP32 accumulation. In IEEE [8112], pages 40–47. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Mackie:2024:RFM

[7498] Maximilien Mackie. Recursion-free modular arithmetic in the lambda-calculus. *Information Processing Letters*, 183(??):Article 106408, January 2024. CODEN IFPLAT. ISSN 0020-0190 (print), 1872-6119 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0020019023000510`.

McCormick:2024:REA

[7499] Stephen F. McCormick and Rasmus Tamstorf. Rounding-error analysis of multigrid V-cycles. *SIAM Journal on Scientific Computing*, 46(5):

S88–S95, ???? 2024. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL https://epubs.siam.org/doi/10.1137/23M1582898.

Mikaitis:2024:MMT

[7500] Mantas Mikaitis. Monotonicity of multi-term floating-point adders. *IEEE Transactions on Computers*, ??(??):1–13, ???? 2024. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Mikaitis:2024:MSL

[7501] Mantas Mikaitis. MATLAB simulator of level-index arithmetic. In IEEE [8112], pages 68–71. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

Mirsalari:2024:UBF

[7502] Seyed Ahmad Mirsalari, Saba Yousefzadeh, Ahmed Hemani, and Giuseppe Tagliavini. Unleashing 8-bit floating point formats out of the deep-learning domain. In *2024 31st IEEE International Conference on Electronics, Circuits and Systems (ICECS)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

MPFRTeam:2024:MLA

[7503] MPFR Team. The MPFR library: Algorithms and proofs. Web document, January 25, 2024. URL https://mpfr.org/algorithms.pdf.

Muller:2024:SNC

[7504] Jean-Michel Muller. Some notes on correct rounding of functions. Attachment to STDS-754 mailing list, September 18, 2024.

Murillo:2024:SRU

[7505] Raul Murillo, Alberto A. Del Barrio, and Guillermo Botella. Square root unit with minimum iterations for posit arithmetic. In IEEE [8112], pages 132–138. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding.

Navimipour:2024:NSA

[7506] Nima Jafari Navimipour, Seyed-Sajad Ahmadpour, and Senay Yalcin. A nano-scale arithmetic and logic unit using a reversible logic and quantum-dots. *The Journal of Supercomputing*, 80(1):395–412, January

2024. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL https://link.springer.com/article/10.1007/s11227-023-05491-x.

Noyez:2024:MMS

[7507] Louis Noyez, Nadia El Mrabet, Olivier Potin, and Pascal Veron. Montgomery multiplication scalable systolic designs optimized for DSP48E2. *ACM Transactions on Reconfigurable Technology and Systems*, 17(1):9:1–9:??, March 2024. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic). URL https://dl.acm.org/doi/10.1145/3624571.

Okoshi:2024:WTW

[7508] Yasuyuki Okoshi, Ángel López García-Arias, Jaehoon Yu, Junnnosuke Suzuki, Hikari Otsuka, Thiem Van Chu, Kazushi Kawamura, Daichi Fujiki, and Masato Motomura. WhiteDwarf: 12.24 TFLOPS/W 40 nm versatile neural inference engine for ultra-compact execution of CNNs and MLPs through triple unstructured sparsity exploitation and triple model compression. In *2024 IEEE Asian Solid-State Circuits Conference (A-SSCC)*, pages 1–3. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Oracle:2024:SLR

[7509] Oracle Corporation, Berkeley, CA, USA. *SQL Language Reference*, 19c (e96310-27) edition, July 2024. URL https://docs.oracle.com/en/database/oracle/oracle-database/19/sqlrf/Data-Types.html#GUID-A3C0D836-BADB-44E5-A5D4-265BA5968483. The Data Types section describes the (non-IEEE 754) decimal number encoding. The precision is about 39 decimal digits, with a nonzero range of [1e-130, 1e126).

Palchaudhuri:2024:FSS

[7510] Ayan Palchaudhuri and Anindya Sundar Dhar. FPGA specific speed-area optimized architectures of arithmetic cores with scan insertion for carry chain based multi-level logic implementation. In *2024 37th International Conference on VLSI Design and 2024 23rd International Conference on Embedded Systems (VLSID)*, pages 617–622. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Paulin:2024:OCD

[7511] Gianna Paulin, Paul Scheffler, Thomas Benz, Matheus Cavalcante, Tim Fischer, Manuel Eggimann, Yichao Zhang, Nils Wistoff, Luca Bertaccini, Luca Colagrande, Gianmarco Ottavi, Frank K. Gürkaynak, Davide Rossi, and Luca Benini. Occamy: a 432-core 28.1 DP-GFLOP/s/W 83% FPU utilization dual-chiplet, Dual-HBM2E RISC-V-based accelerator for stencil and sparse linear algebra computations with 8-to-64-bit floating-point support in 12nm FinFET. In *2024 IEEE Symposium on VLSI Technology and Circuits (VLSI Technology and Circuits)*, pages 1–2. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Perez:2024:HAF

[7512] J. Ayuso Perez. Hardware addition over finite fields based on Booth–Karatsuba algorithm. *The Computer Journal*, 67(8):2643–2666, August 2024. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL http://academic.oup.com/comjnl/article/67/8/2643/7667243.

Rashidi:2024:AFE

[7513] Bahram Rashidi. APPAs: fast and efficient approximate parallel prefix adders and multipliers. *The Journal of Supercomputing*, 80(16):24269–24296, November 2024. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL https://link.springer.com/article/10.1007/s11227-024-06356-7.

Rayapati:2024:EEB

[7514] Vinay Rayapati, Sanampudi GopalaKrishna Reddy, Gandi Ajay Kumar, Gogireddy Ravikiran Reddy, and Madhav Rao. EBACA: Efficient Bfloat16-based activation function implementation using enhanced CORDIC architecture. In *2024 37th International Conference on VLSI Design and 2024 23rd International Conference on Embedded Systems (VLSID)*, pages 605–610. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Remke:2024:HSG

[7515] Stefan Remke and Alexander Breuer. Hello SME! Generating fast matrix multiplication kernels using the scalable matrix extension. In *SC24-W: Workshops of the International Conference for High Performance Computing, Networking, Storage and Analysis*, pages 1443–1454. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Sahoo:2024:ADF

[7516] Siva Satyendra Sahoo, Salim Ullah, and Akash Kumar. AxOMaP: Designing FPGA-based approximate arithmetic operators using mathematical programming. *ACM Transactions on Reconfigurable Technology and Systems*, 17(2):31:1–31:??, June 2024. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic). URL `https://dl.acm.org/doi/10.1145/3648694`.

Sakellariou:2024:MFR

[7517] Vasilis Sakellariou, Vassilis Paliouras, Ioannis Kouretas, Hani Saleh, and Thanos Stouraitis. A multiplier-free RNS-based CNN accelerator exploiting bit-level sparsity. *IEEE Transactions on Emerging Topics in Computing*, 12(2):667–683, 2024. ISSN 2168-6750 (print), 2376-4562 (electronic).

Scott:2024:ABI

[7518] Jennifer Scott and Miroslav Tuma. Avoiding breakdown in incomplete factorizations in low precision arithmetic. *ACM Transactions on Mathematical Software*, 50(2):9:1–9:25, June 2024. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/doi/10.1145/3651155`.

Singh:2024:FBS

[7519] Suryadev Singh and Babita Jajodia. FPGA-based SoC design with CORDIC-POSIT arithmetic for efficient IoT data processing. In *2024 International Conference on IoT, Communication and Automation Technology (ICICAT)*, pages 1534–1539. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Tang:2024:OSR

[7520] Ping Tak Peter Tang. An open-source RISC-V vector math library. In IEEE [8112], pages 60–67. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Tosini:2024:AEI

[7521] Marcelo Tosini, Martín Vázquez, and Lucas Leiva. Analysis and efficient implementation of IEEE-754 decimal floating point adders/subtractors in FPGAs for DPD and BID encoding. *The Journal of Supercomputing*, 80(7):9298–9326, May 2024. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL `https://link.springer.com/article/10.1007/s11227-023-05808-w`.

Towner:2024:IAF

[7522] Daniel Towner, Steven Wood, Phoebe Wang, Marius Cornea, Cristina Anderson, and Amit Gradstein. *Intel AVX-512 — FP16 Instruction*

Set for Intel Xeon Processor Based Products Technology Guide. Intel Corporation, ????, March 12, 2024. URL `https://www.intel.com/content/www/us/en/content-details/669773/intel-avx-512-fp16-instruction-set-for-intel-xeon-processor-based-products-technology-guide.html`.

Upadhyay:2024:ECI

[7523] Gaurav Upadhyay, C Siva Prasad, V Akash, Ayush Kumar Singh, R Monish Sai, Srijan Ghosal, Subrat Kar, S H Shantala, J Thakur LalitKrushna, S Srividhya, and Sunil Alias Balwantrao. Enhancing CNN inference time and reducing latency on edge and resource-constrained systems through quantization. In *2024 Second International Conference on Networks, Multimedia and Information Technology (NMITCON)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

vanderHoeven:2024:FMP

[7524] Joris van der Hoeven and Fredrik Johansson. Fast multiple precision $\exp(x)$ with precomputations. In IEEE [8112], pages 80–87. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Villalba:2024:MCC

[7525] Julio Villalba, Javier Hormigo, Javier Diaz Bruguera, and Sonia Gonzalez-Navarro. Message from conference chairs: ARITH 2024. In IEEE [8112], pages 8–9. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

Wang:2024:DIH

[7526] Junjie Wang, Teng Zhang, Shuang Liu, Yihe Liu, Yuancong Wu, Shaogang Hu, Tupei Chen, Yang Liu, Yuchao Yang, and Ru Huang. Design and implementation of a hybrid, ADC/DAC-free, input-sparsity-aware, precision reconfigurable RRAM processing-in-memory chip. *IEEE Journal of Solid-State Circuits*, 59(2):595–604, 2024. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Wang:2024:WPB

[7527] Yang Wang, Xiaolong Yang, Yubin Qin, Zhiren Zhao, Ruiqi Guo, Zhiheng Yue, Huiming Han, Shaojun Wei, Yang Hu, and Shouyi Yin. 34.1 a 28nm 83.23TFLOPS/W POSIT-based compute-in-memory macro for high-accuracy AI applications. In *2024 IEEE International Solid-State Circuits Conference (ISSCC)*, volume 67, pages 566–568. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Wu:2024:CLB

[7528] Jiajun Wu, Mo Song, Jingmin Zhao, and Hayden Kwok-Hay So. A case for low bitwidth floating point arithmetic on FPGA for transformer based DNN inference. In *2024 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW)*, pages 178–185. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Wu:2024:FPS

[7529] Ping-Chun Wu, Jian-Wei Su, Li-Yang Hong, Jin-Sheng Ren, Chih-Han Chien, Ho-Yu Chen, Chao-En Ke, Hsu-Ming Hsiao, Sih-Han Li, Shyh-Shyuan Sheu, Wei-Chung Lo, Shih-Chieh Chang, Chung-Chuan Lo, Ren-Shuo Liu, Chih-Cheng Hsieh, Kea-Tiong Tang, and Meng-Fan Chang. A floating-point 6T SRAM in-memory-compute macro using hybrid-domain structure for advanced AI edge chips. *IEEE Journal of Solid-State Circuits*, 59(1):196–207, 2024. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Wu:2024:SAM

[7530] Ying Wu, Chuangtao Chen, Weihua Xiao, Xuan Wang, Chenyi Wen, Jie Han, Xunzhao Yin, Weikang Qian, and Cheng Zhuo. A survey on approximate multiplier designs for energy efficiency: From algorithms to circuits. *ACM Transactions on Design Automation of Electronic Systems.*, 29(1):23:1–23:??, January 2024. CODEN ATASFO. ISSN 1084-4309 (print), 1557-7309 (electronic). URL `https://dl.acm.org/doi/10.1145/3610291`.

Xie:2024:FRO

[7531] Peichen Xie, Yanjie Gao, and Jilong Xue. FPRev: Revealing the order of floating-point summation by numerical testing. *arXiv.org*, ??(??):1–20, November 1, 2024. URL `https://arxiv.org/abs/2411.00442v1`.

Yusupov:2024:ICA

[7532] Firnafas XXX. Yusupov, Mukhiddin F. Ibragimov, Saidbek P. Babayazov, Kumushoy E. Niyazmetova, Xaitbayeva Z. Durdona, and Umidbek P. Babayazov. Improving the computing accuracy of the AI Ascend processor: Research and results. In *2024 IEEE 3rd International Conference on Problems of Informatics, Electronics and*

Radio Engineering (PIERE), pages 1510–1513. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Zahid:2024:TGN

[7533] Anwar Hossain Zahid, Ignacio Laguna, and Wei Le. Testing GPU numerics: Finding numerical differences between NVIDIA and AMD GPUs. In *SC24-W: Workshops of the International Conference for High Performance Computing, Networking, Storage and Analysis*, pages 547–557. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Zhang:2024:DFH

[7534] Tingting Zhang, Zijing Niu, and Jie Han. A design framework for hardware-efficient logarithmic floating-point multipliers. *IEEE Transactions on Emerging Topics in Computing*, 12(4):991–1001, 2024. ISSN 2168-6750 (print), 2376-4562 (electronic).

Zhang:2024:HSA

[7535] Zuoyan Zhang, Jinchen Xu, Jiangwei Hao, Yang Qu, Haotian He, and Bei Zhou. Hierarchical search algorithm for error detection in floating-point arithmetic expressions. *The Journal of Supercomputing*, 80(1): 1183–1205, January 2024. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL `https://link.springer.com/article/10.1007/s11227-023-05523-6`.

Zhang:2024:IFP

[7536] Yijia Zhang, Lingran Zhao, Shijie Cao, Sicheng Zhang, Wenqiang Wang, Ting Cao, Fan Yang, Mao Yang, Shanghang Zhang, and Ningyi Xu. Integer or floating point? New outlooks for low-bit quantization on large language models. In *2024 IEEE International Conference on Multimedia and Expo (ICME)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024.

Zhao:2024:ETL

[7537] Guangchao Zhao, Zhiwei Zeng, Xingli Wang, Abdelrahman G. Qoutb, Philippe Coquet, Eby G. Friedman, Beng Kang Tay, and Mingqiang Huang. Efficient ternary logic circuits optimized by ternary arithmetic algorithms. *IEEE Transactions on Emerging Topics in Computing*, 12 (3):826–839, 2024. ISSN 2168-6750 (print), 2376-4562 (electronic).

Zimmermann:2024:NVD

[7538] Paul Zimmermann. Note on the Veltkamp/Dekker algorithms with directed roundings. Report hal-04480440, Université de Lorraine, CNRS, Inria, LORIA, Metz, France, February 29, 2024. URL https://inria.hal.science/hal-04480440.

Zou:2024:PRE

[7539] Qinmeng Zou. Probabilistic rounding error analysis of modified Gram–Schmidt. *SIAM Journal on Matrix Analysis and Applications*, 45(2): 1076–1088, May 2024. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Advanpix:2025:MCT

[7540] Advanpix. Multiprecision computing toolbox user's manual. Commercial Web site, February 23, 2025. URL https://www.advanpix.com/documentation/users-manual/.

Ahlback:2025:FBA

[7541] Albin Ahlback and Fredrik Johansson. Fast basecases for arbitrary-size multiplication. In IEEE [8113], pages 53–60. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Ahmadi-Pour:2025:FLF

[7542] Sallar Ahmadi-Pour, Sajjad Parvin, Chandan Kumar Jha, and Rolf Drechsler. FV-LIDAC: Formally verified library of input data aware approximate arithmetic circuits. *ACM Transactions on Design Automation of Electronic Systems.*, 30(4):64:1–64:??, July 2025. CODEN ATASFO. ISSN 1084-4309 (print), 1557-7309 (electronic).

Allred:2025:FNT

[7543] Taylor Allred, Xinyi Li, Ashton Wiersdorf, Ben Greenman, and Ganesh Gopalakrishnan. FlowFPX: Nimble tools for debugging floating-point exceptions. *Proceedings of the JuliaCon Conferences*, 7(67):148:1–148:8, 2025.

Anonymous:2025:AI

[7544] Anonymous. Author index. In IEEE [8113], page 161. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Anonymous:2025:CP

[7545] Anonymous. Copyright page. In IEEE [8113], page 1. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Anonymous:2025:IMPa

[7546] Anonymous. Intel 8087 Milestone plaque dedication summary. Video (2m), November 2025. URL https://youtu.be/jCn24WbWRuQ.

Anonymous:2025:IMPb

[7547] Anonymous. Intel 8087 Milestone plaque dedication. Video (44m), November 2025. URL https://youtu.be/N1mH3E3nIKI.

Anonymous:2025:MCC

[7548] Anonymous. Message from Conference Chairs: ARITH 2025. In IEEE [8113], page vii. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Anonymous:2025:OCA

[7549] Anonymous. Organizing Committee: ARITH 2025. In IEEE [8113], page viii. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Anonymous:2025:PCA

[7550] Anonymous. Program Committee: ARITH 2025. In IEEE [8113], page xi. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Anonymous:2025:RLA

[7551] Anonymous. Reviewers List: ARITH 2025. In IEEE [8113], pages xii–xiv. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Anonymous:2025:SA

[7552] Anonymous. Sponsors: ARITH 2025. In IEEE [8113], page xiv. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Anonymous:2025:SCA

[7553] Anonymous. Steering Committee: ARITH 2025. In IEEE [8113], pages ix–x. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Anonymous:2025:TC

[7554] Anonymous. Table of contents. In IEEE [8113], pages iv–vi. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Anonymous:2025:TPPa

[7555] Anonymous. [Title page 1: Proceedings 2025 IEEE 32nd Symposium on Computer Arithmetic: ARITH 2025. In IEEE [8113], page 1. LCCN QA76.9.C62 .I578 2025. URL `https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding`.

Anonymous:2025:TPPb

[7556] Anonymous. [Title page 2: Proceedings 2025 IEEE 32nd Symposium on Computer Arithmetic: ARITH 2025. In IEEE [8113], page 1. LCCN QA76.9.C62 .I578 2025. URL `https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding`.

Arm:2025:AAR

[7557] Arm. *Arm Architecture Reference Manual for A-profile architecture*. Arm Limited, Cambridge, UK, April 30, 2025. xl + 14694 pp. URL `https://developer.arm.com/documentation/ddi0487/lb`.

Banks:2025:GCHa

[7558] Jess Banks, Jorge Garza-Vargas, and Nikhil Srivastava. Global convergence of Hessenberg shifted QR II: Finite arithmetic. *SIAM Journal on Matrix Analysis and Applications*, 46(2):1168–1211, ???? 2025. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `https://epubs.siam.org/doi/10.1137/23M1557532`.

Bazzi:2025:RPI

[7559] Jinane Bazzi, Mohammed E. Fouda, and Ahmed Eltawil. Reconfigurable precision INT4-8/FP8 digital compute-in-memory macro for AI acceleration. In *2025 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Bertoni:2025:MMM

[7560] Colleen Bertoni, Thomas Applencourt, Longfei Gao, and Ti Leggett. Millions of matrix-multiplications: GEMM variations on Aurora. In *2025 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW)*, pages 850–856. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Bouarah:2025:HFP

[7561] Romain Bouarah and Florent De Dinechin. Hardware fixed-point 2D and 3D norms. In IEEE [8113], pages 29–36. LCCN QA76.9.C62 .I578

2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Bunger:2025:IEB

[7562] Florian Bünger. Improved error bounds for floating-point quotients. *IEEE Transactions on Computers*, 74(11):3559–3567, November 2025. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Caprioli:2025:FFC

[7563] Paul Caprioli. On the flop and flap counts of the 2,8-split-radix FFT. In IEEE [8113], pages 45–52. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Chen:2025:FBA

[7564] Ruiqi Chen, Yangxintong Lyu, Han Bao, Jiayu Liu, Yanxiang Zhu, Shidi Tang, Ming Ling, and Bruno Da Silva. FPGA-based approximate multiplier for FP8. In *2025 IEEE 33rd Annual International Symposium on Field-Programmable Custom Computing Machines (FCCM)*, pages 01–09. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Corbineau:2025:CRD

[7565] Sélène Corbineau and Paul Zimmermann. Correct rounding in double extended precision. In IEEE [8113], pages 117–124. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Crafton:2025:FPF

[7566] Brian Crafton, Xiaochen Peng, Xiaoyu Sun, Ashwin Lele, Bo Zhang, Win-San Khwa, and Kerem Akarvardar. Finding the Pareto frontier of low-precision data formats and MAC architecture for LLM inference. In *2025 62nd ACM/IEEE Design Automation Conference (DAC)*, pages 1–7. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Cui:2025:PES

[7567] Mengqi Cui, Jinchen Xu, Yuchang Zhou, Hongru Yang, Liguang Ji, and Bei Zhou. PESA: error sensitivity analysis tool for floating-point computational programs. *The Journal of Supercomputing*, 81 (3):??, February 2025. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL https://link.springer.com/article/10.1007/s11227-025-06962-z.

Darcy:2025:FJ

[7568] Joseph Darcy. Float16.java. Web site, 2025. URL https://github.com/openjdk/jdk/blob/dbdbbd473061d7e8077ed07ccc6b03065a8c2ffc/src/jdk.incubator.vector/share/classes/jdk/incubator/vector/Float16.java#L1240.

Desrentes:2025:DWD

[7569] Orégane Desrentes, Benoît Dupont De Dinechin, and Florent De Dinechin. Double-word decomposition in a combined FP16, BF16 and FP32 dot product add operator. In IEEE [8113], pages 73–80. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Devi:2025:PFS

[7570] Dantu Nandini Devi and Madhav Rao. Precision-factored systolic arrays: Balancing accuracy and efficiency in floating-point computations for CNNs. In *2025 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Dexter:2025:SRI

[7571] Gregory Dexter, Christos Boutsikas, Linkai Ma, Ilse C. F. Ipsen, and Petros Drineas. Stochastic rounding implicitly regularizes tall-and-thin matrices. *SIAM Journal on Matrix Analysis and Applications*, 46(1): 341–369, ???? 2025. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL https://epubs.siam.org/doi/10.1137/24M1647679.

ElArar:2025:PEA

[7572] El-Mehdi El Arar, Massimiliano Fasi, Silviu-Ioan Filip, and Mantas Mikaitis. Probabilistic error analysis of limited-precision stochastic rounding. *SIAM Journal on Scientific Computing*, 47(5):B1227–B1249, ???? 2025. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL https://epubs.siam.org/doi/10.1137/24M1681458.

Fitzgibbon:2025:SRF

[7573] Andrew Fitzgibbon and Stephen Felix. On stochastic rounding with few random bits. In IEEE [8113], pages 133–140. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Fog:2025:PFP

[7574] Agner Fog. Parallel floating point exception tracking and NaN propagation. Report, Technical University of Denmark, Lyngby, Denmark, May 9, 2025. 11 pp. URL `https://www.agner.org/optimize/nan_propagation.pdf`.

Fornt:2025:MGE

[7575] Jordi Fornt, Enrico Reggiani, Pau Fontova-Musté, Narcís Rodas, Alessandro Pappalardo, Osman Sabri Unsal, Adrián Cristal Kestelman, Josep Altet, Francesc Moll, and Jaume Abella. Mix-GEMM: Extending RISC-V CPUs for energy-efficient mixed-precision DNN inference using binary segmentation. *IEEE Transactions on Computers*, 74(2):582–596, 2025. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Gao:2025:PPA

[7576] Jianhua Gao, Zhi Zhou, Xingze Huang, Juan Wang, Yizhuo Wang, and Weixing Ji. PTPS: Precision-aware task partitioning and scheduling for SpMV on CPU-FPGA heterogeneous platforms. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 44(10): 3804–3815, 2025. CODEN ITCSDI. ISSN 0278-0070 (print), 1937-4151 (electronic).

Garcia:2025:HAT

[7577] Rémi Garcia, Léo Pradels, Silviu-Ioan Filip, and Olivier Sentieys. Hardware-aware training for multiplierless convolutional neural networks. In IEEE [8113], pages 9–16. LCCN QA76.9.C62 .I578 2025. URL `https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding`.

Gladman:2025:AMFa

[7578] Brian Gladman, Vincenzo Innocente, John Mather, and Paul Zimmermann. Accuracy of mathematical functions in single, double, double extended, and quadruple precision. Technical report, ????, February 10, 2025. 27 pp. URL `https://members.loria.fr/PZimmermann/papers/accuracy.pdf`.

Gladman:2025:AMFb

[7579] Brian Gladman, Vincenzo Innocente, John Mather, and Paul Zimmermann. Accuracy of mathematical functions in single, double, double extended, and quadruple precision. Technical report, ????, August 27, 2025. 29 pp. URL `https://members.loria.fr/PZimmermann/papers/accuracy.pdf`.

Gorgin:2025:GMA

[7580] Saeid Gorgin, Amirhossein Sadr, Dara Rahmati, and Jungrae Kim. A generic modulo- ($2^n \pm \delta$) addition algorithm via two-valued digit encoding. In IEEE [8113], pages 85–92. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Graillat:2025:CDF

[7581] Stef Graillat and Theo Mary. Condense and distill: Fast distillation of large floating-point sums via condensation. *SIAM Journal on Scientific Computing*, 47(2):B583–B594, ???? 2025. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL https://epubs.siam.org/doi/10.1137/24M1647217.

Graillat:2025:EFCa

[7582] Stef Graillat and Jean-Michel Muller. Emulation of the FMA and the correctly-rounded sum of three numbers in rounding-to-nearest floating-point arithmetic. Report hal-04575249, Sorbonne Université, CNRS, LIP6 and CNR, Laboratoire LIP, Université de Lyon, Paris, France and Lyon, France, May 17, 2025. 29 pp. URL https://hal.science/hal-04575249v2.

Graillat:2025:EFCb

[7583] Stef Graillat and Jean-Michel Muller. Emulation of the FMA and the correctly-rounded sum of three numbers in rounding-to-nearest floating-point arithmetic. *Numerische Mathematik*, 157(5):1615–1641, October 2025. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-025-01487-2.

Graillat:2025:EFF

[7584] Stef Graillat and Jean-Michel Muller. Emulation of 3Sum, 4Sum, the FMA and the FD2 instructions in rounded-to-nearest floating-point arithmetic. Report hal-04624238, Sorbonne Université, CNRS, LIP6 and CNR, Laboratoire LIP, Université de Lyon, Paris, France and Lyon, France, June 25, 2025. 21 pp. URL https://hal.science/hal-04624238v1.

Haghi:2025:DTQ

[7585] Pouya Haghi, Ali Falahati, Zahra Azad, Chunshu Wu, Ruibing Song, Chuan Liu, Ang Li, and Tong Geng. DM-Tune: Quantizing diffusion models with mixture-of-Gaussian guided noise tuning. In *2025 62nd ACM/IEEE Design Automation Conference (DAC)*, pages 1–7. IEEE

Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Haq:2025:MIF

[7586] Sami Ul Haq, Aiman H. El-Maleh, and Ali Alsuwaiyan. Multiple-input floating-point adders: A comprehensive review. *IEEE Access*, 13:91012–91024, 2025. ISSN 2169-3536.

Hsu:2025:NFP

[7587] Hung-Hsi Hsu, Tai-Hao Wen, Win-San Khwa, Wei-Hsing Huang, Zhao-En Ke, Yu-Hsiang Chin, Hua-Jin Wen, Yu-Chen Chang, Wei-Ting Hsu, Ashwin Sanjay Lele, Bo Zhang, Ping-Sheng Wu, Chung-Chuan Lo, Ren-Shuo Liu, Chih-Cheng Hsieh, Kea-Tiong Tang, Shih-Hsin Teng, Chung-Cheng Chou, Yu-Der Chih, Tsung-Yung Jonathan Chang, and Meng-Fan Chang. A 22 nm floating-point ReRAM compute-in-memory macro using residue-shared ADC for AI edge device. *IEEE Journal of Solid-State Circuits*, 60(1):171–183, 2025. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Hubner:2025:AVO

[7588] Paul Hübner, Andong Hu, Ivy Peng, and Stefano Markidis. Apple vs. oranges: Evaluating the Apple silicon M-series SoCs for HPC performance and efficiency. In *2025 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW)*, pages 45–54. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Imbach:2025:FER

[7589] Rémi Imbach and Guillaume Moroz. Fast evaluation and root finding for polynomials with floating-point coefficients. *Journal of Symbolic Computation*, 127(??):??, March/April 2025. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0747717124000762`.

Islamoglu:2025:MRV

[7590] Gamze İslamoğlu, Luca Bertaccini, Arpan Suravi Prasad, Francesco Conti, Angelo Garofalo, and Luca Benini. MXDOTP: a RISC-V ISA extension for enabling microscaling (MX) floating-point dot products. In *2025 IEEE 36th International Conference on Application-specific Systems, Architectures and Processors (ASAP)*, pages 81–84. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Jeannerod:2025:FR

[7591] Claude-Pierre Jeannerod and Paul Zimmermann. FastTwoSum revisited. In IEEE [8113], pages 141–148. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Joseph:2025:FPC

[7592] Nimmy Joseph, Joji Daniel, Padmakumar K, and Jayalekshmi L. Floating-point CORDIC processor in hyperbolic coordinate system. In *2025 6th International Conference on Control, Communication and Computing (ICCC)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Joshi:2025:DIF

[7593] Rajaswini P. Joshi, Anand N, Saurabh Kesari, Shashank Singh, Ravi Ranjan, and Jayaraj U. Kidav. Design and implementation of FP32 MAC for DNN. In *2025 6th International Conference on Intelligent Communication Technologies and Virtual Mobile Networks (ICICV)*, pages 1397–1402. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Kashiwagi:2025:KCL

[7594] Masahide Kashiwagi. kv — a C++ library for verified numerical computation. Web site., March 15, 2025. URL http://verifiedby.me/kv/index-e.html.

Khwa:2025:WWM

[7595] Win-San Khwa, Ping-Chun Wu, Jian-Wei Su, Chiao-Yen Cheng, Jun-Ming Hsu, Yu-Chen Chen, Le-Jung Hsieh, Jyun-Cheng Bai, Yu-Sheng Kao, Tsung-Han Lou, Ashwin Sanjay Lele, Jui-Jen Wu, Jen-Chun Tien, Chung-Chuan Lo, Ren-Shuo Liu, Chih-Cheng Hsieh, Kea-Tiong Tang, and Meng-Fan Chang. 14.2 a 16nm 216kb, 188.4TOPS/W and 133.5TFLOPS/W microscaling multi-mode gain-cell CIM macro Edge-AI devices. In *2025 IEEE International Solid-State Circuits Conference (ISSCC)*, volume 68, pages 1–3. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Kim:2025:MFM

[7596] Seah Kim, Jerry Zhao, Roger Hsiao, Yufeng Chi, Vighnesh Iyer, Vikram Jain, Borivoje Nikolić, and Yakun Sophia Shao. MAVERIC: a 16nm 72 FPS, 10 mJ/Frame heterogeneous robotics SoC with 4 cores and 13 INT8/FP32 accelerators. In *2025 Symposium on VLSI Technology and Circuits (VLSI Technology and Circuits)*, pages 1–3. IEEE Computer

Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Kim:2025:SRF

[7597] Kevin Kim, Katherine Parry, David Harris, Cedar Turek, Alessandro Maiuolo, Rose Thompson, and James Stine. Shared recurrence floating-point divide/sqrt and integer divide/remainder with early termination. *IEEE Transactions on Computers*, 74(2):740–748, February 2025. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Koizumi:2025:TOA

[7598] Toru Koizumi, Ryota Shioya, Takuya Yamauchi, Tomoya Adachi, Ken Namura, and Jun Makino. Trailing-ones anticipation for reducing the latency of the rounding incrementer in FP FMA units. In IEEE [8113], pages 21–28. LCCN QA76.9.C62 .I578 2025. URL `https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding`.

Kokane:2025:LLP

[7599] Omkar Kokane, Mukul Lokhande, Gopal Raut, Adam Teman, and Santosh Kumar Vishvakarma. LPRE: Logarithmic posit-enabled reconfigurable edge-AI engine. In *2025 IEEE International Symposium on Circuits and Systems (ISCAS)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Kokosinski:2025:FAA

[7600] Zbigniew Kokosiński, Paweł Gepner, and Nataliia Gavkalova. Fast and accurate approximation algorithms for computing floating point square root. *Numerical Algorithms*, 99(4):1791–1804, August 2025. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `https://link.springer.com/article/10.1007/s11075-024-01932-7`.

Kriemann:2025:HLR

[7601] Ronald Kriemann. Hierarchical low-rank arithmetic with floating point compression. *SIAM Journal on Scientific Computing*, 47(4): B763–B784, ???? 2025. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `https://epubs.siam.org/doi/10.1137/24M1649009`.

Kulkarni:2025:MCN

[7602] Bhargav Kulkarni and Pavel Panchekha. Mixing condition numbers and oracles for accurate floating-point debugging. In IEEE [8113], pages 101–108. LCCN QA76.9.C62 .I578 2025. URL `https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding`.

Larsson-Edefors:2025:IEF

[7603] Per Larsson-Edefors and Erik Börjeson. Implementation evaluation of fixed-point multipliers for complex numbers. In IEEE [8113], pages 81–84. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Leng:2025:HPH

[7604] Yuhan Leng, Gaoyuan Zou, Hansheng Wang, Panruo Wu, and Shaoshuai Zhang. High performance Householder QR factorization on emerging GPU architectures using Tensor Cores. *IEEE Transactions on Parallel and Distributed Systems*, 36(3):422–436, 2025. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic).

Liu:2025:ADR

[7605] Jiawei Liu, Xufan Zhang, Lurong Xu, Chunrong Fang, Mingzheng Gu, Weisi Luo, Dong Chai, Jiang Wang, Zhihong Zhao, and Zhenyu Chen. Automated detection and repair of floating-point precision problems in convolutional neural network operators. *ACM Transactions on Software Engineering and Methodology*, 34(7):203:1–203:32, September 2025. CODEN ATSMER. ISSN 1049-331X (print), 1557-7392 (electronic).

Liu:2025:DMP

[7606] Haotian Liu, Xicheng Lu, Xiaoyu Yu, Kai Li, Kaiyuan Yang, Haihang Xia, Sizhao Li, and Tiantai Deng. A 3-D multi-precision scalable systolic FMA architecture. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 72(1):265–276, 2025. ISSN 1549-8328 (print), 1558-0806 (electronic).

Liu:2025:LPM

[7607] Ao Liu, Siting Liu, Hui Wang, Qin Wang, Fabrizio Lombardi, Zhigang Mao, and Honglan Jiang. Low-power multiplier designs by leveraging correlations of 2×2 encoded partial products. *IEEE Transactions on Computers*, 74(11):3888–3896, November 2025. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Lyu:2025:EMB

[7608] Fei Lyu, Yuanyong Luo, and Weiqiang Liu. An efficient methodology for binary logarithmic computations of floating-point numbers with normalized output within one ulp of accuracy. *IEEE Transactions on Computers*, 74(5):1800–1813, 2025. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Ma:2025:STF

[7609] Dongyu Ma, Zeyu Liang, Luming Yin, and Hongliang Liang. Symbolic testing of floating-point bugs and exceptions. *The Journal of Systems and Software*, 219(??):??, January 2025. CODEN JSSODM. ISSN 0164-1212 (print), 1873-1228 (electronic). URL http://www.sciencedirect.com/science/article/pii/S016412122400270X; https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4797965.

Mary:2025:EAM

[7610] Theo Mary and Mantas Mikaitis. Error analysis of matrix multiplication with narrow range floating-point arithmetic. *SIAM Journal on Scientific Computing*, 47(4):B785–B800, ???? 2025. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL https://epubs.siam.org/doi/10.1137/24M1685109.

Mirzaei-Teshnizi:2025:PMM

[7611] Shahab Mirzaei-Teshnizi and Parviz Keshavarzi. Parallel modular multiplication using variable length algorithms. *IEEE Transactions on Computers*, 74(1):143–154, January 2025. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Moustafa:2025:EMP

[7612] Samir Moustafa, Nils Kriege, and Wilfried N. Gansterer. Efficient mixed precision quantization in graph neural networks. In *2025 IEEE 41st International Conference on Data Engineering (ICDE)*, pages 4038–4052. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Nesam:2025:DRU

[7613] J. Jean Jenifer Nesam and S. Sankar Ganesh. Design of radix-8 unsigned bit pair recoding algorithm-based floating-point multiplier for neural network computations. *IEEE Access*, 13:63969–63980, 2025. ISSN 2169-3536.

Nguyen:2025:REA

[7614] Thanh Son Nguyen, Alexey Solovyev, Mark G. Arnold, and Ganesh Gopalakrishnan. Rigorous error analysis for logarithmic number systems. In IEEE [8113], pages 125–132. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Overton:2025:NCI

[7615] Michael L. Overton. *Numerical Computing with IEEE Floating Point Arithmetic: Including One Theorem, One Rule of Thumb, and One*

Hundred and Six Exercises. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, second edition, 2025. ISBN 1-61197-840-8 (print), 1-61197-841-6 (e-book). xx + 126 pp. LCCN QA297. URL https://bookstore.siam.org/OT205; https://epubs.siam.org/doi/10.1137/1.9781611978414.

Ozaki:2025:ALP

[7616] Katsuhisa Ozaki. Accuracy of low-precision elementary and special functions using verified numerical computations. *Journal of Advanced Simulation in Science and Engineering*, 12(1):113–130, 2025. URL https://www.jstage.jst.go.jp/article/jasse/12/1/12_113/_pdf/-char/ja.

Peric:2025:SAA

[7617] Sofija Z. Perić, Zoran H. Perić, Bojan D. Denić, Milan R. Dinčić, Aleksandra Z. Jovanović, and Marko S. Anđelković. SQNR approximation analysis of the FP24 format of Laplacian source in a wide variance range. In *2025 60th International Scientific Conference on Information, Communication and Energy Systems and Technologies (ICEST)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Ptrot:2025:ESH

[7618] Frédéric Pétrot. Experimental software and hardware evaluation of ad-hoc constant division routines. In IEEE [8113], pages 69–72. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Pun:2025:RES

[7619] Shing Wai Pun, Bozhang Bao, Silviu-Ioan Filip, Guy Lemieux, John V. Kim, Nazar Misyats, Nirvik Pande, Victor Ravain, and Robert Sherrick. Range extension with supernormals for mixed-precision 8-bit DNN training. In IEEE [8113], pages 1–4. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Ramamoorthy:2025:AMP

[7620] Arnav Ramamoorthy and Kiran Kumar Gunnam. Adaptive multi-precision inference for large-scale AI using IEEE P3109 FP8. In *2025 IEEE Computer Society Annual Symposium on VLSI (ISVLSI)*, volume 1, pages 1–2. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Rathor:2025:AFE

[7621] Mahendra Rathor. ALOHA-FP2I: Efficient algorithms and hardware for multi-mode rounding of floating point to integer. *ACM Transactions on Embedded Computing Systems*, 24(1):12:1–12:26, January 2025. CODEN ???? ISSN 1539-9087 (print), 1558-3465 (electronic). URL `https://dl.acm.org/doi/10.1145/3701560`.

Reisch:2025:MSM

[7622] Cordula Reisch and Hendrik Ranocha. Modeling still matters: a surprising instance of catastrophic floating point errors in mathematical biology and numerical methods for ODEs. *SIAM Review*, 67(3): 624–641, ???? 2025. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL `https://epubs.siam.org/doi/10.1137/23M1563967`.

Ren:2025:AMP

[7623] Jie Ren, Hatem Ltaief, Sameh Abdulah, and David E. Keyes. Accelerating mixed-precision out-of-core Cholesky factorization with static task scheduling. In *ISC High Performance 2025 Research Paper Proceedings (40th International Conference)*, pages 1–12. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Scheffler:2025:OCD

[7624] Paul Scheffler, Thomas Benz, Viviane Potocnik, Tim Fischer, Luca Colagrande, Nils Wistoff, Yichao Zhang, Luca Bertaccini, Gianmarco Ottavi, Manuel Eggimann, Matheus Cavalcante, Gianna Paulin, Frank K. Gürkaynak, Davide Rossi, and Luca Benini. Occamy: a 432-core dual-chiplet Dual-HBM2E 768-DP-GFLOP/s RISC-V system for 8-to-64-bit dense and sparse computing in 12-nm FinFET. *IEEE Journal of Solid-State Circuits*, 60(4):1324–1338, 2025. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Shaban:2025:VAD

[7625] Ahmed Shaban, Shreshtha Gothalyan, Manan Suri, and Tuo-Hung Hou. Variation-aware demonstration and optimization of block floating point and integer neural network acceleration on RRAM compute in-memory hardware. *IEEE Transactions on Circuits and Systems for Artificial Intelligence*, 2(3):185–196, 2025.

Shah:2025:ORT

[7626] Gaurav Shah, Abhinav Goud, Zaqi Momin, and Joycee Mekie. OwlsEye: Real-time low-light video instance segmentation on edge and exploration of fixed-posit quantization. In *2025 38th International Conference on VLSI Design and 2024 23rd International Conference on Embedded Systems (VLSID)*, pages 451–456. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Sharma:2025:DLL

[7627] Prashnat Sharma, Sourav Nath, Koushik Guha, and Krishna Lal Baishnab. Design of low-latency, area- and power-efficient CORDIC algorithms for sine/cosine floating-point computation. In *2025 Devices for Integrated Circuit (DevIC)*, pages 583–588. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Shin:2025:DMH

[7628] Seungah Shin, Joonho Kong, and Young Seo Lee. Dual-MAC: Hardware acceleration of DNN inferences with a customized lightweight brain floating-point format. *IEEE Access*, 13:165738–165750, 2025. ISSN 2169-3536.

Sumaiya:2025:TRT

[7629] Sumaiya, Reza Jafarpourmarzouni, Yichen Luo, Sidi Lu, and Zheng Dong. Toward real-time and efficient perception workflows in software-defined vehicles. *IEEE Internet of Things Journal*, 12(6):7240–7258, 2025.

Swords:2025:REE

[7630] Sol Swords and Cuong Chau. Robust, end-to-end correctness proofs of industrial divide and square root RTL designs. In IEEE [8113], pages 149–156. LCCN QA76.9.C62 .I578 2025. URL `https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding`.

Tang:2025:RES

[7631] Ping Tak Peter Tang. Rounding error statistics as numerics signature. In IEEE [8113], pages 93–100. LCCN QA76.9.C62 .I578 2025. URL `https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding`.

Thushara:2025:FSA

[7632] M. G. Thushara and K. Somasundaram. ForBac: A static analysis approach with forward and backward analysis for precision in floating-point computations. *IEEE Access*, 13:80705–80722, 2025. ISSN 2169-3536.

Vakili:2025:DFL

[7633] Shervin Vakili, Mobin Vaziri, Amirhossein Zarei, and J. M. Pierre Langlois. DyRecMul: Fast and low-cost approximate multiplier for FPGAs using dynamic reconfiguration. *ACM Transactions on Reconfigurable Technology and Systems*, 18(1):7:1–7:??, March 2025. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic). URL `https://dl.acm.org/doi/10.1145/3663480`.

Vanover:2025:ESE

[7634] Jackson Vanover, James Demmel, Xiaoye Sherry Li, and Cindy Rubio-González. Excvate: Spoofing exceptions and solving constraints to test exception handling in numerical libraries. In IEEE [8113], pages 109–116. LCCN QA76.9.C62 .I578 2025. URL `https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding`.

Walczyk:2025:OAX

[7635] Cezary J. Walczyk, Leonid V. Moroz, Volodymyr Samotyy, and Jan L. Cieśliński. Optimal approximation of the $1/x$ function using Chebyshev polynomials and magic constants. *ACM Transactions on Mathematical Software*, 51(1):2:1–2:??, March 2025. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Wang:2025:EEP

[7636] Yang Wang, Xiaolong Yang, Yubin Qin, Zhiren Zhao, Ruiqi Guo, Zhiheng Yue, Huiming Han, Shaojun Wei, Yang Hu, and Shouyi Yin. An energy-efficient POSIT compute-in-memory macro for high-accuracy AI applications. *IEEE Journal of Solid-State Circuits*, 60(8):2981–2994, 2025. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Wang:2025:PPF

[7637] Wenqing Wang, Ziming Chen, Quan Deng, and Liang Fang. PFP: Parallel floating-point vector multiplication acceleration in MAGIC ReRAM. In *2025 Design, Automation & Test in Europe Conference (DATE)*, pages 1–7. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Wang:2025:PPH

[7638] Jiaxuan Wang, Xiaofeng Wang, Wenzheng Liu, Qianqian Xing, Xiaoyong Tang, Tan Deng, Ronghui Cao, and Mingfeng Huang. A parallel and pipelined high speed Montgomery modular multiplier for IoT devices. *Computer Networks (Amsterdam, Netherlands: 1999)*, 265

(??):??, June 2025. CODEN ???? ISSN 1389-1286 (print), 1872-7069 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S1389128625002506`.

Wang:2025:VLC

[7639] Run Wang, Gamze Islamoglu, Andrea Belano, Viviane Potocnik, Francesco Conti, Angelo Garofalo, and Luca Bonini. VEXP: A low-cost RISC-V ISA extension for accelerated softmax computation in transformers. In IEEE [8113], pages 37–44. LCCN QA76.9.C62 .I578 2025. URL `https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding`.

Wen:2025:PPW

[7640] Chenyi Wen, Haonan Du, Jiayi Wang, Zhengrui Chen, Li Zhang, Qi Sun, and Cheng Zhuo. PACE: a piece-wise approximate floating-point divider with runtime configurability and high energy efficiency. *ACM Transactions on Design Automation of Electronic Systems.*, 30(2):21:1–21:??, March 2025. CODEN ATASFO. ISSN 1084-4309 (print), 1557-7309 (electronic). URL `https://dl.acm.org/doi/10.1145/3706634`.

Wintersteiger:2025:FVI

[7641] Christoph M. Wintersteiger. Formal verification of the IEEE P3109 standard for binary floating-point formats for machine learning. In IEEE [8113], pages 157–160. LCCN QA76.9.C62 .I578 2025. URL `https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding`.

Wu:2025:IFP

[7642] Ping-Chun Wu, Win-San Khwa, Jui-Jen Wu, Jian-Wei Su, Chuan-Jia Jhang, Ho-Yu Chen, Zhao-En Ke, Ting-Chien Chiu, Jun-Ming Hsu, Chiao-Yen Cheng, Yu-Chen Chen, Chung-Chuan Lo, Ren-Shuo Liu, Chih-Cheng Hsieh, Kea-Tiong Tang, and Meng-Fan Chang. An integer-floating-point dual-mode gain-cell computing-in-memory macro for advanced AI edge chips. *IEEE Journal of Solid-State Circuits*, 60(1): 158–170, 2025. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Wu:2025:TPM

[7643] Jiajun Wu, Mo Song, Jingmin Zhao, Yizhao Gao, Jia Li, and Hayden Kwok-Hay So. TATAA: Programmable mixed-precision transformer acceleration with a transformable arithmetic architecture. *ACM Transactions on Reconfigurable Technology and Systems*, 18(1):14:1–14:??, March 2025. CODEN ???? ISSN 1936-7406 (print), 1936-7414 (electronic). URL `https://dl.acm.org/doi/10.1145/3714416`.

Xie:2025:FFL

[7644] Yujun Xie, Yuan Liu, Xin Zheng, Bohan Lan, Dengyun Lei, Dehao Xiang, Shuting Cai, and Xiaoming Xiong. FLALM: a flexible low area-latency Montgomery modular multiplication on FPGA. *IEEE Transactions on Computers*, 74(1):29–42, January 2025. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Xiong:2025:DLC

[7645] Botao Xiong, Xingyu Shao, Chang Liu, Shize Zhang, and Yuchun Chang. Design of low-cost and high-accurate 8-bit logarithmic floating-point arithmetic circuits. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 33(7):2094–2098, 2025. CODEN IEVSE9. ISSN 1063-8210 (print), 1557-9999 (electronic).

Yang:2025:ESM

[7646] Hanmei Yang, Summer Deng, Amit Nagpal, Maxim Naumov, Mohammad Janani, Tongping Liu, and Hui Guan. An empirical study of microscaling formats for low-precision LLM training. In IEEE [8113], pages 1–8. LCCN QA76.9.C62 .I578 2025. URL https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding.

Zhang:2025:HIB

[7647] Xiaohui Zhang, Zenghui Yu, Shushan Qiao, and Yi Zhan. Hardware implementation of block floating-point FFT based on approximate computation and conflict-free access. *IEEE Access*, 13:106989–106997, 2025. ISSN 2169-3536.

Zhao:2025:HHF

[7648] Yuanzhe Zhao, Yang Wang, Rui P. Martins, Chi-Hang Chan, Shouyi Yin, and Minglei Zhang. A hierarchical-hybrid floating-point compute-in-memory macro using FP-DAC and FP-ADC for Edge-AI devices. *IEEE Journal of Solid-State Circuits*, pages 1–14, 2025. CODEN IJSCBC. ISSN 0018-9200 (print), 1558-173X (electronic).

Zhao:2025:ISS

[7649] Gaoyang Zhao, Junzhong Shen, Rongzhen Lin, Hua Li, and Yaohua Wang. ISOAcc: In-situ shift operation-based accelerator for efficient in-SRAM multiplication. *ACM Transactions on Design Automation of Electronic Systems.*, 30(2):22:1–22:??, March 2025. CODEN ATASFO. ISSN 1084-4309 (print), 1557-7309 (electronic). URL https://dl.acm.org/doi/10.1145/3707205.

Zhao:2025:OSF

[7650] Yuanzhe Zhao, Heng Xie, Zijian Wang, Chunlin Tian, Li Li, Yan Zhu, R. P. Martins, Chi-Hang Chan, and Minglei Zhang. A one-shot floating-point compute-in-memory macro featuring PVT robustness and mismatch tolerance for edge LLMs. In *2025 IEEE Custom Integrated Circuits Conference (CICC)*, pages 1–3. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025.

Zhao:2025:SCS

[7651] Gaoyang Zhao, Qiuran Li, Rongzhen Lin, and Yaohua Wang. Shift-CIM: In-SRAM alignment to support general-purpose bit-level sparsity exploration in SRAM multiplication. *ACM Transactions on Architecture and Code Optimization*, 22(2):59:1–59:??, June 2025. CODEN ???? ISSN 1544-3566 (print), 1544-3973 (electronic).

Zhou:2025:BDC

[7652] Yang Zhou, Yang Wang, Wenxin Yin, Yazheng Jiang, Jingchuan Wei, Yubin Qin, Yang Hu, Shaojun Wei, and Shouyi Yin. BeaCIM: a digital compute-in-memory DNN processor with bi-directional exponent alignment for FP8 training. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 72(4):608–612, 2025. ISSN 1549-7747 (print), 1558-3791 (electronic).

Zhu:2025:BSA

[7653] Zixuan Zhu, Xiaolong Zhou, Chundong Wang, Li Tian, Zunkai Huang, and Yongxin Zhu. Bit-sparsity aware acceleration with compact CSD code on generic matrix multiplication. *IEEE Transactions on Computers*, 74(2):414–426, 2025. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic).

Zou:2025:REA

[7654] Qinmeng Zou. Rounding error analysis of the inverse compact WY modified Gram–Schmidt algorithms. *SIAM Journal on Matrix Analysis and Applications*, 46(1):726–747, ???? 2025. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL `https://epubs.siam.org/doi/10.1137/24M1655482`.

Attanayake:2026:FPC

[7655] Ruvini Attanayake, Umesh C. Roy, Abhiyan Pandit, and Angelo Bongiorno. First-principles calculation of higher-order elastic constants from divided differences. *Computer Physics Communications*, 318(??):

??, January 2026. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0010465525003790.

Brisebarre:2026:CRE

[7656] Nicolas Brisebarre, Guillaume Hanrot, Jean-Michel Muller, and Paul Zimmermann. Correctly-rounded evaluation of a function: Why, how, and at what cost? *ACM Computing Surveys*, 58(1):27:1–27:34, January 2026. CODEN CMSVAN. ISSN 0360-0300 (print), 1557-7341 (electronic).

Ha:2026:LMD

[7657] Nguyen Thi Thai Ha, Ngo Le Hong Phuc, and Vu Mai Trang. Lengths of matrix decompositions over division algebras with k-involutions. *Linear Algebra and its Applications*, 729(??):337–349, January 15, 2026. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.sciencedirect.com/science/article/pii/S002437952500415X.

Kelayeh:2026:AAR

[7658] Mahla Salehi Sheikhali Kelayeh, Sahand Divsalar, Shaghayegh Vahdat, and Nima TaheriNejad. ARTS: an approximate reduced tree and segmentation-based multiplier. *Future Generation Computer Systems*, 175(??):??, February 2026. CODEN FGSEVI. ISSN 0167-739X (print), 1872-7115 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0167739X25003929.

Anonymous:20xx:CMP

[7659] Anonymous. The CORE-MATH project. Web site and code archive, 20xx. URL https://core-math.gitlabpages.inria.fr/.

QinetiQ:20xx:QFP

[7660] QinetiQ. Quixilica floating point cores. Web document, 20xx. URL http://www.tekmicro.com/.

Anonymous:1948:PSL

[7661] Anonymous, editor. *Proceedings of a Symposium on Large-Scale Digital Calculating Machinery: Jointly Sponsored by The Navy Department Bureau of Ordnance and Harvard University at The Computation Laboratory 7–10 January 1947*, volume 16 of *The Annals of the Computation Laboratory of Harvard University*. Harvard University Press, Cambridge, MA, USA, 1948. LCCN QA75 .S96 1947.

Householder:1951:MCM

[7662] Alston S. Householder, George E. Forsythe, and Hallett-Hunt Germond, editors. *Monte Carlo method. Proceedings of a Symposium Held June 29, 30 and July 1, 1949 in Los Angeles, California*, volume 12 of *Applied Mathematics Series / National Bureau of Standards*. United States Government Printing Office, Washington, DC, USA, 1951.

Alt:1960:AC

[7663] Franz L. Alt, Andrew Donald Booth, and Robert Emmet Meagher, editors. *Advances in Computers*. Academic Press, New York, NY, USA, 1960. ISSN 0065-2458. x + 316 pp. LCCN QA76 .A3.

Taub:1961:JNCa

[7664] A. H. Taub, editor. *John von Neumann: Collected Works: Volume I: Logic, Theory of Sets and Quantum Mechanics*. Pergamon Press, New York, NY, USA, 1961. x + 654 pp. LCCN ???? See also volumes II–VI [7665, 7666, 7668, 7670, 7671].

Taub:1961:JNCb

[7665] A. H. Taub, editor. *John von Neumann: Collected Works. Volume II: Operators, Ergodic Theory and Almost Periodic Functions in a Group*. Pergamon Press, New York, NY, USA, 1961. x + 568 pp. LCCN ???? See also volumes I, III–VI [7664, 7666, 7668, 7670, 7671].

Taub:1961:JNCc

[7666] A. H. Taub, editor. *John von Neumann: Collected Works. Volume III: Rings of Operators*. Pergamon Press, New York, NY, USA, 1961–1963. ix + 574 pp. LCCN ???? See also volumes I–II, IV–VI [7664, 7665, 7668, 7670, 7671].

AFIPS:1962:APS

[7667] AFIPS, editor. *AFIPS Proceedings of the Spring Joint Computer Conference 1962*, volume 21 of *AFIPS conference proceedings*. AFIPS Press, Montvale, NJ, USA, 1962. LCCN ????

Taub:1962:JNC

[7668] A. H. Taub, editor. *John von Neumann: Collected Works. Volume IV: Continuous Geometry and Other Topics*. Pergamon Press, New York, NY, USA, 1962. x + 516 pp. LCCN ???? See also volumes I–III, V–VI [7664, 7665, 7666, 7670, 7671].

Metropolis:1963:PFS

[7669] N. Metropolis, A. H. Taub, John Todd, and C. B. Tompkins, editors. *Experimental arithmetic, high speed computing and mathematics: Proceedings of the fifteenth Symposium in Applied Mathematics of the American Mathematical Society held in Chicago, Illinois, April 12–14, 1962 and Atlantic City, New Jersey, April 16-19, 1962*. American Mathematical Society, Providence, RI, USA, 1963. LCCN QA297 .S987 1962.

Taub:1963:JNCa

[7670] A. H. Taub, editor. *John von Neumann: Collected Works. Volume V: Design of Computers, Theory of Automata and Numerical Analysis*. Pergamon Press, New York, NY, USA, 1963. ix + 784 pp. LCCN ???? See also volumes I–IV, VI [7664, 7665, 7666, 7668, 7671].

Taub:1963:JNCb

[7671] A. H. Taub, editor. *John von Neumann: Collected Works. Volume VI: Theory of Games, Astrophysics, Hydrodynamics and Meteorology*. Pergamon Press, New York, NY, USA, 1963. x + 538 pp. LCCN ???? See also volumes I–V [7664, 7665, 7666, 7668, 7670].

Wilkinson:1963:REA

[7672] J. H. Wilkinson. *Rounding Errors in Algebraic Processes*, volume 32 of *Notes on Applied Science*. HMSO, London, UK, 1963. ISBN 0-486-67999-3 (Dover). vi + 161 pp. LCCN QA76.5 .W53 1964. Also published by Prentice-Hall, Englewood Cliffs, NJ, USA, 1964, translated into Polish as *Bledy Zaokragleń w Procesach Algebraicznych* by PWW, Warsaw, Poland, 1967 and translated into German as *Rundungsfehler* by Springer-Verlag, Berlin, Germany, 1969. Reprinted by Dover Publications, New York, 1994.

AFIPS:1965:FJC

[7673] *1965 Fall Joint Computer Conference, 18–20 November, 1965, Las Vegas, Nevada*, volume 27 of *AFIPS conference proceedings*. AFIPS Press, Montvale, NJ, USA, 1965. LCCN ????

Alt:1965:AC

[7674] Franz L. Alt, Morris Rubinoff, Andrew Donald Booth, and Robert Emmet Meagher, editors. *Advances in Computers*. Academic Press, New York, NY, USA, 1965. ISSN 0065-2458. xiv + 310 pp. LCCN QA76 .A3.

Kalenich:1965:IPP

[7675] Wayne A. Kalenich, editor. *Information processing 1965: proceedings of IFIP congress 65; New York City May 24–29, 1965*. Spartan Books, Washington, DC, USA, 1965. LCCN ???? Two volumes.

Rall:1965:EDCa

[7676] L. B. Rall, editor. *Error in Digital Computation*, volume 1. Wiley, New York, NY, USA, 1965. Proceedings of an advanced seminar conducted by the Mathematics Research Center, United States Army, at the University of Wisconsin, Madison, October 5–7, 1964.

Rall:1965:EDCb

[7677] L. B. Rall, editor. *Error in Digital Computation*, volume 2. Wiley, New York, NY, USA, 1965. Proceedings of an advanced seminar conducted by the Mathematics Research Center, United States Army, at the University of Wisconsin, Madison, October 5–7, 1964.

Wilkinson:1965:AEP

[7678] J. H. Wilkinson. *The Algebraic Eigenvalue Problem*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 1965. ISBN 0-19-853403-5. xviii + 662 pp. LCCN QA218 .W686 1965.

Ralston:1966:MMD

[7679] Anthony Ralston and Herbert S. Wilf, editors. *Mathematical Methods for Digital Computers*. Wiley, New York, NY, USA, 1966. various pp. LCCN QA76.5 .R3. Three volumes.

AFIPS:1967:ACP

[7680] *1967 Spring Joint Computer Conference, April 18–20, Atlantic City, NJ*, volume 30 of *AFIPS conference proceedings*. Thompson Book Co., Washington, DC, USA, 1967. LCCN TK7885.A1 J6 1967.

Anonymous:1967:PAN

[7681] Anonymous, editor. *Proceedings of the 1967 Army Numerical Analysis Conference, Madison, Wisconsin*. U.S. Army Research Office, Research Triangle Park, NC, 1967. URL `https://apps.dtic.mil/sti/tr/pdf/AD0825963.pdf`.

Anonymous:1968:PSA

[7682] Anonymous, editor. *Proc. Sixth Annual Allerton Conference on Circuit and System Theory (Monticello, IL, 1968)*. University of Illinois at

Urbana-Champaign, Urbana, IL, USA, 1968. ISBN ???? ISSN 0569-0552. LCCN ????

AFIPS:1969:ACPa

[7683] *1967 Spring Joint Computer Conference, May 14–16, 1969, Boston, MA*, volume 34 of *AFIPS conference proceedings*. AFIPS Press, Montvale, NJ, USA, 1969. LCCN TK7885.A1 J6 1969.

AFIPS:1969:ACPb

[7684] *1969 Fall Joint Computer Conference, November 18–20, 1969, Las Vegas, Nevada*, volume 35 of *AFIPS conference proceedings*. AFIPS Press, Montvale, NJ, USA, 1969. LCCN ????

IEEE:1969:SCA

[7685] IEEE, editor. *Papers presented at a workshop sponsored by the Logic Design Subcommittee of the Systems Technical Committee (IEEE Computer Group), 1969*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1969. LCCN ????

Morrell:1969:IPP

[7686] A. J. H. Morrell, editor. *Information processing 68: proceedings of IFIP congress 1968, organized by the International Federation for Information Processing, Edinburgh, 5–10 August 1968*. North-Holland, Amsterdam, The Netherlands, 1969. ISBN 0-7204-2032-6. LCCN QA76 .I578.

Morrell:1970:IPP

[7687] A. J. H. Morrell, editor. *Information Processing 68 (Proc. IFIP Congress, Edinburgh, 1968), Vol. 1: Mathematics, Software*. North-Holland, Amsterdam, The Netherlands, 1970. ISBN 0-7204-2032-6. LCCN QA 75.5 I57 1968.

AFIPS:1971:ACP

[7688] *1971 Spring Joint Computer Conference, May 18–20, 1971, Atlantic City, New Jersey*, volume 38 of *AFIPS conference proceedings*. AFIPS Press, Montvale, NJ, USA, 1971. LCCN ????

Bell:1971:CSR

[7689] C. Gordon Bell and Allen Newell, editors. *Computer Structures: Readings and Examples*. McGraw-Hill, New York, NY, USA, 1971. ISBN 0-07-004357-4. xix + 668 pp. LCCN TK7888.3 .B4.

Freiman:1971:PIC

[7690] C. V. Freiman, J. E. Griffith, and J. L. Rosenfeld, editors. *Information processing 71: proceedings of IFIP Congress 71 organized* *by the International Federation for Information Processing, Ljubljana, Yugoslavia, August 23–28, 1971*. North-Holland, Amsterdam, The Netherlands, 1971. ISBN 0-7204-2063-6. LCCN ???? Eight booklets in two volumes.

Gear:1971:NIV

[7691] Charles William Gear. *Numerical Initial Value Problems in Ordinary Differential Equations*. Prentice-Hall series in automatic computation. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1971. ISBN 0-13-626606-1 (hardcover). xvii + 253 pp. LCCN QA372 .G4.

Rice:1971:MS

[7692] John R. Rice, editor. *Mathematical Software*. Academic Press, New York, NY, USA, 1971. ISBN 0-12-587250-X. LCCN QA1 .M26. Based on the proceedings of the Mathematical Software Symposium held at Purdue University, Lafayette, Indiana, USA, April 1–3, 1970.

ACM:1972:PAA

[7693] ACM, editor. *Proceedings of the ACM annual conference, August 1972, Boston, Massachusetts*. ACM Press, New York, NY 10036, USA, 1972. LCCN QA76; TK7885. Two volumes.

Cardenas:1972:CS

[7694] Alfonso F. Cardenas, Leon Presser, and Miguel A. Marin, editors. *Computer Science*. Wiley-Interscience, New York, NY, USA, 1972. ISBN 0-471-13468-6. xii + 522 pp. LCCN QA76.5 .C365; TK7885 .C178c.

IEEE:1972:IAD

[7695] IEEE, editor. *Innovative architecture: digest of papers: COMPCON 72, 6. annual IEEE Computer Society International Conference, Jack Tar Hotel, San Francisco, California, September 12–14, 1972*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1972. LCCN TK7885.A1 C53 1972. IEEE order number 72CH0659-3C.

IEEE:1972:ITS

[7696] IEEE, editor. *2nd IEEE-TCCA Symposium on Computer Arithmetic, College Park, Maryland, May 15–16, Maryland*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1972. ISBN ???? LCCN ????

Zaremba:1972:ANT

[7697] S. K. Zaremba, editor. *Applications of Number Theory to Numerical Analysis = Applications de la théorie des nombres à l'analyse numérique*.

Proceedings of the symposium at the Centre for Research in Mathematics, University of Montreal, September 9–14, 1971. Academic Press, New York, NY, USA, 1972. ISBN 0-12-775950-6. LCCN QA297 .A67.

ACM:1974:CRS

[7698] ACM, editor. *Conference record of sixth annual ACM Symposium on Theory of Computing: papers presented at the symposium, Seattle, Washington, April 30–May 2, 1974*. ACM Press, New York, NY 10036, USA, 1974. LCCN QA76.6 .A13 1974.

Panagiotopoulos:1974:PCC

[7699] Antonios Ch. Panagiotopoulos, editor. *Proceedings of the C. Carathéodory International Symposium (Athens, 1973)*. Greek Mathematical Society, Athens, Greece, 1974. ISBN ???? LCCN ????

IEEE:1975:SCA

[7700] *3rd Symposium on Computer Arithmetic, November 19–20, 1975, Southern Methodist University, Dallas, Texas*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1975. LCCN QA76.6.S919 1975. IEEE order number CH1017-3C.

Randell:1975:ODC

[7701] Brian Randell, editor. *The Origins of Digital Computers: Selected Papers*. Texts and monographs in computer science. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., second edition, 1975. ISBN 0-387-07114-8, 3-540-07114-8, 3-642-96244-0, 3-642-96242-4 (e-book). xvi + 464 pp. LCCN ?TK7888.3 .R36 1975.

Swamy:1975:PEM

[7702] M. N. S. Swamy, editor. *Proceedings of the Eighteenth Midwest Symposium on Circuits and Systems (Concordia University, Montreal, Que., 1975)*. Western Periodicals Co.,, North Hollywood, CA, 1975. ISBN ???? LCCN ????

Swartzlander:1976:CDD

[7703] Earl E. Swartzlander, Jr. *Computer Design Development: Principal Papers*. Hayden Book Co., Rochelle Park, NJ, USA, 1976. ISBN 0-8104-5988-4. 310 pp. LCCN QA76.5 .C612565.

Traub:1976:ACC

[7704] J. F. (Joseph Frederick) Traub, editor. *Analytic computational complexity: Proceedings of the Symposium on Analytic Computational*

Complexity, held by the Computer Science Department, Carnegie-Mellon University, Pittsburgh, Pennsylvania, on April 7–8, 1975. Academic Press, New York, NY, USA, 1976. ISBN 0-12-697560-4. LCCN QA297.S9151 1975.

Cowell:1977:PMS

[7705] Wayne Cowell, editor. *Portability of Numerical Software Workshop, Oak Brook, Illinois, June 21–23, 1976*, volume 57 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1977. ISBN 0-387-08446-0. LCCN QA297 .W65 1976.

IEEE:1977:ICS

[7706] IEEE, editor. *The IEEE Computer Society's First International Computer Software & Applications Conference, Chicago, November 8–11, 1977: Proceedings*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1977. ISBN ???? LCCN QA76.6 .I51 1977. IEEE catalog no. 77CH1291-4C.

Jacobs:1977:SAN

[7707] D. Jacobs, editor. *The state of the art in numerical analysis: Proceedings of the Conference held at The University of York, Heslington, April 12th–15th, 1976*. Academic Press, New York, NY, USA, 1977. xix + 978 pp. With a foreword by R. A. Scriven.

Rice:1977:MSI

[7708] John R. Rice, editor. *Mathematical software III: Proceedings of a symposium conducted by the Mathematics Research Center, the University of Wisconsin–Madison, March 28–30, 1977*, number 39 in Publication of the Mathematics Research Center, the University of Wisconsin, Madison. Academic Press, New York, NY, USA, 1977. ISBN 0-12-587260-7. LCCN QA3 .U45 no. 39; QA297 .M36 1977. URL `https://www.sciencedirect.com/book/9780125872607/mathematical-software`.

COMPSAC:1978:CPC

[7709] *COMPSAC 78: Proceedings [conference held] November 13–16, 1978 [at] The Palmer House, Chicago, Illinois*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1978. LCCN ????

IEEE:1978:PSC

[7710] *Proceedings of the 4th Symposium on Computer Arithmetic, Santa Monica, CA, USA, 25–27 October 1978*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1978. ISSN 1063-6889. IEEE catalog no. 78CH1412-6C.

ACM:1979:PSC

[7711] ACM, editor. *Proceedings of the SIGNUM Conference on the Programming Environment for Development of Numerical Software*. ACM Press, New York, NY 10036, USA, 1979.

Anonymous:1979:WCR

[7712] Anonymous, editor. *WESCON conference record*. Electronic Conventions Management, Los Angeles, CA, USA, 1979. CODEN WCREDI. ISSN 1044-6036, 0083-8837. LCCN TK7800. 17 volumes.

Budach:1979:FCT

[7713] L. (Lothar) Budach, editor. *Fundamentals of computation theory: FCT '79: proceedings of the Conference on Algebraic, Arithmetic, and Categorial Methods in Computation Theory held in Berlin/Wendisch-Rietz (GDR), September 17–21, 1979*, volume 2 of *Mathematical research*. Akademie-Verlag, Berlin, Germany, 1979. ISBN ???? LCCN QA267 .C594 1979.

Linger:1979:SPT

[7714] R. C. Linger, H. D. Mills, and B. I. Witt. *Structured Programming: Theory and Practice*. Addison-Wesley, Reading, MA, USA, 1979. ISBN 0-201-14461-1. xi + 402 pp. LCCN QA76.6 .L55.

Meinardus:1979:ATP

[7715] Gunther Meinardus, editor. *Approximation in Theorie und Praxis: e. Symposiumsbericht [*English: *Approximation in Theory and Practice: Symposium Proceedings]*. Bibliographisches Institut, Mannheim, Germany, 1979. ISBN 3-411-01567-5. LCCN QA297.5 .A66. Contributions in English or German from a meeting held Jan. 31–Feb. 2, 1979, at the Gesamthochschule Siegen, Forschungsinstitut fur Geistes- und Sozialwissenschaften.

Ng:1979:SAC

[7716] Edward W. Ng, editor. *Symbolic and algebraic computation: EUROSAM '79, an International Symposium on Symbolic and Algebraic Manipulation, Marseille, France, June 1979*, volume 72 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1979. ISBN 0-387-09519-5. LCCN QA155.7.E4I57 1979.

ACM:1980:CPA

[7717] ACM, editor. *Conference Proceedings: 7th Annual Symposium on Computer Architecture, La Baule, France, 6–8 May 1980*, volume 8(3) of *ACM SIGARCH Computer Architecture News*. ACM Press, New York, NY 10036, USA, 1980. CODEN CANED2, CPAADU. ISBN ???? ISSN 0163-5964 (ACM), 0884-7495 (IEEE), 0149-7111. URL `http://portal.acm.org/toc.cfm?id=800090`.

Alefeld:1980:FNC

[7718] G. Alefeld and R. D. Grigorieff, editors. *Fundamentals of Numerical Computation (Computer-Oriented Numerical Analysis)*, volume 2 of *Computing. Supplementum*. Springer, Wien / New York, 1980. CODEN COSPDM. ISBN 0-387-81566-X. ISSN 0344-8029. LCCN QA297 .F84. In cooperation with R. Albrecht, U. Kulisch, and F. Stummel.

Anonymous:1980:CPA

[7719] *Conference Proceedings 7th Annual Symposium on Computer Architecture, La Baule, France, 6–8 May 1980*, volume 8(3) of *ACM SIGARCH Computer Architecture News*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1980. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851 (electronic).

Electro:1980:ECR

[7720] *Electro/80 Conference Record: Sessions Presented at ELECTRO/80, Boston, MA, May 13–15, 1980*. Electronic Conventions, Inc., El Segundo, CA, USA, 1980. LCCN TK 7801 E375 1980.

IEEE:1980:IIS

[7721] *1980 IEEE International Solid-State Circuits Conference Digest of Technical Papers, Philadelphia, PA, USA, 13–15 February 1980*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1980. ISBN ???? LCCN ???? IEEE Catalog Number 80CH1490-2-SSC.

IEEE:1980:PMA

[7722] *Proceedings: Microprocessor Applications in the 80's: Arizona Technical Symposium, March 12–14, 1980, Arizona State University, Tempe, Arizona*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1980. LCCN QA76.5 .P74.

Johnson:1980:MPA

[7723] Gearold R. Johnson and Bruce E. Kittinger, editors. *MICRO 13: Proceedings of the 13th annual workshop on Microprogramming 1980,* *Broadmoor Hotel, Colorado Springs, United States, November 30–December 03, 1980*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1980. Published in SIGMICRO newsletter, 11(3–4) (Sept.–Dec. 1980). ACM Order no. 520800. IEEE Catalog no. 80CH1599-0.

Lavington:1980:IPP

[7724] Simon Hugh Lavington, editor. *Information Processing 80: Proceedings of IFIP Congress 80, Tokyo, Japan, October 6–9, 1980, Melbourne, Australia, October 14–17, 1980*. Elsevier North-Holland, Inc., New York, NY, USA, 1980. ISBN 0-444-86034-7. LCCN QA 75.5 I57 1980.

Nickel:1980:IMP

[7725] Karl L. E. Nickel, editor. *Interval mathematics 1980: proceedings of an International Symposium on Interval Mathematics, held at the Institut für Angewandte Mathematik, Universität Freiburg i. Br., Germany, May 27–31, 1980*. Academic Press, New York, NY, USA, 1980. ISBN 0-12-518850-1. LCCN QA297.75 .I57 1980.

GAMM:1981:PAM

[7726] *Proceedings of the Annual Meeting of the Gesellschaft für Angewandte Mathematik und Mechanik, Würzburg*. Gesellschaft für Angewandte Mathematik und Mechanik, Würzburg, Germany, 1981. ISBN ???? LCCN ???? Part II (Würzburg, 1981).

IEEE:1981:PSC

[7727] *Proceedings: 5th Symposium on Computer Arithmetic: May 18–19, 1981, University of Michigan, Ann Arbor, Michigan*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1981. LCCN QA 76.6 S985t 1981. IEEE catalog number 81CH1630-C.

Messina:1982:PMM

[7728] P. C. Messina and A. Murli, editors. *Problems and Methodologies in Mathematical Software Production: International Seminar held at Sorrento, Italy, November 3–8, 1980*, volume 142 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1982. ISBN 0-387-11603-6 (New York), 3-540-11603-6 (Berlin). LCCN QA76.95 .P76 1982.

Randell:1982:ODC

[7729] Brian Randell, editor. *The Origins of Digital Computers: Selected Papers*. Texts and monographs in computer science. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., third edition, 1982. ISBN 0-387-11319-3, 3-540-11319-3. xvi + 580 pp. LCCN TK7885.A5 O741 1982.

Reid:1982:RBN

[7730] John K. Reid, editor. *The Relationship Between Numerical Computation and Programming Languages: Proceedings of the IFIP TC2 Working Conference on the Relationship between Numerical Computation and Programming Languages, Boulder, Colorado, USA., 3–7 August, 1981*. Elsevier North-Holland, Inc., New York, NY, USA, 1982. ISBN 0-444-86377-X. LCCN QA297 .I34 1981.

Rodrigue:1982:AC

[7731] Garry Rodrigue, editor. *Parallel Computations*, volume 1 of *Computational techniques*. Academic Press, New York, NY, USA, 1982. ISBN 0-12-592101-2. xii + 408 pp. LCCN ????

Ruschitzka:1982:IWC

[7732] Manfred Ruschitzka, M. Christensen, W. F. Ames, and R. Vichnevetsky, editors. *IMACS World Congress on Systems Simulation and Scientific Computation (10th: 1982: Montreal, Quebec). Parallel and large-scale computers: performance, architecture, applications*. North-Holland, Amsterdam, The Netherlands, 1982. ISBN 0-444-86608-6 (hardcover). LCCN QA76.5 .I414 1982.

Seck:1981:WWS

[7733] Friedrich Seck, editor. *Wissenschaftsgeschichte um Wilhelm Schickard: Vorträge bei dem Symposion der Universität Tübingen im 500. Jahr ihres Bestehens am 24.und 25. Juni 1977. (German) [History of Science and William Schickard Presentations at the Symposium of the University of Tübingen in 500 Years of existence on 24th and 25th June 1977]*, volume 26 of *Contubernium*. J. C. B. Mohr, Tübingen, West Germany, 1981. ISBN 3-16-444151-7. LCCN QB29.

Southcon:1982:SCR

[7734] *Southcon/82 Conference Record: Sessions Presented at Southcon/82, Orlando, Florida, March 23–25, 1982*. Electronic Conventions, Inc., El Segundo, CA, USA, 1982. LCCN TK 7801 S68 1982.

Watson:1982:NAP

[7735] George Alistair Watson, editor. *Numerical Analysis: Proceedings of the 9th Biennial Conference, held at Dundee, Scotland, June 23–26, 1981*, volume 912 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1982. CODEN

LNMAA2. ISBN 0-387-11199-9 (softcover), 3-540-11199-9 (softcover), 3-540-39009-X (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). LCCN QA3 .L28 no. 912; QA1 .L471; QA297 .D915n 1981. URL http://www.springerlink.com/content/978-3-540-39009-1.

Anonymous:1983:PSC

[7736] Anonymous, editor. *1983 proceedings of the statistical computing section: papers presented at the annual meeting of the American Statistical Association, Toronto, Canada, August 15–18, 1983*. American Statistical Association, Washington, DC, USA, 1983. ISBN ???? ISSN 0149-9963. LCCN QA276.4 .A43a.

Gentle:1983:CSS

[7737] James E. Gentle, editor. *Computer Science and Statistics: Proceedings of the Fifteenth Symposium on the Interface, Houston, Texas, March 1983*. North-Holland, Amsterdam, The Netherlands, 1983. ISBN 0-444-86688-4. LCCN QA276.4 .S95 1983.

IEEE:1983:IEE

[7738] *1983 International Electrical, Electronics Conference: Proceedings, September 26–28, Automotive Building, Exhibition Place, Toronto, Canada*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1983. LCCN TK 5 I6514 1983. Two volumes.

IEEE:1983:PII

[7739] *IEEE International Workshop on Computer Systems Organization, March 29–31, 1983, Sheraton New Orleans Hotel, New Orleans*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1983. ISBN 0-8186-0010-1. LCCN QA 76.9 A73 I2 1983.

IEEE:1983:PSC

[7740] *Proceedings: 6th Symposium on Computer Arithmetic, June 20–22, 1983, Aarhus University, Århus, Denmark*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1983. ISBN 0-8186-4476-1 (paperback), 0-8186-8476-3 (hardcover), 0-8186-6476-2 (microfiche), 0-8186-0034-9 (hardcover). LCCN QA 76.9 C62 S95 1983. URL http://www.acsel-lab.com/arithmetic/arith6/papers/. IEEE catalog number 83CH1892-9. IEEE Computer Society order number 476.

Kulisch:1983:NAS

[7741] Ulrich Kulisch, Willard L. Miranker, and Gerd Bohlender, editors. *A New Approach to Scientific Computation: Proceedings of the Symposium on a New Approach to Scientific Computation (1982: IBM Thomas J. Watson Research Center)*, volume 7 of *Notes and Reports in Computer Science and Applied Mathematics*. Academic Press, New York, NY, USA, 1983. ISBN 0-12-428660-7, 1-4832-7204-4. LCCN QA297 .N49 1983; QA297 .S847 1982.

Mini-Micro:1983:MMN

[7742] *Mini/Micro Northeast/83 Conference Record: Sessions Presented at Mini/Micro Northeast-83, New York, New York, April 18–20, 1983, in conjunction with Electro/83*. Electronic Conventions, Inc., Los Angeles, CA, USA, 1983. LCCN QA 76.5 M565 1983.

Mini-Micro:1983:MMW

[7743] *Mini/Micro West '83: Conference Record: Sessions Presented at Mini/Micro West-83, San Francisco, California, November 8–11, 1983*. Electronic Conventions, Inc., Los Angeles, CA, USA, 1983. LCCN TK7885.A1 M56 1983.

Ranocchia:1983:RFA

[7744] Diane D. Ranocchia, editor. *1983 Rochester FORTH Applications Conference, June 7–11, 1983*. Institute for Applied FORTH Research, Rochester, NY, USA, 1983. ISBN 0-914593-00-5. LCCN QA76.73.F24 R59 1983.

Anonymous:1984:TFA

[7745] Anonymous, editor. *Transactions of the First Army Conference on Applied Mathematics and Computing (Washington, DC, 1983)*, volume 84-1 of *ARO report*. ARO Rep. 84-1, U. S. Army Res. Office, Research Triangle Park, NC, USA, February 1984. ISBN ???? LCCN ????

Cowell:1984:SDM

[7746] Wayne R. Cowell, editor. *Sources and Development of Mathematical Software*. Prentice-Hall Series in Computational Mathematics, Cleve Moler, Advisor. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1984. ISBN 0-13-823501-5. xii + 404 pp. LCCN QA76.95 .S68 1984.

Evanczuk:1984:MSS

[7747] Stephen Evanczuk, editor. *Microprocessor systems: software and hardware architecture*. McGraw-Hill, New York, NY, USA, 1984. ISBN 0-07-019756-3, 0-07-606876-5 (paperback). LCCN QA76.5 .M521955 1984.

Feilmeier:1984:PCP

[7748] M. Feilmeier, G. Joubert, and U. Schendel, editors. *Parallel computing 83: proceedings of the International Conference on Parallel Computing, held at the Freie Universität Berlin, 26–28 September 1983*. North-Holland, Amsterdam, The Netherlands, 1984. ISBN 0-444-87528-X. LCCN QA76.6.I547 1983.

Ford:1984:TML

[7749] B. Ford, J. C. Rault, and F. Thomasset, editors. *Tools, methods and languages for scientific and engineering computation. Proc. of international conference (Paris, France, May 17–19, 1983)*. Elsevier North-Holland, Inc., New York, NY, USA, 1984. ISBN 0-444-87570-0. LCCN Q183.9 .I53 1983.

Golub:1984:SNA

[7750] Gene H. Golub, editor. *Studies in Numerical Analysis*, volume 24 of *Studies in mathematics*. Mathematical Association of America, Washington, DC, USA, 1984. ISBN 0-88385-126-1 (v. 1), 0-88385-100-8 (set). x + 415 pp. LCCN QA297 .S83 1984.

Griffiths:1984:NAP

[7751] D. F. Griffiths, editor. *Numerical analysis: Proceedings of the 10th Dundee biennial conference held at the University of Dundee, Scotland, June 28–July 1, 1983*, volume 1066 of *Lecture notes in mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1984. CODEN LNMAA2. ISBN 3-540-13344-5 (print), 3-540-38881-8 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). LCCN QA3.L28 no.1066, QA 297 D915n 1983. URL http://link.springer.com/chapter/10.1007/BFb0099525/.

IEEE:1984:CPI

[7752] *Conference proceedings: IEEE Southeastcon '84, the Galt House, Louisville, Kentucky, April 8–11, 1984*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1984. LCCN TK 7801 I117 1984.

IEEE:1984:ILD

[7753] IEEE, editor. *Intellectual Leverage the Driving Technologies: Digest of Papers, Compcon Spring 84, February 27–March 1, Twenty-eighth IEEE Computer Society International Conference, Meridien Hotel, San Francisco, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1984. CODEN PCICDQ. ISBN

0-8186-0525-1 (paperback), 0-8186-8525-5 (hardcover). LCCN QA75.5 .C58 1984, TK7885.A1 C53 1984. IEEE catalog no. 84CH2017-2.

Kirk:1984:CRE

[7754] Donald E. Kirk, editor. *Conference Record: Eighteenth Asilomar Conference on Circuits, Systems and Computers: Papers Presented November 5–7, 1984, Pacific Grove, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1984. ISBN 0-8186-0673-8 (paperback), 0-8186-8673-1 (hard), 0-8186-4673-X (microfiche). LCCN TK 7801 A83 1984.

Mini-Micro:1984:MMS

[7755] *Mini/Micro Southwest/84 Conference Record: Sessions Presented at Mini/Micro Southwest-84, Dallas, Texas, September 11–13, 1984, in conjunction with Midcon/84*. Electronic Conventions Management, Los Angeles, CA, USA, 1984. LCCN TK 7888.3 M566 1984.

NCC:1984:ACP

[7756] *AFIPS Conference Proceedings of the 1984 National Computer Conference, Las Vegas, NV, USA, 9–12 July 1984*. AFIPS Press, Montvale, NJ, USA, 1984. ISBN 0-88283-043-0. LCCN ????

Buchberger:1985:PEE

[7757] Bruno Buchberger and Bob F. Caviness, editors. *Proceedings: EUROCAL '85, European Conference on Computer Algebra, Linz, Austria, April 1–3, 1985*, volume 203, 204 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1985. CODEN LNCSD9. ISBN 0-387-15983-5 (v. 1), 0-387-15984-3 (v. 2). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA155.7.E4 E85 1985. Vol. 2 edited by: Bob F. Caviness. "Jointly organized by the ACM Special Interest Group on Symbolic and Algebraic Manipulation (SIGSAM) and by the Symbolic and Algebraic Manipulation Group in Europe (SAME)"–Vol. 2, pref. Contents: v. 1. Invited lectures — v. 2. Research contributions.

Hwang:1985:PSC

[7758] Kai Hwang, editor. *Proceedings: 7th Symposium on Computer Arithmetic, June 4–6, 1985, University of Illinois, Urbana, Illinois*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1985. ISBN 0-8186-0632-0 (paperback), 0-8186-8632-4 (hard), 0-8186-4632-2 (microfiche). LCCN QA76.9.C62 S95 1985. IEEE catalog number 85CH2146-9. IEEE Computer Society order number 632.

IEEE:1985:ERC

[7759] *1985 IEEE Region 5 Conference, March 13–15, 1985, Holiday Inn Civic Center, Lubbock, Texas.* IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1985. LCCN TK 7801 N56 1985.

Meek:1985:PFM

[7760] D. S. Meek and G. H. J. van Rees, editors. *Proceedings of the Fourteenth Manitoba Conference on Numerical Mathematics and Computing held at the University of Manitoba, September 27–29, 1984*, volume 46 of *Congressus numerantium.* Utilitas Mathematica Publishers, Winnipeg, Manitoba, Canada, 1985. ISBN 0-919628-46-X. LCCN QA1 C75.

Miranker:1985:ASC

[7761] Willard L. Miranker and Richard A. Toupin, editors. *Accurate Scientific Computations: Symposium, Bad Neuenahr, FRG, March 12–14, 1985: Proceedings*, volume 235 of *Lecture Notes in Computer Science.* Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1985. ISBN 0-387-16798-6. LCCN QA76.95 .A231 1986.

USENIX:1985:SCP

[7762] USENIX Association, editor. *Summer conference proceedings, Portland 1985: June 11–14, 1985, Portland, Oregon USA*. USENIX, P.O. Box 7, El Cerrito 94530, CA, USA, 1985. LCCN QA76.8.U65 U8 1985.

Vrdoljak:1985:ICA

[7763] B. Vrdoljak, editor. *IV Conference on Applied Mathematics, University of Split, May 28–30, 1984.* Faculty of Civil Engineering, University of Split, Split, Yugoslavia, 1985. ISBN ???? LCCN ????

IEEE:1986:III

[7764] IEEE, editor. *ICASSP '86: IEEE International Conference on Acoustics, Speech, and Signal Processing, April 7–11, 1986, Keio Plaza Inter-Continental Hotel Tokyo, Japan.* IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1986. ISBN ???? LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8362`. IEEE catalog number 86CH2243-4.

IEEE:1986:PII

[7765] *Proceedings: IEEE International Conference on Computer Design, VLSI in Computers: ICCD '86, Rye Town Hilton, Port Chester, New York, October 6–9, 1986.* IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1986. ISBN 0-8186-0735-1 (paperback), 0-8186-8735-5 (hard), 0-8186-4735-3 (microfiche). LCCN TK 7888.4 I23 1986.

Mini-Micro:1986:EMM

[7766] *Electro/86 and Mini/Micro Northeast Conference Record: Sessions Presented at Electro/86 and Mini/Micro Northeast-86, Boston, MA, May 13–15, 1986*. Electronic Conventions Management, Los Angeles, CA, USA, 1986. LCCN TK 7801 E375 1986.

Unicom:1986:SQA

[7767] *Software Quality Assurance, Reliability, and Testing. London, UK, 9–10 December 1986*, The Technical Press-Unicom applied information technology reports. Unicom Seminars Ltd., Uxbridge, Middlesex, UK, 1986. ISBN 0-291-39732-8. LCCN ????

Wescon:1986:WCR

[7768] *Wescon/86 Conference Record: Sessions Presented at Wescon/86, Anaheim, CA, November 18–20, 1986*. Electronic Conventions Management, Los Angeles, CA, USA, 1986. LCCN TK 7801 W47 1986.

Anbar:1987:CM

[7769] Michael Anbar, editor. *Computers in medicine*. Applications of computer science series. Computer Science Press, Inc., Rockville, MD, USA, 1987. ISBN 0-88175-080-8. 314 pp. LCCN ???? US$32.95.

Aspray:1987:PJN

[7770] William Aspray and Arthur Burks, editors. *Papers of John von Neumann on Computing and Computer Theory*, volume 12 of *Charles Babbage Institute reprint series for the history of computing*. The MIT Press, Cambridge, MA, 1987. ISBN 0-262-22030-X. xviii + 624 pp. LCCN QA76.5 .P31451 1987. See [578].

Davis:1987:PAC

[7771] Pat Davis and Vicki McClintock, editors. *Proceedings of the 15th annual conference on Computer Science, St. Louis, Missouri, USA*. ACM Press, New York, NY 10036, USA, 1987. ISBN 0-89791-218-7. LCCN ???? ACM order number 404870.

Irwin:1987:PSC

[7772] Mary Jane Irwin and Renato Stefanelli, editors. *Proceedings: 8th Symposium on Computer Arithmetic, May 19–21, 1987, Villa Olmo, Como, Italy*. IEEE Computer Society Press, 1109 Spring Street, Suite

300, Silver Spring, MD 20910, USA, May 1987. ISBN 0-8186-0774-2 (paperback), 0-8186-4774-4 (microfiche), 0-8186-8774-6 (case). LCCN QA 76.9 C62 S95 1987.

Iserles:1987:SAN

[7773] A. Iserles and M. J. D. Powell, editors. *The State of the Art in Numerical Analysis: Proceedings of the Joint IMA/SIAM Conference on the State of the Art in Numerical Analysis held at the University of Birmingham, 14–18 April 1986*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 1987. ISBN 0-19-853614-3. LCCN QA297 .S781 1987. UK£55.00, US$77.50.

Kaucher:1987:CAS

[7774] Edgar Kaucher, Ulrich Kulisch, and Christian Ullrich, editors. *Computer arithmetic: scientific computation and programming languages*. B. G. Teubner, Stuttgart, Germany, 1987. ISBN 3-519-02448-9. 456 pp. LCCN QA76.9.C62 C69 1987.

Lin:1987:DSP

[7775] Kun-Shan Lin, editor. *Digital signal processing applications with the TMS320 family: Vol. 1*. Prentice-Hall and Texas Instruments digital signal processing series. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1987. ISBN 0-13-212466-1. 724 pp. LCCN ???? US$30.67.

Losleben:1987:ARV

[7776] Paul Losleben, editor. *Advanced research in VLSI: proceedings of the 1987 Stanford Conference*. The MIT Press, Cambridge, MA, March 1987. ISBN 0-262-12121-2. LCCN TK7888.4 .A4 1987.

Mason:1987:AAB

[7777] J. C. Mason and M. G. Cox, editors. *Algorithms for approximation: based on the proceedings of the IMA Conference on Algorithms for the Approximation of Functions and Data, held at the Royal Military College of Science, Shrivenham, July 1985*, volume 10 of *The Institute of Mathematics and Its Applications conference series, new series*. Clarendon Press, Oxford, UK, 1987. ISBN 0-19-853612-7. LCCN QA221 .A5361 1987; QA221 .I47 1985. US$90.

Zunde:1987:EFI

[7778] Pranas Zunde and Jagdish C. Agrawal, editors. *Proceedings of the Fourth Symposium on Empirical Foundations of Information and Software Science, held October 22–24, 1986 in Atlanta, Georgia*. Plenum Press, New York, NY, USA, 1987. ISBN 0-306-42817-2. LCCN QA75.5 .S956 1986.

ACM:1988:ICS

[7779] ACM, editor. *1988 International Conference on Supercomputing, July 4–8, 1988, St. Malo, France*. ACM Press, New York, NY 10036, USA, 1988. ISBN 0-89791-272-1. LCCN QA76.5 .I547 1988.

ACM:1988:PAC

[7780] *Proceedings of the 1988 ACM Conference on LISP and Functional Programming: Papers Presented at the Conference, Snowbird, Utah, July 25–27, 1988*. ACM Press, New York, NY 10036, USA, 1988. ISBN 0-89791-273-X. LCCN QA76.73.L23 A24 1988. US$27.00.

Brodersen:1988:VSP

[7781] Robert W. Brodersen and Howard S. Moscovitz, editors. *VLSI Signal Processing, III*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. ISBN 0-87942-248-3. LCCN TK5102.5 .V563 1988; TK5102.5 .V56 1988.

Chen:1988:CRT

[7782] Ray R. Chen, editor. *Conference Record: Papers Presented October 31–November 2, 1988, Pacific Grove, California: Twenty-second Asilomar Conference on Signals, Systems and Computers*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. ISBN 0-929029-15-1. LCCN TK5102.5 .A74 1988. Two volumes.

Electro:1988:ECR

[7783] *Electro/88 Conference Record: Sessions Presented at Electro/88, Boston, MA, May 10–12, 1988*. Electronic Conventions Management, Los Angeles, CA, USA, 1988. ISBN (done). LCCN TK 7801 E375 1988.

Harris:1988:PAI

[7784] Gerald F. Harris and Cedric Frank Walker, editors. *Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society: New Orleans, Louisiana, November 4–7, 1988*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. LCCN R856.A2 I344 1988. Four volumes.

IEEE:1988:IIS

[7785] ????, editor. *1988 IEEE International Solid-State Circuits Conference Digest of Technical Papers 31st ISSCC, San Francisco, CA, USA, 17–19 February 1988*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. ISBN ???? LCCN ????

IEEE:1988:PII

[7786] *Proceedings: 1988 IEEE International Conference on Computer Design, VLSI in Computers and Processors: ICCD '88, Rye Town Hilton, Rye Brook, New York, October 3–5, 1988*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. ISBN 0-8186-8872-6. LCCN TK 7888.4 I23 1988.

IEEE:1988:PSN

[7787] IEEE, editor. *Proceedings, Supercomputing '88: November 14–18, 1988, Orlando, Florida*, volume 1. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. ISBN 0-8186-0882-X (v. 1; paper), 0-8186-8882-3 (v. 1; case), 0-8186-4882-1 (v. 1: microfiche) 0-8186-8923-4 (v. 2), 0-8186-5923-X (v. 2: microfiche), 0-8186-8923-4 (v. 2: case). LCCN QA76.5 .S894 1988. Two volumes. Available from IEEE Service Center (Catalog number 88CH2617-9), Piscataway, NJ, USA.

IREE:1988:AMC

[7788] IREE, editor. *7th Australian Microelectronics Conference: May 16–18, 1988, Sydney University, NSW: proceedings*. IREE, Edgecliff, NSW, Australia, 1988. ISBN ???? LCCN ????

Lacoume:1988:SPI

[7789] J. L. Lacoume, A. Chehikian, N. Martin, and J. Malbos, editors. *Signal Processing IV: Theories and Applications Proceedings of EUSIPCO-88. Fourth European Signal Processing Conference*. North-Holland, Amsterdam, The Netherlands, 1988. ISBN 0-444-70516-3. LCCN ????

Martin:1988:SPN

[7790] Joanne L. Martin and Stephen F. Lundstrom, editors. *Supercomputing '88: proceedings, November 14–18, 1988, Orlando, Florida*, volume 2. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. ISBN 0-8186-0882-X (v. 1; paper), 0-8186-8882-3 (v. 1; case), 0-8186-4882-1 (v. 1: microfiche) 0-8186-8923-4 (v. 2), 0-8186-5923-X (v. 2: microfiche), 0-8186-8923-4 (v. 2: case). LCCN QA76.5 .S894 1988. Two volumes. IEEE catalog number 88CH2617-9. IEEE Computer Society Order Number 882.

Mason:1990:AAI

[7791] J. C. Mason and M. G. Cox, editors. *Algorithms for approximation II: based on the proceedings of the Second International Conference on Algorithms for Approximation, held at Royal Military College of Science,* *Shrivenham, July 1988*. Chapman and Hall, Ltd., London, UK, 1990. ISBN 0-412-34580-3. LCCN QA221 .I54 1988.

Midcon:1988:MCP

[7792] Midcon, editor. *Midcon 88: Conference: Papers, August 30 – September 1, 1998, Dallas, TX, USA*. Electron. Conventions Manage, Ventura, CA, USA, 1988. ISBN ???? LCCN ????

Moore:1988:RCR

[7793] Ramon E. Moore, editor. *Reliability in Computing: the Role of Interval Methods in Scientific Computing*, volume 19 of *Perspectives in computing*. Academic Press, New York, NY, USA, 1988. ISBN 0-12-505630-3. xv + 428 pp. LCCN QA76.9.E94 R45 1988.

Sakamura:1988:TPO

[7794] Ken Sakamura, editor. *TRON Project 1988. Open-Architecture Computer Systems Proceedings of the Fifth TRON Project Symposium*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1988. ISBN 0-387-70038-2 (New York), 3-540-70038-2 (Berlin), 4-431-70038-2 (Tokyo). LCCN ????

USENIX:1988:UPC

[7795] USENIX Association, editor. *USENIX proceedings: C++ Conference, Denver, CO, October 17–21, 1988*. USENIX, San Francisco, CA, USA, 1988.

Wescon:1988:WCR

[7796] Wescon, editor. *Wescon/88 conference record: sessions presented at Wescon/88, Anaheim, Calif., November 15–17, 1988*, volume 32. Electronic Conventions Management, Ventura, CA, USA, 1988. ISBN ???? LCCN ????

ACM:1989:APT

[7797] ACM, editor. *ASPLOS-III Proceedings. Third International Conference on Architectural Support for Programming Languages and Operating Systems, Boston, MA, USA, April 3–6, 1989*. ACM Press, New York, NY 10036, USA, 1989. ISBN 0-89791-300-0. LCCN QA76.9.A73I565 1989. ACM order number 556890. Also published as Computer architecture news, v. 17, no. 2 (Apr. 1989), Operating systems review, v. 23, special issue (Apr. 1989), and SIGPLAN notices, v. 24, special issue (May 1989).

ACM:1989:PSN

[7798] ACM, editor. *Proceedings, Supercomputing '89: November 13–17, 1989, Reno, Nevada*. ACM Press, New York, NY 10036, USA, 1989. ISBN 0-89791-341-8. LCCN QA 76.5 S87 1989. IEEE 89CH2802-7.

Carey:1989:PSM

[7799] Graham F. Carey, editor. *Parallel supercomputing: methods, algorithms and applications*. Wiley series in parallel computing. Wiley, New York, NY, USA, 1989. ISBN 0-471-92436-9. x + 287 pp. LCCN M89.E02452; QA76.6.

Chen:1989:TSA

[7800] Ray R. Chen, editor. *Twenty-second Asilomar Conference on Signals, Systems & Computers: October 31–November 2, 1988, Pacific Grove, California*. Maple Press, San Jose, CA, USA, 1989. ISBN 0-929029-15-1. LCCN ???? Two volumes. IEEE catalog number 88CH2660-9. IEEE catalog no. 88CH2835-7.

Ercegovac:1989:PSC

[7801] Miloš D. Ercegovac and Earl E. Swartzlander, Jr., editors. *Proceedings: 9th Symposium on Computer Arithmetic: September 6–8, 1989, Santa Monica, California, USA*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. ISBN 0-8186-8963-3 (case), 0-8186-5963-7 (microfiche). LCCN QA 76.9 C62 S95 1989. IEEE catalog no. 89CH2757-3.

IEE:1989:EEC

[7802] IEE, editor. *ECCTD 89: European Conference on Circuit Theory and Design, 5–8 September 1989: venue, University of Sussex, Brighton, United Kingdom*. IEE, London, UK, 1989. ISBN 0-85296-383-1. LCCN ???? Conference publication no. 308.

IEEE:1989:IISa

[7803] *1989 IEEE International Symposium on Circuits and Systems: Portland Hilton, Portland, OR, May 8–11, 1989*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. LCCN TK 7801 I22 1989. Three volumes.

IEEE:1989:ISV

[7804] IEEE, editor. *1989 International Symposium on VLSI Technology, Systems and Applications: proceedings of technical papers: VLSI: May 17–19, 1989/Taipei, Taiwan, R.O.C.* IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. ISBN ???? LCCN ???? IEEE catalog no. 89CH2631-0.

IEEE:1989:PII

[7805] *Proceedings: 1989 IEEE International Conference on Computer Design: VLSI in Computer and Processors, ICCD '89, Hyatt Regency Cambridge, Cambridge, Massachusetts, October 2–4, 1989.* IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. ISBN 0-8186-1971-6 (paper), 0-8186-5971-8 (microfiche), 0-8186-8971-4 (case). LCCN TK 7888.4 I23 1989. IEEE catalog number 89CH2794-6.

Turner:1989:NAP

[7806] Peter R. Turner, editor. *Numerical analysis and parallel processing: lectures given at the Lancaster Numerical Analysis Summer School, 1987*, volume 1397 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1989. ISBN 0-387-51645-X, 0-387-13864-1. LCCN QA3 .L28 no. 1397. US$45.00.

Wuorinen:1989:DTP

[7807] J. H. Wuorinen, editor. *Digest of technical papers: 1989 IEEE International Solid-State Circuits Conference*, volume 32. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, February 1989. CODEN DTPCDE. ISBN ???? ISSN 0193-6530. LCCN TK7870 .I58 1989. IEEE catalog no. 89CH2684-9.

ACM:1990:PAS

[7808] ACM, editor. *Proceedings of the ACM SIGPLAN '90 Conference on Programming Language Design and Implementation, White Plains, New York, June 20–22, 1990*, volume 25(6) of *ACM SIGPLAN Notices*. ACM Press, New York, NY 10036, USA, June 1990. CODEN SINODQ. ISBN 0-89791-364-7. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). LCCN QA76.7.S53 1990.

ACM:1990:PDB

[7809] ACM, editor. *Proceedings: December 3–7, 1990, Baltimore Convention Center, Baltimore, MD.* ACM Press, New York, NY 10036, USA, 1990. ISBN 0-89791-409-0. LCCN QA76.73.A35.

Anonymous:1990:PAN

[7810] Anonymous, editor. *Proceedings of the Annual National Conference of Ada Technology (8th). Held in Atlanta, Georgia on March 5–8, 1990.*

U.S. Army Commun.-Electron. Command, Fort Monmouth, NJ, USA, 1990. ISBN ???? LCCN ????

Chen:1990:CRT

[7811] Ray R. Chen, editor. *Conference record: Twenty-fourth Asilomar Conference on Signals, Systems and Computers: Papers Presented November 5–7, 1990, Pacific Grove, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. ISBN 0-8186-2182-6. LCCN TK 5102.5 A78 1990. Two volumes.

CUG:1990:PSC

[7812] CUG, editor. *Proceedings, 25th Semiannual Cray User Group Meeting, Toronto, Ontario, June 1990*. Cray User Group, 186 Mandela Road, Shepherdstown, WV 25443, USA, 1990. ISBN ???? LCCN ????

Feijen:1990:BOB

[7813] W. H. J. Feijen, A. J. M. van Gasteren, David Gries, and J. Misra, editors. *Beauty is our Business: a Birthday Salute to Edsger W. Dijkstra*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1990. ISBN 0-387-97299-4, 3-540-97299-4, 1-4612-8792-8 (print), 1-4612-4476-5 (online). ISSN 0172-603X. xix + 453 pp. LCCN QA76 .B326 1990. URL http://www.zentralblatt-math.org/zmath/en/search/?an=0718.68004. Contains important treatment of accurate binary-to-decimal conversion [2587, 2604].

Hennessy:1990:CAQ

[7814] John L. Hennessy and David A. Patterson. *Computer Architecture: a Quantitative Approach*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, 1990. ISBN 1-55860-069-8, 1-55880-169-8. xxviii + 594 pp. LCCN QA76.9.A73 P377 1990.

IEE:1990:ICV

[7815] IEE, editor. *IEE Colloquium on 'VLSI Signal Processing Architectures' (Digest No.95)*. IEE, London, UK, 1990. ISBN ???? LCCN ????

IEEE:1990:MMM

[7816] IEEE, editor. *MICRO 23: microprogramming and microarchitecture: 23rd Annual workshop and symposium: Selected papers*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. ISBN 0-8186-2124-9. LCCN ???? IEEE catalog no. 90TH0341-8.

IEEE:1990:PII

[7817] *Proceedings: 1990 IEEE International Conference on Computer Design: VLSI in Computers and Processors: ICCD '90, Hyatt Regency Cambridge, Cambridge, Massachusetts, September 17–19, 1990*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. ISBN 0-8186-9079-8 (case), 0-8186-6079-1 (microfiche), 0-8186-2079-X (paper). LCCN TK 7888.4 I23 1990.

Patterson:1990:CAQ

[7818] David A. Patterson and John L. Hennessy. *Computer Architecture: a Quantitative Approach*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, 1990. ISBN 1-55860-069-8, 1-55880-169-8. xxviii + 594 pp. LCCN QA76.9.A73 P377 1990.

SHARE:1990:PSE

[7819] SHARE, editor. *Proceedings SHARE Europe Spring Meeting*. SHARE Europe (SEAS), Geneva, Switzerland, 1990. ISBN ???? ISSN 0255-6464. LCCN ???? 2 vol.

Swartzlander:1990:CAa

[7820] Earl E. Swartzlander, Jr. *Computer Arithmetic*, volume 1 of *IEEE Computer Society Press tutorial*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. ISBN 0-8186-8931-5 (hardcover), 0-8186-5931-9 (microfiche). xiii + 378 pp. LCCN QA76.6 .C633 1990.

Swartzlander:1990:CAb

[7821] Earl E. Swartzlander, Jr. *Computer Arithmetic*, volume 2. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. ISBN 0-8186-8945-5. ix + 396 pp. LCCN QA76.9 .C62C66 1990. This is part of a two-volume collection of influential papers on the design of computer arithmetic. See also [7820].

Ullrich:1990:CCA

[7822] Christian Ullrich, editor. *Contributions to Computer Arithmetic and Self-Validating Numerical Methods. (Proceedings of SCAN 89, held in Basel, Oct. 2–6, 1989)*, volume 7 of *IMACS annals on computing and applied mathematics*. J. C. Baltzer AG, Scientific Publishing Company, Basel, Switzerland, 1990. ISBN ???? LCCN ????

USENIX:1990:PWU

[7823] *Proceedings of the Winter 1990 USENIX Conference, January 22–26, 1990, Washington, DC, USA*. USENIX, San Francisco, CA, USA, 1990. LCCN QA76.8.U65 U82 1990.

Wescon:1990:WCR

[7824] Wescon, editor. *Wescon/90 conference record, November 13–15, 1990, Anaheim, California*, volume 34 of *Wescon conference record*. Electronic Conventions Management, Los Angeles, CA, USA, 1990. ISBN ???? LCCN ????

ASEE:1991:CCW

[7825] ASEE, editor. *Challenges of a changing world: proceedings, 1991 Annual Conference, June 16–19, 1991, University of New Orleans*. American Society for Engineering Education (ASEE), Washington, DC, USA, 1991. ISBN ???? LCCN ???? 2 vol.

Griewank:1991:ADA

[7826] Andreas Griewank and George F. Corliss, editors. *Automatic differentiation of algorithms: theory, implementation, and application. Proceedings of the first SIAM Workshop on Automatic Differentiation, held in Breckenridge, Colorado, January 6–8, 1991*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1991. ISBN 0-89871-284-x. LCCN QA304 1991.

IEEE:1991:PFC

[7827] IEEE, editor. *Proceedings / Fourth CSI/IEEE International Symposium on VLSI Design, New Delhi, India, January 4–8, 1991: digest of papers*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. ISBN 0-8186-2125-7. LCCN ???? IEEE catalog no. 91TH0340-0.

IEEE:1991:PIC

[7828] *Proceedings of the IEEE 1991 Custom Integrated Circuits Conference: Town and Country Hotel, San Diego, California, May 12–15, 1991*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. ISBN 0-7803-0016-5. LCCN TK 7874 C87 1991.

IEEE:1991:PSA

[7829] IEEE, editor. *Proceedings, Supercomputing '91: Albuquerque, New Mexico, November 18–22, 1991*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. ISBN

0-8186-9158-1 (IEEE case), 0-8186-2158-3 (IEEE paper), 0-8186-6158-5 (IEEE microfiche), 0-89791-459-7 (ACM). LCCN QA76.5 .S894 1991. ACM order number 415913. IEEE Computer Society Press order number 2158. IEEE catalog number 91CH3058-5.

IEEE:1991:VCA

[7830] *VLSI Cell Architecture and Application to Signal Processing. ICASSP 91: 1991 International Conference on Acoustics, Speech and Signal Processing, May 14–17, 1991, The Sheraton Centre Hotel and Towers, Toronto, Ontario, Canada*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. ISBN 0-7803-0003-3 (softbound), 0-7803-0004-1 (casebound), 0-7803-0005-X (microfiche). LCCN TK 7882 S65 I16 1991. Five volumes. IEEE catalog number 91CH2977-7.

Kaucher:1991:CAS

[7831] Edgar W. Kaucher, S. M. (Svetoslav M.) Markov, and G. (Gunter) Mayer, editors. *Computer Arithmetic, Scientific Computation and Mathematical Modelling: Proceedings of the Second International Conference on Computer Arithmetic, Scientific Computation and Mathematical Modelling, Albena, Bulgaria, September 24–28, 1990*, volume 12 of *IMACS Annals on Computing and Applied Mathematics*. J. C. Baltzer AG, Scientific Publishing Company, Basel, Switzerland, 1991. ISSN 1012-2435. LCCN QA76.9.C62 I555 1990.

Koopman:1991:PST

[7832] Philip J. Koopman, Jr., editor. *The proceedings of the second and third annual workshops for the ACM Special Interest Group on Forth: SIGForth '90, February 16–18, 1990, Dallas, Texas ... SIGForth '91, March 7–9, 1991, San Antonio, Texas*. ACM Press, New York, NY 10036, USA, 1991. ISBN 0-89791-462-7. LCCN QA 76.73 F24 S53 1991. ACM order number 817911.

Kornerup:1991:PIS

[7833] Peter Kornerup and David W. Matula, editors. *Proceedings: 10th IEEE Symposium on Computer Arithmetic: June 26–28, 1991, Grenoble, France*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. IEEE catalog no. 91CH3015-5.

Meyer:1991:CAP

[7834] Kenneth R. (Kenneth Ray) Meyer and Dieter S. Schmidt, editors. *Computer aided proofs in analysis*, volume 28 of *The IMA volumes in* *mathematics and its applications*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1991. ISBN 0-387-97426-1, 3-540-97426-1. LCCN QA614.58 .I52 1989; QA297 .C638 1991.

Morris:1991:RWP

[7835] Joseph M. Morris and Roger C. Shaw, editors. *4th Refinement Workshop: proceedings of the 4th Refinement Workshop, 9–11 January 1991, Cambridge*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1991. ISBN 3-540-19657-9. LCCN ????

SPIE:1991:PSI

[7836] Franklin T. Luk, editor. *Advanced Signal Processing Algorithms, Architectures, and Implementations II: 24–26 July 1991, San Diego, California*. Society of Photo-optical Instrumentation Engineers (SPIE), Bellingham, WA, USA, 1991. ISBN 0-8194-0694-5. LCCN TS510.S63 v.1566.

Alley:1992:CRI

[7837] Gary T. Alley, editor. *Conference record of the 1992 IEEE Nuclear Science Symposium and Medical Imaging Conference: October 25–31, 1992, Orlando, Florida USA*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. ISBN 0-7803-0884-0. LCCN ???? Two volumes. IEEE catalog no. 92CH3232-6.

Anonymous:1992:EAP

[7838] Anonymous, editor. *Euro ASIC '92: proceedings, CNIT, Paris, June 1–5, 1992 in cooperation with IEEE Computer Society*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. ISBN 0-8186-2845-6, 0-8186-2846-4, 0-8186-2847-2. LCCN TK7874.6 .E87 1992. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=416`. IEEE catalog no. 92TH0442-4. IEEE Computer Society Press order number 2845.

Atanassova:1992:CAE

[7839] Lidiya Atanassova and Jürgen Herzberger, editors. *Computer Arithmetic and Enclosure Methods: Proceedings of the Third International IMACS-GAMM Symposium on Computer Arithmetic and Scientific Computing (SCAN-91), Oldenburg, Germany, 1–4 October 1991*. Elsevier North-Holland, Inc., New York, NY, USA, 1992. ISBN 0-444-89834-4. LCCN QA76.9.C62 I559 1992.

IEEE:1992:ASF

[7840] IEEE, editor. *33rd Annual Symposium on Foundations of Computer Science: October 24–27, 1992, Pittsburgh, Pennsylvania: proceedings* *[papers]*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. CODEN ASFPDV. ISBN 0-8186-2901-0 (microfiche), 0-8186-2900-2 (paperback). ISSN 0272-5428. LCCN QA 76 S979 1992. IEEE Catalog Number 92CH3188-0. IEEE Computer Society Press Order Number 2900.

IEEE:1992:GCG

[7841] IEEE, editor. *GLOBECOM '92. Communication for Global Users. IEEE Global Telecommunications Conference. Conference Record*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. ISBN 0-7803-0608-2, 0-7803-0609-0, 0-7803-0610-4 (microfiche). LCCN ???? Three volumes. IEEE catalog no. 92CH3130-2.

IEEE:1992:IIC

[7842] *1992 IEEE International Conference on Computer Design, VLSI in Computers and Processors: Proceedings, Royal Sonesta Hotel, Cambridge, Massachusetts, October 11–14, 1992*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. ISBN 0-8186-3110-4 (paper), 0-8186-3111-2 (microfiche), 0-8186-3112-0 (case). LCCN TK 7888.4 I23 1992.

IEEE:1992:PIC

[7843] IEEE, editor. *Proceedings of the IEEE 1992 Custom Integrated Circuits Conference: the Westin Copley Place Hotel, Boston, Massachusetts, May 3–6, 1992*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. ISBN 0-7803-0246-X, 0-7803-0247-8, 0-7803-0248-6. LCCN ???? IEEE catalog no. 92CH3078-3.

IEEE:1992:PIS

[7844] IEEE, editor. *Proceedings / IEEE Southeastcon '92, April 12–15, 1992, Birmingham, Alabama*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. ISBN 0-7803-0494-2. LCCN ???? Two volumes. IEEE catalog no. 92CH3094-0.

Juj:1992:NCR

[7845] Hardev Juj and Alvin Todd Moser, editors. *Northcon/92 Conference Record: Seattle, Washington, October 19–21, 1992*. Electronic Conventions Management, Los Angeles, CA, USA, 1992. LCCN TK 7801 N67 1992.

Katwijk:1992:AMT

[7846] J. Katwijk, editor. *Ada: moving towards 2000: 11th Ada-Europe International Conference, Zandvoort, The Netherlands, June*

1–5, 1992: proceedings, volume 603 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1992. CODEN LNCSD9. ISBN 3-540-55585-4 (Berlin), 0-387-55585-4 (New York). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.73.A35 A24 1992. URL http://link.springer-ny.com/link/service/series/0558/tocs/t0603.htm; http://www.springerlink.com/openurl.asp?genre=issue&issn=0302-9743&volume=603.

Prinetto:1992:CHD

[7847] Paolo Prinetto and Paolo Camurati, editors. *Correct Hardware Design Methodologies. Proceedings of the Advanced Research Workshop on Correct Hardware Design Methodologies, Turin, Italy, June 12–14, 1991*. North-Holland, Amsterdam, Netherlands, 1992. ISBN 0-444-89367-9. LCCN TK7874 .A3353 1991.

Quinton:1992:APV

[7848] Patrice Quinton and Yves Robert, editors. *Proceedings of the International Workshop Algorithms and Parallel VLSI Architectures II, Château de Bonas, Gers, France, June 3–6, 1991*. Elsevier, Amsterdam, The Netherlands, 1992. ISBN 0-444-89153-6. LCCN ????

Singh:1992:CRT

[7849] Avtar Singh, editor. *Conference record of the Twenty-sixth Asilomar Conference on Signals, Systems and Computers: October 26–28, 1992, Pacific Grove, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. ISBN 0-8186-3162-7 (case), 0-8186-3160-0 (paper), 0-8186-3161-9 (microfiche). LCCN TK 5102.5 A78 1992. Two volumes.

Turing:1992:PM

[7850] A. M. Turing. *Pure mathematics*. Collected Works of A. M. Turing. North-Holland, Amsterdam, The Netherlands, 1992. ISBN 0-444-88059-3. xxii + 287 pp. LCCN ???? Edited and with an introduction and postscript by J. L. Britton and Irvine John Good. With a preface by P. N. Furbank.

Vandewalle:1992:SPV

[7851] J. Vandewalle, R. Boite, M. Moonen, and A. Oosterlinck, editors. *Signal processing VI: theories and applications; proceedings of EUSIPCO-92, Sixth European Signal Processing Conference, Brussels, Belgium, August 24–27, 1992*. Elsevier, Amsterdam, The Netherlands, 1992. ISBN 0-444-89587-6. LCCN TK5102.5 621.382/2. 3 vol.

Wang:1992:PII

[7852] Paul S. Wang, editor. *Proceedings of ISSAC '92. International Symposium on Symbolic and Algebraic Computation.* ACM Press, New York, NY 10036, USA, 1992. ISBN 0-89791-489-9 (soft cover), 0-89791-490-2 (hard cover). LCCN QA76.95.I59 1992. ACM order number: 505920.

White:1992:IIS

[7853] Stan White, editor. *1992 IEEE International Symposium on Circuits and Systems: San Diego CA, May 10–13, 1992.* IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. ISBN 0-7803-0593-0. LCCN ???? Six volumes. IEEE catalog no. 92CH3139-3.

Adams:1993:SCA

[7854] Ernst Adams and Ulrich Kulisch, editors. *Scientific computing with automatic result verification*, volume 189 of *Mathematics in science and engineering.* Academic Press, New York, NY, USA, 1993. ISBN 0-12-044210-8. x + 612 pp. LCCN QA76 .S368 1993. URL `http://lccn.loc.gov/92247371`.

Anonymous:1993:IPF

[7855] Anonymous, editor. *ICSPAT '93: Proceedings of the Fourth International Conference on Signal Processing Applications & Technology: Santa Clara, California, USA, September 28 – October 1, 1993.* DSP Associates, Newton, MA, USA, 1993. ISBN ???? LCCN ???? Two volumes.

Corliss:1993:AIC

[7856] G. F. Corliss and R. B. Kearfott, editors. *Abstracts for an International Conference on Numerical Analysis with Automatic Result Verification: Mathematics, Application and Software, February 25–March 1, 1993, Lafayette, LA, 1993*, volume 3(3–4) of *Interval Computations = Interval'nye vychisleniia.* ????, ????, 1993. ISBN ???? ISSN 0135-4868. LCCN ????

Eggermont:1993:VSP

[7857] Ludwig D. J. Eggermont et al., editors. *VLSI signal processing, VI. Proceedings of the 1993 IEEE workshop on VLSI signal processing, Veldhoven, The Netherlands, October 20–22, 1993.* IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. ISBN 0-7803-0996-0. LCCN TK7874 .V5637 1993. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=3196`.

IEEE:1993:PEC

[7858] IEEE, editor. *(1993) Proceedings The European Conference on Design Automation with the European Event in ASIC Design*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. ISBN 0-8186-3410-3. LCCN ????

IEEE:1993:PIP

[7859] IEEE, editor. *Proceedings of the IEEE Pacific Rim Conference on Communications, Computers, and Signal Processing (1993: Victoria, BC)*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. ISBN 0-7803-0971-5 (softbound), 0-7803-1219-8 (casebound), 0-7803-0972-3 (microfiche). LCCN TK5101.A1 I34 1993.

IEEE:1993:PMS

[7860] IEEE, editor. *Proceedings of the 36th Midwest Symposium on Circuits and Systems*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. ISBN 0-7803-1760-2. LCCN ???? Two volumes. IEEE catalog no. 93CH3381-1.

Lee:1993:MCM

[7861] Thomas Lee, editor. *Mathematical computation with Maple V: ideas and applications: Proceedings of the Maple Summer Workshop and Symposium, University of Michigan, Ann Arbor, June 28–30, 1993*. Birkhäuser Boston Inc., Cambridge, MA, USA, 1993. ISBN 0-8176-3724-9, 3-7643-3724-9. LCCN QA76.95.M36 1993.

Lombardi:1993:PII

[7862] F. Lombardi, M. Sami, Y. Savaria, and R. Stefanelli, editors. *Proceedings / The IEEE International Workshop on Defect and Fault Tolerance in VLSI Systems: October 27–29, 1993, Venice, Italy*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. ISBN 0-8186-3502-9 (case), 0-8186-3501-0 (microfiche). LCCN ???? IEEE catalog no. 93TH0571-0.

Sincovec:1993:PSS

[7863] Richard F. Sincovec, David E. Keyes, L. M. R., L. R. Petzold, and D. A. Reed, editors. *Proceedings of the Sixth SIAM Conference on Parallel Processing for Scientific Computing, held March 22–24, 1993, in Norfolk, VA, USA*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1993. ISBN 0-89871-315-3. LCCN QA76.58 .S55 1993 v.1-2. Two volumes.

Swartzlander:1993:PSC

[7864] Earl Swartzlander, Jr., Mary Jane Irwin, and Graham Jullien, editors. *Proceedings: 11th Symposium on Computer Arithmetic, June 29–July 2, 1993, Windsor, Ontario*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. IEEE Transactions on Computers **43(8)**, 1994.

Swartzlander:1993:SCA

[7865] Earl Swartzlander, Jr., Mary Jane Irwin, and Graham Jullien, editors. *Proceedings: 11th Symposium on Computer Arithmetic, June 29–July 2, 1993, Windsor, Ontario*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. ISBN 0-7803-1401-8 (softbound), 0-8186-3862-1 (casebound), 0-8186-3861-3 (microfiche). ISSN 0018-9340 (print), 1557-9956 (electronic). LCCN QA 76.9 C62 S95 1993. IEEE Transactions on Computers **43(8)**, 1994.

Wah:1993:ICA

[7866] Benjamin W. Wah and Luigi Dadda, editors. *The International Conference on Application-Specific Array Processors: October 25–27, 1993, Venice, Italy: proceedings*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. ISBN 0-8186-3492-8, 0-8186-3491-X. LCCN TK5102.5.

ACM:1994:AAW

[7867] ACM, editor. *Ada in applications: WADAS '94: eleventh Annual Washington Ada Symposium & Summer ACM SIGAda Meeting: featuring Working Group Product Development and Delivery: June 27 – July 1, 1994, McLean Hilton, Tyson's Corner, McLean, Virginia: proceedings*. ACM Press, New York, NY 10036, USA, 1994. ISBN 0-89791-684-0. LCCN ????

Ames:1994:IPI

[7868] William F. Ames, editor. *IMACS '94: proceedings of the 14th IMACS World Congress on Computation and Applied Mathematics: July 11–15, 1994, Georgia Institute of Technology, Atlanta, Georgia, USA*. IMACS, Department of Computer Science, Rutgers University, New Brunswick, NJ, 1994. ISBN ???? LCCN ???? Three volumes.

Calmet:1994:RWC

[7869] Jacques Calmet, editor. *Rhine Workshop on Computer Algebra. Proceedings*. University of Karlsruhe, Karlsruhe, Germany, 1994. ISBN ???? LCCN ????

Cappello:1994:PIC

[7870] P. Cappello, R. M. Owens, E. E. Swartzlander, Jr., and B. W. Wah, editors. *Proceedings. The International Conference on Application Specific Array Processors*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. ISBN 0-8186-6517-3. LCCN ???? IEEE catalog no. 94TH0687-4.

Echtle:1994:PFI

[7871] K. Echtle, D. Hammer, and D. Powell, editors. *Dependable Computing — EDCC-1. First European Dependable Computing Conference Proceedings*, volume 852 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1994. CODEN LNCSD9. ISBN 3-540-58426-9. ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN ????

Gautschi:1994:MCH

[7872] Walter Gautschi, editor. *Mathematics of computation, 1943–1993: a half-century of computational mathematics: Mathematics of Computation 50th Anniversary Symposium, August 9–13, 1993, Vancouver, British Columbia*, volume 48 of *Proceedings of Symposia in Applied Mathematics*. American Mathematical Society, Providence, RI, USA, 1994. ISBN 0-8218-0291-7, 0-8218-0353-0 (pt. 1), 0-8218-0354-9 (pt. 2). ISSN 0160-7634. LCCN QA1 .A56 v.48 1994; QA297.M385 1993. See also SIAM Review, September 1995, **37**(3), p. 483.

IEEE:1994:PFI

[7873] IEEE, editor. *Proceedings of the First International Conference on Massively Parallel Computing Systems (MPCS). The Challenges of General-Purpose and Special-Purpose Computing*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. ISBN 0-8186-6322-7. LCCN ????

IEEE:1994:PTA

[7874] IEEE, editor. *Proceedings of the Third Asian Test Symposium*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. ISBN 0-8186-6690-0. LCCN ???? IEEE catalog no. 94TH8016.

Lea:1994:PSA

[7875] R. M. Lea and S. Tewksbury, editors. *1994 Proceedings. Sixth Annual IEEE International Conference on Wafer Scale Integration*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. ISBN 0-7803-1850-1. LCCN ???? IEEE catalog no. 94CH3412-4.

Mudge:1994:PTS

[7876] T. N. Mudge and B. D. Shriver, editors. *Proceedings of the Twenty-Seventh Hawaii Internation Conference on System Sciences Vol. I: Architecture*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. ISBN 0-8186-5050-8. LCCN ???? IEEE catalog no. 94TH0607-2.

Pehrson:1994:IPP

[7877] Björn Pehrson and Imre Simon, editors. *Information processing '94: proceedings of the IFIP 13th World Computer Congress, Hamburg, Germany, 28 August–2 September, 1994: Technology and foundations: Applications and impacts: Linkage and developing countries*, volume A51–A53 of *IFIP transactions. A, Computer science and technology*. North-Holland, Amsterdam, The Netherlands, 1994. ISBN 0-444-81990-8 (set). LCCN QA75.5 .I3785 1994.

Wuorinen:1994:IIS

[7878] John H. Wuorinen et al., editors. *1994 IEEE International Solid-State Circuits Conference Digest of Technical Papers*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1994. ISBN 0-7803-1844-7, 0-7803-1845-5, 0-7803-1846-3 (microfiche). LCCN TK 7867 1994. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=1111`. IEEE catalog no. 94CH3410-8.

ACM:1995:PEA

[7879] ACM, editor. *Proceedings of the Eleventh Annual Symposium on Computational Geometry: Vancouver, British Columbia, Canada, June 5–7, 1995*. ACM Press, New York, NY 10036, USA, 1995. ISBN 0-89791-724-3. LCCN QA448.D38 S96 1995.

Anonymous:1995:HEI

[7880] Anonymous, editor. *HOL95: Eighth International Workshop on Higher-Order Logic Theorem Proving and Its Applications, Aspen Grove, UT, September 1995*. Brigham Young University, Provo, UT, USA, 1995. ISBN ???? LCCN ???? URL `http://lal.cs.byu.edu/lal/hol95/Bprocs/indexB.html`.

Athanas:1995:PIS

[7881] Peter Athanas and Kenneth L. Pocek, editors. *Proceedings: IEEE Symposium on FPGAs for Custom Computing Machines, April 19–21, 1995, Napa Valley, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. ISBN 0-8186-7086-X. LCCN TK79.85 G36 I36 1995.

Bainov:1995:PTI

[7882] D. (Dimitur) Bainov and Valery Covachev, editors. *Proceedings of the Third International Colloquium on Numerical Analysis: Plovdiv, Bulgaria, 13–17 August 1994*. VSP, Utrecht, The Netherlands, 1995. ISBN 90-6764-193-6. LCCN QA297.I45 1994.

Cappello:1995:ICA

[7883] Peter Cappello, Catherine Mongenet, Guy-René Perrin, Patrice Quinton, and Yves Robert, editors. *The International Conference on Application Specific Array Processors: July 24–26, 1995, Strasbourg, France: proceedings*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. ISBN 0-8186-7109-2. ISSN 1063-6862. LCCN TK7874.6 .I57 1995. IEEE Computer Society Press order number PR07109. EEE catalog number 95TB8098.

IEEE:1995:DPC

[7884] IEEE, editor. *Digest of papers: Compcon '95: technologies for the information superhighway: March 5–9, 1995, San Francisco, CA, USA*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. ISBN 0-7803-2657-1 (hardcover), 0-8186-7029-0 (paperback), 0-7803-2658-X (microfiche). ISSN 1063-6390. LCCN QA 75.5 C58 1995. IEEE Computer Society Press order number PR07029. IEEE catalog number 95CH35737.

IEEE:1995:IAI

[7885] IEEE, editor. *1995 IEEE/ACM International Conference on Computer-Aided Design: digest of technical papers; November 5–9, 1995, San Jose, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. ISBN 0-8186-7213-7, 0-8186-7214-5. LCCN TA174 .I52 1995; TK7874 .I3235 1995. IEEE catalog number 95CB35859. IEEE Computer Society Press order number PR07213.

IEEE:1995:ISM

[7886] IEEE, editor. *5th International Symposium on Multiple-Valued Logic, Bloomington, Indiana, May 23–25, 1995: Proceedings*. IEEE Computer

Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. ISBN 0-8186-7118-1, 0-7803-2764-0, 0-7803-2765-9. LCCN ????

Jain:1995:PET

[7887] L. C. Jain, editor. *Proceedings. Electronic Technology Directions to the Year 2000*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. ISBN 0-8186-7085-1. LCCN TK7801 .E456 1995.

Knowles:1995:PSC

[7888] Simon Knowles and William H. McAllister, editors. *Proceedings of the 12th Symposium on Computer Arithmetic, July 19–21, 1995, Bath, England*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. ISBN 0-8186-7089-4 (paperback), 0-8186-7089-4 (case), 0-8186-7149-1 (microfiche), 0-8186-7089-4 (softbound), 0-7803-2949-X (casebound). LCCN QA 76.9 C62 S95 1995. URL `https://ieeexplore.ieee.org/xpl/conhome/3236/proceeding`.

Seck:1995:GWS

[7889] Friedrich Seck, editor. *Zum 400. Geburtstag von Wilhelm Schickard: Zweites Tübinger Schickard-Symposion, 25. bis 27. Juni 1992. (German) [On the 400th Birthday of Wilhelm Schickard: Second Tubingen Schickard Symposium, 25–27 June 1992]*, volume 41 of *Contubernium*. Thorbecke, Sigmaringen, Germany, 1995. ISBN 3-7995-3235-8. ISSN 0340-6857. LCCN ???? DM 76.00, sfr 76.00, S 600.00.

Singh:1995:CRT

[7890] Avtar Singh, editor. *Conference record of the Twenty-Ninth Asilomar Conference on Signals, Systems & Computers: October 30–November 1, 1995 Pacific Grove, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1995. ISBN 0-8186-7370-2. LCCN TK7801 .A83 1995. Two volumes.

Alefeld:1996:NME

[7891] Götz Alefeld and Jürgen Herzberger, editors. *Numerical methods and error bounds: proceedings of the IMACS GAMM International Symposium on Numerical Methods and Error Bounds held in Oldenburg, Germany, July 9–12, 1995*, volume 89 of *Mathematical Research*. Akademie-Verlag, Berlin, Germany, 1996. ISBN 3-05-501696-3. ISSN 0138-3019. LCCN QA297 .I455 1995.

Alefeld:1996:SCV

[7892] Götz Alefeld, Andreas Frommer, and Bruno Lang, editors. *Scientific computing and validated numerics: proceedings of the International Symposium on Scientific Computing, Computer Arithmetic and Validated Numerics SCAN-95 held in Wuppertal, Germany, September 26–29, 1995*, volume 90 of *Mathematical Research*. Akademie Verlag, Berlin, Germany, 1996. ISBN 3-05-501737-4. ISSN 0138-3019. LCCN QA76.95 .I575 1995.

Bergin:1996:HPL

[7893] Thomas J. Bergin, Jr. and Richard G. Gibson, Jr. *History of Programming Languages II*. ACM Press and Addison-Wesley, New York, NY 10036, USA and Reading, MA, USA, 1996. ISBN 0-201-89502-1. xvi + 864 pp. LCCN QA76.7 .H558 1996. Drawn from the Second ACM SIGPLAN History of Programming Languages Conference.

Bouge:1996:EPP

[7894] L. (Luc) Bouge, editor. *Euro-Par'96: parallel processing: second International Euro-Par Conference, Lyon, France, August 26–29, 1996: proceedings*, volume 1123, 1124 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1996. ISBN 3-540-61626-8 (vol. 1), 3-540-61627-6 (vol. 2). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.58.I554 1996.

Hennessy:1996:CAQ

[7895] John L. Hennessy and David A. Patterson. *Computer Architecture—A Quantitative Approach*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, second edition, 1996. ISBN 1-55860-329-8. xxiii + 760 + A-77 + B-47 + C-26 + D-26 + E-13 + R-16 + I-14 pp. LCCN QA76.9.A73P377 1995. US$69.95.

IEEE:1996:DAC

[7896] IEEE, editor. *33rd Design Automation Conference: proceedings 1996, Las Vegas Convention Center, Las Vegas, NV, June 3–7, 1996*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. ISBN 0-7803-3294-6 (casebound), 0-7803-3364-0 (softbound), 0-7803-3295-4 (microfiche), 0-89791-779-0 (ACM). LCCN TA174 .D46 1996. ACM order number 47796. IEEE catalog number 96CH35932.

Kearfott:1996:AICa

[7897] R. Baker Kearfott and Vladik Kreinovich, editors. *Applications of interval computations: Papers presented at an international workshop in El Paso, Texas, February 23–25, 1995*, volume 3 of *Applied Optimization*. Kluwer Academic Publishers Group, Norwell, MA, USA, and Dordrecht, The Netherlands, 1996. ISBN 0-7923-3847-2. LCCN QA297.75.A66 1996. “Applications of Interval Computations” contains primarily survey articles of actual industrial applications of numerical analysis with automatic result verification and of interval representation of data. Underlying topics include:

- branch and bound algorithms for global optimization,
- constraint propagation,
- solution sets of linear systems,
- hardware and software systems for interval computations, and
- fuzzy logic.

Actual applications described in the book include:

- economic input-output models,
- quality control in manufacturing design,
- a computer-assisted proof in quantum mechanics,
- medical expert systems,
- and others.

A realistic view of interval computations is taken: the articles indicate when and how overestimation and other challenges can be overcome. An introductory chapter explains the content of the papers in terminology accessible to mathematically literate graduate students. The style of the individual, refereed contributions has been made uniform and understandable, and there is an extensive book-wide index. Audience: Valuable to students and researchers interested in automatic result verification. Detailed information, including contents, contributors, and an order form can be found:

- on Kluwer homepage `http://www.wkap.nl`, or
- on the Interval Computations homepage `http://cs.utep.edu/interval-comp/main.html`, in the “Books” section.

The information on the Interval Computations homepage is basically a mirror image of the Kluwer one (the only difference is that the fonts are fancier).

LakshmanYN:1996:IPI

[7898] Lakshman Y.N., editor. *ISSAC '96: Proceedings of the 1996 International Symposium on Symbolic and Algebraic Computation, July 24–26, 1996, Zurich, Switzerland*. ACM Press, New York, NY 10036, USA, 1996. ISBN 0-89791-796-0. LCCN QA 76.95 I59 1996.

Luk:1996:PSC

[7899] Franklin T. Luk, editor. *Proceedings of the 1996 SPIE Conference on Advanced*
Signal Processing Algorithms, Architectures, and Implementations VI, 6–8 August, 1996, Denver, Colorado, volume 2846. Society of Photo-optical Instrumentation Engineers (SPIE), Bellingham, WA, USA, 1996. ISBN 0-8194-2234-7. LCCN ???? URL `http://spiedigitallibrary.org/proceedings/resource/2/psisdg/2846/1`.

Pellikaan:1996:AGC

[7900] R. Pellikaan, M. Perret, and S. G. Vladut, editors. *Arithmetic, geometry, and coding theory: proceedings of the international conference held at Centre international de rencontres mathématiques (CIRM), Luminy, France, June 28–July 2, 1993*. Walter de Gruyter, Berlin, Germany, 1996. ISBN 3-11-014616-9. LCCN QA268 .A75 1996. UK£102.45.

Pocek:1996:ISF

[7901] Kenneth L. Pocek and Jeffrey M. Arnold, editors. *IEEE Symposium on FPGAs for Custom Computing Machines: proceedings, April 17–19, 1996, Napa Valley, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. ISBN 0-8186-7548-9. LCCN TK7895.G36 I35 1996. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=4230`. IEEE catalog number 96TB100063.

Srivas:1996:FMC

[7902] Mandayam Srivas and Albert Camilleri, editors. *Formal methods in computer-aided design: first international conference, FMCAD '96, Palo Alto, CA, USA, November 6–8, 1996: proceedings*, volume 1166 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1996. ISBN 3-540-61937-2. LCCN TK7874.65 .F53 1996.

Wuorinen:1996:DTP

[7903] John H. Wuorinen, editor. *Digest of technical papers: 1996 IEEE International Solid-State Circuits Conference. San Francisco Marriott Hotel, February 6–7, 1996*. IEEE Computer Society Press, 1109 Spring

Street, Suite 300, Silver Spring, MD 20910, USA, 1996. ISBN 0-7803-3137-0 (casebound), 0-7803-3136-2 (softbound), 0-7803-3138-9 (microfiche). LCCN TK7870 .I58 1996.

Zachary:1996:ISP

[7904] Joseph Zachary. *Introduction to scientific programming: computational problem solving using Maple and C*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1996. ISBN 0-387-94630-6, 1-4612-7518-0 (print), 1-4612-2366-0 (electronic). xxiv + 380 pp. LCCN QA76.6 .Z32 1996.

Boisvert:1997:QNS

[7905] Ronald F. Boisvert, editor. *The Quality of Numerical Software: Assessment and Enhancement: Proceedings of the IFIP TC2/WG 2.5 Working Conference on the Quality of Numerical Software, Oxford, United Kingdon, 8–12 July 1996*. Chapman Hall on behalf of IFIP, London, 1997. ISBN 0-412-80530-8.

Fargues:1997:CRT

[7906] Monique P. Fargues and Ralph D. Hippenstiel, editors. *Conference record of the Thirty-First Asilomar Conference on Signals, Systems & Computers: November 2–5, 1997, Pacific Grove, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. ISBN 0-8186-8316-3, 0-8186-8317-1 (casebound), 0-8186-8318-X (microfiche). LCCN TK454.2; TK 7885. URL `ftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/`; `http://ieeexplore.ieee.org/servlet/opac?punumber=5559`. Two volumes. IEEE order plan catalog number 97CB36163.

Lang:1997:ISC

[7907] Tomas Lang, Jean-Michel Muller, and Naofumi Takagi, editors. *13th IEEE Symposium on Computer Arithmetic: proceedings, July 6–9, 1997, Asilomar, California, USA*, volume 13 of *Symposium on Computer Arithmetic*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. ISBN 0-8186-7846-1, 0-8186-7847-X, 0-8186-7848-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 1997. IEEE Computer Society order number PR07846. IEEE Order Plan catalog number 97CB36091.

Pocek:1997:PAI

[7908] Kenneth L. Pocek and Jeffrey M. Arnold, editors. *Proceedings, the 6th Annual IEEE Symposium on Field-Programmable Custom Computing Machines, April 16–18, 1998, Napa Valley, California*. IEEE Computer

Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. ISBN 0-8186-8900-5, 0-8186-8902-1 (microfiche). ISSN 1082-3409. LCCN TK7895.G36 I36 1998. IEEE Computer Society order number PR08159. IEEE order plan catalog number 97TB100186.

Thiele:1997:IIC

[7909] Lothar Thiele, Jose Fortes, Kees Vissers, Valerie Taylor, Tobias Noll, and Jürgen Teich, editors. *IEEE International Conference on Application-Specific Systems, Architectures and Processors: proceedings, July 14–16, 1997, Zürich, Switzerland*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. ISBN 0-8186-7959-X, 0-8186-7960-3, 0-8186-7958-1. LCCN TK7874.6 .I57 1997.

ACM:1998:AWJ

[7910] ACM, editor. *ACM 1998 Workshop on Java for High-Performance Network Computing*. ACM Press, New York, NY 10036, USA, 1998. ISBN ???? LCCN ???? URL `http://www.cs.ucsb.edu/conferences/java98/program.html`. Possibly unpublished, except electronically.

Anonymous:1998:PNI

[7911] Anonymous, editor. *The Proceedings of the Ninth International Conference on Signal Processing Applications & Technology: September 13–16, 1998, Toronto, Canada*. Miller Freeman Publications, San Francisco, CA, USA, 1998. LCCN TK5102.5. Two volumes.

Chesneaux:1998:PCR

[7912] Jean-Marie Chesneaux et al., editors. *Proceedings of the 3rd Conference on Real Numbers and Computers (RNC3), 27–29 Avril, 1998, Paris, France*. ????, Paris, France, 1998. ISBN ???? LCCN ????

Gloor:1998:IPI

[7913] Oliver Gloor, editor. *ISSAC 98: Proceedings of the 1998 International Symposium on Symbolic and Algebraic Computation, August 13–15, 1998, University of Rostock, Germany*. ACM Press, New York, NY 10036, USA, 1998. ISBN 1-58113-002-3. LCCN ????

Holub:1998:ILW

[7914] Jan Holub and Radislav Smid, editors. *1st International On-Line Workshop on Dithering in Measurement: Theory and Applications, Prague, Czech Republic, March 1–31, 1998*. CTU FEE Department of Measurement and TUT Measurement and Information Technology, Prague, Czech Republic and Tampere, Finland, 1998. ISBN 80-01-01806-7. LCCN ????

Huijsing:1998:EPE

[7915] Johan H. Huijsing, Arthur H. M. van Roermund, and Herbert Grunbacher, editors. *ESSCIRC '98: proceedings of the 24th European Solid-State Circuits Conference, The Hague, The Netherlands, 22–24, 1998: Challenges for the next millennium*. Editions Frontières, Paris, France, 1998. ISBN 2-86332-235-4. LCCN TK7871.85 .E887 1998.

IEEE:1998:HCC

[7916] IEEE, editor. *Hot chips 10: conference record: August 16–18, 1998, Memorial Auditorium, Stanford University, Palo Alto, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. ISBN ???? LCCN ????

IEEE:1998:IIC

[7917] IEEE, editor. *1998 IEEE International Conference on Computer Design: VLSI in Computers and Processors: October 5–7, 1998 Austin, Texas: Proceedings*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. ISBN 0-8186-9099-2, 0-7803-5198-3, 0-8186-9101-8. LCCN ????

IEEE:1998:IOM

[7918] IEEE, editor. *Proceedings of the 24th EUROMICRO Conference, Västerås, Sweden, August 25–27, 1998*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. ISBN 0-8186-8646-4, 0-8186-8647-2 (casebound), 0-8186-8648-0 (microfiche). LCCN QA76.5 .S97 1998; QA 76.5 .E9 1998. Two volumes. IEEE Computer Society Order Number PR08646.

IEEE:1998:PGL

[7919] IEEE, editor. *Proceedings of the 8th Great Lakes Symposium on VLSI: Hotel Acadiana, Lafayette, Louisiana, February 19–21, 1998*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. ISBN 0-8186-8409-7, 0-8186-8411-9. LCCN TK7874 .G689 1998.

MacKay:1998:PCT

[7920] Stephen A. MacKay and J. Howard Johnson, editors. *Proceedings of CASCON'98: Toronto, Ontario, Canada, 30 November–3 December 1998*. IBM Toronto Laboratory, Centre for Advanced Studies, Toronto, ON, Canada, 1998. LCCN TK 5105.5 .C36 1998.

Matthews:1998:CRT

[7921] Michael B. Matthews et al., editors. *Conference record of the Thirty-Second Asilomar Conference on Signals, Systems and Computers: November 1–4, 1998, Pacific Grove, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. ISBN 0-7803-5148-7, 0-7803-5149-5, 0-7803-5150-9. LCCN TK5101.A1 A85 1998; TK454.2 .A8 1998.

Pocek:1998:PIS

[7922] Kenneth L. Pocek and Jeffrey M. Arnold, editors. *Proceedings, IEEE Symposium on FPGAs for Custom Computing Machines, April 15–17, 1998, Napa Valley, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. ISBN 0-8186-8900-5, 0-8186-8902-1 (microfiche). ISSN 1082-3409. LCCN TK7895.G36 I33 1998. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5734`.

Sasao:1998:ISM

[7923] Tsutomu Sasao and Bob Werner, editors. *28th International Symposium on Multiple-Valued Logic (ISMVL '98), Fukuoka, Japan, May 26–29, 1998*, volume 28. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. ISBN 0-8186-8371-6 (paperback), 0-8186-8372-4 (casebound), 0-8186-8373-2 (microfiche). ISSN 0195-623X. LCCN ???? IEEE catalog number 98CB36138.

Sohi:1998:YIS

[7924] Gurindar Sohi, editor. *25 years of the International Symposia on Computer architecture*. ACM Press, New York, NY 10036, USA, 1998. ISBN 1-58113-058-9. ISSN 1063-6897. LCCN QA76.9.A73 S944 1998.

ACM:1999:PFA

[7925] ACM, editor. *Proceedings of the Fifteenth Annual Symposium on Computational Geometry: June 13–16, 1999, Miami Beach, Florida*. ACM Press, New York, NY 10036, USA, 1999. ISBN 1-58113-068-6. LCCN ???? URL `http://www.acm.org/pubs/contents/proceedings/compgeom/304893/`. ACM order number 429990.

Begehr:1999:PSI

[7926] Heinrich G. W. Begehr, Robert P. Gilbert, and Joji Kajiwara, editors. *Proceedings of the Second ISAAC Congress: Fukuoka-shi, Japan*, volume 7–8 of *International Society for Analysis, Applications, and Computation*. Kluwer Academic Publishers Group, Norwell, MA, USA, and Dordrecht, The Netherlands, 1999. ISBN 0-7923-6598-4, 0-7923-6754-5. LCCN QA299.6 .I58 1999.

Csendes:1999:DRC

[7927] Tibor Csendes, editor. *Developments in Reliable Computing: Papers presented at the International Symposium on Scientific Computing, Computer Arithmetic, and Validated Numerics, SCAN-98, in Szeged, Hungary*, volume 5(3) of *Reliable Computing = Nadezhnye vychisleniia*. Kluwer Academic Publishers Group, Norwell, MA, USA, and Dordrecht, The Netherlands, 1999. ISBN 0-7923-6057-5. LCCN QA76.9.E94 D48 1999.

Hosticka:1999:EPE

[7928] B. J. Hosticka, G. Zimmer, and H. Grunbacher, editors. *ESSCIRC '99: proceedings of the 25th European Solid-State Circuits Conference, Duisburg, Germany, 21–23 September, 1999*. Editions Frontières, Paris, France, 1999. ISBN 2-86332-246-X. LCCN TK7871.85 .E887 1999.

IEEE:1999:AAF

[7929] IEEE, editor. *AP-ASIC '99: the First IEEE Asia Pacific Conference on ASICs, Yonsei University, Seoul, Korea, August 23–25, 1999*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN 0-7803-5705-1. LCCN TK7874.6 .I32 1999. IEEE catalog number 99EX360.

IEEE:1999:IPI

[7930] IEEE, editor. *ICECS '99: proceedings of ICECS '99, the 6th IEEE International Conference on Electronics, Circuits, and Systems: Pafos, Cyprus, 5–8 September, 1999*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN 0-7803-5682-9. LCCN TK7874 .I3236 1999. Three volumes.

IEEE:1999:PII

[7931] IEEE, editor. *Proceedings: 1999 29th IEEE International Symposium on Multiple-Valued Logic, May 20–22, 1999, Freiburg im Breisgau, Germany*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN 0-7695-0161-3, 0-7803-5684-5, 0-7695-0163-x. LCCN ????

Koren:1999:ISC

[7932] Israel Koren and Peter Kornerup, editors. *14th IEEE Symposium on Computer Arithmetic: proceedings: April 14–16, 1999, Adelaide, Australia*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN 0-7803-5609-8, 0-7695-0116-8, 0-7695-0118-4. ISSN 1063-6889. LCCN QA76.6 .S887 1999. URL http://computer.org/conferen/home/arith/; http://www.ecs.umass.edu/ece/arith14/program.html. IEEE Computer Society Order Number PR00116. IEEE Order Plan Catalog Number 99CB36336.

Luk:1999:PSA

[7933] Franklin T. Luk, editor. *Proceedings of SPIE: Advanced signal processing algorithms, architectures, and implementations IX: 19–21 July, 1999, Denver, Colorado*, volume 3807. Society of Photo-optical Instrumentation Engineers (SPIE), Bellingham, WA, USA, 1999. ISBN 0-8194-3293-8. LCCN TK5102.5 .A3325 1999; TK5102.5 .A3173 1999; TK5102.9 .A37 1999.

Matthews:1999:CRT

[7934] Michael B. Matthews et al., editors. *Conference record of the Thirty-Third Asilomar Conference on Signals, Systems and Computers: October 24–27, 1999, Pacific Grove, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN 0-7803-5700-0 (softbound), 0-7803-5701-9 (casebound), 0-7803-5702-7 (microfiche). LCCN TK5101.A1 A85 1999; TK454.2 .A8 1999.

Mazumder:1999:NGL

[7935] Pinaki Mazumder and Ronald J. Lomax, editors. *Ninth Great Lakes Symposium on VLSI: proceedings: Ypsilanti Marriott at Eagle Court, Ypsilanti, Michigan, March 4–6, 1999*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN 0-7695-0104-4, 0-7695-0106-0. LCCN TK7874 .G689 1999.

Piuri:1999:IAV

[7936] Vincenzo Piuri, editor. *IEEE Alessandro Volta Memorial Workshop on Low-Power Design: proceedings: March 4–5, 1999, Como, Italy*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN 0-7695-0019-6, 0-7695-0021-8. LCCN TK7874.66 .I34 1999.

Shiratori:1999:PIC

[7937] Norio Shiratori and Dhabaleswar Panda, editors. *Proceedings, 1999 International Conference on Parallel Processing: Aizu-Wakamatsu City, Japan, 21–24 September 1999*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN 0-7695-0350-0, 0-7695-0352-7. ISSN 0190-3918. LCCN QA76.58 .I55 1999. URL https://ieeexplore.ieee.org/servlet/opac?punumber=6466. IEEE Computer Society Order Number PR00350.

Wuorinen:1999:IIS

[7938] John H. Wuorinen, editor. *1999 IEEE International Solid-State Circuits Conference, San Francisco, CA: digest of technical papers*, volume 42. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN 0-7803-5126-6, 0-7803-5127-4, 0-7803-5128-2, 0-7803-5129-0. LCCN ???? IEEE catalog no. 99CH36278 and 99CB36278.

ACM:2000:PIC

[7939] ACM, editor. *Proceedings of the International Conference on Compilers, Architectures and Synthesis for Embedded Systems, San Jose, California, November 17–19, 2000*. ACM Press, New York, NY 10036, USA, 2000. ISBN 1-58113-338-3. LCCN ????

Anonymous:2000:DPX

[7940] Anonymous, editor. *DCIS '2000: Proceedings of the XV Conference on Design of Circuits and Integrated Systems, Le Corum, Montpellier, November 21–24, 2000*. ????, ????, 2000. ISBN ???? LCCN ????

IEEE:2000:EPI

[7941] IEEE, editor. *EDOC '00: Proceedings of the 4th International Conference on Enterprise Distributed Computing, 25-28 September 2000, Makuhari, Japan*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. ISBN 0-7695-0865-0. LCCN ????

IEEE:2000:IGP

[7942] IEEE, editor. *ISCAS 2000 Geneva: proceedings of the 2000 IEEE International Symposium on Circuits and Systems, Emerging technologies for the 21st century: May 28–31, 2000, International Conference Center (CICG) of Geneva, Switzerland*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. ISBN 0-7803-5482-6, 0-7803-5483-4, 0-7803-5484-2. LCCN TK7801 .I22 2000.

IEEE:2000:IPI

[7943] IEEE, editor. *IMTC/2000: Proceedings of the 17th IEEE Instrumentation and Measurement Technology Conference: Smart connectivity: integrating measurement and control, Hilton Hotel and Towers, Baltimore, Maryland, USA, May 1–4, 2000*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. ISBN 0-7803-5891-0, 0-7803-5890-2, 0-7803-5892-9. ISSN 1091-5281. LCCN TK7878 .I3295 2000. Three volumes. IEEE catalog number 00CH3706.

Luk:2000:PSA

[7944] Franklin T. Luk, editor. *Proceedings of SPIE: Advanced signal processing algorithms, architectures, and implementations X: 2–4 August 2000, San Diego, California, USA*, volume 4116. Society of Photo-optical Instrumentation Engineers (SPIE), Bellingham, WA, USA, 2000. ISBN 0-8194-3761-1. LCCN TK5102.5 .A3325 2000; TK5102.9 .A382 2000; TK5102.9 .A38 2000.

Matthews:2000:CRT

[7945] Michael B. Matthews et al., editors. *Conference record of the Thirty-Fourth Asilomar Conference on Signals, Systems and Computers: October 29–November 1, 2000, Pacific Grove, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. ISBN 0-7803-6514-3 (softbound), 0-7803-6515-1 (casebound), 0-7803-6516-X (microfiche). LCCN TK5101.A1 A85 2000.

Reynders:2000:IPI

[7946] John Reynders and Alexander V. Veidenbaum, editors. *ICS '00: Proceedings of the 14th international conference on Supercomputing: Santa Fe, New Mexico, USA, May 8–11, 2000*. ACM Press, New York, NY 10036, USA, 2000. ISBN 1-58113-270-0. LCCN QA76.88 .I573 2000. URL `https://dl.acm.org/doi/proceedings/10.1145/335231`.

Sprague:2000:PAH

[7947] Ralph H. Sprague, editor. *Proceedings of the 33rd Annual Hawaii International Conference on System Sciences: abstracts and CD-ROM of full papers: January 4–7, 2000, Maui, Hawaii*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. ISBN 0-7695-0493-0, 0-7695-0494-9, 0-7695-0495-7. LCCN TA168 .H37 2000.

Swartzlander:2000:IIC

[7948] Earl E. Swartzlander, Graham Jullien, and Michael Joseph Schulte, editors. *IEEE International Conference on Application-Specific Systems, Architectures and Processors: proceedings, July 10–12, 2000; Boston, Massachusetts*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. ISBN 0-7695-0716-6, 0-7695-0718-2. LCCN TK7874.6 .I572 2000.

Traverso:2000:IAU

[7949] Carlo Traverso, editor. *ISSAC 2000: 7–9 August 2000, University of St. Andrews, Scotland: proceedings of the 2000 International Symposium on Symbolic and Algebraic Computation*. ACM Press, New York, NY 10036,

USA, 2000. ISBN 1-58113-218-2. LCCN QA76.95.I59 2000. URL http://www.acm.org/pubs/contents/proceedings/issac/345542/. ACM order number 505000.

ACM:2001:PSA

[7950] ACM, editor. *Proceedings of the seventeenth annual Symposium on Computational Geometry (SCG'01): June 3–5, 2001, Medford, Massachusetts, USA*. ACM Press, New York, NY 10036, USA, 2001. ISBN 1-58113-357-X. LCCN ????

Anonymous:2001:JJ

[7951] Anonymous, editor. *JavaOne 2001, June 7, 2001*. ????, ????, 2001. ISBN ???? LCCN ????

Boulton:2001:TPH

[7952] Richard J. Boulton and Paul B. Jackson, editors. *Theorem Proving in Higher Order Logics: 14th International Conference, TPHOLs 2001, Edinburgh, Scotland, UK, September 3–6, 2001: Proceedings*, volume 2152 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001. ISBN 3-540-42525-X (paperback). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.A96 T655 2001.

Brebner:2001:FLA

[7953] Gordon Brebner and Roger Woods, editors. *Field-programmable logic and applications: 11th International Conference, FPL 2001, Belfast, Northern Ireland, UK, August 27–29, 2001: Proceedings*, volume 2147 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001. CODEN LNCSD9. ISBN 3-540-42499-7 (softcover). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN TK7895.G36 I48 2001; QA267.A1 L43 no.2147. URL http://link.springer-ny.com/link/service/series/0558/tocs/t2147.htm; http://www.springerlink.com/openurl.asp?genre=issue&issn=0302-9743&volume=2147.

Burgess:2001:ISC

[7954] N. Burgess and L. Ciminiera, editors. *15th IEEE Symposium on Computer Arithmetic: ARITH-15 2001: proceedings: Vail, Colorado, 11–13 June, 2001*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. ISBN 0-7695-1150-3; 0-7695-1152-X. ISSN 1063-6889. LCCN QA76.9.C62 S95 2001. US$145. IEEE order no. PR01150.

IEEE:2001:IPI

[7955] IEEE, editor. *ICCAD '01: Proceedings of the 2001 IEEE/ ACM International Conference on Computer-Aided Design, San Jose, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. ISBN 0-7803-7249-2. LCCN ????

IEEE:2001:PES

[7956] IEEE, editor. *Proceedings of the Euromicro Symposium on Digital Systems Design, Architectures, Methods and Tools (DSD 2001), Warsaw, Poland, 4–6 September 2001*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. ISBN 0-7695-1239-9. LCCN TK7868.D5 E93 2001.

IEEE:2001:PII

[7957] IEEE, editor. *Proceedings of the IEEE International Conference on Computer Design, September 17–20, 2001, Austin, TX*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. ISBN 0-7695-1200-3 (paperback), 0-7695-1202-X (microfiche). LCCN TK7885.A1 .I24 2001; TK 7885 .A1I24 2001.

Kraemer:2001:SCV

[7958] W. Krämer and Jürgen Wolff von Gudenberg, editors. *Scientific Computing, Validated Numerics, Interval Methods*. Kluwer Academic Publishers Group, Norwell, MA, USA, and Dordrecht, The Netherlands, 2001. ISBN 0-306-46706-2. LCCN ???? 09.00 EUR / 95.00 USD / 66.50 GBP. URL `http://www.wkap.nl/prod/b/0-306-46706-2`. Scan 2000, the GAMM–IMACS International Symposium on Scientific Computing, Computer Arithmetic, and Validated Numerics and Interval 2000, the International Conference on Interval Methods in Science and Engineering were jointly held in Karlsruhe, September 19–22, 2000.

Kulisch:2001:PEM

[7959] Ulrich Kulisch, Rudolf Lohner, and Axel Facius, editors. *Perspectives on enclosure methods: GAMM-IMACS international symposium on scientific computing, computer arithmetic and validated numerics, September 2000, Karlsruhe, Germany*. ????, 2001. ISBN 3-211-83590-3. LCCN QA76.9.C62 P47 2001. Held jointly with INTERVAL 2000 International conference on interval methods in science and engineering, on the occasion of the 60th birthday of Professor Gotz Alefeld. Also known as SCAN2000.

Luk:2001:ASP

[7960] Franklin T. Luk, editor. *Advanced signal processing algorithms, architectures, and implementations XI: 1–3 August, 2001, San Diego, CA, USA*, volume 4474 of *Proceedings of the SPIE — The International Society for Optical Engineering*. Society of Photo-optical Instrumentation Engineers (SPIE), Bellingham, WA, USA, 2001. CODEN PSISDG. ISBN 0-8194-4188-0. ISSN 0277-786X (print), 1996-756X (electronic). LCCN TK5102.5 .A332 2001.

Matthews:2001:CRT

[7961] Michael B. Matthews, editor. *Conference record of the Thirty-Fifth Asilomar Conference on Signals, Systems & Computers: November 4–7, 2001, Pacific Grove, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. ISBN 0-7803-7147-X (paperback), 0-7803-7148-8 (microfiche). LCCN ???? Two volumes. IEEE catalog number 01CH37256.

Oliveira:2001:FFM

[7962] Jose N. Oliveira and Pamela Zave, editors. *FME 2001: formal methods for increasing software productivity: [10th] International Symposium of Formal Methods Europe, Berlin, Germany, March 12–16, 2001: Proceedings*, volume 2021 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001. CODEN LNCSD9. ISBN 3-540-41791-5 (softcover). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.76.D47 I593 2001; QA267.A1 L43 no.2021. URL `http://link.springer-ny.com/link/service/series/0558/tocs/t2021.htm`.

Tang:2001:ICA

[7963] Ting-Ao Tang et al., editors. *2001 4th International Conference on ASIC: proceedings: Hotel Equatorial, Shanghai, China, October 23–25, 2001*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001. ISBN 0-7803-6677-8, 7-900081-59-3. LCCN TK7874.6 .I55 2001; TK7874.6 .I64 2001.

Babuska:2002:MMN

[7964] Ivo Babuška, Philippe G. Ciarlet, and Tetsuhiko Miyoshi, editors. *Mathematical Modeling and Numerical Simulation in Continuum Mechanics: Proceedings of the International Symposium on Mathematical Modeling and Numerical Simulation in Continuum Mechanics, September 29–October 3, 2000 Yamaguchi, Japan*, volume 19 of *Lecture Notes in Computational Science and Engineering*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK /

etc., 2002. CODEN LNCSA6. ISBN 3-540-42399-0 (print), 3-642-56288-4 (e-book). ISSN 1439-7358. LCCN QA808.2 .I59 2000. URL `http://link.springer.com/book/10.1007/978-3-642-56288-4`; `http://www.springerlink.com/content/978-3-642-56288-4`.

Borrione:2002:TIW

[7965] Dominique Borrione, editor. *Third International Workshop on the ACL2 Theorem Prover and its Applications (ACL2-2002), April 8–9, 2002, in Grenoble, France. Presentations, affiliated with ETAPS 2002.* ????, ????, 2002. ISBN ???? LCCN ???? URL `http://www.cs.utexas.edu/users/moore/acl2/workshop-2002/`.

Cohen:2002:MSP

[7966] Arjeh M. Cohen, Xiao-Shan Gao, and Nobuki Takayama, editors. *Mathematical software: proceedings of the first International Congress of Mathematical Software: Beijing, China, 17–19 August 2002.* World Scientific Publishing Co. Pte. Ltd., P. O. Box 128, Farrer Road, Singapore 9128, 2002. ISBN 981-238-048-5. LCCN QA76.95 .I5654 2002.

Hennessy:2002:CAQ

[7967] John L. Hennessy and David A. Patterson. *Computer Architecture—A Quantitative Approach.* Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, third edition, 2002. ISBN 1-55860-596-7. xxi + 883 + A-87 + B-42 + C-1 + D-1 + E-1 + F-1 + G-1 + H-1 + I-1 + R-22 + I-44 pp. LCCN ???? US$89.95. URL `http://www.mkp.com/books_catalog/catalog.asp?ISBN=1-55860-596-7`; `http://www.mkp.com/CA3`.

IEEE:2002:IIC

[7968] IEEE, editor. *2002 IEEE International Conference on Computer Design: VLSI in computers and processors: proceedings: September 16–18, 2002, Freiburg, Germany.* IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. ISBN 0-7695-1700-5 (paperback), 0-7695-1701-3 (casebound), 0-7695-1702-1 (microfiche). LCCN TK7888.3 .I25 2002. URL `http://www.computer.org/cspress/CATALOG/pr01700.htm`. IEEE catalog number PR01700.

IEEE:2002:IRA

[7969] IEEE, editor. *IEEE Reconfigurable Architecture Workshop, International Parallel and Distributed Symposium, Fort Lauderdale, Florida, April 15–19, 2002.* IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. ISBN 0-7695-1573-8 (paperback), 0-7695-1574-6 (casebound), 0-7695-1575-4 (microfiche). ISSN 1530-2075. LCCN QA76.58 .I583 2002. URL `http://www.computer.`

org/cspress/CATALOG/pr01573.htm. IEEE Computer Society Order Number PR01573.

IEEE:2002:IWS

[7970] IEEE, editor. *IEEE Workshop on Signal Processing Systems: (SIPS'02): San Diego, California, USA, October 16–18, 2002*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. ISBN 0-7803-7587-4. LCCN TK7874 .V5637 2002.

IEEE:2002:STI

[7971] IEEE, editor. *SC2002: From Terabytes to Insight. Proceedings of the IEEE ACM SC 2002 Conference, November 16–22, 2002, Baltimore, MD, USA*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. ISBN 0-7695-1524-X. LCCN ????

Li:2002:PIC

[7972] Daqian Li, editor. *Proceedings of the [24th] International Congress of Mathematicians: Beijing 2002, August 20–28*. Higher Education Press, Beijing, China, 2002. ISBN 7-04-008690-5 (three volumes), 7-900135-82-0 (CD-ROM). LCCN QA1 .I82 2002.

Luk:2002:PSA

[7973] Franklin T. Luk, editor. *Proceedings of SPIE: Advanced signal processing algorithms, architectures, and implementations XII: 9–11 July, 2002, Seattle, Washington, USA*, volume 4791. Society of Photo-optical Instrumentation Engineers (SPIE), Bellingham, WA, USA, 2002. ISBN 0-8194-4558-4. LCCN TK5102.5 .A3324 2002.

Matthews:2002:PTS

[7974] Michael B. Matthews, editor. *Proceedings of the Thirty Sixth Asilomar Conference on Signals, Systems, and Computers: November 3–6, 2002, Pacific Grove, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. ISBN 0-7803-7576-9. LCCN TK5102.5 A78 2002. UK£265.00. Two volumes. IEEE catalog number 02CH37387.

Pocek:2002:FAI

[7975] Kenneth L. Pocek and Jeffrey Arnold, editors. *FCCM 2002: 10th Annual IEEE Symposium on Field-Programmable Custom Computing Machines: proceedings: 22–24 April, 2002, Napa, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. ISBN 0-7695-1801-X. ISSN 1082-3409. LCCN TK7895.G36 I36 2002. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8168.

Schulte:2002:PII

[7976] Michael Joseph Schulte, editor. *Proceedings / The IEEE International Conference on Application-Specific Systems, Architectures and Processors: 17–19 July 2002, San Jose, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002. ISBN 0-7695-1712-9 (paperback), 0-7695-1713-7 (casebound), 0-7695-1714-5 (microfiche). LCCN TK7874.6. URL `http://www.cse.lehigh.edu/~asap/;` `https://ieeexplore.ieee.org/servlet/opac?punumber=8009`. IEEE catalog number PR01712.

Trimberger:2002:FTA

[7977] Stephen Trimberger and Martine Schlag, editors. *FPGA 2002: Tenth ACM International Symposium on Field-Programmable Gate Arrays, Monterey, California, USA: February 24–26, 2002*. ACM Press, New York, NY 10036, USA, 2002. ISBN 1-58113-452-5. LCCN TK7895.G36 A36 2002. URL `http://portal.acm.org/toc.cfm?id=503048`. ACM order number 480020.

Vladimirova:2002:TMA

[7978] Tanya Vladimirova and Richard Katz, editors. *Third Military and Aerospace Programmable Logic Devices International Conference (MAPLD 2000)*, volume 39(4) of *Journal of spacecraft and rockets*. AIAA, Reston, VA, USA, 2002. LCCN ????

Anonymous:2003:CRN

[7979] Anonymous, editor. *5th Conference on Real Numbers and Computers 2003 — RNC5, Lyon, France, September 2003*. ????, ????, 2003. ISBN ???? LCCN ????

Bajard:2003:ISC

[7980] Jean Claude Bajard and Michael Schulte, editors. *16th IEEE Symposium on Computer Arithmetic: ARITH-16 2003: proceedings: Santiago de Compostela, Spain, June 15–18, 2003*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. ISBN 0-7695-1894-X. ISSN 1063-6889. LCCN QA76.6 .S919 2003. URL `http://www.dec.usc.es/arith16/;` `https://ieeexplore.ieee.org/servlet/opac?punumber=8582`. IEEE Computer Society order number PR01894. Selected papers republished in *IEEE Transactions on Computers*, **54**(3) (2005) [5177].

Cheung:2003:FPL

[7981] Peter Y. K. Cheung, George A. Constantinides, and José T. de Sousa, editors. *Field-Programmable Logic and Applications: 13th International Conference, FPL 2003, Lisbon, Portugal, September 1–3, 2003: Proceedings*, volume 2778 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2003. CODEN LNCSD9. ISBN 3-540-40822-3 (softcover). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN TK7895.G36 I48 2003. URL `http://link.springer-ny.com/link/service/series/0558/tocs/t2778.htm`; `http://www.springerlink.com/openurl.asp?genre=issue&issn=0302-9743&volume=2778`; `http://www.springerlink.com/openurl.asp?genre=volume&id=doi:10.1007/b12007`.

Deprettere:2003:IIC

[7982] Ed F. Deprettere, editor. *IEEE International Conference on Application-Specific Systems, Architectures and Processors: proceedings: ASAP 2003: 24-26 June, 2003, The Hague, The Netherlands*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. ISBN 0-7695-1992-X. ISSN 1063-6862. LCCN TK7874.6 .I58 2003. IEEE Computer Society Order Number PR01992.

Dietz:2003:LCP

[7983] Henry G. Dietz, editor. *Languages and Compilers for Parallel Computing: 14th International Workshop, LCPC 2001, Cumberland Falls, KY, USA, August 1–3, 2001: Revised Papers*, volume 2624 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2003. CODEN LNCSD9. ISBN 3-540-04029-3 (paperback). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.58 .W656 2001. URL `http://link.springer-ny.com/link/service/series/0558/tocs/t2624.htm`; `http://www.springerlink.com/openurl.asp?genre=issue&issn=0302-9743&volume=2624`. The 14th workshop on Languages and Compilers for Parallel Computing, LCPC 2001, was organized and hosted by the Electrical and Computer Engineering Department of the University of Kentucky, Lexington, KY, USA.

IEEE:2003:IICa

[7984] IEEE, editor. *2003 IEEE International Conference on Acoustics, Speech, and Signal Processing: proceedings: April 6–10, 2003, Hong Kong Exhibition and Convention Centre, Hong Kong (ICASSP '03)*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring,

MD 20910, USA, 2003. ISBN 0-7803-7663-3. LCCN TK7882.S65 I16 2003. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8535. IEEE catalog number 03CH37404.

IEEE:2003:IICb

[7985] IEEE, editor. *2003 IEEE International Conference on Field-Programmable Technology (FPT): proceedings: 15–17 December, 2003, the University of Tokyo*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. ISBN 0-7803-8320-6. LCCN TK7895.G36 I143 2003. URL https://ieeexplore.ieee.org/servlet/opac?punumber=8988.

IEEE:2003:PCI

[7986] IEEE, editor. *Proceedings of the 2003 CGO: the International Symposium on Code Generation and Optimization; March 23–26, 2003, Fisherman's Wharf, San Francisco, CA, with special emphasis on feedback-directed and runtime optimization*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. ISBN 0-7695-1913-X. LCCN ???? ACM Order No. 530033.

Luk:2003:PSA

[7987] Franklin T. Luk, editor. *Proceedings of SPIE: Advanced signal processing algorithms, architectures, and implementations XIII: 6–8 August, 2003, San Diego, California, USA*, volume 5205. Society of Photo-optical Instrumentation Engineers (SPIE), Bellingham, WA, USA, 2003. ISBN 0-8194-5078-2. LCCN TK5102.5 .A3322 2003; TK5102.5 .A3325 2003; TK5102.9 .A38 2003; TK5102.5; TS510 .S63; TK5102.5 .A3173 2003eb.

Matthews:2003:PTS

[7988] Michael B. Matthews, editor. *Proceedings of the Thirty-Seventh Asilomar Conference on Signals, Systems & Computers: November 9–12, 2003, Pacific Grove, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. ISBN 0-7803-8104-1. LCCN ???? IEEE catalog number 03CH37493.

Senda:2003:IPI

[7989] J. Rafael Senda, editor. *ISSAC 2003: Proceedings of the 2003 International Symposium on Symbolic and Algebraic Computation, August 3–6, 2003, Drexel University, Philadelphia, PA, USA*. ACM Press, New York, NY 10036, USA, 2003. ISBN 1-58113-641-2. LCCN QA76.95. ACM order number 505030.

Warren:2003:HD

[7990] Henry S. Warren. *Hacker's delight*. Addison-Wesley, Reading, MA, USA, 2003. ISBN 0-201-91465-4. xiv + 306 pp. LCCN QA76.6 .W375 2003. URL `http://www.awprofessional.com/bookstore/product.asp?isbn=0201914654`; `http://www.hackersdelight.org/`; `http://www.hackersdelight.org/hackerTOC.pdf`; `http://www.informit.com/content/images/chap3_0201914654/elementLinks/0201914654.pdf`. While this book does not specifically address computational aspects of floating-point arithmetic (apart from the nine-page Chapter 15), it has extensive coverage of, and clever algorithms for, integer arithmetic operations that are fundamental for implementing hardware floating-arithmetic and software multiple-precision arithmetic.

Frougny:2004:RCR

[7991] Christiane Frougny, Vasco Brattka, and Norbert Müller, editors. *RNC'6, 6th Conference on Real Numbers and Computers: Nov 15–17, 2004, Dagstuhl, Germany*. Universitaät Trier, Fachbereich IV, Mathematik, Informatik, Trier, Germany, 2004. ISSN 0944-0488. URL `http://www.informatik.uni-trier.de/Reports/TR-08-2004`; `http://www.informatik.uni-trier.de/Reports/TR-08-2004/rnc6-complete.pdf`. Forschungsbericht Nr. 04-8.

ACM:2004:FAS

[7992] ACM, editor. *FPGA 2004: ACM/SIGDA Twelfth ACM International Symposium on Field-Programmable Gate Arrays, Monterey Beach Hotel, Monterey, California, USA: February 22–24, 2004*. ACM Press, New York, NY 10036, USA, 2004. ISBN 1-58113-829-6. LCCN TK7895.G36 A26 2004. URL `http://portal.acm.org/toc.cfm?id=968280`. ACM order number 480040.

ACM:2004:GVN

[7993] ACM, editor. *GLSVLSI '04: VLSI in the nanometer era: proceedings of the 2004 ACM Great Lakes Symposium on VLSI, Radisson Hotel, Boston, MA, USA, April 26-28, 2004*. ACM Press, New York, NY 10036, USA, 2004. ISBN 1-58113-853-9. LCCN ????

ACM:2004:YAS

[7994] ACM, editor. *20 Years of the ACM/SIGPLAN Conference on Programming Language Design and Implementation (1979–1999): a Selection*, volume 39(4). ACM Press, New York, NY 10036, USA, 2004. ISBN 1-58113-623-4. LCCN ????

Anonymous:2004:ICM

[7995] Anonymous, editor. *6th International Conference on Mathematics in Signal Processing: Cirencester, December 14–16, 2004*. ????, ????, 2004. ISBN ???? LCCN ????

Arnold:2004:PAI

[7996] Jeffrey Arnold, editor. *Proceedings / 12th Annual IEEE Symposium on Field-Programmable Custom Computing Machines, FCCM 2004: 20–23 April 2004, Napa Valley, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. ISBN 0-7695-2230-0. LCCN ????

Druin:2004:IDC

[7997] Allison Druin, Juan Pablo Hourcade, and Sharmon Kollet, editors. *Interactive Design & Children 2004: Building a Community*. College Park IDC, College Park, MD, USA, 2004. ISBN 1-58113-791-5. LCCN QA76.9.H85 C746 2004.

Hilledt:2004:AME

[7998] James M. Hill and Ross R. Moore, editors. *Applied mathematics entering the 21st Century: invited talks from the ICIAM 2003 Congress*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2004. ISBN 0-89871-559-8. LCCN QA7 .A6665 2004; QA7 .A67 2004; QA1 .I57 2004.

IEEE:2004:IICa

[7999] IEEE, editor. *IEEE International Conference on Computer Design: VLSI in Computers and Processors, 2004. ICCD 2004. Proceedings. 11–13 October 2004*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. ISBN 0-7695-2231-9. LCCN TK7888.4 .I23 2004. UK£121.00.

IEEE:2004:IICb

[8000] IEEE, editor. *15th IEEE International Conference on Application-Specific Systems, Architectures and Processors: proceedings: September 2–29, 2004, Galveston, Texas*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. ISBN 0-7695-2226-2. LCCN TK7874.6 .I58 2004.

IEEE:2004:IICc

[8001] IEEE, editor. *2004 IEEE International Conference on Acoustics, Speech, and Signal Processing: proceedings: May 17–21, 2004, Fairmont Queen Elizabeth Hotel, Montreal, Quebec, Canada (ICASSP '04)*. IEEE

Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. ISBN 0-7803-8484-9. LCCN TK7882.S65 I61 2004. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9248`. IEEE Catalog Number: 04CH37568.

IEEE:2004:IIS

[8002] IEEE, editor. *2004 IEEE International Symposium on Computer-Aided Control System Design: September 2–4, 2004, the Grand Hotel, Taipei, Taiwan*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. ISBN 0-7803-8636-1. LCCN TJ212.2 .I32495 2004. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9600`. IEEE Catalog Number 04TH8770.

IEEE:2004:PJC

[8003] IEEE, editor. *Proceedings of the 2003 Joint Conference of the Fourth International Conference on Information, Communications and Signal Processing, 2003 and the Fourth Pacific Rim Conference on Multimedia, 15–18 December 2003, Meritus Mandarin Singapore Hotel, Singapore*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. ISBN 0-7803-8185-8. LCCN TK5102.9 .J65 2003. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9074`. IEEE catalog number 03EX758.

Luk:2004:ASP

[8004] Franklin T. Luk, editor. *Proceedings of SPIE: Advanced signal processing algorithms, architectures, and implementations XIV: 4–6 August 2004, Denver, Colorado, USA*, volume 5559 of *SPIE proceedings series*. Society of Photo-optical Instrumentation Engineers (SPIE), Bellingham, WA, USA, 2004. ISBN 0-8194-5497-4. ISSN 0277-786X (print), 1996-756X (electronic). LCCN TK5102.5 .A3173 2004; TK5102.5 .A3322 2004.

Selvaraj:2004:PES

[8005] Henry Selvaraj, editor. *Proceedings of the EUROMICRO System on Digital System Design: 31 August–3 September 2004, Rennes, France*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. ISBN 0-7695-2203-3. LCCN QA76.9.S88 E97 2004; QA76.9.S88.

Smailagic:2004:ETV

[8006] Asim Smailagic and Magdy A. Bayoumi, editors. *Emerging trends in VLSI systems design: proceedings: IEEE Computer Society Annual Symposium on VLSI, 19–20 February 2004, Lafayette, Louisiana [ISVLSI 2004]*. IEEE Computer Society Press, 1109 Spring Street, Suite

300, Silver Spring, MD 20910, USA, 2004. ISBN 0-7695-2097-9. LCCN TK7874 .I122 2004. IEEE Computer Society order number P2097.

Wahdan:2004:IHE

[8007] Abdel-Moniem Wahdan, editor. *ICEEC'04: 2004 International Conference on Electrical, Electronic and Computer Engineering: proceedings: 5–7 September, 2004, Cairo, Egypt*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. xlv + 954 pp. IEEE catalog number 04EX893.

ACM:2005:ASI

[8008] ACM, editor. *ASSETS 2005: the Seventh International ACM SIGACCESS Conference on Computers and Accessibility: October 9–12, 2005, Baltimore, Maryland, USA*. ACM Press, New York, NY 10036, USA, 2005. ISBN 1-59593-159-7. LCCN ????

ACM:2005:FAS

[8009] ACM, editor. *FPGA 2005: ACM/SIGDA Thirteenth ACM International Symposium on Field-Programmable Gate Arrays, Monterey Beach Resort, Monterey, California, USA: February 20–22, 2005*. ACM Press, New York, NY 10036, USA, 2005. ISBN 1-59593-029-9. LCCN TK7895.G36 A26 2005. ACM order number 480050.

Bein:2005:PIS

[8010] Wolfgang Bein, editor. *Proceedings: 8th International Symposium on Parallel Architectures, Algorithms, and Networks: December 7–9, 2005, Las Vegas Nevada, USA: ISPAN 2005*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN 0-7695-2509-1. ISSN 1087-4089. LCCN QA76.58 .I5673 2005. IEEE Computer Society Order Number P2509.

Copeland:2005:ATA

[8011] B. Jack Copeland, editor. *Alan Turing's Automatic Computing Engine: the master codebreaker's struggle to build the modern computer*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2005. ISBN 0-19-856593-3 (hardcover). xx + 553 pp. LCCN QA75 .A43 2005. URL `http://ukcatalogue.oup.com/product/9780198565932.do`; `http://www.oxfordscholarship.com/oso/public/content/maths/9780198565932/toc.html`.

IEEE:2005:DAT

[8012] IEEE, editor. *Design, Automation, and Test in Europe: proceedings: Munich, Germany, March 7–11, 2005*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN 0-7695-2288-2. LCCN TK7870 .D467 2005. IEEE Computer Society Order Number P2288.

IEEE:2005:ICS

[8013] IEEE, editor. *IEEE Computer Society Annual Symposium on VLSI (ISVLSI 2005)*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN 0-7695-2365-X. LCCN ???? URL `http://www.computer.org/cspress/CATALOG/p2365.htm`.

IEEE:2005:IIS

[8014] IEEE, editor. *IEEE International Symposium on Circuits and Systems (ISCAS): May 23–26, 2005, International Conference Center, Kobe, Japan: conference proceedings*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN 0-7803-8834-8. LCCN TK454.2 .I22 2005.

IEEE:2005:MSC

[8015] IEEE, editor. *2005 48th Midwest Symposium on Circuits and Systems: [conference proceedings: Cincinnati, Ohio, August 7–10, 2005]*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN 0-7803-9197-7. LCCN TK3226 .M55 2005eb. URL `http://www.ieeexplore.ieee.org/xpl/RecentCon.jsp?punumber=10622`.

IEEE:2005:PII

[8016] IEEE, editor. *Proceedings of the IEEE 16th International Conference on Application-specific Systems, Architectures and Processors, Samos, Greece, July 23–25, 2005 (ASAP 2005)*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN ???? LCCN ???? URL `http://www.ece.uvic.ca/asap2005/`.

IEEE:2005:PIS

[8017] IEEE, editor. *Proceedings of the 17th IEEE Symposium on Computer Arithmetic, ARITH-17, June 27–29, 2005, Cape Cod, Massachusetts, USA*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN ???? LCCN ????

IEEE:2005:PWE

[8018] IEEE, editor. *Proceedings of the 2005 3rd Workshop on Embedded Systems for Real Time Multimedia, 22–23 September 2005, New York Metropolitan Area*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN 0-7803-9347-3.

LCCN QA76.575 .W67 2005. URL https://ieeexplore.ieee.org/servlet/opac?punumber=10172. IEEE catalog number 5EX1149.

Luk:2005:ASP

[8019] Franklin T. Luk, editor. *Advanced Signal Processing Algorithms, Architectures, and Implementations XV, August, San Diego, CA, USA*, volume 5910 of *Proceedings of the SPIE — The International Society for Optical Engineering*. Society of Photo-optical Instrumentation Engineers (SPIE), Bellingham, WA, USA, 2005. CODEN PSISDG. ISBN ???? ISSN 0277-786X (print), 1996-756X (electronic). LCCN ????

Montuschi:2005:PIS

[8020] Paolo Montuschi and Eric (Eric Mark) Schwarz, editors. *Proceedings of the 17th IEEE Symposium on Computer Arithmetic, ARITH-17 2005, June 27–29, 2005, Cape Cod, Massachusetts, USA*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN 0-7695-2366-8. LCCN QA76.9.C62 .S95 2005.

Tang:2005:AIC

[8021] Ting-Ao Tang, Yumei Huang, et al., editors. *ASICON 2005: 2005, 6th International Conference on ASIC proceedings, Shanghai, China, October 24–27, 2005*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN 0-7803-9210-8. LCCN TK7874.6 2005. URL https://ieeexplore.ieee.org/servlet/opac?punumber=10726. IEEE Catalog Number 05TH8820.

Vassiliadis:2005:IIC

[8022] Stamatis Vassiliadis, Nikitas J. Dimopoulos, and Sanjay Vishnu Rajopadhye, editors. *16th IEEE International Conference on Application-Specific Systems, Architectures, and Processors: ASAP 2005: 23–25 July 2005, Samos, Greece*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN 0-7695-2407-9. LCCN TK7874.6 .I58 2005.

ACM:2006:SCH

[8023] ACM, editor. *SC'06: Conference on High Performance Networking and Computing: proceedings of the 2006 ACM/IEEE conference on Supercomputing, November 11–17, 2006, Tampa Convention Center, Tampa, Florida, USA*. ACM Press, New York, NY 10036, USA, 2006. ISBN 0-7695-2700-0. LCCN ???? Contains one CD-ROM.

Anonymous:2006:PCR

[8024] Anonymous, editor. *Proceedings of the 7th Conference on Real Numbers and Computers (RNC 7) LORIA, Nancy, France, July 10–12, 2006*. ????, ????, 2006. ISBN ???? LCCN ????

Bertels:2006:FPI

[8025] Koen Bertels, Philip Leong, and Eduardo Boemo, editors. *FPL 2006: Proceedings of the 16th International Conference on Field-Programmable Logic and Applications Meliá Madrid Princesa, Madrid, Spain: August 28–30, 2006*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2006. ISBN 1-4244-0312-X (softbound). LCCN TK7895.G36 I48 2006. IEEE catalog number 06EX1349. Two volumes.

Cimatti:2006:FMH

[8026] Alessandro Cimatti and Marco Bernardo, editors. *Formal methods for hardware verification: 6th International School on Formal Methods for the Design of Computer, Communication, and Software Systems, SFM 2006, Bertinoro, Italy, May 22–27, 2006: advanced lectures*, volume 3965 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006. ISBN 3-540-34304-0. ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.F67 I586 2006. URL `http://www.loc.gov/catdir/enhancements/fy0661/2006925529-d.html; http://www.loc.gov/catdir/toc/fy0705/2006925529.html`.

Dimopoulos:2006:IIC

[8027] Nikitas J. Dimopoulos et al., editors. *IEEE 17th International Conference on Application-Specific Systems, Architectures, and Processors: Steamboat Springs, Colorado, USA: September 11–13, 2006 [ASAP 2006]*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2006. ISBN 0-7695-2682-9. ISSN 1063-6862. LCCN TK7874.6 .I57 2006. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=4019472`. IEEE Computer Society Order Number P2682.

Haddad:2006:ACP

[8028] Hisham M. Haddad, editor. *Applied computing 2006: proceedings of the 2006 ACM Symposium on Applied Computing, Dijon, France, April 23–27, 2006*. ACM Press, New York, NY 10036, USA, 2006. ISBN 1-59593-108-2. LCCN QA76.76.A65 S95 2006. URL `http://portal.acm.org/toc.cfm?id=1141277`.

Hess:2006:ANT

[8029] Florian Hess, Sebastian Pauli, and Michael Pohst, editors. *Algorithmic number theory: 7th international symposium, ANTS-VII, Berlin, Germany, July 23-28, 2006: proceedings*, volume 4076 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006. ISBN 3-540-36075-1 (paperback). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA241 .A43 2006. URL http://link.springer.com/10.1007/11792086; http://springerlink.metapress.com/openurl.asp?genre=issue%26issn=0302-9743%26volume=4076.

IEEE:2006:ICV

[8030] IEEE, editor. *19th International Conference on VLSI Design: held jointly with the 5th International Conference on Embedded Systems Design: proceedings: 3–7 January, 2005 [2006], Hyderabad, India*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2006. ISBN 0-7695-2502-4 (paperback). LCCN TK7874 .I4728 2006.

IEEE:2006:PIW

[8031] IEEE, editor. *Proceedings of the 2006 IEEE Workshop on Design and Diagnostics of Electronic Circuits and Systems: April 18–21, 2006, Prague, Czech Republic*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2006. ISBN 1-4244-0184-4 (softbound). LCCN TK7874 .I32745 2005. IEEE catalog number: 06EX1307.

Menezes:2006:PAS

[8032] Ronaldo Menezes, editor. *Proceedings of the 44th annual Southeast Regional Conference 2006: Melbourne, Florida, March 10–12, 2006*. ACM Press, New York, NY 10036, USA, 2006. ISBN 1-59593-315-8 (print). LCCN QA75.5 A184 2006 E.

Mohanty:2006:IIC

[8033] Saraju P. Mohanty and Anirudha Sahoo, editors. *ICIT 2006: 9th International Conference on Information Technology: proceedings: 18-21 December, 2006, Bhubaneswar, India*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2006. ISBN 0-7695-2635-7. LCCN QA76.575 .I25 2006.

Pocek:2006:FAI

[8034] Kenneth L. Pocek and Duncan A. Buell, editors. *FCCM 2006: 14th Annual IEEE Symposium on Field-Programmable Custom Computing*

Machines: proceedings: 24–26 April, 2006, Napa, California. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2006. ISBN 0-7695-2661-6. LCCN TK7895.G36 .I36 2006. URL https://ieeexplore.ieee.org/servlet/opac?punumber=4020883.

Yi:2006:SAI

[8035] Kwangkeun Yi, editor. *Static Analysis: 13th International Symposium, SAS 2006, Seoul, Korea, August 29–31, 2006. Proceedings*, volume 4134 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006. CODEN LNCSD9. ISBN 3-540-37756-5 (print), 3-540-37758-1 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN ???? URL http://www.springerlink.com/content/978-3-540-37758-0.

ACM:2007:SPA

[8036] ACM, editor. *STOC '07: proceedings of the 39th Annual ACM Symposium on Theory of Computing, San Diego, California, USA, June 11–13, 2007*. ACM Press, New York, NY 10036, USA, 2007. ISBN 1-59593-631-9. LCCN ????

Alefeld:2007:SCC

[8037] Götz Alefeld, Mitsuhiro T. Nakao, and Siegfried M. Rump, editors. *Scientific computing, computer arithmetic, and validated numerics: (SCAN 2004) [Fukuoka, Japan, October 4–8, 2004]*, volume 199(2) of *Journal of computational and applied mathematics*. Elsevier, Amsterdam, The Netherlands, February 15, 2007. CODEN JCAMDI. ISSN 0771-050X; 0377-0427. LCCN ????

Becker:2007:EVT

[8038] Jürgen Becker, editor. *Emerging VLSI technologies and architectures: proceedings; IEEE Computer Society Annual Symposium on VLSI, ISVLSI 2007; Porto Alegre, Brazil, 9-11 May 2007*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 0-7695-2896-1. LCCN ????

Bertels:2007:PIC

[8039] Koen Bertels, Walid Najjar, Arjan van Genderen, and Stamatis Vassiliadis, editors. *Proceedings of the International Conference on Field Programmable Logic and Applications (FPL 2007), Amsterdam, The Netherlands, August 27–29, 2007*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 1-4244-1060-6. LCCN TK7895.G36 2007. IEEE catalog number 07EX1708C.

Brown:2007:PIS

[8040] C. W. Brown, editor. *Proceedings of the 2007 International Symposium on Symbolic and Algebraic Computation, July 29–August 1, 2007, University of Waterloo, Waterloo, Ontario, Canada*. ACM Press, New York, NY 10036, USA, 2007. ISBN 1-59593-743-9 (print), 1-59593-742-0 (CD-ROM). LCCN QA76.5 S98 2007. ACM order number 505070.

IEEE:2007:ACP

[8041] IEEE, editor. *ASAP 07: conference proceedings: IEEE 18th International Conference on Application-Specific Systems, Architectures, and Processors: Montréal, Canada: July 8–11, 2007*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 1-4244-1027-4. LCCN TK7874.6 .I57a 2007. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=4429947`.

IEEE:2007:API

[8042] IEEE, editor. *ADCOM '07: Proceedings of the 15th International Conference on Advanced Computing and Communications*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 0-7695-3059-1. LCCN ????

IEEE:2007:ICC

[8043] IEEE, editor. *25th International Conference on Computer Design, 2007 (ICCD 2007), 7–10 October 2007, Resort at Squaw Creek, Lake Tahoe, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 1-4244-1258-7. LCCN TK7888.4 .I35 2007eb. URL `http://www.ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=4591423`.

IEEE:2007:ICI

[8044] IEEE, editor. *International Symposium on Integrated Circuits, 2007. ISIC '07. 26–28 Sept. 2007*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 1-4244-0797-4. LCCN TK7874 2007. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=4441779`.

IEEE:2007:ICV

[8045] IEEE, editor. *20th International Conference on VLSI Design: technology challenges in the nanoelectronics era: held jointly with 6th International Conference on Embedded Systems: proceedings: 6–10 January, 2007, Bangalore, India*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 1-4244-3079-8. LCCN TK7874 .I4728 2007. URL https://ieeexplore.ieee.org/servlet/opac?punumber=4091978. IEEE Computer Society Order Number P2762.

IEEE:2007:IPI

[8046] IEEE, editor. *ISMVL'07: Proceedings of the 37th International Symposium on Multiple-Valued Logic, May 13–16, 2007*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 0-7695-2831-7. ISSN 0195-623X. LCCN ????

Kornerup:2007:PIS

[8047] Peter Kornerup and Jean-Michel Muller, editors. *Proceedings of the 18th IEEE Symposium on Computer Arithmetic, June 25–27, 2007, Montpellier, France*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 0-7695-2854-6. ISSN 1063-6889. LCCN QA76.9.C62. URL http://www.lirmm.fr/arith18/.

Luther:2007:GII

[8048] W. Luther and W. Otten, editors. *12th GAMM–IMACS International Symposium on Scientific Computing, Computer Arithmetic and Validated Numerics: SCAN 2006: conference post-proceedings: September 26–29, 2006, Duisburg, Germany*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 0-7695-2821-X. LCCN QA297.I5 2007. URL https://ieeexplore.ieee.org/servlet/opac?punumber=4402381. IEEE Computer Society Order Number E2821.

Morales:2007:TRT

[8049] Linda Morales and Debra Howard, editors. *TAPIA '07: Richard Tapia Celebration of Diversity in Computing Conference: October 14–17, 2007, Orlando, Florida: passion in computing, diversity in innovation: proceedings of the Richard Tapia Celebration of Diversity in Computing Conference 2007*. ACM Press, New York, NY 10036, USA, 2007. ISBN 1-59593-866-4. LCCN ????

Pocek:2007:PAI

[8050] Kenneth L. Pocek and Duncan A. Buell, editors. *Proceedings, 15th Annual IEEE Symposium on Field-Programmable Custom Computing Machines: FCCM 2007: 23–25 April, 2007, Napa, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 0-7695-2940-2. LCCN TK7895.G36

2007. URL https://ieeexplore.ieee.org/servlet/opac?punumber=4297231. IEEE Computer Society order number P2940.

Simos:2007:CMS

[8051] Theodore E. Simos and George Maroulis, editors. *Computation in Modern Science and Engineering: Proceedings of the International Conference on Computational Methods in Science and Engineering 2007 (ICCMSE 2007), Corfu, Greece, 25–30 September 2007*, volume 2A. American Institute of Physics, Woodbury, NY, USA, 2007. ISBN 0-7354-0476-3 (set), 0-7354-0477-1 (vol. 1), 0-7354-0478-X (vol. 2). LCCN Q183.9 2007. Two volumes.

ACM:2008:GPA

[8052] ACM, editor. *GLSVLSI 2008: Proceedings of the 18th ACM Great Lakes symposium on VLSI, Orlando, Florida, USA, May 4–6, 2008*. ACM Press, New York, NY 10036, USA, 2008. ISBN 1-59593-999-7. LCCN ???? ACM Order Number 477088.

ACM:2008:SPA

[8053] ACM, editor. *STOC '08: proceedings of the 39th Annual ACM Symposium on Theory of Computing, Victoria, British Columbia, Canada, May 17–20, 2008*. ACM Press, New York, NY 10036, USA, 2008. ISBN 1-60558-047-3. LCCN ????

Hertling:2008:RIR

[8054] Peter Hertling, Christoph M. Hoffmann, Wolfram Luther, and Nathalie Revol, editors. *Reliable Implementation of Real Number Algorithms: Theory and Practice: International Seminar Dagstuhl Castle, Germany, January 8–13, 2006 Revised Papers*, volume 5045 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008. CODEN LNCSD9. ISBN 3-540-85520-3 (print), 3-540-85521-1 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN ???? URL https://link.springer.com/book/10.1007/978-3-540-85521-7.

IEEE:2008:ICA

[8055] IEEE, editor. *2008 International Conference on Application-Specific Systems, Architectures and Processors: Leuven, Belgium, 2–4 July 2008*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008. ISBN 1-4244-1897-6 (paperback), 1-4244-1898-4. LCCN ???? URL http://www.gbv.de/dms/tib-ub-hannover/631855815.pdf; https://ieeexplore.ieee.org/servlet/opac?punumber=4569858. IEEE catalog number CFP08063-PRT.

Matthews:2008:CRF

[8056] Michael B. Matthews, editor. *Conference Record of the Forty-first Asilomar Conference on Signals, Systems and Computers: November 4–7, 2007, Pacific Grove, California. ACSSC 2007*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008. ISBN 1-4244-2109-8. ISSN 1058-6393. LCCN TK7801 .A83 2007eb. URL `http://www.ieeexplore.ieee.org/xpl/RecentCon.jsp?punumber=4483515`.

Patterson:2008:COD

[8057] David A. Patterson and John L. Hennessy. *Computer Organization and Design: the Hardware/Software Interface*. Elsevier/Morgan Kaufmann, San Francisco, CA, USA, fourth edition, 2008. ISBN 0-12-374493-8. xxv + 703 + A-77 + B-83 + I-26 pp. LCCN QA76.9.C643.

Woods:2008:RCA

[8058] Roger Woods, Katherine Compton, Christos Bouganis, and Pedro C. Diniz, editors. *Reconfigurable Computing: Architectures, Tools and Applications: 4th International Workshop, ARC 2008, London, UK, March 26–28, 2008. Proceedings*, volume 4943 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2008. ISBN 3-540-78610-4. ISSN 1611-3349.

Abraham:2009:WCN

[8059] Ajith Abraham, Andre Carvalho, Francisco Herrera, Vijayalakshmi Pai, André Coelho, and Ronaldo Menezes, editors. *2009 World Congress on Nature and Biologically Inspired Computing: 9–11 December 2009, Coimbatore, India: proceedings [NaBIC 2009]*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009. ISBN 1-4244-5612-6, 1-4244-5053-5. LCCN QA76.887 2009. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5377996`. IEEE Catalog Number CFP0995H.

Bouajjani:2009:CAV

[8060] Ahmed Bouajjani and Oded Maler, editors. *Computer Aided Verification: 21st International Conference, CAV 2009, Grenoble, France, June 26–July 2, 2009, Proceedings*, volume 5643 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2009. ISBN 3-642-02657-5 (paperback), 3-642-02658-3. LCCN QA76.76.V47 .C38 2009.

Bruguera:2009:PIS

[8061] Javier D. Bruguera, Marius Cornea, Debjit DasSarma, and John Harrison, editors. *Proceedings of the 19th IEEE Symposium on Computer Arithmetic, June 8–10, 2009, Portland, Oregon, USA*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009. ISBN 0-7695-3670-0, 1-4244-4329-6. ISSN 1063-6889. LCCN QA76.6 .S887 2009. URL `http://www.ac.usc.es/arith19/`.

Cumplido:2009:RPI

[8062] René Cumplido, Lionel Torres, and V. K. Prasanna Kumar, editors. *ReConFig 2009: proceedings: 2009 [5th] International Conference on Reconfigurable Computing and FPGAs: 9–11 December 2009: Cancun, Mexico*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009. ISBN 1-4244-5293-7, 0-7695-3917-3. LCCN TK7895.G36 2009. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5379688`.

ICCIT:2009:ICC

[8063] ICCIT, editor. *2009 12th International Conference on Computer and Information Technology: ICCIT 2009: December 21-23, Independent University, Bangladesh*. ICCIT 2009 Conference Secretariat, Dhaka, Bangladesh, 2009. ISBN 1-4244-6281-9, 1-4244-6284-3. LCCN T58.5 2009. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5398764`.

IEEE:2009:ICF

[8064] IEEE, editor. *International Conference on Field Programmable Logic and Applications, Prague, Czech Republic, August 31 2009–September 2, 2009 (FPL 2009)*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009. ISBN 1-4244-3892-6. LCCN ????

IEEE:2009:IICa

[8065] IEEE, editor. *20th IEEE International Conference on Application-specific Systems, Architectures and Processors, Boston, MA, 7-9 July 2009 (ASAP 2009)*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009. ISBN 0-7695-3732-4. ISSN 1063-6862. LCCN ????

IEEE:2009:IICb

[8066] IEEE, editor. *2009 IEEE International Conference on Computer Design: October 4–7, 2009, Resort at Squaw Creek, Lake Tahoe, CA: ICCD 2009*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver

Spring, MD 20910, USA, 2009. ISBN 1-4244-5028-4. LCCN TK7888.3 2009. URL https://ieeexplore.ieee.org/servlet/opac?punumber=5406656. IEEE Catalog Number: CFP09ICD.

IEEE:2009:IIS

[8067] IEEE, editor. *2009 IEEE International Symposium on Circuits and Systems: circuits and systems for human centric smart living technologies, conference program, Taipei International Convention Center, Taipei, Taiwan, May 24–May 27, 2009*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009. ISBN 1-4244-3827-6 (print). LCCN TK454 .I15 2009. URL https://ieeexplore.ieee.org/servlet/opac?punumber=5076158.

IEEE:2009:PDR

[8068] IEEE, editor. *Ph.D. Research in Microelectronics and Electronics (PRIME 2009), 12–17 July 2009, Cork, Ireland*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009. ISBN 1-4244-3733-4. LCCN TK7874 2009.

Matthews:2009:CRF

[8069] Michael B. Matthews, editor. *Conference Record of the Forty-Third Asilomar Conference on Signals, Systems and Computers, 1–4 November 2009, Pacific Grove, California*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009. ISBN 1-4244-5825-0. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=5465900.

Sezer:2009:IIS

[8070] Sakir Sezer, Andrew Marshall, and Thomas Buechner, editors. *IEEE International SOC Conference: September 9–11, 2009, Wellington Park Hotel, Belfast, Northern Ireland, UK (SOCC 2009)*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009. ISBN 1-4244-4940-5, 1-4244-4941-3. LCCN TK7874.6 .I59 2009. URL https://ieeexplore.ieee.org/servlet/opac?punumber=5379508.

Charot:2010:API

[8071] François Charot, Frank Hannig, Jürgen Teich, and Christophe Wolinski, editors. *ASAP 2010: proceedings: 21st IEEE International Conference on Application-Specific Systems, Architectures, and Processors: July 7–9, 2010, Rennes, France*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 1-4244-6965-1, 1-4244-6966-X, 1-4244-6967-8. LCCN TK7874.6

2010. URL https://ieeexplore.ieee.org/servlet/opac?punumber=5523683. IEEE Catalog Number CFP10063ART.

Delgado-Frias:2010:IIM

[8072] Jose G. Delgado-Frias, Rogelio Palomera-Garcia, and Jabulani Nyathi, editors. *53nd IEEE International Midwest Symposium on Circuits and Systems, 2010: MWSCAS 2010, 1–4 August 2010, Seattle, Washington*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 1-4244-7771-9. LCCN ???? URL https://ieeexplore.ieee.org/servlet/opac?punumber=5542407.

Fukuda:2010:MSI

[8073] Komei Fukuda, Joris van der Hoeven, Michael Joswig, and Nobuki Takayama, editors. *Mathematical software — ICMS 2010: third International Congress on Mathematical Software, Kōbe, Japan, September 13–17, 2010: proceedings*, volume 6327 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2010. ISBN 3-642-15581-2 (paperback), 3-642-15582-0 (e-book). LCCN QA76.95 .I5654 2010. URL http://link.springer.com/book/10.1007/978-3-642-15582-6.

IEEE:2010:CCE

[8074] IEEE, editor. *23rd Canadian Conference on Electrical and Computer Engineering (CCECE), Calgary, AB, 2–5 May, 2010*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 1-4244-5376-3. LCCN ????

IEEE:2010:ICC

[8075] IEEE, editor. *2010 2nd International Conference on Computer Engineering and Technology (ICCET), 16–18 April 2010, Chengdu, China*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 1-4244-6347-5. LCCN ????

IEEE:2010:ICM

[8076] IEEE, editor. *2010 27th International Conference on Microelectronics: proceedings: Niš, MIEL 2010, Niš, Serbia: 16–19 May 2010*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 1-4244-7200-8, 1-4244-7201-6. LCCN TK7874 2010. URL https://ieeexplore.ieee.org/servlet/opac?punumber=5483038. IEEE Catalog Number CFP10432-ART.

IEEE:2010:ICV

[8077] IEEE, editor. *23rd International Conference on VLSI Design: proceedings, held jointly with 9th International Conference on Embedded Systems: Bangalore, India, 3–7 January 2010*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 1-4244-5541-3, 0-7695-3928-9, 1-4244-5541-3. LCCN TK7874.75 2010. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5400049`. IEEE Computer Society Order Number E3928.

Knuth:2010:SPD

[8078] Donald E. Knuth. *Selected Papers on Design of Algorithms*, volume 191 of *CSLI Lecture Notes*. CSLI Publications, Stanford, CA, USA, 2010. ISBN 1-57586-582-3 (paperback), 1-57586-583-1 (hardcover). xvi + 453 pp. LCCN QA9.58 KNU 2010. US$48.50.

Santos:2010:PVS

[8079] E. J. P. (Edval J. P.) Santos, Horácio C. Neto, and Elías Todorovich, editors. *Proceedings of the VI Southern Programmable Logic Conference: Ipojuca, Porto de Galinhas Beach, Brazil, March 24th–26th, 2010*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 1-4244-6309-2, 1-4244-7089-7. LCCN TK7895.G36 2010. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5473892`. IEEE Catalog Number CFPI021B-PRT.

Watt:2010:IPI

[8080] Stephen M. Watt, editor. *ISSAC 2010: Proceedings of the 2010 International Symposium on Symbolic and Algebraic Computation, July 25–28, 2010, Munich, Germany*. ACM Press, New York, NY 10036, USA, 2010. ISBN 1-4503-0150-9. LCCN QA76.95 .I59 2010.

ACM:2011:SSP

[8081] ACM, editor. *SC '11 State of the Practice Reports*. ACM Press, New York, NY 10036, USA, 2011. ISBN 1-4503-1139-3. LCCN ????

IEEE:2011:ICC

[8082] IEEE. *2011 IEEE COOL Chips XIV: Yokohama Joho Bunka Center, Yokohama, Japan, April 20–22, 2011*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011. ISBN 1-61284-884-2. ???? pp. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=5871805`. IEEE Catalog Number CFP11COL-ART.

Impagliazzo:2011:PSR

[8083] John Impagliazzo and Eduard Proydakov, editors. *Perspectives on Soviet and Russian Computing: First IFIP WG 9.7 Conference, SoRuCom 2006Petrozavodsk, Russia, July 3–7, 2006. Revised Selected Papers*, volume 357 of *IFIP Advances in Information and Communication Technology*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2011. ISBN 3-642-22815-1 (print), 3-642-22816-X (e-book). ISSN 1868-422X (print), 1868-4238 (electronic). LCCN QA75.5 .C66 2011. URL http://link.springer.com/openurl?genre=book%26isbn=978-3-642-22815-5.

Schwarz:2011:PIS

[8084] Eric Schwarz and Vojin G. Oklobdzija, editors. *Proceedings of the 20th IEEE Symposium on Computer Arithmetic, July 25–27, 2011, Tübingen, Germany*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011. ISBN 0-7695-4318-9, 1-4244-9457-5. LCCN QA76.6.

Hennessy:2012:CAQ

[8085] John L. Hennessy and David A. Patterson. *Computer Architecture: a Quantitative Approach*. Morgan Kaufmann/Elsevier, Waltham, MA, USA, fifth edition, 2012. ISBN 0-12-383872-X (paperback). xxvii + 493 + 325 pp. LCCN QA76.9.A73 P377 2012. URL http://booksite.mkp.com/9780123838728. With contributions by Krste Asanović, Jason D. Kabos, Robert P. Colwell, Thomas M. Conte, José Duato, Diana Franklin, David Goldberg, Norman P. Jouppi, Sheng Li, Naveen Muralimanohar, Gregory D. Peterson, Timothy M. Pinkston, Parthasarathy Ranganthan, David A. Wood, and Amr Zaky.

Jonasson:2012:APSb

[8086] Kristján Jónasson, editor. *Applied Parallel and Scientific Computing: 10th International Conference, PARA 2010, Reykjavík, Iceland, June 6–9, 2010, Revised Selected Papers, Part II*, volume 7134 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2012. CODEN LNCSD9. ISBN 3-642-28144-3 (print), 3-642-28145-1 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN ???? URL http://www.springerlink.com/content/978-3-642-28145-7.

IEEE:2013:PIS

[8087] IEEE, editor. *Proceedings of the 21st IEEE Symposium on Computer Arithmetic, Austin, Texas, USA, 8–10 April 2013*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910,

USA, 2013. ISBN 0-7695-4957-8. ISSN 1063-6889. LCCN QA76.9.C62 S95 2013.

Butler:2015:FMS

[8088] Michael Butler, Sylvain Conchon, and Fatiha Zaïdi, editors. *Formal Methods and Software Engineering: 17th International Conference on Formal Engineering Methods, ICFEM 2015, Paris, France, November 3–5, 2015, Proceedings*, volume 9407 of *Lecture Notes in Computer Science*. Springer International Publishing, Cham, Switzerland, 2015. ISBN 3-319-25422-7 (paperback), 3-319-25423-5 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.758. URL http://link.springer.com/10.1007/978-3-319-25423-4.

Higham:2015:PCA

[8089] Nicholas J. Higham, Mark R. Dennis, Paul Glendinning, Paul A. Martin, Fadil Santosa, and Jared Tanner, editors. *The Princeton Companion to Applied Mathematics*. Princeton University Press, Princeton, NJ, USA, 2015. ISBN 0-691-15039-7 (hardcover). 994 (est.) pp. LCCN QA155 .P75 2015.

IEEE:2015:ISS

[8090] IEEE, editor. *2015 IEEE Symposium on Security and Privacy (SP 2015) San Jose, California, USA, 18–20 May 2015*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015. ISBN 1-4673-6949-7 (print), 1-4673-6950-0 (e-book). ISSN 1081-6011 (print), 2375-1207 (electronic). LCCN QA76.9.A25. URL http://www.gbv.de/dms/tib-ub-hannover/836112652.pdf.

Muller:2015:ISC

[8091] Jean-Michel Muller, Arnaud Tisserand, and Julio Villalba, editors. *2015 IEEE 22nd Symposium on Computer Arithmetic (ARITH 2015) Lyon, France, 22–24 June 2015*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015. ISBN 1-4799-8665-8, 1-4799-8663-1. ISSN 1063-6889. LCCN QA76.9.C62 S95 2015. URL https://ieeexplore.ieee.org/servlet/opac?punumber=7193754.

Swartzlander:2015:CAa

[8092] Earl E. Swartzlander, Jr., editor. *Computer Arithmetic*, volume 1. World Scientific Publishing Co. Pte. Ltd., P. O. Box 128, Farrer Road, Singapore 9128, 2015. ISBN 981-4651-56-7 (vol. 1; hardcover), 981-4651-57-5, 981-4641-47-2 (e-book). ???? pp. LCCN QA76.6 .C633 2015 vol. 1.

Swartzlander:2015:CAb

[8093] Earl E. Swartzlander, Jr., editor. *Computer Arithmetic*, volume 2. World Scientific Publishing Co. Pte. Ltd., P. O. Box 128, Farrer Road, Singapore 9128, 2015. ISBN 981-4641-46-4 (hardcover), 981-4641-47-2 (e-book). xxxviii + 446 pp. LCCN QA76.6 .C633 2015 vol. 2.

Swartzlander:2015:CAc

[8094] Earl E. Swartzlander, Jr., editor. *Computer Arithmetic*, volume 3. World Scientific Publishing Co. Pte. Ltd., P. O. Box 128, Farrer Road, Singapore 9128, 2015. ISBN 981-4651-13-3 (hardcover), 981-4641-47-2 (e-book). xvii + 451 pp. LCCN QA76.6 .C633 2015 vol. 3.

Montuschi:2016:ISC

[8095] Paolo Montuschi, Michael Schulte, Javier Hormigo, Stuart Oberman, and Nathalie Revol, editors. *2016 IEEE 23nd Symposium on Computer Arithmetic (ARITH 2016), Santa Clara, California, USA, 10–13 July 2016*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016. ISBN 1-5090-1615-5. ISSN 1063-6889. LCCN QA76.9.C62 S95 2016. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=7562813`.

Burgess:2017:ISC

[8096] Neil Burgess, Javier Bruguera, and Florent de Dinechin, editors. *2017 IEEE 24th Symposium on Computer Arithmetic (ARITH 24), London, UK, 24–26 July 2017*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017. ISBN 1-5386-1966-0 (print), 1-5386-1965-2, 1-5386-1964-4. ISSN 1063-6889. LCCN QA76.9.C62 S95 2017. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8019911`.

Desprez:2017:EPP

[8097] Frédéric Desprez, Pierre-François Dutot, Christos Kaklamanis, Loris Marchal, Korbinian Molitorisz, Laura Ricci, Vittorio Scarano, Miguel A. Vega-Rodríguez, Ana Lucia Varbanescu, and Sascha Hunold, editors. *Euro-Par 2016: Euro-Par 2016 International Workshops, Grenoble, France, August 24–26, 2016, Revised Selected Papers*, volume 10104 of *Lecture Notes in Computer Science*. Springer, Cham, Switzerland, 2017. ISBN 3-319-58943-1 (e-book), 3-319-58943-1 (hardcover). LCCN QA76.9.E94; QA76.758TK.

Matthews:2017:CRF

[8098] Michael B. Matthews, editor. *Conference record of the Fifty-First Asilomar Conference on Signals, Systems and Computers, October 29–*

November 1, 2017 Pacific Grove, California. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017. ISBN 1-5386-1824-9 (print), 1-5386-0666-6, 1-5386-1823-0 (e-book). LCCN TK7801. URL `https://ieeexplore.ieee.org/servlet/opac?punumber=8330843`.

ACM:2018:CNG

[8099] ACM, editor. *Conference for Next Generation Arithmetic (Resorts World Convention Centre, Singapore): (CoNGA '18)*. ACM Press, New York, NY 10036, USA, 2018.

Tenca:2018:PIS

[8100] Alexandre Tenca and Naofumi Takagi, editors. *Proceedings of the 25th International Symposium on Computer Arithmetic, 25–27 June 2018 Amherst, MA, USA*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, June 2018. ISBN 1-5386-2612-8 (USB), 1-5386-2665-9. ISSN 2576-2265. LCCN QA76.9.C62. IEEE catalog number CFP18121-USB.

Gustafson:2019:CPC

[8101] John Gustafson and Vassil Dimitrov, editors. *CoNGA'19: Proceedings of the Conference for Next Generation Arithmetic 2019, Singapore, March 2019*, ICPS. ACM Press, New York, NY 10036, USA, 2019. ISBN 1-4503-7139-6. LCCN ????

Takagi:2019:ISC

[8102] Naofumi Takagi, Sylvie Boldo, and Martin Langhammer, editors. *2019 IEEE 26th Symposium on Computer Arithmetic ARITH-26 (2019), Kyoto, Japan, 10–12 June 2019*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, June 2019. ISBN 1-72813-366-1. ISSN 1063-6889.

Cornea:2020:ISC

[8103] Marius Cornea, Weiqiang Liu, and Arnaud Tisserand, editors. *2020 27th IEEE Symposium on Computer Arithmetic: ARITH 2020: proceedings: Portland, Oregon, USA, 7–10 June 2020*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020. ISBN 1-72817-120-2, 1-72817-121-0. LCCN ???? URL `https://ieeexplore.ieee.org/servlet/opac?punumber=9146973`.

IEEE:2020:SPI

[8104] IEEE, editor. *SC'20: Proceedings of the International Conference for High Performance Computing, Networking, Storage and Analysis*

(Atlanta, Georgia, November 9–19, 2020). IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020. ISBN 1-72819-998-0, 1-72819-999-9 (printondemand). LCCN QA76.88.

Krzhizhanovskaya:2020:CSI

[8105] Valeria V. Krzhizhanovskaya, Gábor Závodszky, Michael H. Lees, Jack J. Dongarra, Peter M. A. Sloot, Sérgio Brissos, and João Teixeira, editors. *Computational Science — ICCS 2020 20th International Conference, Amsterdam, The Netherlands, June 3–5, 2020, Proceedings, Part II*, volume 12138 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2020. ISBN 3-030-50416-6, 3-030-50417-4 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). URL https://link.springer.com/book/10.1007/978-3-030-50417-5.

Wyrzykowski:2020:PPA

[8106] Roman Wyrzykowski, Ewa Deelman, Jack Dongarra, and Konrad Karczewski, editors. *Parallel Processing and Applied Mathematics: 13th International Conference, PPAM 2019, Bialystok, Poland, September 8–11, 2019, Revised Selected Papers, Part I*, Lecture Notes in Computer Science. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2020. ISBN 3-030-43229-7. ISSN 0302-9743 (print), 1611-3349 (electronic).

IEEE:2021:ISC

[8107] IEEE, editor. *2021 IEEE 28th Symposium on Computer Arithmetic: ARITH 2021: virtual conference, 14–16 June 2021: proceedings*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021. ISBN 1-66542-293-9 (print), 1-66544-648-X (e-book). LCCN ????

Gustafson:2022:NGA

[8108] John Gustafson and Vassil Dimitrov, editors. *Next Generation Arithmetic: Third International Conference, CoNGA 2022, Singapore, March 1–3, 2022, Revised Selected Papers*, volume 13253 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2022. ISBN 3-031-09778-5, 3-031-09779-3 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA76.9.C62.

IEEE:2022:ISC

[8109] IEEE, editor. *2022 IEEE 29th Symposium on Computer Arithmetic: ARITH 2022: virtual conference, 12–14 September 2022: proceedings*.

IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022. ISBN 1-66547-827-6, 1-66547-828-4. LCCN ????

Gustafson:2023:NGA

[8110] John Gustafson, Siew Hoon Leong, and Marek Michalewicz, editors. *Next Generation Arithmetic: 4th International Conference, CoNGA 2023, Singapore, March 1–2, 2023, Proceedings*, Lecture Notes in Computer Science. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2023. ISBN 3-031-32180-4. ISSN 0302-9743 (print), 1611-3349 (electronic).

IEEE:2023:PIS

[8111] IEEE, editor. *Proceedings: 2023 IEEE 30th Symposium on Computer Arithmetic: ARITH 2023, 4–6 September 2023 Portland, United States*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023. LCCN ????

IEEE:2024:PIS

[8112] IEEE, editor. *Proceedings: 2024 IEEE 31st Symposium on Computer Arithmetic: ARITH 2024, 10–12 June 2024, Málaga, Spain*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2024. ISSN 2576-2265 (electronic), 1063-6889 (print-on-demand). LCCN QA76.9.C62 .I578 2024. URL `https://ieeexplore.ieee.org/xpl/conhome/10579097/proceeding`.

IEEE:2025:PIS

[8113] IEEE, editor. *Proceedings: 2025 IEEE 32nd Symposium on Computer Arithmetic: ARITH 2025, 4–7 May 2025 El Paso, [TX,] USA*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2025. LCCN QA76.9.C62 .I578 2025. URL `https://ieeexplore.ieee.org/xpl/conhome/11037935/proceeding`.