A Bibliography of Publications on the Numerical Calculation of π

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[103]. **Simply** [203]. **Simson** [135]. **Sixteenth** [23]. **sketch** [126]. **Sky** [136, 155, 325]. **Slice** [208]. **Solving** [327]. **Some** [205, 313, 234, 47, 16, 264, 2]. **source** [343, 344, 345]. **spigot** [153]. **Spline** [340]. **square** [117, 204]. **square-root** [204]. **squared** [320, 331]. **squares** [117]. **Squaring** [327]. **Srinivasa** [20, 56, 188]. **stable** [131, 148]. **STACS** [341]. **Stands** [293]. **statistica** [73]. **Statistical** [156, 39, 57, 248, 73, 59]. **Statistically** [296]. **statistics** [320]. **statistique** [59]. **Steinhaus** [51]. **Still** [294, 284]. **String** [261, 245]. **Students** [298]. **Studies** [348]. **Study** [306, 57, 340, 221, 270, 347, 59, 129]. **stumbled** [303]. **such** [227]. **suggested** [126]. **Sulla** [73]. **Summing** [270]. **Sums** [145, 117]. **Supercomputer** [290, 293]. **Supercomputing** [342]. **Survey** [11, 12]. **Surveys** [348]. **Symbolic** [260]. **Symmetric** [309]. **Symposium** [341, 339]. **System** [150]. **Systems** [324, 270].

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y-cruncher [321, 328]. **Year** [154]. **yields** [130]. **Youqin** [172].

Zach [305]. **Zahl** [30, 8]. **Zero** [259, 267, 77, 246]. **zero-finding** [77, 246]. **Zhao** [172].

References

Euler:1727:TEP

[1] Leonhard Euler. Testamen explicationis phaenomenorum aeris. (Latin) [An essay explaining the properties of air]. *Comm. Ac. Scient. Petr.*, 2:347–368, September 1727. URL `http://17centurymaths.com/contents/euler/e007tr.pdf`. Translation to English, and annotations, by Ian Bruce.

Lambert:1768:MQP

[2] Johann Heinrich Lambert. Mémoire sur quelques propriétés remarquables des quantités transcendentes circulaires et logarithmiques. (French) [Note on some remarkable properties of circular and logarithmic transcendental quantities]. *Histoire de l'Académie (Berlin)*, XVII:265–322, ???? 1768. In this famous paper, Lambert proved that π is irrational. See [170] for further remarks, a simplification of the proof, and references to earlier papers that discuss Lambert's proof.

Shanks:1853:CMC

[3] W. Shanks. *Contributions to Mathematics, Comprising Chiefly of the Rectification of the Circle to 607 Places of Decimals.* G. Bell, London, UK, 1853. xvi + 95 + 1 pp. LCCN QA467 .S53 1853.

Frisby:1871:C

[4] E. Frisby. On the calculation of π. *Messenger (2)*, II(??):114, ???? 1871.

Glaisher:1871:RC

[5] J. W. L. Glaisher. Remarks on the calculation of π. *Messenger (2)*, II (??):119–128, ???? 1871.

Shanks:1873:ENV

[6] William Shanks. On the extension of the numerical value of π. *Proceedings of the Royal Society of London*, 21(??):315–319, May 15, 1873. CODEN PRSLAZ. ISSN 0370-1662. URL `http://www.jstor.org/stable/113051`.

Polster:1879:NIS

[7] F. Polster. A new infinite series, which is very convenient for the computation of π. *J. Blair Bl.*, XV(??):155–158, ???? 1879.

vonLindemann:1882:ZGN

[8] Carl Louis Ferdinand von Lindemann. Über die Zahl π. (German) [On the number π]. *Mathematische Annalen*, 20(??):213–225, ???? 1882. CODEN MAANA3. ISSN 0025-5831 (print), 1432-1807 (electronic). In this famous paper, von Lindemann proved that π is transcendental, showing that it is impossible to square the circle by compass and straightedge, a problem dating back before 400 BCE in Greece.

Glaisher:1883:CHL

[9] J. W. L. Glaisher. Calculation of the hyperbolic logarithm of π. *J. Lond. M. S. Proc.*, XIV(??):134–139, ???? 1883.

Glaisher:1891:CHL

[10] J. W. L. Glaisher. Calculation of the hyperbolic logarithm of π to thirty decimal places — addition to the paper. *Quart. J.*, XXV(??):362–368, 384, ???? 1891.

Smith:1895:HSA

[11] David Eugene Smith. Historical survey of the attempts at the computation and construction of π. *American Mathematical Monthly*, 2(12):348–351, December 1895. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See erratum [12].

Smith:1896:EHS

[12] D. E. Smith. Errata: Historical survey of the attempts at the computation and construction of π. *American Mathematical Monthly*, 3(2):60, February 1896. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See [11].

Veblen:1904:T

[13] Oswald Veblen. The transcendence of π and e. *American Mathematical Monthly*, 11(12):219–223, December 1904. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Ramanujan:1914:MEA

[14] Srinivasa Ramanujan. Modular equations and approximations to π. *Quarterly Journal of Mathematics*, 45(??):180, 350–372, ???? 1914. Reprinted in [20, pages 23–39] and in [188].

Archibald:1921:HNR

[15] R. C. Archibald. Historical notes on the relation $e^{-(\pi/2)} = i^i$. *American Mathematical Monthly*, 28(3):116–121, March 1921. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Underwood:1924:QDD

[16] R. S. Underwood. Questions and discussions: Discussions: Some results involving π. *American Mathematical Monthly*, 31(8):392–394, October 1924. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Bennett:1925:QDT

[17] A. A. Bennett. Questions and discussions: Two new arctangent relations for π. *American Mathematical Monthly*, 32(5):253–255, May 1925. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Camp:1926:QDDb

[18] C. C. Camp. Questions and discussions: Discussions: a new calculation of π. *American Mathematical Monthly*, 33(9):472–473, November 1926. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Schoy:1926:QDDb

[19] Carl Schoy. Questions and discussions: Discussions: Al-Biruni's computation of the value of π. *American Mathematical Monthly*, 33(6):323–325, June/July 1926. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Hardy:1927:CPS

[20] G. H. (Godfrey Harold) Hardy, P. V. (P. Venkatesvara) Seshu Aiyar, and B. M. (Bertram Martin) Wilson, editors. *Collected papers of Srinivasa Ramanujan*. Cambridge University Press, Cambridge, UK, 1927. xxxvi + 355 + 1 pp. LCCN QA3 .R3.

Ganguli:1930:EAV

[21] Saradakanta Ganguli. The elder Aryabhata's value of π. *American Mathematical Monthly*, 37(1):16–22, January 1930. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Lowry:1931:C

[22] H. V. Lowry. The calculation of π. *Mathematical Gazette*, 15:502–503, 1931. CODEN MAGAAS. ISSN 0025-5572.

Barbour:1933:SCC

[23] J. M. Barbour. A sixteenth century Chinese approximation for π. *American Mathematical Monthly*, 40(2):69–73, February 1933. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Frame:1935:QDN

[24] J. S. Frame. Questions, discussions, and notes: a series useful in the computation of π. *American Mathematical Monthly*, 42(8):499–501, October 1935. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Uvanovic:1936:IPE

[25] Daniel Uvanović. The Indian prelude to European mathematics. *Osiris*, 1(??):652–657, January 1936. CODEN OSIRAX. ISSN 0369-7827 (print), 1933-8287 (electronic). URL `http://www.jstor.org/stable/301630`.

Gaba:1938:QDN

[26] M. G. Gaba. Questions, discussions, and notes: a simple approximation for π. *American Mathematical Monthly*, 45(6):373–375, June/July 1938. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Lehmer:1938:AR

[27] D. H. Lehmer. On arccotangent relations for π. *American Mathematical Monthly*, 45(10):657–664, December 1938. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Ballantine:1939:QDNb

[28] J. P. Ballantine. Questions, discussions, and notes: The best (?) formula for computing π to a thousand places. *American Mathematical Monthly*, 46(8):499–501, October 1939. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Niven:1939:T

[29] Ivan Niven. The transcendence of π. *American Mathematical Monthly*, 46 (8):469–471, October 1939. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Thomas:1940:RPZ

[30] G. B. Thomas. Recent publications: *Die Zahl π der Kreis*, by Franz Hennecke. *American Mathematical Monthly*, 47(8):560–561, October 1940. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Dorwart:1942:DNV

[31] H. L. Dorwart. Discussions and notes: Values of the trigonometric ratios of $\pi/8$ and $\pi/12$. *American Mathematical Monthly*, 49(5):324–325, May 1942. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Menger:1945:MP

[32] Karl Menger. Methods of presenting e and π. *American Mathematical Monthly*, 52(1):28–33, January 1945. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Copeland:1946:NNN

[33] Arthur H. Copeland and Paul Erdős. Note on normal numbers. *Bulletin of the American Mathematical Society*, 52:857–860, 1946. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881X (electronic).

Ferguson:1946:EPS

[34] D. F. Ferguson. Evaluation of pi: Are Shanks' figures correct? *Mathematical Gazette*, 30(289):89–90, May 1946. CODEN MAGAAS. ISSN 0025-5572. URL `http://www.jstor.org/stable/3608485`.

Anonymous:1947:NA

[35] Anonymous. A new approximation to π. *Mathematical Tables and Other Aids to Computation*, 2(18):245–248, April 1947. CODEN MTTCAS. ISSN 0891-6837.

Smith:1947:NA

[36] L. B. Smith, J. W. Wrench, and D. F. Ferguson. A new approximation to π. *Mathematical Tables and Other Aids to Computation*, 2(18):245–248, April 1947. CODEN MTTCAS. ISSN 0891-6837. URL `http://www.jstor.org/stable/2002296`.

Ferguson:1948:NAC

[37] D. F. Ferguson and John W. Wrench, Jr. A new approximation to π (conclusion). *Mathematical Tables and Other Aids to Computation*, 3 (21):18–19, January 1948. CODEN MTTCAS. ISSN 0891-6837. URL `http://www.jstor.org/stable/2002657`.

Eisenhart:1950:RDD

[38] Eisenhart and L. S. Deming. On the randomness of the digits of π and e to 2000 decimal places. In *National Bureau of Standards Seminar, February 17, Washington, DC*, page ?? ????, ????, 1950.

Metropolis:1950:STV

[39] N. C. Metropolis, G. Reitwiesner, and J. von Neumann. Statistical treatment of values of first 2,000 decimal digits of e and of π calculated on the ENIAC. *Mathematical Tables and Other Aids to Computation*, 4(30): 109–111, 1950. CODEN MTTCAS. ISSN 0891-6837.

Reitwiesner:1950:EDM

[40] George W. Reitwiesner. An ENIAC determination of π and e to more than 2000 decimal places. *Mathematical Tables and Other Aids to Computation*, 4(29):11–15, January 1950. CODEN MTTCAS. ISSN 0891-6837. URL `http://www.jstor.org/stable/2002695`.

Schepler:1950:CPa

[41] Herman C. Schepler. The chronology of pi. *Mathematics Magazine*, 23(3): 165–170, January/February 1950. CODEN MAMGA8. ISSN 0025-570X. URL `http://www.jstor.org/stable/3029284`.

Schepler:1950:CPb

[42] Herman C. Schepler. The chronology of pi. *Mathematics Magazine*, 23(4): 216–228, March/April 1950. CODEN MAMGA8. ISSN 0025-570X. URL `http://www.jstor.org/stable/3029832`.

Schepler:1950:CPc

[43] Herman C. Schepler. The chronology of pi. *Mathematics Magazine*, 23(5): 279–283, May/June 1950. CODEN MAMGA8. ISSN 0025-570X. URL `http://www.jstor.org/stable/3029000`.

Breusch:1954:MNP

[44] Robert Breusch. Mathematical notes: a proof of the irrationality of π. *American Mathematical Monthly*, 61(9):631–632, November 1954. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Greenwood:1955:CCT

[45] Robert E. Greenwood. Coupon collector's test for random digits. *Mathematical Tables and Other Aids to Computation*, 9(49):1–5, January 1955. CODEN MTTCAS. ISSN 0891-6837. URL `http://www.jstor.org/stable/2002211`.

Kazarinoff:1955:CNS

[46] D. K. Kazarinoff. Classroom notes: a simple derivation of the Leibnitz-Gregory series for $\pi/4$. *American Mathematical Monthly*, 62(10):726–727,

December 1955. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Nicholson:1955:SCN

[47] S. C. Nicholson and J. Jeenel. Some comments on a NORC computation of π. *Mathematical Tables and Other Aids to Computation*, 9(52):162–164, October 1955. CODEN MTTCAS. ISSN 0891-6837. URL `http://www.jstor.org/stable/2002052`.

Pennisi:1955:CNE

[48] L. L. Pennisi. Classroom notes: Expansions for π and π^2. *American Mathematical Monthly*, 62(9):653–654, November 1955. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Felton:1957:ECM

[49] G. E. Felton. Electronic computers and mathematicians. In Anonymous, editor, *Abbreviated proceedings of the Oxford Mathematical Conference for Schoolteachers and Industrialists at Trinity College, Oxford, April 8–18, 1957 and administered by Oxford University Delegacy for Extra-Mural Studies*, pages 12–17. Technology (The Times Publishing Company Limited), London, UK, 1957. LCCN QA11.A1 O9 1957. Footnote 12-53.

Steinhaus:1958:PCB

[50] H. Steinhaus. *Problem 144: [conjecture on base-dependence of normal numbers]*. ????, Wrocław, Poland, 1958. LCCN ???? See [51] for a negative answer to this conjecture.

Cassels:1959:PSA

[51] J. W. S. Cassels. On a problem of Steinhaus about normal numbers. *Colloquium Mathematicum*, 7:95–101, 1959. CODEN CQMAAQ. ISSN 0010-1354 (print), 1730-6302 (electronic). URL `http://matwbn.icm.edu.pl/ksiazki/cm/cm7/cm7120.pdf`. See [50] for the original problem.

Schmidt:1960:NN

[52] Wolfgang M. Schmidt. On normal numbers. *Pacific Journal of Mathematics*, 10:661–672, 1960. CODEN PJMAAI. ISSN 0030-8730 (print), 1945-5844 (electronic). URL `http://projecteuclid.org/euclid.pjm/1103038420`.

Wrench:1960:EED

[53] J. W. Wrench, Jr. The evolution of extended decimal approximation to π. *The Mathematics Teacher*, 53(??):644–650, December 1960. ISSN 0025-5769. Reprinted in [343, pp. 319–325].

Matsuoka:1961:MNE

[54] Yoshio Matsuoka. Mathematical notes: An elementary proof of the formula $\sum_{k=1}^{\infty} 1/k^2 = \pi^2/6$. *American Mathematical Monthly*, 68(5):485–487, May 1961. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Dixon:1962:MNA

[55] J. D. Dixon. Mathematical notes: π is not algebraic of degree one or two. *American Mathematical Monthly*, 69(7):636, August/September 1962. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Hardy:1962:CPS

[56] G. H. (Godfrey Harold) Hardy, P. V. (P. Venkatesvara) Seshu Aiyar, and B. M. (Bertram Martin) Wilson, editors. *Collected papers of Srinivasa Ramanujan*. Chelsea, New York, NY, USA, 1962. vii + 355 pp. LCCN QA3 .R3.

Pathria:1962:SSR

[57] R. K. Pathria. A statistical study of randomness among the first $10,000$ digits of π. *Mathematics of Computation*, 16(78):188–197, April 1962. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.jstor.org/stable/2003057`.

Shanks:1962:CD

[58] 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). URL `http://www.jstor.org/stable/2003813`. A note added in proof says: "J. M. Gerard of IBM United Kingdom Limited, who was then unaware of the computation described above, computed π to 20,000 D on the 7090 in the London Data Centre on July 31, 1961. His program used Machin's formula, (1) $[\pi = 16 \arctan(1/5) - 4 \arctan(1/239)]$, and required 39 minutes running time. His result agrees with ours to that number of decimals.".

Esmenjaud-Bonnardel:1965:ESD

[59] M. Esmenjaud-Bonnardel. Étude statistique des décimales de pi. (French) [Statistical study of the decimals of pi]. *Chiffres: Revue de l'Association française de Calcul*, 8(??):295–306, ???? 1965. CODEN ???? ISSN 0245-9922.

Smith:1966:CP

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

Good:1967:GST

[61] I. J. Good and T. N. Gover. The generalized serial test and the binary expansion of $\sqrt{2}$. *Journal of the Royal Statistical Society. Series A (General)*, 130(1):102–107, ???? 1967. CODEN JSSAEF. ISSN 0035-9238. URL `http://www.jstor.org/stable/2344040`. See remark [64].

Tee:1967:CP

[62] G. J. Tee. Correspondence: π and pi. *The Computer Journal*, 9(4):393, February 1967. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL `http://comjnl.oxfordjournals.org/content/9/4/393.full.pdf+html`.

Yarbrough:1967:PCC

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

Good:1968:GST

[64] I. J. Good and T. N. Gover. The generalized serial test and the binary expansion of $\sqrt{2}$. *Journal of the Royal Statistical Society. Series A (General)*, 131(??):434, ???? 1968. CODEN JSSAEF. ISSN 0035-9238. See [61].

Brown:1969:REE

[65] W. S. Brown. Rational exponential expressions and a conjecture concerning π and e. *American Mathematical Monthly*, 76(1):28–34, January 1969. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Davis:1969:A

[66] Philip J. Davis and William G. Chinn. *3.1416 and all that*. Simon and Schuster, New York, NY, USA, 1969. ISBN 0-671-20332-0. viii + 184 pp. LCCN QA93 .D3.

Draim:1969:FCF

[67] N. A. Draim. π in the form of a continued fraction with infinite terms. *Fibonacci Quarterly*, 7(3):275–276, October 1969. CODEN FIBQAU. ISSN 0015-0517. URL `http://www.fq.math.ca/Scanned/7-3/draim.pdf`.

Stark:1969:CNA

[68] E. L. Stark. Classroom notes: Another proof of the formula $\sum 1/k^2 = \pi^2/6$. *American Mathematical Monthly*, 76(5):552–553, May 1969. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Moakes:1970:C

[69] A. J. Moakes. The calculation of π. *Mathematical Gazette*, 54:261–264, 1970. CODEN MAGAAS. ISSN 0025-5572.

Smeur:1970:VEA

[70] A. J. E. M. Smeur. On the value equivalent to π in ancient mathematical texts. A new interpretation. *Archive for History of Exact Sciences*, 6 (4):249–270, January 1970. CODEN AHESAN. ISSN 0003-9519 (print), 1432-0657 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0003-9519&volume=6&issue=4&spage=249`.

Beckmann:1971:H

[71] Petr Beckmann. *A History of* π. St. Martin's Press, New York, NY, USA, 1971. ???? pp. Pi.

Choong:1971:RA

[72] K. Y. Choong, D. E. Daykin, and C. R. Rathbone. Rational approximations to π. *Mathematics of Computation*, 25(114):387–392, April 1971. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/journals/mcom/1971-25-114/S0025-5718-1971-0300981-0`. See errata [79].

Lauro:1972:SDS

[73] N. Lauro. Sulla distribuzione statistica delle cifre decimale di π. (Italian) [On the statistical distribution of the decimal digits of π]. *Studi Economici, Giannini, Napoli*, ??(??):77–93, ???? 1972.

Papadimitriou:1973:CNS

[74] Ioannis Papadimitriou. Classroom notes: a simple proof of the formula $\sum_{k=1}^{\infty} = \pi^2/6$. *American Mathematical Monthly*, 80(4):424–425, April 1973. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Fox:1975:FH

[75] L. Fox and Linda Hayes. A further helping of π. *Mathematical Gazette*, 59(407):38–40, March 1975. CODEN MAGAAS. ISSN 0025-5572 (print), 2056-6328 (electronic). URL `https://www.jstor.org/stable/3616808`.

Brent:1976:FMP

[76] Richard P. Brent. Fast multiple-precision evaluation of elementary functions. *Journal of the ACM*, 23(2):242–251, April 1976. CODEN JACOAH. ISSN 0004-5411 (print), 1557-735X (electronic).

Brent:1976:MPZ

[77] Richard P. Brent. Multiple-precision zero-finding methods and the complexity of elementary function evaluation. In Traub [339], pages 151–176. ISBN 0-12-697560-4. LCCN QA297 .S915 1975. URL `http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.119.3317; http://wwwmaths.anu.edu.au/~brent/pub/pub028.html`. Based on Interim Report ADA014059, Department of Computer Science, Carnegie-Mellon University (July 1975), ii + 26 pages. See also [78] and update in [246].

Salamin:1976:CUA

[78] Eugene Salamin. Computation of π using arithmetic-geometric mean. *Mathematics of Computation*, 30(135):565–570, July 1976. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). See also [77, 246].

Shanks:1976:TER

[79] D. Shanks. Table errata: "Regular continued fractions for π and γ", (Math. Comp. **25** (1971), 403); "Rational approximations to π" (ibid. **25** (1971), 387–392) by K. Y. Choong, D. E. Daykin and C. R. Rathbone. *Mathematics of Computation*, 30(134):381, 1976. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/journals/mcom/1976-30-134/S0025-5718-1976-0386215-4`.

Beckmann:1977:HP

[80] Petr Beckmann. *A History of π*. Golem Press, Boulder, CO, USA, fourth edition, 1977. ISBN 0-911762-18-3. 202 pp. LCCN QA484 .B4 1977. This book chronicles the story of the ultimate version number of TEX.

Anderson:1978:F

[81] Peter G. Anderson. On the formula $\pi = 2\sum \operatorname{arccot} f_{2k+1}$. *Fibonacci Quarterly*, 16(2):118–??, April 1978. CODEN FIBQAU. ISSN 0015-0517. URL `http://www.fq.math.ca/Scanned/16-2/anderson.pdf`.

Brent:1978:AMF

[82] 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 [84, 88, 176].

Solomon:1978:GP

[83] Herbert Solomon. *Geometric probability*, volume 28 of *CBMS-NSF regional conference series in applied mathematics*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1978. ISBN 0-89871-025-1 (paperback). vi + 174 pp. LCCN QA273.5 .S64 1978; QA273.5 .S65. URL `http://epubs.siam.org/ebooks/siam/cbms-nsf_regional_conference_series_in_applied_mathematics/cb28`.

Brent:1979:RMF

[84] 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 [82, 88, 176].

Ferguson:1979:GEA

[85] H. R. P. Ferguson and R. W. Forcade. Generalization of the Euclidean algorithm for real numbers to all dimensions higher than two. *Bulletin of the American Mathematical Society (new series)*, 1(??):912–914, ???? 1979. CODEN BAMOAD. ISSN 0273-0979 (print), 1088-9485 (electronic).

Miel:1979:CNA

[86] George Miel. Classroom notes: An algorithm for the calculation of π. *American Mathematical Monthly*, 86(8):694–697, October 1979. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Bergman:1980:NFF

[87] G. Bergman. Notes on Ferguson and Forcade's generalized Euclidean algorithm. Unpublished notes, University of California at Berkeley., November 1980.

Brent:1980:AIB

[88] 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 [82, 84, 176].

Baxter:1981:UPE

[89] L. Baxter. Unsolved problems: Are π, e, and $\sqrt{2}$ equally difficult to compute? *American Mathematical Monthly*, 88(1):50–51, January 1981. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Cohen:1981:JWM

[90] G. L. Cohen and A. G. Shannon. John Ward's method for the calculation of pi [π]. *Historia Mathematica*, 8(2):133–144, May 1981. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086081900252`.

Forcade:1981:BA

[91] Rodney W. Forcade. Brun's algorithm. Unpublished manuscript, November 1981.

Ferguson:1982:MEA

[92] H. R. P. Ferguson and R. W. Forcade. Multidimensional Euclidean algorithms. *Journal für die reine und angewandte Mathematik*, 334(??): 171–181, ???? 1982. CODEN JRMAA8. ISSN 0075-4102. URL `http://www.ams.org/mathscinet-getitem?mr=84d:10015`.

Newman:1982:RAV

[93] Donald J. Newman. Rational approximation versus fast computer methods. In *Lectures on approximation and value distribution*, volume 79 of *Séminaire de Mathématiques Supérieures*, pages 149–174. Presses de l'université de Montréal, Montréal, QC H3C 3J7, Canada, 1982.

Borwein:1983:VRC

[94] Jonathan M. Borwein and Peter B. Borwein. A very rapidly convergent product expansion for π [pi]. *BIT*, 23(4):538–540, December 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=4&spage=538`.

Kanada:1983:CDP

[95] 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.

Tamura:1983:CDB

[96] 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.

Borwein:1984:CHO

[97] J. M. Borwein and P. B. Borwein. Cubic and higher order algorithms for π. *Bulletin canadien de mathématiques = Canadian Mathematical Bulletin*, 27(??):436–443, ???? 1984. CODEN CMBUA3. ISSN 0008-4395 (print), 1496-4287 (electronic).

Borwein:1984:EAO

[98] J. M. Borwein and P. B. Borwein. Explicit algebraic n th order approximations to pi. In Singh et al. [340], pages 247–256. ISBN 94-009-6466-8, 94-009-6468-4. ISSN 1389-2185. LCCN ???? URL `http://link.springer.com/chapter/10.1007/978-94-009-6466-2_12`.

Newman:1984:SAS

[99] Morris Newman and Daniel Shanks. On a sequence arising in series for π. *Mathematics of Computation*, 42(165):199–217, January 1984. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Davis:1985:A

[100] Philip J. Davis and William G. Chinn. *3.1416 and all that*. Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, second edition, 1985. ISBN 0-8176-3304-9. ix + 188 pp. LCCN QA93 .D3 1985.

Haastad:1985:PTA

[101] J. Håstad, B. Helfrich, J. Lagarias, and C. P. Schnorr. Polynomial time algorithms for finding integer relations among real numbers. In Monien and Vidal-Naquet [341], pages 105–118. CODEN LNCSD9. ISBN 0-387-16078-7 (paperback). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA267.A1 L43 no.210. URL `http://link.springer-ny.com/link/service/series/0558/tocs/t0210.htm; http://www.springer.com/computer/theoretical+computer+science/book/978-3-540-16078-6; http://www.springerlink.com/openurl.asp?genre=issue&issn=0302-9743&volume=210`. Organized jointly by the special interest group for theoretical computer science of the Gesellschaft für Informatik (G.I.) and the special interest group for applied mathematic[s] of the Association française des sciences et techniques de l'information, de l'organisation et des systèmes (AFCET)".

Montgomery:1985:MMT

[102] 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`.

Newman:1985:SVF

[103] D. J. Newman. A simplified version of the fast algorithms of Brent and Salamin. *Mathematics of Computation*, 44(169):207–210, January 1985. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Borwein:1986:ECI

[104] J. M. Borwein and P. B. Borwein. An explicit cubic iteration for π. *BIT*, 26 (1):123–126, March 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=1&spage=123`.

Borwein:1986:MQC

[105] J. M. Borwein and P. B. Borwein. More quadratically converging algorithms for π. *Mathematics of Computation*, 46(173):247–253, January 1986. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Ferguson:1986:SPE

[106] H. R. P. Ferguson. A short proof of the existence of vector Euclidean algorithms. *Proceedings of the American Mathematical Society*, 97(??): 8–10, ?? 1986. CODEN PAMYAR. ISSN 0002-9939 (print), 1088-6826 (electronic). URL `http://www.ams.org/mathscinet-getitem?mr=87k:11080`.

Hancl:1986:NSP

[107] Jaroslav Hančl. Notes: A simple proof of the irrationality of π^4. *American Mathematical Monthly*, 93(5):374–375, May 1986. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Matiyasevich:1986:NNF

[108] Yuri V. Matiyasevich. Notes: A new formula for π. *American Mathematical Monthly*, 93(8):631–635, October 1986. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Parks:1986:NOI

[109] Alan E. Parks. Notes: π, e, and other irrational numbers. *American Mathematical Monthly*, 93(9):722–723, November 1986. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Bernstein:1987:NFA

[110] Daniel J. Bernstein. New fast algorithms for π and e. Fifth-place paper for the nationwide 1987 Westinghouse Science Talent Search. Distributed

at the Ramanujan Centenary Conference. The Web site has only JPEG images of a document scan., 1987. URL `http://cr.yp.to/bib/1987/bernstein.html`.

Choe:1987:NEP

[111] Boo Rim Choe. Notes: An elementary proof of $\sum_{n=1}^{\infty} 1/n^2 = \pi^2/6$. *American Mathematical Monthly*, 94(7):662–663, August/September 1987. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Edgar:1987:PDE

[112] G. A. Edgar. Pi: Difficult or easy? Mathematical considerations for the multidigit computation of pi. *Mathematics Magazine*, 60:141–150, 1987. CODEN MAMGA8. ISSN 0025-570X.

Ferguson:1987:NIA

[113] H. R. P. Ferguson. A non-inductive GL(n, Z) algorithm that constructs linear relations for n Z-linearly dependent real numbers. *Journal of Algorithms*, 8(??):131–145, ???? 1987. CODEN JOALDV. ISSN 0196-6774 (print), 1090-2678 (electronic). URL `http://www.ams.org/mathscinet-getitem?mr=88h:11096`.

Almkvist:1988:GLR

[114] Gert Almkvist and Bruce Berndt. Gauss, Landen, Ramanujan, the arithmetic-geometric mean, ellipses, π, and the Ladies Diary. *American Mathematical Monthly*, 95(7):585–608, August/September 1988. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Bailey:1988:CDD

[115] David H. Bailey. The computation of π to 29,360,000 decimal digits using Borweins' quartically convergent algorithm. *Mathematics of Computation*, 50(181):283–296, January 1988. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bailey:1988:NRT

[116] David H. Bailey. Numerical results on the transcendence of constants involving π, e, and Euler's constant. *Mathematics of Computation*, 50 (181):275–281, January 1988. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/mathscinet-getitem?mr=88m:11056`.

Ferguson:1988:PNI

[117] Helaman Ferguson. PSOS: a new integral relation finding algorithm involving partial sums of squares and no square roots. *Abstracts of papers*

presented to the American Mathematical Society, 9(56 (88T-11-75)):214, March 1988.

Hurley:1988:RCP

[118] Donal Hurley. Recent computations of π. *Irish Math. Soc. Bull.*, 21(??): 38–44, 1988. ISSN 0791-5578.

Jami:1988:HCD

[119] Catherine Jami. Une histoire chinoise du "nombre π". (French) [A Chinese history of the "number π"]. *Archive for History of Exact Sciences*, 38(1): 39–50, March 1988. CODEN AHESAN. ISSN 0003-9519 (print), 1432-0657 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0003-9519&volume=38&issue=1&spage=39`.

Kanada:1988:VMA

[120] Yasumasa Kanada. Vectorization of multiple-precision arithmetic program and 201,326,000 decimal digits of π calculation. In Martin and Lundstrom [342], pages 117–128. 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.

Bailey:1989:NRR

[121] David H. Bailey and Helaman R. P. Ferguson. Numerical results on relations between fundamental constants using a new algorithm. *Mathematics of Computation*, 53(188):649–656, October 1989. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Borwein:1989:RME

[122] J. M. Borwein, P. B. Borwein, and D. H. Bailey. Ramanujan, modular equations, and approximations to π or how to compute one billion digits of π. *American Mathematical Monthly*, 96(3):201–219, March 1989. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Chudnovsky:1989:CCC

[123] D. Chudnovsky and G. Chudnovsky. The computation of classical constants. *Proceedings of the National Academy of Sciences of the United States of America*, 86(21):8178–8182, ???? 1989. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic). URL `http://www.pnas.org/content/86/21/8178.full.pdf+html`.

Haastad:1989:PTA

[124] J. Håstad, B. Just, J. C. Lagarias, and C.-P. Schnorr. Polynomial time algorithms for finding integer relations among real numbers. *SIAM Journal on Computing*, 18(5):859–881, October 1989. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic). See also earlier version in [101].

Jochi:1989:CMA

[125] Shigeru Jochi. Zu Chongzhi's Da Ming Almanac and computation of π. *J. Beijing Norm. Univ., Nat. Sci.*, 1989(4):85–89, 1989.

Tee:1989:NBA

[126] Garry J. Tee. A note on Bechmann's approximate construction of π, suggested by a deleted sketch in Villard de Honnecourt's manuscript. *British Journal for the History of Science*, 22(2):241–242, July 1989. CODEN BJHSAT. ISSN 0007-0874 (print), 1474-001X (electronic). URL `http://www.jstor.org/stable/4026662`.

Bailey:1990:FEH

[127] David H. Bailey. FFTs in external or hierarchical memory. *The Journal of Supercomputing*, 4(1):23–35, March 1990. CODEN JOSUED. ISSN 0920-8542 (print), 1573-0484 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0920-8542&volume=4&issue=1&spage=23`.

Desbrow:1990:NI

[128] D. Desbrow. Notes: On the irrationality of π^2. *American Mathematical Monthly*, 97(10):903–906, December 1990. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Johnson:1990:SDC

[129] Bruce R. Johnson and David J. Leeming. A study of the digits of π, e, and certain other irrational numbers. *Sankhyā (Indian Journal of Statistics), Series B. Methodological*, 52(2):183–189, ???? 1990. CODEN SANBBV. ISSN 0976-8386 (print), 0976-8394 (electronic).

Lynch:1990:DHO

[130] R. Lynch and H. A. Mavromatis. N-dimensional harmonic oscillator yields monotonic series for the mathematical constant π. *Journal of Computational and Applied Mathematics*, 30(2):127–137, May 28, 1990. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/037704279090021Q`.

Bailey:1991:PTN

[131] D. H. Bailey and H. R. P. Ferguson. A polynomial time, numerically stable integer relation algorithm. Report SRC-TR-92-066, Supercomputing Research Center, ????, December 16, 1991. 1–14 pp. Also issued as RNR Technical Report RNR-91-032 (16 December 1991; 14 July 1992), NASA Ames Research Center, MS T045-1, Moffett Field, CA 94035-1000.

Gillman:1991:TML

[132] Leonard Gillman. The teaching of mathematics: π and the limit of $(\sin \alpha)/\alpha$. *American Mathematical Monthly*, 98(4):346–349, April 1991. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Jones:1991:AAF

[133] Arthur Jones, Sidney A. Morris, and Kenneth R. Pearson. *Abstract Algebra and Famous Impossibilities*. Universitext. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1991. ISBN 0-387-97661-2, 1-4419-8552-2 (e-book). ISSN 0172-5939. x + 187 pp. LCCN QA241-247.5.

Schroeder:1991:FCP

[134] Manfred Schroeder. *Fractals, Chaos, Power Laws*. W. H. Freeman and Company, New York, NY, USA, 1991. ISBN 0-671-74217-5, 0-7167-2136-8, 0-7167-2357-3. xviii + 429 pp. LCCN QD921 .S3 1990.

Tweddle:1991:JMR

[135] Ian Tweddle. John Machin and Robert Simson on inverse-tangent series for π. *Archive for History of Exact Sciences*, 42(1):1–14, March 1991. CODEN AHESAN. ISSN 0003-9519 (print), 1432-0657 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0003-9519&volume=42&issue=1&spage=1`.

Barrow:1992:PSC

[136] John D. Barrow. *Pi in the Sky: Counting, Thinking, and Being*. Clarendon Press, Oxford, UK, 1992. ISBN 0-19-853956-8. ix + 317 pp. LCCN QA36 .B37 1992. US$30.00 (Oxford Univ. Press).

Freguglia:1992:DFP

[137] Paolo Freguglia. The determination of π in Fibonacci's *Practica geometriae* in a fifteenth-century manuscript. In *Contributions to the history of mathematics (Italian) (Modena, 1990)*, volume 8 of *Coll. Studi*, pages 75–84. Accad. Naz. Sci. Lett. Arti, Modena, Italy, 1992.

Lord:1992:RCG

[138] Nick Lord. Recent calculations of π: The Gauss–Salamin algorithm. *Mathematical Gazette*, 76(476):231–242, 1992. CODEN MAGAAS. ISSN 0025-5572; 2056-6328/e.

Mauron:1992:P

[139] C. Mauron. π *[pi]*. Mauron and Lachat, Fribourg, Switzerland, 1992. ISBN ???? ???? pp. LCCN ???? Mauron computes π to 1,000,000 decimal digits using independent formulas of Liebniz, Machin, and Störmer.

Abeles:1993:CDG

[140] Francine F. Abeles. Charles L. Dodgson's geometric approach to arctangent relations for pi. *Historia Mathematica*, 20(2):151–159, May 1993. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/S031508608371013X`.

Arno:1993:NPT

[141] Steve Arno and Helaman Ferguson. A new polynomial time algorithm for finding relations among real numbers. Report SRC-93-093, Supercomputing Research Center, ????, March 1993. 1–13 pp.

Bailey:1993:AMT

[142] 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/`.

Beckmann:1993:HP

[143] Petr Beckmann. *A history of* π. Barnes and Noble, New York, NY, USA, 1993. ISBN 0-88029-418-3. 200 pp. LCCN QA484 .B4 1971. US$6.98. Reprint of the third edition of 1971.

Badger:1994:LLA

[144] Lee Badger. Lazzarini's lucky approximation of π. *Mathematics Magazine*, 67(2):83–91, April 1994. CODEN MAMGA8. ISSN 0025-570X. URL `http://www.jstor.org/stable/2690682; http://www.maa.org/programs/maa-awards/writing-awards/lazzarinis-lucky-approximation-of-pi`.

Bailey:1994:EEE

[145] David H. Bailey, Jonathan M. Borwein, and Roland Girgensohn. Experimental evaluation of Euler sums. *Experimental mathematics*, 3(1):17–30, ???? 1994. ISSN 1058-6458 (print), 1944-950X (electronic). URL `http://www.ams.org/mathscinet-getitem?mr=96e:11168`.

Clawson:1994:MTE

[146] Calvin C. Clawson. *The Mathematical Traveler: Exploring the Grand History of Numbers*. Plenum Press, New York, NY, USA; London, UK, 1994. ISBN 0-306-44645-6. x + 307 pp. LCCN QA141 .C52 1994. US$25.95.

Hauss:1994:FLC

[147] Michael Hauss. Fibonacci, Lucas, and central factorial numbers, and π. *Fibonacci Quarterly*, 32(5):395–396, November 1994. CODEN FIBQAU. ISSN 0015-0517. URL `http://www.fq.math.ca/Scanned/32-5/hauss.pdf`.

Rossner:1994:SIR

[148] C. Rössner and C. P. Schnorr. A stable integer relation algorithm. Report TR-94-016, FB Mathematik / Informatik Universität Frankfurt, Frankfurt, Germany, 1994. 1–11 pp.

Volkov:1994:CAC

[149] Alexeĭ Volkov. Calculation of π in ancient China: from Liu Hui to Zu Chongzhi. *Historia Sci. (2)*, 4(2):139–157, 1994. ISSN 0285-4821.

Bailey:1995:FBM

[150] 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 [176].

Finch:1995:MBB

[151] Steven Finch. The miraculous Bailey–Borwein–Plouffe pi algorithm. Recent URLs redirect to an unrelated site, but the one given here worked on 26-Apr-2011., October 1, 1995. URL `http://replay.web.archive.org/20020917121814/http://www.mathsoft.com/ASOLVE/plouffe/plouffe.html`.

Hirata:1995:CTT

[152] Keiji Hirata. Calculation of π as a tool to think about the meaning of FGHC programs. *Sūrikaisekikenkyūsho Kōkyūroku*, 902(??):117–132, ????

1995. The theory of parallel computation and its applications (Japanese) (Kyoto, 1994).

Rabinowitz:1995:SAD

[153] Stanley Rabinowitz and Stan Wagon. A spigot algorithm for the digits of π. *American Mathematical Monthly*, 102(3):195–203, March 1995. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Adamchik:1996:PYO

[154] Victor Adamchik and Stan Wagon. Pi: a 2000-year-old search changes direction. *Mathematica in Science and Education*, 5(1):11–19, ???? 1996.

Barrow:1996:PSC

[155] John D. Barrow. *Pi in the Sky: Counting, Thinking, and Being*. Little, Brown and Company, Boston, Toronto, London, 1996. ISBN 0-316-08259-7. ix + 317 pp. LCCN QA36 .B37 1994.

Dodge:1996:DSA

[156] Yadolah Dodge and V. Rousson. Does π satisfy all statistical tests? Technical Report 96-2, Statistics Group, University of Neuchâtel, Neuchâtel, Switzerland, 1996.

Dodge:1996:NRN

[157] Yadolah Dodge. A natural random number generator. *International Statistical Review / Revue Internationale de Statistique*, 64(3):329–344, December 1996. CODEN STRDPY. ISSN 0306-7734 (print), 1751-5823 (electronic). URL `http://www.jstor.org/stable/1403789`.

Plouffe:1996:CTD

[158] Simon Plouffe. On the computation of the n'th decimal digit of various transcendental numbers. The original URL no longer works, but the archive URL retains the document., November 30, 1996. URL `http://replay.web.archive.org/20021002015905/http://www.lacim.uqam.ca/plouffe/Simon/articlepi.html`.

Wei:1996:CDD

[159] Gong Yi Wei, Zi Giang Yang, Jia Chang Sun, and Jia Kai Li. The computation of π to $10,000,000$ decimal digits. *Journal on Numerical Methods and Computer Applications*, 17(1):78–81, 1996. ISSN 1000-3266. Also in Chinese Journal of Numerical Mathematics and Applications, **18**(3), 96–100 (1996).

Adamchik:1997:NSF

[160] Victor Adamchik and Stan Wagon. Notes: A simple formula for π. *American Mathematical Monthly*, 104(9):852–855, November 1997. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.maa.org/pubs/monthly_nov97_toc.html`. The authors employ Mathematica to extend earlier work of Bailey, Borwein [122], and Plouffe, [163], done in 1995, but only just published, that discovered an amazing formula for π as is a power series in 16^{-k}, enabling any base-16 digit of π to be computed without knowledge of any prior digits. In this paper, Mathematica is used to find several simpler formulas having powers of 4^{-k}. They also note that it has been proven that their methods cannot be used to exhibit similar formulas in powers of 10^{-k}.

Almkvist:1997:MCD

[161] Gert Almkvist. Many correct digits of π, revisited. *American Mathematical Monthly*, 104(4):351–353, April 1997. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.maa.org/pubs/monthly_apr97_toc.html`.

Bailey:1997:QP

[162] David H. Bailey, Jonathan M. Borwein, Peter B. Borwein, and Simon Plouffe. The quest for pi. *The Mathematical Intelligencer*, 19(1):50–57, January 1997. CODEN MAINDC. ISSN 0343-6993 (print), 1866-7414 (electronic).

Bailey:1997:RCV

[163] David Bailey, Peter Borwein, and Simon Plouffe. On the rapid computation of various polylogarithmic constants. *Mathematics of Computation*, 66(218):903–913, April 1997. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/jourcgi/jour-pbprocess?fn=110&arg1=S0025-5718-97-00856-9&u=/mcom/1997-66-218/`.

Bailey:1997:RME

[164] D. H. Bailey, J. M. Borwein, and P. B. Borwein. Ramanujan, modular equations, and approximations to pi or How to compute one billion digits of pi [MR0991866 (90d:11143)]. In *Organic mathematics (Burnaby, BC, 1995)*, volume 20 of *CMS Conference Proceedings*, pages 35–71. American Mathematical Society, Providence, RI, USA, 1997.

Bailey:1997:RNC

[165] David H. Bailey and Simon Plouffe. Recognizing numerical constants. In *The Organic Mathematics Project Proceedings*, volume 20, pages 73–88.

Canadian Mathematical Society, Ottawa, ON K1G 3V4, Canada, ???? 1997. CODEN CJMAAB. ISSN 0008-414X (print), 1496-4279 (electronic). URL `http://crd.lbl.gov/~dhbailey/dhbpapers/recog.pdf; http://www.cecm.sfu.ca/organics`.

Bellard:1997:BBD

[166] Fabrice Bellard. The 1000 billionth binary digit of pi is '1'! Was this work published elsewhere?, 1997. URL `http://bellard.org/pi-challenge/announce220997.html`.

Bellard:1997:NFC

[167] Fabrice Bellard. A new formula to compute the n-th binary digit of π. This formula is claimed in [254] to be somewhat faster to compute than the BBP formula., 1997. URL `http://bellard.org/pi/pi_bin.pdf`.

Blatner:1997:JP

[168] David Blatner. *The Joy of* π. Walker and Co., New York, NY, USA, 1997. ISBN 0-8027-1332-7 (hardcover), 0-8027-7562-4 (paperback). xiii + 129 pp. LCCN QA484 .B55 1997. URL `http://www.walkerbooks.com/books/catalog.php?key=4`.

Delahaye:1997:FNc

[169] Jean-Paul Delahaye. *Le fascinant nombre* π *(French) [The fascinating number* π*].* Bibliothýeque Pour la science. Éditions Belin / Pour La Science, Paris, France, 1997. ISBN 2-902918-25-9. ISSN 0224-5159. 224 pp. LCCN QA484 D44 1997.

Laczkovich:1997:LPI

[170] M. Laczkovich. On Lambert's proof of the irrationality of π. *American Mathematical Monthly*, 104(5):439–443, May 1997. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/2974737; http://www.maa.org/pubs/monthly_may97_toc.html`. See [2].

Ogawa:1997:BEC

[171] Tsukane Ogawa. The beginnings of enri—the calculation of π by Katahiro Takebe. *Sūrikaisekikenkyūsho Kōkyūroku*, 1019(??):77–97, 1997. Study of the history of mathematics (Japanese) (Kyoto, 1997).

Volkov:1997:ZYH

[172] Alexeüı Volkov. Zhao Youqin and his calculation of π. *Historia Mathematica*, 24(3):301–331, August 1997. CODEN HIMADS. ISSN 0315-0860

(print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0315086097921637`.

Arndt:1998:ACA

[173] Jörg Arndt and Christoph Haenel. *π: Algorithmen, Computer, Arithmetik*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1998. ISBN 3-540-63419-3. xi + 191 pp. LCCN ???? URL `http://zbmath.org/?q=an:0893.11001`.

Bailey:1998:FNM

[174] David H. Bailey. Finding new mathematical identities via numerical computations. *ACM SIGNUM Newsletter*, 33(1):17–22, January 1998. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Borwein:1998:TAP

[175] Jonathan Borwein. Talking about pi. The original URL is no longer found, but the archive URL worked on 26-Apr-2011., January 20, 1998.

Smith:1998:AMP

[176] 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 [150, 82, 84, 88].

Symborska:1998:P

[177] Wisława Symborska. PI. In *Poems, New and Collected, 1957–1997*, pages 174–175. Harcourt Brace, New York, NY, USA, 1998. ISBN 0-15-100353-X. LCCN PG7178.Z9 A222 1998. URL `http://www.nobelprize.org/nobel_prizes/literature/laureates/1996/`; `http://www.nobelprize.org/nobel_prizes/literature/laureates/1996/szymborska.html`. Translated from the Polish by Stanisław Barańczak and Clare Cavanagh.

Takahashi:1998:CBD

[178] Daisuke Takahashi and Yasumasa Kanada. Calculation of π to 51.5 billion decimal digits on distributed memory parallel processors. *Transactions of the Information Processing Society of Japan*, 39(7):2074–2083, 1998. CODEN JSGRD5. ISSN 0387-5806.

Tsaban:1998:RAP

[179] Boaz Tsaban and David Garber. On the Rabbinical approximation of π. *Historia Mathematica*, 25(1):75–84, February 1998. CODEN HI-

MADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL http://www.sciencedirect.com/science/article/pii/S0315086097921856.

Ferguson:1999:API

[180] Helaman R. P. Ferguson, David H. Bailey, and Steve Arno. Analysis of PSLQ, an integer relation finding algorithm. *Mathematics of Computation*, 68(225):351–369, January 1999. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL http://www.ams.org/jourcgi/jour-pbprocess?fn=110&arg1=S0025-5718-99-00995-3&u=/mcom/1999-68-225/.

Gourdon:1999:NCC

[181] Xavier Gourdon and Pascal Sebah. Numbers, constands, and computation. Web site, 1999. URL http://numbers.computation.free.fr/Constants/constants.html.

Gourdon:1999:PEU

[182] X. Gourdon. PiFast, an easy-to-use package for computing pi and other irrationals to large numbers of digits. Web site., 1999. URL http://www.numbers.computation.free.fr/Constants/PiProgram/pifast.html.

Group:1999:P

[183] Pi Group. The π pages. The original URL is no longer found, but the archive URL worked on 26-Apr-2011., May 8, 1999. URL http://replay.web.archive.org/20020812145823/http://www.cecm.sfu.ca/PI/.

Lange:1999:NEC

[184] L. J. Lange. Notes: An elegant continued fraction for π. *American Mathematical Monthly*, 106(5):456–458, May 1999. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Lord:1999:RFA

[185] Nick Lord. 83.50 recent formulae for π: Arctan revisited! *Mathematical Gazette*, 83(498):479–483, 1999. CODEN MAGAAS. ISSN 0025-5572 (print), 2056-6328 (electronic).

Arndt:2000:ACA

[186] Jörg Arndt and Christoph Haenel. *π: Algorithmen, Computer, Arithmetik*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., second edition, 2000. ISBN 3-540-66258-8 (print), 3-662-09360-X. LCCN QA76.9.A43. URL http://link.springer.com/openurl?genre=book\%26isbn=978-3-540-66258-7.

Bailey:2000:IRD

[187] David H. Bailey. Integer relation detection. *Computing in Science and Engineering*, 2(1):24–28, January/February 2000. CODEN CSENFA. ISSN 1521-9615 (print), 1558-366X (electronic). URL `http://dlib.computer.org/cs/books/cs2000/pdf/c1024.pdf; http://www.computer.org/cse/cs1999/c1024abs.htm`.

Hardy:2000:CPS

[188] G. H. (Godfrey Harold) Hardy, P. V. (P. Venkatesvara) Seshu Aiyar, and B. M. (Bertram Martin) Wilson, editors. *Collected papers of Srinivasa Ramanujan*. AMS Chelsea Publishing Company, Providence, RI, USA, 2000. ISBN 0-8218-2076-1 (hardcover). xxxviii + 426 pp. LCCN QA3 .S685 1962.

Jaditz:2000:DPI

[189] Ted Jaditz. Are the digits of π an independent and identically distributed sequence? *The American Statistician*, 54(1):12–16, February 2000. CODEN ASTAAJ. ISSN 0003-1305 (print), 1537-2731 (electronic). URL `http://www.jstor.org/stable/2685604`.

Kalantari:2000:NFA

[190] Bahman Kalantari. New formulas for approximation of π and other transcendental numbers. *Numerical Algorithms*, 24(1–2):59–81, December 2000. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://ipsapp007.kluweronline.com/content/getfile/5058/27/5/abstract.htm; http://ipsapp007.kluweronline.com/content/getfile/5058/27/5/fulltext.pdf`. Computational methods from rational approximation theory (Wilrijk, 1999).

Lagarias:2000:NAC

[191] Jeffrey C. Lagarias. On the normality of arithmetical constants. Where is this document?, September 2000.

Percival:2000:PDE

[192] C. Percival. PiHex: a distributed effort to calculate Pi. The computation took two years, and used 250 CPU years, using otherwise-idle time on 1734 machines in 56 countries., 2000. URL `http://oldweb.cecm.sfu.ca/projects/pihex`.

Venkatachala:2000:RP

[193] B. J. Venkatachala, V. Vinay, and C. S. Yogananda, editors. *Ramanujan's papers*. Prism Books, Bangalore, India, 2000. ISBN 81-7286-180-X. 391 pp. LCCN PN4874.R23 A25 2000.

Xu:2000:C

[194] De Yi Xu. The computations of π. *J. Central China Normal Univ. Natur. Sci.*, 34(3):376–378, 2000. CODEN HDZKEL. ISSN 1000-1190.

Arndt:2001:PU

[195] Jörg Arndt and Christoph Haenel. *Pi — Unleashed*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2001. ISBN 3-540-66572-2 (paperback), 3-642-56735-5 (e-book). xii + 270 pp. LCCN QA484.A7513 2001. US$. Includes CD-ROM. Translated from the German by Catriona and David Lischka.

Bailey:2001:PIR

[196] David H. Bailey and David J. Broadhurst. Parallel integer relation detection: Techniques and applications. *Mathematics of Computation*, 70(236):1719–1736, October 2001. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/journal-getitem?pii=S0025-5718-00-01278-3; http://www.ams.org/mcom/2001-70-236/S0025-5718-00-01278-3/S0025-5718-00-01278-3.dvi; http://www.ams.org/mcom/2001-70-236/S0025-5718-00-01278-3/S0025-5718-00-01278-3.pdf; http://www.ams.org/mcom/2001-70-236/S0025-5718-00-01278-3/S0025-5718-00-01278-3.ps; http://www.ams.org/mcom/2001-70-236/S0025-5718-00-01278-3/S0025-5718-00-01278-3.tex`.

Bailey:2001:RCF

[197] David H. Bailey and Richard E. Crandall. On the random character of fundamental constant expansions. *Experimental mathematics*, 10(2):175–190, June 2001. ISSN 1058-6458 (print), 1944-950X (electronic).

OConner:2001:TA

[198] J. O'Conner and E. F. Robertson. π through the ages. Web site., 2001. URL `http://www-groups.dcs.st-and.ac.uk/~history/HistTopics/Pi_through_the_ages.html`.

Peterson:2001:PMM

[199] Ivars Peterson. Pi à la mode: Mathematicians tackled the seeming randomness of pi's digits. *Science News (Washington, DC)*, 160(9):136–137, September 1, 2001. CODEN SCNEBK. ISSN 0036-8423 (print), 1943-0930 (electronic). URL `http://www.jstor.org/stable/4012633`.

Preuss:2001:DPR

[200] Paul Preuss. Are the digits of pi random? A Berkeley Lab researcher may hold the key. *Energy Science News*, ??(??):??,

???? 2001. URL `http://web.archive.org/web/20050208141708/http://www.pnl.gov/energyscience/10-01/art3.htm; http://www.pnl.gov/energyscience/10-01/art3.htm`. pnl.gov.

Bailey:2002:RGN

[201] David H. Bailey and Richard E. Crandall. Random generators and normal numbers. *Experimental mathematics*, 11(4):527–546, ???? 2002. ISSN 1058-6458 (print), 1944-950X (electronic).

Barcenas:2002:CMT

[202] Diómedes Bárcenas and Olga Porras. Calculation of π by mean of trigonometric functions. *Divulg. Mat.*, 10(2):149–159, 2002. ISSN 1315-2068.

Hertling:2002:SNN

[203] Peter Hertling. Simply normal numbers to different bases. *J.UCS: Journal of Universal Computer Science*, 8(2):235–242, February 28, 2002. CODEN ???? ISSN 0948-695X (print), 0948-6968 (electronic). URL `http://www.jucs.org/jucs_8_2/simply_normal_numbers_to`.

Reid-Green:2002:TEA

[204] 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`.

Almkvist:2003:SNF

[205] Gert Almkvist, Christian Krattenthaler, and Joakim Petersson. Some new formulas for π. *Experimental mathematics*, 12(4):441–456, ???? 2003. CODEN ???? ISSN 1058-6458 (print), 1944-950X (electronic). URL `http://projecteuclid.org/euclid.em/1087568020`.

Borwein:2003:EMC

[206] Jonathan M. Borwein, David H. Bailey, and Roland Girgensohn. *Experimentation in mathematics: computational paths to discovery*. A. K. Peters, Ltd., Wellesley, MA, USA, 2003. ISBN 1-56881-136-5. x + 357 pp. LCCN QA12 .B67 2004. US$49.00.

Finch:2003:MC

[207] Steven R. Finch. *Mathematical Constants*, volume 94 of *Encyclopedia of mathematics and its applications*. Cambridge University Press, Cambridge, UK, 2003. ISBN 0-521-81805-2 (hardcover), 1-107-26335-2 (e-book), 1-107-26691-2 (e-book). xix + 602 pp. LCCN QA41 .F54 2003. URL `http://algo.inria.fr/bsolve/constant/table.html`; `http://numbers.computation.free.fr/Constants/constants.html`; `http://www.cambridge.org/us/catalogue/catalogue.asp?isbn=0521818052`; `http://www.loc.gov/catdir/description/cam031/2002074058.html`; `http://www.loc.gov/catdir/samples/cam034/2002074058.html`; `http://www.loc.gov/catdir/toc/cam031/2002074058.html`.

Gibbs:2003:DSP

[208] W. W. Gibbs. A digital slice of pi. the new way to do pure math: Experimentally. *Scientific American*, 288(5):23–24, May 2003. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL `http://crd.lbl.gov/~dhbailey/sciam-2003.pdf`; `http://www.nature.com/scientificamerican/journal/v288/n5/pdf/scientificamerican0503-23.pdf`; `http://www.scientificamerican.com/article.cfm?id=a-digital-slice-of-pi`.

Osmova:2003:CWE

[209] E. N. Os′mova. Calculation of π in the works of L. Euler using asymptotic series. *Istor.-Mat. Issled. (2)*, 8(43):167–185, 406, 2003. ISBN 5-8037-0160-2.

Bailey:2004:BEA

[210] David H. Bailey, Jonathan M. Borwein, Richard E. Crandall, and Carl Pomerance. On the binary expansions of algebraic numbers. *Journal of Number Theory Bordeaux*, 16(??):487–518, ???? 2004. CODEN ???? ISSN ????

Borwein:2004:FEA

[211] Jonathan M. Borwein, William F. Galway, and David Borwein. Finding and excluding b-ary Machin-type BBP formulae. *Canadian Journal of Mathematics = Journal canadien de mathématiques*, 56(??):1339–1342, ???? 2004. CODEN CJMAAB. ISSN 0008-414X (print), 1496-4279 (electronic).

Borwein:2004:MEP

[212] Jonathan M. Borwein and David H. Bailey. *Mathematics by Experiment: Plausible Reasoning in the 21st Century*. A. K. Peters, Ltd., Wellesley,

MA, USA, 2004. ISBN 1-56881-211-6. x + 288 pp. LCCN QA76.95 .B67 2003. US$45.00.

Byatt:2004:SPD

[213] D. Byatt, M. L. Dalrymple, and R. M. Turner. Searching for primes in the digits of π. *Computers and Mathematics with Applications*, 48(3–4):497–504, August 2004. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0898122104840719`.

Eymard:2004:N

[214] Pierre Eymard and Jean-Pierre Lafon. *The Number π*. American Mathematical Society, Providence, RI, USA, 2004. ISBN 0-8218-3246-8. x + 322 pp. LCCN QA484 .E9613 2004. US$36.00. URL `http://www.ams.org/bookpages/tnp/`. Translated by Stephen S. Wilson from the French *Autour du nombre π* (1999).

Posamentier:2004:PBW

[215] Alfred S. Posamentier and Ingmar Lehmann. *π: A biography of the world's most mysterious number*. Prometheus Books, Amherst, NY, USA, 2004. ISBN 1-59102-200-2 (hardcover). 324 pp. LCCN QA484 .P67 2004. Afterword by Herbert A. Hauptman.

Schumer:2004:ECP

[216] Peter D. Schumer. Episodes in the calculation of pi. In *Mathematical journeys* [346], pages 101–116. ISBN 0-471-22066-3 (paperback). LCCN QA93 .S38 2004. URL `http://www.loc.gov/catdir/bios/wiley044/2003062040.html; http://www.loc.gov/catdir/description/wiley041/2003062040.html; http://www.loc.gov/catdir/toc/wiley041/2003062040.html`.

Bailey:2005:HPF

[217] 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`.

Chua:2005:EML

[218] Kok Seng Chua. Extremal modular lattices, McKay Thompson series, quadratic iterations, and new series for π. *Experimental mathematics*, 14 (3):343–357, ???? 2005. CODEN ???? ISSN 1058-6458 (print), 1944-950X (electronic). URL `http://projecteuclid.org/euclid.em/1128371759`.

Dodge:2005:RNG

[219] Yadolah Dodge and Giuseppe Melfi. Random number generators and rare events in the continued fraction of π. *Journal of Statistical Computation and Simulation*, 75(3):189–197, 2005. CODEN JSCSAJ. ISSN 0094-9655 (print), 1026-7778 (electronic), 1563-5163. URL `http://www.tandfonline.com/doi/abs/10.1080/00949650410001687181`.

Marsaglia:2005:RPO

[220] George Marsaglia. On the randomness of pi and other decimal expansions. *InterStat: statistics on the Internet*, page 17, October 2005. CODEN ???? ISSN 1941-689X. URL `http://yaroslavvb.com/papers/marsaglia-on.pdf; https://web.archive.org/web/20060827003645/http://interstat.statjournals.net/INDEX/Oct05.html; https://web.archive.org/web/20061002145157/http://interstat.statjournals.net/YEAR/2005/abstracts/0510005.php; https://web.archive.org/web/20061116062707/http://interstat.statjournals.net/YEAR/2005/articles/0510005.pdf`.

Tu:2005:SRD

[221] Shu-Ju Tu and Ephraim Fischbach. A study on the randomness of the digits of π. *International Journal of Modern Physics C [Physics and Computers]*, 16(2):281–294, February 2005. CODEN IJMPEO. ISSN 0129-1831 (print), 1793-6586 (electronic). URL `http://www.worldscinet.com/ijmpc/16/1602/S01291831051602.html`. The statistical analysis in this work is flawed; see [220, 227].

Adams:2006:GDW

[222] Colin Conrad Adams, Edward B. Burger, and Thomas A. Garrity. *The great π /e debate: [which is the better number?]*. Mathematical Association of America, Washington, DC, USA, 2006. ISBN 0-88385-900-9. LCCN QA99 .A33 2006 DVD. URL `https://www.reddit.com/r/math/comments/na7ua/pi_vs_e_debate/`. One 40-minute DVD.

Boslaugh:2006:BRG

[223] Sarah Boslaugh. Book review: *The Great Pi/e Debate*, Colin Adams and Thomas Garrity Mathematical Association of America, 2006, $24.95 ISBN 0-88385-900-9. *MAA Reviews*, ??(??):??–?, December 28, 2006. URL `https://www.maa.org/press/maa-reviews/the-great-pie-debate`.

Chan:2006:T

[224] Hei-Chi Chan. π in terms of ϕ. *Fibonacci Quarterly*, 44(2):141–144, May 2006. CODEN FIBQAU. ISSN 0015-0517. URL `http://www.fq.math.ca/Abstracts/44-2/chan.pdf`.

Guillera:2006:CCS

[225] Jesús Guillera. A class of conjectured series representations for $1/\pi$. *Experimental mathematics*, 15(4):409–414, ???? 2006. CODEN ???? ISSN 1058-6458 (print), 1944-950X (electronic). URL `http://projecteuclid.org/euclid.em/1175789776`.

Guillera:2006:NMO

[226] Jesús Guillera. A new method to obtain series for $1/\pi$ and $1/\pi^2$. *Experimental mathematics*, 15(1):83–89, ???? 2006. CODEN ???? ISSN 1058-6458 (print), 1944-950X (electronic). URL `http://projecteuclid.org/euclid.em/1150476906`.

Marsaglia:2006:RCS

[227] George Marsaglia. Refutation of claims such as "Pi is less random than we thought". *InterStat: statistics on the Internet*, January 23, 2006. CODEN ???? ISSN 1941-689X. URL `http://interstat.statjournals.net/YEAR/2006/articles/0601001.pdf`.

Mayer:2006:TP

[228] Steve Mayer. The transcendence of pi. Web site, November 2006. URL `https://sixthform.info/maths/files/pitrans.pdf`.

Bailey:2007:EMA

[229] David H. Bailey, Jonathan M. Borwein, Neil J. Calkin, Roland Girgensohn, D. Russell Luke, and Victor Moll. *Experimental Mathematics in Action*. A. K. Peters, Ltd., Wellesley, MA, USA, 2007. ISBN 1-56881-271-X. xii + 322 pp. LCCN QA8.7 .E97 2007.

Borwein:2008:CMD

[230] Jonathan M. Borwein, E. M. (Eugenio M.) Rocha, and José-Francisco Rodrigues, editors. *Communicating mathematics in the digital era*. A. K. Peters, Ltd., Wellesley, MA, USA, 2008. ISBN 1-56881-410-0. xii + 325 pp. LCCN QA76.95 .C59 2008. URL `http://www.loc.gov/catdir/toc/fy0903/2008022183.html`.

Borwein:2008:VPG

[231] J. M. Borwein. La vita di pi greco. (Italian) [The life of Greek pi]. In ????, editor, *Mathematics and Culture, La matematica: Problemi e teoremi*, page ?? Guilio Einaudi Editori, Turino, Italy, 2008. ISBN ???? LCCN ???? URL `http://www.carma.newcastle.edu.au/~jb616/pi-2010.pdf`.

Chan:2008:MTF

[232] Hei-Chi Chan. Machin-type formulas expressing π in terms of ϕ. *Fibonacci Quarterly*, 46/47(1):32–37, February 2008/2009. CODEN FIBQAU. ISSN 0015-0517. URL `http://www.fq.math.ca/Abstracts/46_47-1/chan.pdf`.

Chong:2008:EQ

[233] Terence Tai-Leung Chong. The empirical quest for π. *Computers and Mathematics with Applications*, 56(10):2772–2778, November 2008. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0898122108004306`.

Guillera:2008:EPS

[234] Jesús Guillera. Easy proofs of some Borwein algorithms for π. *American Mathematical Monthly*, 115(9):850–854, November 2008. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/27642614`.

Hogendijk:2008:AKD

[235] Jan P. Hogendijk. Al-Kāshī's determination of π to 16 decimals in an old manuscript. *Z. Gesch. Arab.-Islam. Wiss.*, 18:73–153, 2008/2009. ISSN 0179-4639. With an appendix containing Al-Kāshī's *Treatise on the Circumference* in Arabic.

Miller:2008:PPW

[236] Steven J. Miller. A probabilistic proof of Wallis's formula for π. *American Mathematical Monthly*, 115(8):740–745, October 2008. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/27642585`.

Pickett:2008:ACF

[237] Thomas J. Pickett and Ann Coleman. Another continued fraction for π. *American Mathematical Monthly*, 115(10):930–933, 2008. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/27642639`.

Pilehrood:2008:ALC

[238] Kh. Hessami Pilehrood and T. Hessami Pilehrood. An Apéry-like continued fraction for $\pi\coth\pi$. *Journal of Difference Equations and Applications*, 14(12):1279–1287, 2008. CODEN JDEAEA. ISSN 1023-6198.

Bellard:2009:PFA

[239] Fabrice Bellard. Pi formulas, algorithms and computations. Web site., December 31, 2009. URL `https://bellard.org/pi/`.

Borwein:2009:CCI

[240] Jonathan M. Borwein and Keith J. Devlin. *The computer as crucible: an introduction to experimental mathematics*. A. K. Peters, Ltd., Wellesley, MA, USA, 2009. ISBN 1-56881-343-0. xi + 158 pp. LCCN QA8.7 .B67 2009. URL `http://www.loc.gov/catdir/toc/fy0904/2008022180.html`.

USCongress:2009:HRP

[241] United States Congress. House Resolution 224: Pi day. Web document, March 12, 2009. The resolution ends with: "Resolved, That the House of Representatives– (1) supports the designation of a "Pi Day" and its celebration around the world; (2) recognizes the continuing importance of National Science Foundation's math and science education programs; and (3) encourages schools and educators to observe the day with appropriate activities that teach students about Pi and engage them about the study of mathematics.".

Adegoke:2010:NBD

[242] Kunle Adegoke. New binary degree 3 digit extraction (BBP-type) formulas. Where is this document?, December 2010. URL `http://adegoke.atwebpages.com/`.

Adegoke:2010:NBT

[243] Kunle Adegoke. New binary and ternary digit extraction (BBP-type) formulas for trilogarithm constants. *New York Journal of Mathematics*, 16(??):361–367, ???? 2010. URL `http://nyjm.albany.edu/j/2010/16-14v.pdf`.

Adegoke:2010:NPR

[244] Kunle Adegoke. Non-PSLQ route to BBP-type formulas. *Journal of Mathematics Research*, 2(2):56–64, ???? 2010. CODEN ???? ISSN ???? URL `http://www.ccsenet.org/journal/index.php/jmr/article/download/3853/4736`.

Almkvist:2010:RLS

[245] Gert Almkvist and Jesus Guillera. Ramanujan-like series for $1/\pi^2$ and string theory. *arxiv.org*, ??(??):??, September 27, 2010. URL `http://arxiv.org/abs/1009.5202.`.

Brent:2010:MPZ

[246] Richard P. Brent. Multiple-precision zero-finding methods and the complexity of elementary function evaluation. Reprint of [77] with a postscript describing more recent developments. See also [78], April 20, 2010. URL `http://arxiv.org/abs/1004.3412v2; http://wwwmaths.anu.edu.au/~brent/pub/pub028.html`.

Calude:2010:EEQ

[247] Cristian S. Calude, Michael J. Dinneen, Monica Dumitrescu, and Karl Svozil. Experimental evidence of quantum randomness incomputability. *Physical Review A (Atomic, Molecular, and Optical Physics)*, 82 (2):022102, August 2010. CODEN PLRAAN. ISSN 1050-2947 (print), 1094-1622, 1538-4446, 1538-4519. URL `http://link.aps.org/doi/10.1103/PhysRevA.82.022102`.

Jauregui:2010:NRD

[248] M. Jauregui and C. Tsallis. New representations of π and Dirac delta using the nonextensive-statistical-mechanics q-exponential function. *Journal of Mathematical Physics*, 51(6):063304, June 2010. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v51/i6/p063304_s1`.

Jones:2010:DPI

[249] Timothy W. Jones. Discovering and proving that π is irrational. *American Mathematical Monthly*, 117(6):553–557, June 2010. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/pdfplus/10.4169/000298910X492853.pdf`.

Kaneko:2010:NNP

[250] Hajime Kaneko. On normal numbers and powers of algebraic numbers. *Integers*, 10:A5, 31–64, 2010. ISSN 1867-0652.

Nimbran:2010:DML

[251] Amrik Singh Nimbran. On the derivation of Machin-like arctangent identities for computing pi (π). *The Mathematics Student*, 79(1–4):171–186, 2010. CODEN MTHSBH. ISSN 0025-5742.

Osler:2010:LBF

[252] Thomas J. Osler. Lord Brouncker's forgotten sequence of continued fractions for pi. *International Journal of Mathematical Education in Science and Technology*, 41(1):105–110, 2010. CODEN IJMEBM. ISSN 0020-739X.

Sondow:2010:NWC

[253] Jonathan Sondow and Huang Yi. New Wallis- and Catalan-type infinite products for π, e and $\sqrt{2+\sqrt{2}}$. *American Mathematical Monthly*, 117(10): 912–917, December 2010. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/pdfplus/10.4169/000298910X523399.pdf`.

Sze:2010:TQB

[254] 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 ????

Takahashi:2010:PIM

[255] 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).

Adegoke:2011:CBB

[256] Kunle Adegoke. A class of binary BBP-type formulas in general degrees. Where is this document?, February 2011. URL `http://adegoke.atwebpages.com/`.

Adegoke:2011:FPD

[257] Kunle Adegoke. Formal proofs of degree 5 binary BBP-type formulas. Where is this document?, January 2011. URL `http://adegoke.atwebpages.com/`.

Adegoke:2011:NAD

[258] Kunle Adegoke. A novel approach to the discovery of ternary BBP-type formulas for polylogarithm constants. *Notes on Number Theory and Discrete Mathematics*, 17(1):??, ???? 2011. CODEN ???? ISSN ???? URL `http://adegoke.atwebpages.com/`.

Adegoke:2011:NDB

[259] Kunle Adegoke. New degree 4 binary BBP-type formulas and a zero relation. Where is this document?, January 2011. URL `http://adegoke.atwebpages.com/`.

Adegoke:2011:SRB

[260] Kunle Adegoke. Symbolic routes to BBP-type formulas of any degree in arbitrary bases. *Applied Mathematics and Information Sciences*, ??(??): ??, May 2011.

Almkvist:2011:RLF

[261] Gert Almkvist. Ramanujan-like formulas for $1/\pi^2$ and string theory [abstract only]. *ACM Communications in Computer Algebra*, 45(2):92, June 2011. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic). To appear in Proceedings of WWCA 2011.

Bailey:2011:BTF

[262] David H. Bailey. A compendium of BBP-type formulas for mathematical constants. Report, Lawrence Berkeley National Laboratory, Berkeley, CA, USA, February 13, 2011. 36 pp. URL `http://crd.lbl.gov/~dhbailey/dhbpapers/bbp-formulas.pdf`; `http://www.bbp.carma.newcastle.edu.au`.

Bailey:2011:CPI

[263] David H. Bailey, Jonathan M. Borwein, Andrew Mattingly, and Glenn Wightwick. The computation of previously inaccessible digits of π^2 and Catalan's constant. Report, Lawrence Berkeley National Laboratory; Centre for Computer Assisted Research Mathematics and its Applications (CARMA), University of Newcastle; IBM Australia, Berkeley, CA, USA; Callaghan, NSW 2308, Australia; St. Leonards, NSW 2065, Australia; Pyrmont, NSW 2009, Australia, April 11, 2011. 18 pp. URL `http://crd.lbl.gov/~dhbailey/dhbpapers/bbp-bluegene.pdf`.

Borwein:2011:PSE

[264] D. Borwein and Jonathan M. Borwein. Proof of some experimentally conjectured formulas for π. Preprint, Department of Mathematics, University of Western Ontario and Centre for Computer-assisted Research Mathematics and its Applications (CARMA), School of Mathematical and Physical Sciences, University of Newcastle, London, ON, Canada and Callaghan, NSW 2308, Australia, December 4, 2011.

Chu:2011:DBS

[265] Wenchang Chu. Dougall's bilateral ${}_2H_2$-series and Ramanujan-like π-formulae. *Mathematics of Computation*, 80(276):2223–2251, October 2011. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.ams.org/journals/mcom/2011-80-276/S0025-5718-2011-02474-9/home.html`; `http://www.ams.org/`

journals/mcom/2011-80-276/S0025-5718-2011-02474-9/S0025-5718-2011-02474-9.pdf; http://www.ams.org/mathscinet-getitem?mr=2813357.

Knuth:2011:WPC

[266] Donald Knuth. Why pi? [Christmas tree lecture]. 100-minute YouTube video., September 6, 2011. URL https://www.youtube.com/watch?v=mw6dYK9LRzU.

Lafont:2011:DBT

[267] Jaume Oliver Lafont. Degree 1 BBP-type zero relations. Where is this document?, January 27, 2011.

Yee:2011:LC

[268] Alexander Yee. Large computations. Where is this document?, March 7, 2011. URL http://www.numberworld.org/nagisa_runs/computations.html.

Yee:2011:TDPa

[269] Alexander Yee and Shigeru Kondo. Trillion digits of pi — new world record. Where is this document?, March 7, 2011. URL http://www.numberworld.org/misc_runs/pi-5t/details.html.

Yee:2011:TDPb

[270] Alexander J. Yee and Shigeru Kondo. 10 trillion digits of pi: A case study of summing hypergeometric series to high precision on multicore systems. Preprint, University of Illinois Urbana-Champaign and Asahimatsu Food Co. Ltd., Urbana, IL, USA and Iida, Japan, 2011. URL http://hdl.handle.net/2142/28348.

Zorzi:2011:BLP

[271] Alberto Zorzi. Benford's law and pi. *Mathematical Gazette*, 95(533):264–266, July 2011. CODEN MAGAAS. ISSN 0025-5572. URL ????.

Amdeberhan:2012:FEC

[272] Tewodros Amdeberhan, David Borwein, Jonathan M. Borwein, and Armin Straub. On formulas for π experimentally conjectured by Jauregui–Tsallis. *Journal of Mathematical Physics*, 53(7):073708, July 2012. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL http://jmp.aip.org/resource/1/jmapaq/v53/i7/p073708_s1.

Bailey:2012:EAN

[273] David H. Bailey, Jonathan M. Borwein, Cristian S. Calude, Michael J. Dinneen, Monica Dumitrescu, and Alex Yee. An empirical approach to

the normality of π. *Experimental mathematics*, 21(4):375–384, 2012. ISSN 1058-6458 (print), 1944-950X (electronic).

Bailey:2012:HPC

[274] D. H. Bailey, R. Barrio, and J. 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://www.sciencedirect.com/science/article/pii/S0096300312003505`.

Fuks:2012:AAK

[275] Henryk Fukś. Adam Adamandy Kochański's approximations of π: Reconstruction of the algorithm. *The Mathematical Intelligencer*, 34(4): 40–45, ???? 2012. CODEN MAINDC. ISSN 0343-6993 (print), 1866-7414 (electronic). URL `http://arxiv.org/abs/1111.1739; http://link.springer.com/article/10.1007/s00283-012-9312-1`.

Osada:2012:EHC

[276] Naoki Osada. The early history of convergence acceleration methods. *Numerical Algorithms*, 60(2):205–221, June 2012. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=1017-1398&volume=60&issue=2&spage=205`.

Shelburne:2012:ED

[277] Brian J. Shelburne. The ENIAC's 1949 determination of π. *IEEE Annals of the History of Computing*, 34(3):44–54, July/September 2012. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic).

Agarwal:2013:BGC

[278] Ravi P. Agarwal, Hans Agarwal, and Syamal K. Sen. Birth, growth and computation of pi to ten trillion digits. *Advances in Difference Equations*, 2013(100):1–59, 2013. CODEN ???? ISSN 1687-1847. URL `http://www.advancesindifferenceequations.com/content/2013/1/100`.

Alladi:2013:R

[279] Krishnaswami Alladi. Ramanujan and π. In *Ramanujan's place in the world of mathematics: essays providing a comparative study* [347], pages 103–109. ISBN 81-322-0766-1 (print), 81-322-0767-X (electronic). LCCN QA29.R3 A65 2013. URL `http://link.springer.com/chapter/10.1007/978-81-322-0767-2_16`. This article appeared in *The Hindu*, India s national newspaper in December 1994 on Ramanujan's 107th birth anniversary.

AragonArtacho:2013:WRN

[280] Francisco Aragón Artacho, David H. Bailey, Jonathan M. Borwein, and Peter B. Borwein. Walking on real numbers. *The Mathematical Intelligencer*, 35(1):42–60, March 2013. CODEN MAINDC. ISSN 0343-6993 (print), 1866-7414 (electronic). URL `http://gigapan.com/gigapans/106803; http://www.davidhbailey.com/dhbpapers/tools-walk.pdf`.

Bailey:2013:CBT

[281] David H. Bailey. A compendium of BBP-type formulas for mathematical constants. Web site., April 29, 2013. URL `http://www.davidhbailey.com/dhbpapers/bbp-formulas.pdf`.

Bailey:2013:CPI

[282] David H. Bailey, Jonathan M. Borwein, Andrew Mattingly, and Glenn Wightwick. The computation of previously inaccessible digits of π^2 and Catalan's constant. *Notices of the American Mathematical Society*, 60 (7):844–854, August 2013. CODEN AMNOAN. ISSN 0002-9920 (print), 1088-9477 (electronic). URL `http://docserver.carma.newcastle.edu.au/1436/; http://www.ams.org/notices/201307/rnoti-p844.pdf`.

Bailey:2013:DPR

[283] David H. Bailey and Jonathan M. Borwein. Are the digits of pi random? *Huffington Post*, April 16, 2013. URL `http://www.huffingtonpost.com/david-h-bailey/are-the-digits-of-pi-random_b_3085725.html`.

Bailey:2013:PDU

[284] David H. Bailey and Jonathan Borwein. Pi day is upon us again and we still do not know if pi is normal. Report, Lawrence Berkeley National Laboratory and Centre for Computer Assisted Research Mathematics and its Applications (CARMA), University of Newcastle, Berkeley, CA 94720, USA and Callaghan, NSW 2308, Australia, May 29, 2013. 20 pp. URL `http://www.carma.newcastle.edu.au/jon/pi-monthly.pdf`.

Beliakov:2013:EIBa

[285] Gleb Beliakov, Michael Johnstone, Doug Creighton, and Tim Wilkin. An efficient implementation of Bailey and Borwein's algorithm for parallel random number generation on graphics processing units. *Computing*, 95 (4):309–326, April 2013. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic). URL `http://link.springer.com/article/10.1007/s00607-012-0234-8`. See also [286].

Beliakov:2013:EIBb

[286] G. Beliakov, D. Creighton, M. Johnstone, and T. Wilkin. Efficient implementation of Bailey and Borwein pseudo-random number generator based on normal numbers. *Computer Physics Communications*, 184(8): 1999–2004, August 2013. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465513001276`. See also [285].

Casey:2013:PPP

[287] Stephen D. Casey and Brian M. Sadler. Pi, the primes, periodicities, and probability. *American Mathematical Monthly*, 120(7):594–608, August 2013. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/pdfplus/10.4169/amer.math.monthly.120.07.594.pdf`.

Gourevitch:2013:W

[288] Boris Gourévitch. The world of π. Web site, April 13, 2013. URL `http://www.pi314.net/eng/index.php`.

Karrels:2013:CDC

[289] Ed Karrels. Computing digits of π with CUDA, 2013. URL `http://www.karrels.org/pi`.

Karrels:2013:SCQ

[290] Ed Karrels. S3071 — computing the quadrillionth digit of pi: A supercomputer in the garage. In ????, editor, *GPU Technology Conference, March 18–21, 2013, San Jose, California*. ????, ????, 2013. URL `http://registration.gputechconf.com/quicklink/2IXnrGH`.

Ritelli:2013:API

[291] Daniele Ritelli. Another proof of $\zeta(2) = \frac{\pi^2}{6}$ using double integrals. *American Mathematical Monthly*, 120(7):642–645, August 2013. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/pdfplus/10.4169/amer.math.monthly.120.07.642.pdf`.

Wan:2013:HGF

[292] James G. Wan. Hypergeometric generating functions and series for $1/\pi$. *ACM Communications in Computer Algebra*, 47(3–4):114–115, September 2013. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Yee:2013:IST

[293] Alexander Yee and Shiguro Kondo. It stands at 10 trillion digits of pi... world record for both desktop and supercomputer!!! Web site, April 15, 2013. URL `http://www.numberworld.org/y-cruncher/`. This site also contains a table of digit records from 2009 to 2013 for various mathematical constants. The π record of 10,000,000,000,050 decimal digits was reached on 17 October 2011 after 371 days of computation, and 45 hours of verification.

Bailey:2014:PDU

[294] David H. Bailey and Jonathan Borwein. Pi day is upon us again and we still do not know if pi is normal. *American Mathematical Monthly*, 121 (3):191–206, March 2014. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/pdfplus/10.4169/amer.math.monthly.121.03.191.pdf`.

Borwein:2014:LPA

[295] Jonathan M. Borwein. The life of pi: From Archimedes to ENIAC and beyond. In Sidoli and Van Brummelen [348], pages 531–561. ISBN 3-642-36735-6, 3-642-36736-4. LCCN QA21-27. URL `http://scans.hebis.de/HEBCGI/show.pl?33313183_aub.html; http://scans.hebis.de/HEBCGI/show.pl?33313183_toc.html`.

Ganz:2014:DES

[296] Reinhard E. Ganz. The decimal expansion of π is not statistically random. *Experimental mathematics*, 23(2):99–104, 2014. CODEN ???? ISSN 1058-6458 (print), 1944-950X (electronic). See the reproduction of results, and reanalysis, in [306], that reveals a flaw in the statistical analysis in this paper: Ganz used only a single blocksize in sampling digits, and that blocksize produces anomalous statistics.

Lee:2014:HPD

[297] Jolie Lee. Happy pi day! Unless you are a tauist. *USA Today*, March 17, 2014. ISSN 0734-7456. URL `http://www.usatoday.com/story/news/nation-now/2014/03/14/pi-day-tau-math/6410959/`.

Papadopoulos:2014:HAH

[298] Ioannis Papadopoulos. How Archimedes helped students to unravel the mystery of the magical number pi. *Science & Education (Springer)*, 23 (1):61–77, January 2014. CODEN SCEDE9. ISSN 0926-7220 (print), 1573-1901 (electronic).

Borwein:2015:PPA

[299] Jonathan Borwein and Scott Chapman. I prefer pi: Addenda. *American Mathematical Monthly*, 122(8):800, October 2015. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/10.4169/amer.math.monthly.122.8.800`. See [300].

Borwein:2015:PPB

[300] Jonathan M. Borwein and Scott T. Chapman. I prefer pi: A brief history and anthology of articles in the American Mathematical Monthly. *American Mathematical Monthly*, 122(3):195–216, March 2015. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/10.4169/amer.math.monthly.122.03.195`. See addenda [299].

Cheng:2015:HBP

[301] Eugenia Cheng. *How to bake π: an edible exploration of the mathematics of mathematics*. Basic Books, New York, NY, USA, 2015. ISBN 0-465-05171-5 (hardcover), 0-465-05169-3 (e-book). 288 (est.) pp. LCCN QA9 .C4862 2015.

Friedmann:2015:QMD

[302] Tamar Friedmann and C. R. Hagen. Quantum mechanical derivation of the Wallis formula for π. *Journal of Mathematical Physics*, 56(11):112101, November 2015. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. See news story [303].

Meyers:2015:NDP

[303] Catherine Meyers. New derivation of pi links quantum physics and pure math: Researchers stumbled upon a famous pre-Newtonian formula for pi while computing the energy levels of a hydrogen atom, November 10, 2015. URL `https://publishing.aip.org/publishing/journal-highlights/new-derivation-pi-links-quantum-physics-and-pure-math`. See [302].

Tracy:2015:OCC

[304] Suzanne Tracy. Once-in-a-century: Celebrating 10 digits of pi on 3.14.15 at 9:26:53. *Scientific Computing*, March 14, 2015. CODEN SCHRCU. ISSN 1930-5753 (print), 1930-6156 (electronic). URL `http://www.scientificcomputing.com/blogs/2015/03/once-century-celebrating-10-digits-pi-31415-92653`.

Wardhaugh:2015:LCC

[305] Benjamin Wardhaugh. A 'lost' chapter in the calculation of π: Baron Zach and MS Bodleian 949. *Historia Mathematica*, 42(3):343–351, August 2015. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/S031508601500018X`.

Bailey:2016:RCS

[306] David H. Bailey, Jonathan M. Borwein, Richard P. Brent, and Mohsen Reisi. Reproducibility in computational science: A case study: Randomness of the digits of pi. *Experimental mathematics*, 22(??): 1–8, 2016. CODEN ???? ISSN 1058-6458 (print), 1944-950X (electronic). URL `http://www.tandfonline.com/doi/full/10.1080/10586458.2016.1163755`. See [296].

Roberts:2016:HFB

[307] Gareth Ffowc Roberts. How a farm boy from Wales gave the world pi. *Scientific Computing*, ??(??):??, March 14, 2016. URL `http://www.scientificcomputing.com/articles/2016/03/how-farm-boy-wales-gave-world-pi`.

Bailey:2017:PCP

[308] David H. Bailey. Pi and the collapse of peer review. Web blog., July 20, 2017. URL `http://mathscholar.org/pi-and-the-collapse-of-peer-review`.

Blum-Smith:2017:FTS

[309] Ben Blum-Smith and Samuel Coskey. The Fundamental Theorem on Symmetric Polynomials: History's first whiff of Galois theory. *College Mathematics Journal*, 48(1):18–29, January 2017. CODEN ???? ISSN 0746-8342 (print), 1931-1346 (electronic). URL `http://www.tandfonline.com/doi/abs/10.4169/college.math.j.48.1.18`.

Richeson:2017:CRW

[310] David Richeson. Circular reasoning: who first proved that C divided by d is a constant? In Pitici [349], page ?? ISBN 0-691-17529-2 (paperback). LCCN QA1 .B337; QA93 .B476 2016.

Yee:2017:PNL

[311] Alexander Yee. Pi: Notable large computations. Web blog and tables., May 17, 2017. The latest record set on 11 November 2016 by Peter Trueb is 22,459,157,718,361 decimal digits of π.

Anonymous:2018:BF

[312] Anonymous. Bellard's formula. Wikipedia article, 2018. URL `https://en.wikipedia.org/wiki/Bellard%27s_formula`.

Bertot:2018:DDP

[313] Yves Bertot, Laurence Rideau, and Laurent Théry. Distant decimals of π: Formal proofs of some algorithms computing them and guarantees of exact computation. *Journal of Automated Reasoning*, 61(1–4):33–71, June 2018. CODEN JAREEW. ISSN 0168-7433 (print), 1573-0670 (electronic). URL `http://link.springer.com/article/10.1007/s10817-017-9444-2`.

Takahashi:2018:CQH

[314] Daisuke Takahashi. Computation of the 100 quadrillionth hexadecimal digit of π on a cluster of Intel Xeon Phi processors. *Parallel Computing*, 75(??):1–10, July 2018. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0167819118300334`.

Bailey:2019:SPA

[315] David H. Bailey. Simple proofs: Archimedes' calculation of pi. Web site., February 9, 2019. URL `https://mathscholar.org/2019/02/simple-proofs-archimedes-calculation-of-pi/`.

Porter:2019:GEC

[316] Jon Porter. Google employee calculates pi to record 31 trillion digits: But remember, only 40 or so of them are actually useful. Web site, March 14, 2019. URL `https://www.theverge.com/2019/3/14/18265358/pi-calculation-record-31-trillion-google`.

Bailey:2020:CMF

[317] David H. Bailey. A catalogue of mathematical formulas involving π, with analysis. Report, Lawrence Berkeley National Laboratory, and Department of Computer Science, University of California, Davis, Berkeley, CA 94720 and Davis, CA, March 27, 2020. 14 pp. URL `https://www.davidhbailey.com/dhbpapers/pi-formulas.pdf`.

Brent:2020:BBP

[318] Richard P. Brent. The Borwein brothers, pi and the AGM. In Bailey et al. [350], pages 323–347. ISBN 3-030-36567-0 (print), 3-030-36568-9 (e-book). ISSN 2194-1009 (print), 2194-1017 (electronic). LCCN ????

Monroe:2020:NBB

[319] Don Monroe. News: Bouncing balls and quantum computing. *Communications of the ACM*, 63(10):10–12, September 2020. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL `https://dl.acm.org/doi/10.1145/3416076`.

Staudte:2020:EGF

[320] R. G. Staudte. Evidence for goodness of fit in Karl Pearson chi-squared statistics. *Statistics: a Journal of Theoretical and Applied Statistics*, 54 (6):1287–1310, 2020. CODEN MOSSD5. ISSN 0233-1888 (print), 1029-4910 (electronic).

Yee:2020:CMT

[321] Alexander J. Yee. `y-cruncher`: a multi-threaded pi-program. Web site, March 30, 2020. URL `http://www.numberworld.org/y-cruncher/`; `https://www.fhgr.ch/en/specialist-areas/applied-future-technologies/davis-centre/pi-challenge/`; `https://www.hpcwire.com/2021/08/19/after-108-days-swiss-hpc-system-calculates-pi-to-62-8-trillion-digits/`.

Guillera:2021:PRR

[322] Jesús Guillera. Proof of a rational Ramanujan-type series for $1/\pi$. The fastest one in level 3. *International Journal of Number Theory (IJNT)*, 17(02):473–477, March 2021. ISSN 1793-0421 (print), 1793-7310 (electronic). URL `https://www.worldscientific.com/doi/10.1142/S1793042120400242`.

Abrarov:2022:NFM

[323] Sanjar M. Abrarov, Rehan Siddiqui, Rajinder K. Jagpal, and Brendan M. Quine. A new form of the machin-like formula for π by iteration with increasing integers. *Journal of Integer Sequences*, 25(4):1–16, ???? 2022. ISSN 1530-7638. URL `https://cs.uwaterloo.ca/journals/JIS/VOL25/Abrarov/abrarov5.html`.

Ernstsson:2022:DPP

[324] August Ernstsson, Nicolas Vandenbergen, and Christoph Kessler. A deterministic portable parallel pseudo-random number generator for pattern-based programming of heterogeneous parallel systems. *International Journal of Parallel Programming*, 50(3-4):319–340, August 2022. CODEN IJPPE5. ISSN 0885-7458 (print), 1573-7640 (electronic). URL `https://link.springer.com/article/10.1007/s10766-022-00726-5`.

Iwao:2022:EMP

[325] Emma Haruka Iwao. Even more pi in the sky: Calculating 100 trillion digits of pi on Google Cloud. Web site, March 21, 2022. URL `https://cloud.google.com/blog/products/compute/calculating-100-trillion-digits-of-pi-on-google-cloud`.

Lucas:2022:MSF

[326] Stephen K. Lucas and Amrik Singh Nimbran. Monotonic series for fractions near π and their convergents. *Mathematical Gazette*, 106(566): 300–309, July 2022. CODEN MAGAAS. ISSN 0025-5572 (print), 2056-6328 (electronic). URL `https://www.cambridge.org/core/journals/mathematical-gazette/article/monotonic-series-for-fractions-near-and-their-convergents/73CAD6F4E882A4643E7C626066EA5891`.

Morris:2022:AAF

[327] Sidney A. Morris, Arthur Jones, and Kenneth R. Pearson. *Abstract Algebra and Famous Impossibilities: Squaring the Circle, Doubling the Cube, Trisecting an Angle, and Solving Quintic Equations*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., second edition, 2022. ISBN 3-031-05697-3 (print), 3-031-05698-1 (e-book), 3-031-05699-X, 3-031-05700-7 (paperback). ISSN 2945-5847. xxii + 218 pp. LCCN QA247-247.45. URL `http://www.springerlink.com/content/978-1-4419-8552-1`.

Yee:2022:CMT

[328] Alexander J. Yee. `y-cruncher` — a multi-threaded pi-program. Web site, October 13, 2022. URL `http://www.numberworld.org/y-cruncher/`.

Bailey:2023:CBT

[329] David H. Bailey. A compendium of BBP-type formulas for mathematical constants, April 8, 2023. URL `https://www.davidhbailey.com/dhbpapers/bbp-formulas.pdf`. Web report.

Craig-Wood:2023:EFF

[330] Nick Craig-Wood. Euler found the first binary digit extraction formula for π in 1779. *Euleriana*, 3(1):23–30, March 2023. CODEN ???? ISSN 2693-9908. URL `https://scholarlycommons.pacific.edu/euleriana/vol3/iss1/3`.

Strickland:2023:HLT

[331] Lloyd Strickland. How Leibniz tried to tell the world he had squared the circle. *Historia Mathematica*, 62(??):19–39, February 2023. CODEN

HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL http://www.sciencedirect.com/science/article/pii/S0315086022000465.

Abrarov:2024:IMC

[332] Sanjar M. Abrarov, Rehan Siddiqui, Rajinder Kumar Jagpal, and Brendan M. Quine. An iterative method for computing π by argument reduction of the tangent function. *Mathematical and Computational Applications*, 29(2):17:1–17:23, April 2024. CODEN ???? ISSN 2297-8747. URL https://www.mdpi.com/2297-8747/29/2/17.

Grzesik:2024:NDG

[333] J. A. Grzesik. A novel derivation of the Gregory–Leibniz series for pi. *College Mathematics Journal*, 55(4):346–348, 2024. CODEN ???? ISSN 0746-8342 (print), 1931-1346 (electronic). URL http://www.tandfonline.com/doi/full/10.1080/07468342.2023.2286167.

Maritz:2024:EPC

[334] Milton F. Maritz. Extracting pi from chaos. *College Mathematics Journal*, 55(2):86–99, 2024. CODEN ???? ISSN 0746-8342 (print), 1931-1346 (electronic). URL http://www.tandfonline.com/doi/full/10.1080/07468342.2023.2265282.

Nam:2024:APU

[335] Kyumin Nam. Approximation of pi using infinite series of arcsine. *College Mathematics Journal*, 55(2):172–174, 2024. CODEN ???? ISSN 0746-8342 (print), 1931-1346 (electronic). URL http://www.tandfonline.com/doi/full/10.1080/07468342.2023.2242213.

Anonymous:2025:PPI

[336] Anonymous. Proof that pi is irrational. Wikipedia article, February 18, 2025. URL https://en.wikipedia.org/wiki/Proof_that_pi_is_irrational.

Bailey:2025:SPP

[337] David H. Bailey. Simple proofs: Pi is transcendental. Math Scholar blog, February 19, 2025. URL https://mathscholar.org/2025/02/simple-proofs-pi-is-transcendental/; https://www.davidhbailey.com/resources/bibliography.html.

Bourbaki:1949:FVR

[338] Nicolas Bourbaki. *Fonctions d'une variable réelle*, volume 1074 of *Actualités Scientifiques et Industrielles*. Hermann et Cie., Paris, France, 1949. 137–138 pp.

Traub:1976:ACC

[339] 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 .S915 1975.

Singh:1984:ATS

[340] S. P. Singh, J. W. H. Burry, and B. Watson, editors. *Approximation Theory and Spline Functions. NATO Advanced Study Institute held at Memorial University of Newfoundland during August 22–September 2, 1983*, volume 136 of *NATO ASI Series, Series C: Mathematical and Physical Sciences*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1984. ISBN 94-009-6466-8, 94-009-6468-4. ISSN 1389-2185. LCCN ????

Monien:1986:SAS

[341] B. Monien and G. Vidal-Naquet, editors. *STACS 86: 3rd Annual Symposium on Theoretical Aspects of Computer Science, Orsay, France, January 16–18, 1986*, volume 210 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1986. CODEN LNCSD9. ISBN 0-387-16078-7 (paperback). ISSN 0302-9743 (print), 1611-3349 (electronic). LCCN QA267.A1 L43 no.210. URL `http://link.springer-ny.com/link/service/series/0558/tocs/t0210.htm; http://www.springer.com/computer/theoretical+computer+science/book/978-3-540-16078-6; http://www.springerlink.com/openurl.asp?genre=issue&issn=0302-9743&volume=210`. Organized jointly by the special interest group for theoretical computer science of the Gesellschaft für Informatik (G.I.) and the special interest group for applied mathematic[s] of the Association française des sciences et techniques de l'information, de l'organisation et des systèmes (AFCET)".

Martin:1988:SPN

[342] 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.

Berggren:1997:PSB

[343] Lennart Berggren, Jonathan M. Borwein, and Peter B. Borwein, editors. *Pi, a source book*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1997. ISBN 0-387-94924-0, 1-4757-2736-4 (e-book), 1-4757-2738-0 (print), 3-540-94924-0. xix + 716 pp. LCCN QA484 .P5 1997.

Berggren:2000:PSB

[344] Lennart Berggren, Jonathan Borwein, and Peter Borwein, editors. *Pi: a source book*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., second edition, 2000. ISBN 0-387-98946-3 (hardcover). xx + 736 pp. LCCN QA484 .P5 2000.

Berggren:2004:PSB

[345] Lennart Berggren, Jonathan Borwein, and Peter Borwein, editors. *Pi: a source book*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., third edition, 2004. ISBN 0-387-20571-3. xx + 797 pp.

Schumer:2004:MJ

[346] Peter D. Schumer. *Mathematical journeys*. Wiley-Interscience, New York, NY, USA, 2004. ISBN 0-471-22066-3 (paperback). xi + 199 pp. LCCN QA93 .S38 2004. URL `http://www.loc.gov/catdir/bios/wiley044/2003062040.html`; `http://www.loc.gov/catdir/description/wiley041/2003062040.html`; `http://www.loc.gov/catdir/toc/wiley041/2003062040.html`.

Alladi:2013:RPW

[347] Krishnaswami Alladi. *Ramanujan's place in the world of mathematics: essays providing a comparative study*. Springer, New Delhi, India, 2013. ISBN 81-322-0766-1 (print), 81-322-0767-X (electronic). xviii + 177 pp. LCCN QA29.R3 A65 2013.

Sidoli:2014:ATB

[348] Nathan Sidoli and Glen Van Brummelen, editors. *From Alexandria, Through Baghdad: Surveys and Studies in the Ancient Greek and Medieval Islamic Mathematical Sciences in Honor of J. L. Berggren*. SpringerLink: Bücher. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2014. ISBN 3-642-36735-6, 3-642-36736-4. xv + 583 pp. LCCN QA21-27. URL `http://scans.hebis.de/HEBCGI/show.pl?33313183_aub.html`; `http://scans.hebis.de/HEBCGI/show.pl?33313183_toc.html`.

Pitici:2017:BWM

[349] Mircea Pitici, editor. *The Best Writing on Mathematics*, volume 2016. Princeton University Press, Princeton, NJ, USA, 2017. ISBN 0-691-17529-2 (paperback). xxii + 377 pp. LCCN QA1 .B337; QA93 .B476 2016.

Bailey:2020:AVC

[350] David H. Bailey, Naomi Simone Borwein, Richard P. Brent, Regina S. Burachik, Judy anne Heather Osborn, Brailey Sims, and Qiji J. Zhu, editors. *From Analysis to Visualization: A Celebration of the Life and Legacy of Jonathan M. Borwein, Callaghan, Australia, September 2017*, volume 313 of *Springer Proceedings in Mathematics & Statistics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2020. ISBN 3-030-36567-0 (print), 3-030-36568-9 (e-book). ISSN 2194-1009 (print), 2194-1017 (electronic). LCCN ????