A Bibliography of Publications about Virtual Machines

Nelson H. F. Beebe
University of Utah
Department of Mathematics, 110 LCB
155 S 1400 E RM 233
Salt Lake City, UT 84112-0090
USA
Tel: +1 801 581 5254
FAX: +1 801 581 4148
E-mail: beebe@math.utah.edu, beebe@acm.org, beebe@computer.org (Internet)
WWW URL: http://www.math.utah.edu/~beebe/

07 May 2022
Version 1.387

Abstract
This bibliography records books and other publications about virtual machines.

Title word cross-reference

$32.95$ [Ano97a]. 5 [ALW15, HH18]. $^M$ [Cza00]. $\alpha$ [LTK17]. $d$ [XDL15]. $H^2M$ [CBZ+16]. $n$ [WZKP19]. $\omega$ [Arv02]. II [Syr07]. V$^2$ [DG05].

-dienste [WF03]. -Enabled [SB18]. -Tier [WZKP19].

.NET [Fra06, Fra09, Hee07, Hog06, Hog08, Men03].

/CLI [Fra06, Fra09, Hee07, Hog06, Hog08, Siv07, Wil06]. /dev/random [Fer11].
<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>[Sim92, SCP93]. 0.9.0 [WR07]. 0.9.1 [WR08]. '01 [Ano00, Ano01a, Ano01b, USE01c, USE01d]. '02 [USE02]. '03 [ACM03b, Ert03]. '04 [Ano04a, Ano04b]. '05 [ACM05d, Vra05].</td>
</tr>
<tr>
<td>1</td>
<td>[Fli77, Pul91, Sch94a, WDSW01]. 1-4 [Ano06a]. 1.x [KGG00]. '02 [USE02]. '03 [ACM03b, Ert03]. '04 [Ano04a, Ano04b]. '05 [ACM05d, Vra05].</td>
</tr>
<tr>
<td>1990</td>
<td>[Fli99, Pul91, Sch94a, WDSW01]. 1-4 [Ano06a]. 1.x [KGG00]. '02 [USE02]. '03 [ACM03b, Ert03]. '04 [Ano04a, Ano04b]. '05 [ACM05d, Vra05].</td>
</tr>
<tr>
<td>2</td>
<td>[Bri98, Com00, Com03, Kis08]. 2-Level [ZSR+05]. 2.0 [Fra06, Ng01a, SUN97]. 2000 [ACM00]. 2001 [ACM01a]. 2003 [RM03, ACM03a, ACM03b, IEE03, Int05a]. 2004 [ACM04a, ACM04b]. 2005 [ACM05a, ACM05b, ACM05c, Wi05]. 2006 [ACM06a, ACM06b, ACM06d, IEE06a, IEE06b, Int06a, Int06b]. 2008 [Lar08]. 2010 [Ano10]. 2011 [LCK11]. 2018 [Kol19]. 20th [IEEE06a, Vra05]. 21st [IEEE05]. 23272 [Int05b]. 26th [ACM99]. 29-state [Sig89]. 2nd [Ano02].</td>
</tr>
<tr>
<td>3</td>
<td>[McC08, PO09, vdK09]. 3.0 [MRGB91]. 3.1 [Bau06a, Skr01]. 3.5 [Fra09, Hog08]. 32 [Ano14b]. 32-bit [VED06]. 335 [ECM01, ECM02, ECM05, ECM06]. 360 [Kam75]. 360/40 [ABCC66]. 370 [Att79, Bar73, Bar75, Ber86, Cal75, Com82, GLC84, Gum83, IBM72, IBM73, IBM76a, IBM76b, McC74, Olb78, SM79]. 37th [ACM06d]. 390 [DBC+00]. 3rd [ACM05b, ACM06c, Ano04a].</td>
</tr>
<tr>
<td>4</td>
<td>[Gal06b, G+06, Lav10, Low09, NOK+85]. 4-7 [M+06]. 40 [Com82, GO087]. 43rd [ACM06a]. 440 [R+02]. 4th [USE00a].</td>
</tr>
<tr>
<td>5</td>
<td>[IEE02, War05]. 5.2 [McK04, P+08]. 5.5 [Bau06c, LMG+14]. 5G [CM18, HCB18, RNA+22, XWW+21]. 5L [Mly09].</td>
</tr>
<tr>
<td>6</td>
<td>[SP83]. 6000 [ABDD+91]. 64 [De 06, Don06]. 64-bit [VED06, VED07]. 67 [Bar73, Par72]. 6th [USE01b].</td>
</tr>
<tr>
<td>7</td>
<td>[HH08]. 7th [Tho93].</td>
</tr>
<tr>
<td>8</td>
<td>[LYBB14, She02]. 80 [BMWB86, BSUH87]. 84/8 [IT86]. 84/K [IT86]. '89 [ACM89].</td>
</tr>
</tbody>
</table>
Alfa [WDSW01]. Alfa-1 [WDSW01]. Algorithm [AAK18, BP99, LSC+17, LW16, LW12, LW20, WCC20, ZHL16, BB20, EB20, FS19, GGQ+13, GH20, GA18, Hog02, HS13, JGA+88, LKR+19, LZC+16, MM92, MS17, MMH19, NAR19, PC21, PKS+19, RGAT18, RH17, RT18, SEM+20, SS19, TMLL14, Tho68, WBW+19, XWW+21, YLCH17, YYY+19, ZYLY18]. Algorithm-Dependent [BP99]. Algorithms [ARAAA19, FGLI15, HHK94, KP99, LPSS19, Man15a, SHW+15, AB16, BB12, CRB12, HH19, Man18, ME87, MJ93, SGS92, WHW20, XTB17, YTS14].

Aligned [AGIS94]. Alignment [EDS+15]. Allocate [LLF+18]. Allocating [LLF+18]. Allocation [CWL12, CPST14, Do11, GLBJ18, HKLM17, HLPY16, JFPL16, KRS+17, LLZ18, Man15a, NMG15, PCC+16, SDM21, VTW16, XSC13, ZWFX17, ZLG+20, CPST15, dCCDFdO15, DEG+17, EdPG+10, GLLJ16, HMH17, HH19, JWH+15, JC18, KDK20, KS20a, KS18a, LJYZ15, Myo9, RNA+22, RCTY19, SGV13, THH+14, WGY20, YGLY21, YYC+19, ZG13, ZLH+15, ZWC+19]. Allocation-Site-Based [CPST15].

Allocations [YWH+21]. Allowing [Tho73]. Already [RAT17]. Alternative [HBL+10, MLG+02, vMAT14, SPF+07]. Alto [ACM01b]. AMD64 [Ano14a]. American [Boa90]. Among [CDN02, LLF+18, LTZ+14, TtLcC13]. Amplifying [DP11]. Analysis [ACM05a, BE17, BFG+14, BGD18, CC77, HT98, HKM+18a, HB17, HWB03, JKK+13, KNT02, LCK11, MM93, NMS+14, Ost94, RI00, RRB19, SM02, TKG89, VP16, WH99, WDL+20, WLS+18, ZTA+21, ACM01a, AAM+03, AMA19, BBM09, BMER14, CBFH20, DD20, EBJ17, EMS15, FX06, GP13, GPW03, KSS+20, KS20a, LTZ+14, MD73, MD74, MSG01, PFNC20, RRB17, RGS+20, SMIB11, TLX17, Wün13, YJZY12, YSM+21, ZMD+21, DHPW01].

KLF$^{+15}$, LWC$^{+17}$, LPZ$^{+22}$, MD73, MD74, PCW$^{+16}$, TB17, WGW$^{+18}$, ZYH$^{+19}$, AS14, BBS06, IBM88, Int88, IBM96, JSDK$^{+13}$, JCZZ13, DJJ$^{+06}$, Kago9, Lia05, LBFI2, LL$^{+08}$, MRGB91, SE12, SwCM12, SASG13, SL00, ZS01, ZBG$^{+05}$. Application-Aware [AJ18], application-specific [ZS01]. Application-transparent [AW17]. Applications [Ano99b, Ano03a, BAL15, Boa90, DSM$^{+18}$, DJS$^{+17}$, FBL18, HHY$^{+02}$, HSK17, HC17, HCB18, IEE05, JW17, KKS$^{+19}$, LGJZ16, LH15, NKK$^{+06}$, Par71, PLMA18, Pfo13, PY93, SS05, TR88, VP16, WLS$^{+18}$, WZKP19, XZL$^{+20}$, AS76, Ali91, AC16, AB16, ACT94, ABC$^{+07}$, BD11, BSNB20, BTLNB5$^{+15}$, BRS18, BOF17, BFS$^{+18}$, DMIH18, DBC$^{+00}$, EF94, EMS15, GHD12, GTN$^{+06}$, GH$^{+93}$, GLQ$^{+13}$, GKI$^{+19}$, HKS19, HcC14, HKD$^{+13}$, HSC15, JPT94, KRG$^{+12}$, LCL14, LF19, MCC18, MA19, NBS18, doL12, PTT$^{+15}$, RNA$^{+22}$, R$^{+13}$, RSLAGCLB16, SZKY21, Sch13b, SGV12, SZ88, TDC$^{+18}$, TV18, WDCLO8, WSX$^{+19}$, YYC$^{+19}$, YGN$^{+06}$, ZBP05, ZNSL14]. Applicative [AS85a, Abr82, AS85b]. applied [MM92]. applying [CSSE21]. Approach [ARAAA19, BC19, BFG$^{+14}$, BRX13, CFM17, CLW$^{+14}$, Cox99, DPCA11, DM75, EMAL17, Fie68, FPS$^{+02}$, FML$^{+22}$, Jen79, JQWG15, KC16, KA$^{+93}$, Mad69, MP16, MSC$^{+21}$, NLPV12, NSJ12, SDD$^{+16}$, VN06, WJ10, WVT$^{+17}$, XD17, ZTWM17, ADW18, BML$^{+13}$, BHvR05, CGL$^{+08a}$, CGL$^{+08b}$, CGL$^{+08c}$, CBZ$^{+16}$, GKP$^{+19}$, GLJJ16, HLMBZ20, KW13, KKB14, KF18, LH13, LU04, MD73, MD74, MAK18, NZH20, PSC$^{+07}$, PJZ$^{+19}$, Pon19, SENS16, SHR19a, SHR19b, SEPV19, TZK17, TSR19, XHCL15]. Approaches [BAL15, FMIF18, HM20, JK15, EYGS19, TiIN09]. Appropriate [ZRS$^{+16}$]. apps [MMP$^{+12}$]. April [Ano01b, IEE84a, USE01c]. Arbitration [SKJ$^{+17}$]. Architecting [SYC14, TSB19]. Architectural [DLL18, DCP$^{+12}$, Gol73c, JR02, NMHS15, PJZ18, PEC$^{+14}$, SL12, CFS$^{+12}$, DLL$^{+16}$, PAKY16, RVJ$^{+01}$, WLL$^{+13}$]. Architecture [ASMA21, BBD$^{+91}$, BKKM87, BDR$^{+12}$, BG73a, CAF$^{+91}$, DAH$^{+12}$, DSM$^{+18}$, DS09a, ECET18, EMW16, G$^{+05}$, Gol73a, Gol73b, Gum83, Han73, HW03, Hsu01, HWCH16, IEE85, KZB$^{+90}$, Kec77, LW73, LMG00, LMG01, LGR14, MSS$^{+15}$, PCC$^{+16}$, PK75a, RC18, Rev11, SJY$^{+05}$, SADP21, SSB03, SN05a, SJA$^{+17}$, SWF16, Smu99, TR88, TV12, Tur92, Uhl06, WIS$^{+15}$, You73, ZL18b, ZZW$^{+21}$, ZGW$^{+06}$, Ano94, Ber86, BR01, BNS18, CCL$^{+17}$, CLDA07, DS09b, FS19, FC98, GS$^{+17}$, GCARP01, HIIG16, Hog02, HSM04, IBM88, IJK$^{+06}$, Jou75, KW80, KNH18, LLW$^{+12}$, LL14, MS01, MJ93, NO$^{+85}$, OJG91, RFBO01, Ros06, SJPP11, SG09, SDN09, Wel02, YTS14, YPPA01, Yur01]. Architecture-aware [WIS$^{+15}$]. Architecture(R) [MBBS13]. Architectures [ACM06b, BN75, BDF19, EMAL17, ELC$^{+19}$, EG01, GG72, HW93, HHK94, Ian14, PG74, PY93, QTR21, RD90, SXMX$^{+18}$, BG13, DM93, EMI13, KMG$^{+18}$, NBS18, PN$^{+20}$, PG73, Skr01, YZW$^{+13}$, ZP14]. Architectur [Dal97]. Area [BFG$^{+14}$, Fis01]. areas [BCZ19]. ARIMA [CSSE21]. Arizona [IEE05]. ARM [CJJ$^{+22}$, DN14, DLL$^{+16}$, DLLN18, GNB16, MGL$^{+17}$, ZTWM17, PS19a]. Aroma [Sur01]. Arquillian [Ame13]. Array [MBK$^{+92}$, SV15]. Arrays
XLWZ18, YRJ18, YQZ19, ZHHC17, ZWC+19, ZWH+17, ZSRR22. Awareness [ZHL16, LCL14]. Azure [Fab13, RHV17]. Azure-Based [RHV17].


bank [PAKY16]. Bare [AGH+16, OSK15, GAH+12]. Bare-metal [AGH+16, OSK15, GAH+12]. barrier [Rix08]. barriers [LM99]. Base [UOKT84, WH08]. baseband [KWZ+19]. Based [AAK18, Bad82, BAL15, BE17, CWW12, Cap21, CHW12, CLW+14, CD12, CDD13, DF96, ECET18, FD08, GGG03, HKM+18b, HWHW18, JFPL16, JN15, KLR+20, KAZS14, LW11, LP14, LKL+19, LCT+15, LGZ+19, LW12, LZW+17, LRM+20, MJW+14, MTFK19, MGL+17, NL19, OVI+12, PDS08, Ran02, RZPX19, RHV17, RWX+12, SVJ+05, SXH+19, SDM21, SHZ+14, SKJ+17, TV12, WB81, WLS+18, WTM18, YWR+14, YWW+15, YLH17, ZQCZ16, ZLL+20, ZXY+15, ZB20, vLSM01, AD18a, Abb19a, AAJD+16, Ano96, Ano06a, AB16, ALL06, AMA+11, BD11, BLMP22, BL17, BSNB20, BY20, BN18, CL17b, CBJ22, CPM+18, CVWL13, CGL+08a, CGL+08b, CGL+08c, CWC+14, CBZ+16, CLC13, CPST14, CPST15, CFRRSSR19, CVG10, CRG16, DD20, DP11, DS18, DC15, DLH+20, DPCA11, EB20, ESY+17, FS89, FS19, FM15, FLGC10, FF96, FL13b, GTGB14, GDSA+17, GH20, GR15]. based [HM20, HKJ19, HOKO14, HWC16, JWH+15, JFZL17, Kag09, Kam13, KLY20, KS13, KSS0a, KRCH14, KKB14, KDB16, KK21, KM13a, KML13b, KJM+07, KKJ+13, gKEY13, LM07, LBL16, LYY17, LYY18, LXRS19, LLZ+19, LLX+17, LLS+08, LC13, LPZ+22, LMDP19, MCC18, MPA+18, MW18, N6Z20, NRDA+20, NS17, Oi05, Oi06, Oi08, PFH+16, PDM20, PGLG12, uRQS20, QZDJ16, RGAT18, RH17, RHR20, RG19, RT18, RAP19, RTY19, SJBJ14, SS13, SENS16, SG10a, SEM+20, SGV13, SS19, SPF+07, SYC14, SXMX+18, SV17, SCFP00, Sto07, TT96, TY14, TSCS19, VT14, Vog03, WKT08, WDC10, WXZ+17, WBW+19, WGY20, WV77, WYZA20, XZ11, XXZ+16, XJR+17, WX+17, XYXY17, XA22, YC98a, YC98b, YZW+13, YLQ14, YLCH17, YBZ+15, YSM+21, YC16, ZG13, ZMD+21, ZLH+15, ZWHC17, ZAT+16, ZLL+16, dSOK17, vKF13]. basic [A+04]. basierende [Deu08]. Basis [Kar07]. Batch [KMM13, LD05, SS13]. bathymetry [MMG+18]. Bay [Ano10]. Bayesian [LYY17]. BCPL [Abr80, WW77]. BCPL-Slim [Abr80]. Be [Cox07]. beams [MC98]. Beautiful [SG09]. Bedienung [KGG00]. beginner [RR09, Wes98]. behave
[Voe86]. **Behavior** [EG01, XWH+16, ZDLG17, BS0+20, CL14, LBW+15, 
OI08, SEM+20, W099]. **behavior-based** [SEM+20]. **behavioral** [CL17b].

**Behind** [Cra98]. **Benchmark** [ACM04a]. **Benchmarking**

[H&PW01, WZ19, GPW03, SMSB11]. **benchmarks** [LJN+00]. **Benefit** [HB14]. **Benefits** [KWZ+19, L15, S15, R17, CM18]. **Berkeley**

[USE01c]. **Best** [B+07, BY20, GHS15, MS17, Sch13a]. **best-fit-decreasing**

[BY20]. **betreiben** [RHM08]. **Betriebssystem** [CK06a, CK06b, CK06c, 
CK06d, CK06e, CK06f, CK06g, CK06h, CK06j, CK06k, CK06m, 
CK06n, CK06o, CK06p, CK06q, CK06t, CK06r, CK06s]. **Betriebssysteme**

[WR07, WR08]. **Better** [MW05, Com00]. **Between**

[Jan79, KLLT18, ZLH15, BDJSD02, BR18, CL17a, GLQ+13, GSW+17, 
KGS0+16, Mal73, EYS+19]. **Beyond** [FPS+02, ACM04a]. **Bias** [Lee16]. **biased**

[ABB+91]. **Big**

[EC+18, GTS+15, MSG14, WTM18, B0F17, DXM+17, LMDP19]. **Billing**

[RB17]. **Bin** [BB17, GR15, SXCL14, XDL15]. **Binaries** [PA21]. **Binary**

[BDD18, KLF+15, WMUW19, ZFL15, dGG+17, HLW+13, JYW+13, 
PGLG12, vKF13]. **BIND** [See10]. **binding** [KW13]. **biodata**

[W13]. **biogeography** [ZL+16]. **biogeography-based** [ZL+16]. **biology**

[W13]. **Biopolis** [Ano06a]. **bird** [Guy14]. **Birth** [NOT+17]. **bison**

[Kag09]. **bison/flex** [Kag09]. **bit** [VED06, VED07]. **Bitcoin** [HB14].

**BizOps** [FL18]. **Black** [NMMP15, VVB13, EB20, TDK17, WSVY09].

**black-box** [TZK17, WSVY09]. **Blackboxes** [KBK+21]. **blackhat** [Ska07].

**Blessing** [Kot10, Kot11]. **Block** [Sch94b, Sch94a, TLBW12, ZLL+20, Zyt94a, 
Zyt94b, FFBG08, FLCL10, LLLE17, TKG89, WF07]. **block-device**

[FFBG08]. **block-level** [FLCL10]. **block-paging** [TKG89]. **Blockchain**

[CQLL18, DMBH18, XJR+17]. **Blockchain-based** [XJR+17]. **Blocks** [Lam75].

**blows** [BBTK+17]. **Blue** [SU+12]. **BlueIO** [JAD19]. **Blueprinting**

[NLP12]. **board** [CGV10]. **Bochs** [An04b]. **bodies** [AGIS94]. **Bolton**

[ACM03b]. **Book** [An09a, Fro13, Lar09, Van98, B+07, TC10, War02].

**books** [Van98]. **boost** [CBZ+16]. **boosting** [AC16, LKY+17, PGLG12].

**Boot** [NOT+17, SB16, DBO+18]. **Bootstrapping** [CBLF12, Kam75].

**BOS** [RP07]. **Boston** [IEE05, USE01a, USE06]. **Both** [ZHL16]. **Bottom**

[UKT84]. **Bottom-up** [UKT84]. **bound** [JGA+88]. **boundary** [SBQZ14].

**bounded** [XHL+13]. **Box** [NMMP15, TDK17, VVB13, WSVY09, XHC15, MNS+14].

**branch** [CEG07, EG03, JGA+88, JYW+13, WHC16]. **branch-and-bound**

[JGA+88]. **branch-and-price** [WHC16]. **branches** [KJM+07]. **Breadth**

[MNS+14]. **Breaking** [VMW+19, GKB15, Ri08]. **breed** [Arm98].

**Brewing** [WZL+18]. **Bridge** [Men03]. **Bridging**

[ACM04b, FL13a, GSW+17]. **Brighton** [Vma05]. **bring** [XKY+11]. **Bringing**

[BD+12, PPS+18, STS+13]. **Broadcast** [SXH+19]. **Brokered** [BB17].

**brokering** [TMMV12]. **brokers** [PAK16]. **browser** [FIF+15]. **Browsers**

[YML+18]. **BSD** [WF03]. **Buch** [KGG00, Th08]. **buddies** [WTLS+09].

KDK20, KTB17, LZC+s16, MAK18, MHM19, NZH20, PC21, PVRR14, Pon19, uQRS20, RK16, RH17, RT18, RK18, RJK+s17, RGS+s20, SHR19b, BNU18, SS19, WCY+s17, WHW20, WTLS+s09, XLQL18, SHR19a. centralized [Fis91]. centric [AAMBE21, PAKY16, SBBP20]. Certain [Han73, JHS12]. Certains [Han73]. Certified [Khn09, IIPB09], CéU [SIR+s17]. Chain [EMAL17, GR20, HGJ18, LTFK19, MSC+s21, RH17]. chain-based [RH17]. Chaining [AP22, GGK18, KBK+s21, LLW+s16, MP16, WCC20, XZL+s20, GMH+s18, LKR+s19, SHB19, TSCB19]. Chains [JWL+s18, KLLT18, PHXL19, ZLZ+s21, NRS92, RHR20, XHW+s19, YXL+s20]. challenge [STMV18]. Challenges [ARA20a, AFG+s17, AP22, Cap21, JW17, KK19, MZ20, SAB120, SG10b, AEB19, BCZ19, CM18, FJJKK17, JAC+s19, LDCT12, MA10, MA17, PCB+s18, TIIN09, ARA20b]. change [ZL13]. Changing [Mac79]. Channel [LGR14, TTH+s19, LF19, MN03, WXW15]. Channels [Hu90]. characteristic [CJJ+s22]. Characteristics [SHW+s15, CWC+s14, CCW+s20]. Characterization [AMA+s14, CGS06, DS09a, IEE02, IEE03, ACM06c, RVJ+s01, SSB+s16]. characterize [LJN+s00]. Chatten [Joo06]. Cheat [Rul07]. checking [BHSB14]. checkpoint [BBHL08, GPS+s18]. checkpoint/restart [BBHL08]. Checkpointing [ECJ+s16, ZLW+s19b, PEL11, SVD12, TSLBYF08, dSOK17]. checkpointing-enabled [SGV12]. chemical [KK21]. Cherub [JCZZ13]. Chez [FDD+s19]. Chicago [ACM05d]. Chip [GGM+s16, Mon97]. Chips [FRD+s08, IEE97, IEE99, IEE96a]. Choices [NGRF19, XDLS15, Ano93]. chromatin [MFT+s19]. CICS [R+s13]. circuit [Bur02, KKC+s16]. clairvoyant [KS18b, LWZ+s19a]. Class [LCWB+s11, LLB98, Pat12, SS17, Won97]. classes [Bor07, OKAM17, Skr01]. classical [SGS92]. Classification [VLZL16, CWC+s14, YSM+s21]. classification-based [CWC+s14]. Cleanccache [VTW16]. CLI [ECM01, ECM02, ECM05, ECM06, ECM07, ECM06, Int06b, Int06c, Fra06, Fra09, Hee07, Hog06, Hog08, Siv07, SNS03, Vog03, Wil06]. CLI-based [Vog03]. Client [RSW+s06, DPW+s09, HIIG16]. CLIP7 [Lau87]. clock [DCA17]. Clones [ZCJ+s21]. Cloning [LCWB+s11]. Closing [ZLJH15]. Cloud [AJ18, AVNR19, AAF21, AGC18, AD18b, ASSB18, BB13, BLMP22, BC20, BHEP14, CWL12, CPKL17, CMT17, Cap21, CPS17, CZX+s19, CTP+s17, DSM+s18, DKW15, ELC+s19, FBL18, GB19, GLS15, GSW+s17, HMM17, HKLM17, HW12, JE12, JQWG15, JW17, KC16, KKE19, KMM13, KAZS14, KK19, LCBW+s11, LKIL19, LGR14, LGJ+s18, LW12, LH15, LWZ+s18, LS15, MSG14, Man15a, Man16, Man18, MJW+s14, MZ20, MPA+s18, MB20, NPLV12, NSJ12, PJZ18, PHXL19, PCW+s16, PXG+s17, PS16, PCC+s16, PG17, PG18, RSNK17, RSGG15, RWX+s12, SL14, Sar16, SJS+s17, SC18, SZW+s16, SV13, SB18, SXCL14, TB17, TVKB16, TMMLV12, WDL+s20, WVT+s17, WUNK17, WUK+s18, WLS+s18, WTM18, XSC13, XWX15, XL+s14, XLJ16, XLWX19, XLL+s20, YLN+s17, YP15, ZQCG16, ZL16, ZCG+s17, ZL18b, ZLZ+s21, ZWL+s18, ZB20, ZHL16, ZLW18, ARA18,
AD19, AGH+15b, AGH+15a, ATZP21, ADA+19, AB16]. cloud
[AO16, AMA+14, ATS16, AMAB17, ARMMA18, AP18, AEB19, AA18,
AAC+17, BB20, BD11, BTMS10, Beg12, BCC+15, BSNB20, BFS+18,
CSMB15, CL14, CSSS11, CCL+20, CBFH20, DL19a, DS18, DC15, DEG+17,
DQLW15, DLH+20, DHD20, DCMW17, FLL+13, FAA17a, FAA17b, FS19,
FA21, FPGK18, FMIF18, Fro13, GGQ+13, GTGB14, GDSA+17, GH20,
GLK+12, GKL+19, GA18, HKS19, HZL+18, HTB19, HLBZ20, HS13, Hui18,
IRB19, IKU15, IJS+15, JWH+15, JC18, KN18, KDK20, KSS+20, KB21,
KS20a, KSO+15, KSRL10, KS18a, KMT14, KTB17, KK21, KCS14, KJLY15,
KCKC15, LLW+12, LZW13, LZWD15, LZF+16, LLF+18, LLWW18,
LC14, LLS14, LL14, LTZ+14, LPZ+22, LP11, LPBB+18, Mal15b, MNA16,
MK19, MW18, MA17, MIM19, MA19, MPM+20, MMG+18, NZH20, NNT21,
NAR19, NS17, Nie12, NIA18, dOL12, OL13, PKS+19]. cloud
[PAKY16, PM19a, PDM20, PFPJ18, Pon19, uRQ20, RK16, RT20,
RGAT18, RH17, RHR20, RG19, RT18, RQD+17, RK18, RJK+17, Ros14,
RGS+20, SAK21, SS19b, SHR19a, SHR19b, SG10a, SEM+20, SGV13,
SASG13, SSEA18, SBP+17, Str13, TZK17, TMLL14, TDD20, TUM18, VT14,
WCY+17, WGY20, WB16, WLL+13, WRS11, WRS+15, WXW15,
XHL+13, XZZ+16, XTB17, XLW18, XZK+20, XA22, YLH14, YLHJ14,
YLH17, YW20, YZJ+21, YBZ+15, YR18, ZWXX17, ZYZ+18, ZL13,
ZWHC17, ZWRC19, ZZL+17, ZYLY18, ZSRR22, BB12, CD14,
CFYP12, CMG+19, KKB14, KBB11, KMG+18, XXY17, SJL20].
cloud-assisted [YBZ+18]. Cloud-Based
[Cap21, WSL+18, BLMP22, MP+18, BSNB20, XXYY17],
cloud-computing [ZL13]. cloud-distributed [AB16], cloud-Internet
Cloud/Virtual [YP15]. CloudIA [ZLV+12, ZBS+15]. cloudlet [YBZ+15].
cloudlet-based [YBZ+15]. Cloudlets [RSN+18]. CloudMon [WLL21].
CloudNet [WRS11, WRS+15]. Clouds [AD11, CRZH15, ESY+17,
HKM+18b, HLPY16, HKKW13, HS21, KMK16, KDB16, KPH20, Kov19,
LWLL10, LLX18, MLGX19, NM15, OG16, OSK15, RG17, RB17, SBP20,
SDS+21, SCL+19, WZL15, WLLZ16, WHD+16, WWL+17b, XCSM18,
YWY+17, ZHW+17, ZRY15, ASB18, BB15, dCCFD18, DXM+17,
FBZ12, FGG14, HZ+14, KMK10, KR16, LMV12, LBZ+11, LL16,
LL19, PPO14, QXH18, RCTY19, STMV18, SYM17, TSCB19, ZWW15,
ZG13, ZLH+15, ZLW+19a, ZB18, ZLV+12, ZBS+15, ESM15].
CloudScheduler [BCW20]. Cloudsim [OB16]. CloudSim [SHB19].
CloudSimSDN-NFV [SHB19]. Cluster [CL16b, GKSP99, LWZ+18,
SEF+06, TLC06, ZCG+17, FLCB10, KJLY15, LLL12, SBP+17, SSN94,
WDT18, WLG+11, XLQL18, YLHJ14, YCL+18, GWZ16]. Cluster-Aware
[ZCG+17]. cluster-based [FLCB10]. Clustered [DJS+17]. Clustering
[ARAAA19, ZZZ+16, ZWHC17, LQD+18]. Clustering-based [XZ+16].
Clusters [CHPY17, GSW+17, LZ15, LW16, PXG+17, WIS+15, YWCF15,
ZLW+14, AO16, CP17a, Fu10, HCJ07, KOY05, KS18b, PRS16, RHR20,
Comprehensive [AP22, HSN17b, LV99, PCW+16, PS19a, TFLcC15, GP13, MFT+19, MA17, NMC18b, NMC18a, RHR20, YWL+18]. Compressing [JDW+14]. Compression [HKKW13, SHTE11]. compromise [CD01].


Computing [ACM98, ACM04b, ACM05b, Ano93, Abr80, AAMBE21, AGC18, AD18b, BCW20, BHEP14, CWL12, CPKL17, CFM17, DDS+94, DPCA11, Gei02, GB19, HCB18, HW12, IEE96b, IEE04, IEE06a, IBBA20, KC16, KGZ+04, KK19, LCK11, LW12, MSG14, MZ20, MO98, NLPV12, NSJ12, PCW+16, PXG+17, PLZ20, PS16, RCM+12, RSNK17, RSN+18, SCSL12, SZW+16, SEF+06, SB18, TLC06, USE93, Vog03, WDL+20, WB81, WCC20, WT18, XSC13, YLN+17, ZL17, ZL16, ZF06, ZAI+16, ZD18, ZB20, ADA+19, Ano96, AMA+14, ARMMA18, AEB19, BB20, BS96, CD14, CDM+10, CCL+20, DQR+13, DS18, DHD20, DCMW17, Fis91, FF96, Fro13, Fu10, GGQ+13, GLA+08, HKS19, HKJ19, Hui18, JC18, JPTE94, dCJR16, KHL17, KSo+15, LBZ+11, LLW+12, LCZ+16, LCL14, LTZ+14, LP11, LPBB+18, MB21, MNA16, MK19, McG72, McK11, MFT+19, MUX06, M+06, MA17, MA19].

computing [MMG+18, NRdA+20, NAR19, PSZ+07, PM19a, PDM20, QZDJ16, RNA+22, RKT20, RGAT18, RHR20, RHZ+17, RQD+17, Rob06, SSG+20, SEM+20, SJW+13, SGS13, SSEA18, SB10, SHB19, TMLL14, TMJ+21, WGY20, WH08, XTB17, XLZW18, AX22, YRJ18, ZLZ13, ZWHC17, ZLZ+19a, ZLY18, ZSR22].


Concurrency [MD12, CFS+12, Sub+11, UR15]. concurrently-safe [CFS+12]. Concurrently [GMP89, Har77, KD78, IT86, WK08, YWGH13].

Conceivable [WJGA12]. Configuration [BRX13, Lar09, A+04, FL13b, SMA+10]. configurations


connection [MJ93, Tur84, XJW+18, TR88]. connections [FBZS12, Ker15]. connectivity [TZB19, VOS12].


Continuous [DL89, TSLBYP08]. Continuum [Bad87]. Contraction [Par79]. Contribution [Han73, ABB+19b, Han73]. Control [AGLM91, Att79, CFLL19, CL16b, Cre65, Crea5, DLO19b, GGG18, HS19, HHC+16, LZ15, LGJZ16, PBC11a, RSNK17, RSN+18, Sch94b, Sch94a, SDD+16, Sur01, WJ10, WUK+18, WN17, WSAJ13, WLC17, Zyt94a, Zyt94b, AS76, AMIA19, BKH+06, FP14, HB08, Kee68, KEE08, KKS12, Lia05, Lil88, LZ15, LYY+18, MBP16, PSZ+07, PSBG11b, PSC+07, STS+13, XHW+19, ZBG+05, ZSW+06].
Curse [HB14, Kot10, NGRF19, Kot11]. Customer [PPO14].

[AJ18, AAAF21, AGC18, Attr73, BFWH75, BB13, BC19, CL17a, Cap21, CGC16, CTP+17, DY17, EGR15, ECET18, FML+22, FL13a, GTS+15, HTW+19, IEE84b, JFPL16, KP15, LMM18, LVM16, Man15a, Man16, MMD+19, Ndl04, PCC+16, SB16, UVL+13, WJK20, WN17, We94, WT18, XWJX15, YLH17, YYW+15, ZHL16, dSdF16, vSMK+20, ARA18, ARA20b, ARA20a, AKK+07, AD19, AGH+15b, AGH+15a, ATZP15, ATS16, AMAB17, ARMA18, BK14, BB12, BDE+03, BOF17, CKRJ17, CFS+12, Cla05, CFRSS+19, DLH+20, DYM+17, FLL+13, GE85, GH91a, GH20, GSKJ18, HM20, HN08, HKB19, HTB19, HLB+20, HUWH14, IRB19, IKU15, IPRS21, JFZL17, KDK20, KTB17, KJ+16, KSLA08, KB17, LDL14, LZW+15, LZC+16, LRP+19, MDP19, Man15b, MAK18, MRM06, MBM09, MHH+19, NZH20, NTH+17, PC21, PRB07, Pon19, uRQS20, QXH18, RK16]. data [RH17, RT18, RK18, RJJ+17, RGS+20, SZKY21, SHR19a, SHR19b, SBNU18, She91, SS19, TSLBY+08, TDD20, VOS12, WJK17, WDC++08, WZV+13, WCY+17, WHW20, W+09, WTL+S09, WCG14, XXZ13, XHW+19, XLQL18, YHL+17, YGLY21, ZLZ+19b, ZWH+17]. data-control [XHW+19]. data-flow [GE85]. data-intensive [JFZL17, QXH18, SZKY21]. Data-Oriented [ECET18]. data-parallel [She91]. DataABC [JFZL17].

Database
[WK90, BBS+06, CSSS11, ECAE13, MN91, MRC+13, PTTM+15, S+01, SMA+10]. databases [GDSA+17]. Datacenter [BBM+15, CFFL19, KGGS17, BCP+08, GTGB+14, MSG++12, SG10b, ZLZ15, ZWC+14]. datacenter-scale [MSG+12].

Datacenters
[IBBA20, JWL+18, KGS18, KL14, LGJZ16, LGJ+18, LCZ+19, LW20, SC17, SC18, GLJ+16, KK21, LFBB+18, WRS13]. Dataflow
[AD18b, DQ+15, HKS19]. deadline-aware [HKS19]. deadlocks [PRB07].

dealing [BG20]. deallocator [GPS+18]. Death [NOT+17]. Debian
[CK06a, CK06b, CK06c, CK06d, Bao06a, CK05a, CK06b, ZMD+21]. Debian-based [ZMD+21]. Debed [Ano03b]. Debugger
[MZG14, RB01, Sun99, Bt94, HH19]. Debugging [ACM05a, FS12, HHH04, AKCP21, Cl+07, IMBB20, JHE14, KM13a, KM13b, KK79, PMC+05, THL+03]. decades [IMBB20]. December [ACM05b, HHH19, IEE05, M+06].

SMSH18, Spa19, WGW+18, XJR+17, ZMD+21, ZTA+21. Does
[BC10, NKY+18, SMSH18]. Dolly [CSSS11]. Domain
[GGM+16, HHV+02, KLF+15, WK90, BML+13, TK20]. Domain-aware
[KLF+15]. Domains [PNT12]. dominance [CPST14]. Dominant
[ARAAA19]. done [Han16, HUL06]. Don’t [HPHPV15]. Dortmund [Müh75].
DoubleChecker [BHSB14]. Down [JJ91, PBWH+12]. Downing [Ano97a].
[MSCK92]. Drive [SYC14]. Driven
[ACM05a, NSJ12, PY93, RB17, SV13, TVO92, CSSS11, DLX+17, EdPG+10].
Driver [JXL+12]. DriverGuard [CDD13]. Drivers
[Chu06, KJ+10, Nou92, LU04, MSZ09]. DRM [WIS+15]. DRP [Mar08].
Dual [KPHA20, FL13b, XHW+19]. dual-VM [FL13b]. Duality [FS08].
dummies [Low08]. duplication [CLcC13]. Durham [Boa90]. during
[JK13]. DVFS [Kam13]. DVM [MSG+12, MSG14]. Dynamic
[Abr80, AMAB17, BB13, BHI15, BFS+18, DHPW01, DMG+15, DHD20,
GWz16, GSN93, HTW+19, HLPY16, JWH+15, KKE19, Lee16, LB98,
LJL+15, MP16, MDGS98, NMG15, PTHH14, PHXL19, QLL+21, RC18,
RAP19, SZW+16, SDM21, TML14, TB17, TV12, Vac06, WWH+16, WGS09,
XCS13, XML+18, YLN+17, ZFL15, ZWL09, ABDD+91, ARMA18, AP18,
BB12, BB15, BZA12, BOFI17, CSV15, CPST15, DS18, FAA17a, FAA17b,
GAHL00, GPW03, HM20, HTAY21, HLW+13, HB13, IRB19, JK13, JYW+13,
JC18, JK17, KRCH14, KJM+07, LMV12, LYY18, LJL12, MRG18, Miy09,
NZH20, NTH+17, PGLG12, PBAM17, RH17, RRB17, SHRI9a, SHRI9b,
SEEA18, THH+14, TK20, Tho73, WRSvdM11, WRS+15, Wu13, WWH+17,
XWW+21, XH90, YWF09, vKF13]. Dynamically [MZG14, SML18, BLRC94,
BB12, BB15, BZA12, BOFI17, CSV15, CPST15, DS18, FAA17a, FAA17b,
GAHL00, GPW03, HM20, HTAY21, HLW+13, HB13, IRB19, JK13, JYW+13,
JC18, JK17, KRCH14, KJM+07, LMV12, LYY18, LJL12, MRG18, Miy09,
NZH20, NTH+17, PGLG12, PBAM17, RH17, RRB17, SHRI9a, SHRI9b,
SEEA18, THH+14, TK20, Tho73, WRSvdM11, WRS+15, Wu13, WWH+17,
XWW+21, XH90, YWF09, vKF13].
dynamically-linked [FC98]. Dynamics [MB20, YWCF15, ACT94].
dynamo [Hol95].

[HLW+13]. early-exit [HLW+13]. Earth [BC19]. Ease [Par79]. EASY
[Fli77]. eBay [Joo06]. ECI [AMA18]. ECI-Cache [AMA18]. ECMA-335
[ECM01, ECM02, ECM05, ECM06]. ecological [KSSG16]. Economic
[FBL18, CSV15]. Ecosystem [VMW+19, DHM18]. Edge
[BBM+15, CPS17, Cre10b, HCB18, HS21, LKIL19, LGZ+19, RSNK17,
RSN+18, Sar16, WCC20, XLL+20, XZL+20, ZLG+20, Cre10a, MB21,
MPA+18, MA19, SHB19, TMJ+21, ZLZ+19a]. Edge-Cloud [XLL+20].
edge-intelligence [MPA+18]. edge/cloud [MA19]. Edition
[KGG00, LYBB14]. Editorial [Sed07, WYZAD20]. Editors [FDF05, KS08b].
EDSAC [CK96]. Education
[ACM06d, GPM21, AJD09, DG05, GLA+08, HML04, DTW07]. educational
[WDSW01, YMY17]. Effective
[LW11, LWC+17, VS19, WUK+18, HKS19, Sto07, WKJ15]. Effectively
[UR15]. Effectiveness [ELC+19, Man15b]. Effects
20

[JK17, PLMA18, KCV11]. **Efficiency** [BPP+17, JFPL16, KDB16, CFRSSR19, DHD20, FGG14, GKT17, GKJ+19, IPRS21, KSSG16, MDZ+21, PVR14, PBAM17, QXH18, SEPV19, WTL+16, ZYL18]. **Efficient** [AMA18, ASMA21, BYZZ20, BWH+19, BHDS09, BKH+16, CFRSSR19, DHD20, FGG14, GKT17, GKJ+19, IPRS21, KSSG16, MDZ+21, PVRR14, PBAM17, QXH18, SEPV19, WTL+16, ZYL18]. **Ecient** [AMA18, ASMA21, BYZZ20, BWH+19, BHDS09, BKH+16, CFRSSR19, DHD20, FGG14, GKT17, GKJ+19, IPRS21, KSSG16, MDZ+21, PVRR14, PBAM17, QXH18, SEPV19, WTL+16, ZYL18].

**Economical** [AMA18, ASMA21, BYZZ20, BWH+19, BHDS09, BKH+16, CFRSSR19, DHD20, FGG14, GKT17, GKJ+19, IPRS21, KSSG16, MDZ+21, PVRR14, PBAM17, QXH18, SEPV19, WTL+16, ZYL18]. **Economically** [AMA18, ASMA21, BYZZ20, BWH+19, BHDS09, BKH+16, CFRSSR19, DHD20, FGG14, GKT17, GKJ+19, IPRS21, KSSG16, MDZ+21, PVRR14, PBAM17, QXH18, SEPV19, WTL+16, ZYL18].

**Economic** [AMA18, ASMA21, BYZZ20, BWH+19, BHDS09, BKH+16, CFRSSR19, DHD20, FGG14, GKT17, GKJ+19, IPRS21, KSSG16, MDZ+21, PVRR14, PBAM17, QXH18, SEPV19, WTL+16, ZYL18].

**Economy** [AMA18, ASMA21, BYZZ20, BWH+19, BHDS09, BKH+16, CFRSSR19, DHD20, FGG14, GKT17, GKJ+19, IPRS21, KSSG16, MDZ+21, PVRR14, PBAM17, QXH18, SEPV19, WTL+16, ZYL18]. 

**Economy-Driven** [AMA18, ASMA21, BYZZ20, BWH+19, BHDS09, BKH+16, CFRSSR19, DHD20, FGG14, GKT17, GKJ+19, IPRS21, KSSG16, MDZ+21, PVRR14, PBAM17, QXH18, SEPV19, WTL+16, ZYL18].

**Economy-oriented** [AMA18, ASMA21, BYZZ20, BWH+19, BHDS09, BKH+16, CFRSSR19, DHD20, FGG14, GKT17, GKJ+19, IPRS21, KSSG16, MDZ+21, PVRR14, PBAM17, QXH18, SEPV19, WTL+16, ZYL18].

**Economies** [AMA18, ASMA21, BYZZ20, BWH+19, BHDS09, BKH+16, CFRSSR19, DHD20, FGG14, GKT17, GKJ+19, IPRS21, KSSG16, MDZ+21, PVRR14, PBAM17, QXH18, SEPV19, WTL+16, ZYL18].
Enabling [HD16, HS21, KMK10, NOT+17, OVI+12, Spa19, TY14, WHD+16, LSS04].
encoding [BDE+03, SPAK18]. Encrypted [HB17]. Encrypting [Pro00].
Encryption [SXH+19]. End [Ram93, SS17], end-users [SS17]. Endurance [AMA18]. Energy
[ADA+19, AGC18, AAK18, BWD+15, CWL12, CP17a, DMR10, DQLW15, Do11, DCMW17, EGR1, FML+22, FLZ17, HTW+19, HKM+18b, IRB19, JJK+11, JFPL16, KC16, KSS+20, KB21, KDB16, KCS14, KL14, LMM18, LZC+16, LYY18, LGJ+18, LYY+20, MDZ+21, OBSR16, PHC20, RK16, RH17, SBN18, SYMA17, SZL+14, TDD20, XLWX19, YLK+10, YRJ18, ZWC+19, ZHL16, AMAB17, ARMMA18, BAC15, BB12, BB15, BRHd10, BJG19, CD14, CFRSSR19, DP11, DHD20, DXM+17, FAA17a, FAA17b, FFB+00, GLK+12, GTN+06, GJX+19, HM20, HM18, HLBZ20, JWH+15, JFZL17, JC18, KMT14, KT617, KR16, LJJY15, DPK16, MAM19, NTH+17, NBS18, dOL12, PVRR14, PTD+18, QXH18, RHR20, RPO7, RT18, RCTY19, SENS16, SMSH18, SHR19a, SHR19b, THG+18, VW08, WDT18, WHW20, ZXC+20, YFZL17, YWW20, ZLCZ18, ZLY18, ZSRR22, RNA+22].

Energy-Aware
[AAK18, Do11, EGR1, DCMW17, KC16, KB21, LYY18, RH17, LZC+16, LYY+20, SYMA17, YLK+10, BB15, BRHd10, HM20, HM18, HLBZ20, JFZL17, NTH+17, NBS18, RHR20, RCTY19, WHW20, YFZL17]. Energy-Oriented
[BWD+15]. energy-performance [XZK+20]. Enforcement
[LJFS17, NMMP15].'Engine
[Wa10, GLV+09, MO98, VG20, GLV+10, J+05, MIS+05]. Engineering
[GPM21, IE84, SDS+21, ACM01a, McCG72, MP+20, WZV+13].
Enhance
[GLS15, Mk19]. enhanced [SDN09]. enhancement
[DXM+17, KS18a]. enhancements [AKK+07]. Enhancing [CPKL17, GI12].

ENIAC [ZR06]. Enlightened [AGJS1]. ensemble [RGAT18]. ensuring
[Req03]. Enterprise
[ADG+92, FPR+06, G+06, LVM16, BSNB20, Hal08, NS07, WH05, An03a, Ga11]. enterprises [GAHL00]. entailment [Joo06].

ENTICE [GKP+19, HKM+18a]. Entities
[ZLG+20]. Entity
[LGZ+19]. Entrepreneur
[War11], Entropia
[CCWY05]. Entropy
[TV092]. Entropy-Driven
[TV092]. EnTruVe
[RNA+22]. enumeration
[SSH17]. Environment
[AACL72, BGM16, CL16b, GKSP99, Gen86, GG03, HW93, IEE07a, J+05, JADAD06a, LW+17, LW12, Mac79, RT93, TMV12, XSC13, XLL+20, ZD18, AAB+05b, BH13, CLDA07, CWG00, DL19a, Do87, FC09, FAA17a, GD08, GMR93, Hal09, HLI3, JWH+15, JXZ+10, JADAD06b, KW13, KKK+18, KMG+18, LJJY15, LPZ+22, McCG72, MST+05, MW18, MPF+06, NNK21, NS17, PM19a, RGAT18, RG19, RAP19, TMLL14, TT93, TV18, Van06, WLL+13, XZZ+16, Yu20, ZBP05, ZLLL13, FAA17b].
Environments [ACM05d, ACM06f, AD18b, BB17, BE17, CWL12, CGMD19, GKKX13, HHW10, HKKW13, KHH14, KGZ+04, LH15, NKY+18, PWJ16, PLZ20, RIP18, RGSJ17, SV13, SK+19, SLW19, XWM19, ZF06, ARA18, ADA+19, AT14, BCC+15, BRdM10, BD+08, CFVP12, DP11, DS18, DEG+17, FMIF18, GPS+18, GMK17, GGK19, HOKO14, HC12, dCJR16, KSO+15, KB14, LC14, PSZ+07, SS+20, SJW+13, SGV12, SHB19, TRG13, VD14, WVL13, WTL+16, XHL+13, YLK+10].

Ephemeral [WHD+16].


Experience [San88, RM03, CARB10, CBLFD12, FDD+19, PBAM17, RSC+15, TGCF08]. Experiences [NV05, SC90, Ts+14, CMP+07]. experiment [HA79].

24


Fine-Grained [BSSS14, CHW12, CDD13, HSK17, RB17, YSS+17, JCZZ13, PG11, KWZ+19, YTS14, YSM+21]. Finite [SC17]. Finite-Markov [SC17]. Firefly [KC16]. Firefox [Joo06]. Firewall [TMV12, DS18, JES+15].

firmware [ABB+15, MSCK92]. First [ACM05d, IEE84b, LCWB+11, MNS+14, ZR06, SS17, SHB+03]. First-Class [LCWB+11, SS17]. Fit [NKY+18, BY20, LWB13]. Fixed [Lam75, Bod88]. Flash [SYC14, Pat12]. Flash-based [SYC14]. flaws [Kag09]. flex [Kag09]. Flexibilities [LS15]. Flexibility [BSI+15, FPS+02]. Flexibilizing [BG20]. Flexible [AvMT11, CGMD19, KWZ+19, KS20b, LZW+17, LWB13, vMAT14, ACG18, CARB10, CCL+17, LGZ+19, KJJ+16, LLLE17, NB11, PM19a, PDM20, PV06, RH17, SLS17, SSEA18, SL00, SIK+16, STY+14, WHC16, YWTC15, ZXW16, ZS01, ZSR+05]. Frameworks [AP22, ZLW18, AGH+15b, HZZ+14]. France [ACM00, ACM05b, Jou85, JPT94]. Francisco [ACM06a, USE02]. Free [Ano03a, BRX13]. FreeBSD [McK04, MNN05, Sar01]. FreeDOS [WF03]. French [Apr09, AH68, Han73]. frequency [Kam13, SSEA18, AMAB17]. Friendly [ZBG+05]. Front [Ram93]. Frontier [Sar16, Rob12]. Frontiers [ACM06a, M+06]. Full [HHC+16, HSL17, MZF+17, MCE+02, Sch13b, SWF16, JK17, LLY+18, YKS16]. Full-System [SWF16]. Fully [CGMD19, ZD18]. Function [AP22, Che21, EMAL17, ELC+19, FLZ17, GGK18, HTAY21, HSL17, JW17, KLR+20, LLW+16, MLX19, MDZ+21,
function-virtualized [DS18].

Functional [ACM90, Dan86, DCG12, GMP89, Ame13, Wak99, Jou85].

Functionality [MK19].

Functions [BYZZ20, BCZ19, DL89, KLLT18, MP16, NGRF19, TF16, DS19, FJKK17, HHSI18, HHI19, KWZ19, LRP19, PJZ19, PFNC20, QZDJ16, TSCB19, YCL19, ZGL17, CBJ22, GHM18].

fundamental [BCZ19].

funfte [Muh75].

funnel [LMV12].

Fusion [Kis08].

Future [FLZ20, GB19, Her06, IBBA20, KS08b, LCMV17, RG05, Sup04, Var91, AH12, Bau05, NIA18, PTD18, Ros14, Str13, Yur02, SIJPP11].

Fuzzing [KLF15].

Fuzzy [BY20, Hu90, LZ15, CFRSSR19, FA21, FLM08, SENS16, ZB18].

Fuzzy-logic-based [BY20].

FWNs [SIJPP11].

G [ALW15, HH18].

GA [HMHI17].

game [FK13, GLLJ16, NS17].

games [WKC109].

Gaming [CZ19, ZQ16, CZX19].

Gap [DGLZ11, FL13a, GSW17, ZLHD15].

gaps [HUWH14].

Garbage [ADM08, DS16, GTS15, HPHV17, PBAM17, Sch13a, SHB13, URJ18, BOF17, DEE16].

Gast [WF03].

Gast-Systeme [WF03].

Gateway [CCO05].

Gateways [DW14].

Gather [Wol99].

Gb [YCL18].

GC [HHPV15, SEPV19].

GC-Wise [SEPV19].

GCompris [CK06].

GCTrees [DS16].

GDB [MZG14].

gehärten [See08a].

Geiger [JADAD06b].

Gelato [Ano06a].

Gene [SSU12].

Gene/P [SSU12].

General [Cre65, GF11, XWH16, BDE13, LSS04, SS72].

General-Purpose [GF11].

Générateurs [Han73].

Generation [Ano03b, AC98, BDF99, CF00, GFH82, MZG14, PG74, EL98, IIK06, LLS12, PG73, RGS20, Sus76, Web10].

generational [WK08].

generations [BOF17].

Generator [Han73, ABDD91, EGKP02].

Generators [Fra83, GHF83a, GHF83b, WNL83].

Generic [MM94, ZL21, BKT19].

generics [Int06a].

genetic [MPM20, PC21].

Geo [JWL18, PHX19, XLQ18].

Geo-Distributed [JWL18, PHX19, XLQ18].

decently [KT17, ZB18].

deploy [Hol95].

George [AC03b].

Georgia [USE86, USE00a].

German [Joo09, Bec09, Bod10, CK06a, CK06b, CK06e, Fis09, Lar09, Sch13a, Spr07, WR07].

Germany [RM03, GHI13, IEE01].

get [Ame13].

gets [Ron07].

Ghost [Arc07].

GI [Muh75].

Giants [FS12].

GINI [YMY17].

GKLEE [LLS12].

Glass [LH20].

Global [LLW98, Sta97].

GloudSim [DC15].

gMig [LZM12, MZD18].

GNAT [CDG97, MB98, Shi03].

Go [BWH19, IWB15].

goes [RY10].

going [McK11].

good [RY10].

Google [Cox12, Joo06, DC15].

Goto [Abr80].

GPGPU [BPQ18, KLY20, MMG18, TY14].

GPOS [JK17].

GPU [DS19, GMK17, HSN17a, HSN17b, IPRS21, KLY20, LYGG20, MZD18].
GPU-Accelerated [MTFK19, SCSL12, SPAK18].
GPU-assisted [GMK17].
GPU-Job [PS19b].
GPUDirect [YWCF15].
GPUs [LLS+12].
GPUvm [SKYK16].
gQoS [LYGG20].
GRACE [M+06].
gradient [MM92].
Gradual [RSF+15, RAT17].
grain [WJGA12].
Grained [BSSS14, CHW12, CDD13, HSK17, RB17, YSS+17, JCZZ13, KWZ+19, PG11, YTS14, YSM+21].
grmam [FS89].
Grande [ACM01b, ACM01b].
Grande/ISCOPE [ACM01b].
Granularity [PXG+17, RRB19, LLS14, YGLY21].
Graph [CFM17, CRG16, LKY+17, Syr07, YTS14].
graph-based [CRG16].
graphics [Wal76].
Graphic-simulator [Ber86].
graphical [Bur02].
Graphics [DNP03, JXL+12, VLZL16, XML+18, ME87, Sus76].
Graphs [Lee16, Bod88, PULO16].
gray [WSVY09].
gray-box [WSVY09].
Greedy [NMG15].
Green [KL14, MZ20, LLW+12, LJL12, WZV+13, XA22, YLHJ14].
Green-Energy-Aware [KL14].
Greene [War11].
Greener [BH13].
Grenoble [ACM05b, JPTE94].
Grid [ACM05b, IEE04, MFT+19, SEF+06, TLC06, ZZF06, vLSM01, Rob06, SJW+13, SGV12, ZBP05, AKK+07, CCO+05, KGZ+04, LP14, WKT08, ZBP07].
Grid-Based [vLSM01].
GridGIS [M+06].
Grids [GPM21, CCWY05, MPA+18, GTN+06].
Group [Boa90, Sof83, YLN+17, CKP78, KKK+18, ZLH+15].
Growth [LDL14].
GSX [Zim05].
GTP [M+06].
Guarantee [LZ15, CMG+19, MDZ+21].
Guaranteed [LZW+15, ZWL+18, KB21].
Guaranteeing [LZW+15, YWR+14, ZRS+16].
Guarantees [MSG01, ZHCB15].
Guest [CCML12, NOT+17, ABG14, FL13b, JXZ+10, LD11, MSZ09, XHL15, FDF05, KS08b].
Guest-Assisted [CCML12].
guest-OS [FL13b].
guest-transparent [JXZ+10].
guests [JK17].
GUI [PW03].
guidance [JSK+13].
Guide [Ame13, BDB+91, Bas04, Bas06, Gal09a, IBM72, IBM73, IBM76a, Oak14, HO15, Chi08, IBM88, Int88, IBM94, KSS09, KS10, MDD+08, MIS+05, RR09, TC10, War02, Wes98].
guided [HLW+13, SSH17].
Guiltiness [PJZ+19].
GVirtuS [MGL+17].

H [JAS+15, Wei02].
H-SVM [JAS+15].
HA-VMSI [ZTWM17].
Hack [WMUW19].
hacking [Sp06].
Hadoop [GLBJ18, ZRD+15].
Handbook [HBC04, HBC04a, HBC04b].
Handbuch [CD14, CF14, CF14a, CF14b, CF14c, DFL14, DFL14a, DFL14b, DFL14c, DFL14d, DFL14e, DFL14f, DFL14g, DFL14h, DFL14i, DFL14j, DFL14k, DFL14l, DFL14m, DFL14n, DFL14o, DFL14p, DFL14q, DFL14r, DFL14s, DFL14t, DFL14u, DFL14v, DFL14w, DFL14x, DFL14y, DFL14z].
Handler [JOO06, BOO06, OL06, OI06, OI06a, OI06b, OI06c, OI06d, OI06e, OI06f, OI06g, OI06h, OI06i, OI06j, OI06k, OI06l, OI06m, OI06n, OI06o, OI06p, OI06q, OI06r, OI06s, OI06t, OI06u, OI06v, OI06w, OI06x, OI06y, OI06z].
Handbook [HBC04, HBC04a, HBC04b].
Hand[s] [Sal92], [Sal92a], [Sal92b], [Sal92c], [Sal92d], [Sal92e], [Sal92f], [Sal92g], [Sal92h], [Sal92i], [Sal92j], [Sal92k], [Sal92l], [Sal92m], [Sal92n], [Sal92o], [Sal92p], [Sal92q], [Sal92r], [Sal92s], [Sal92t], [Sal92u], [Sal92v], [Sal92w], [Sal92x], [Sal92y], [Sal92z].
Handling [AM+17, SB16, SMA18].
Hands [KOL19, MDD+08].
Hands-on [KOL19, MDD+08].
Harbour [MR91].
hard [LTK17].
Hardness [RS20].
Hardware [AE01, CWS12, Cla97, Gol71a, HHI+02, HFW07, Hsu01, JAD19, JSHM15, JAS+15, KAJW93, LH16, LZW+17, Mac79, NSL+06, OT97, PvdS08, RTL+18, SYB12, SWF16, WCS06, YVCB17, YVCB18, ZTW17, vD06, AA06, AJH12, AEB19, BHD09, CBGM12, CP17b, FP14, HH13, HP77, KW13, KJM+07, OS05, OS06, OS08, OllB8, PGLG12, PBB13, RPE12, SE12,
TO96, WZW^+11, XZ11, YJZY12, ZDK^+19. Hardware-Accelerated [SWF16]. Hardware-Assisted [JSHM15, JAS^+15, RTL^+18, AJH12]. Hardware-Based [PvDS08, KJ^+07]. hardware-translation [Oi06, Oi08]. Hardware/Software [KAIW93, LH16, HH13, HP77, WZW^+11]. Harmful [NMHS15, WC01]. Harmony [PPS^+18]. HARNESS [BDF^+99, GKSP99, MDG598]. harnessing [GLV^+10]. hash [SV15]. hash-array [SV15]. Hawaii [MS91b, Shr89]. HBench [ZS01]. header [VED07]. Healing [BH15, GK05]. Health [ZL16, ZL18b]. healthcare [KS20a]. heap [CSV15, CH08, LDL^+08, PNM^+20, TLX17, WSAJ13]. Heavy [HS19]. hedging [RY10]. Helix [Ano03a]. help [Car14, Men03]. HEP [Dun86]. herd [BB20, KS18a]. Hermes [ZLG^+20]. hesitant [FA21]. Heterogeneity [GLS15, KR16, XLJ16, AMB^+17, WCS09]. Heterogeneous [GKSP99, HSK17, HHS18, KGGS17, KGGS18, LMM18, LWW16, LLZ18, OVI^+12, RG17, YLH17, ZSP^+21, ZAI^+16, ZB20, Bac11, CDM^+10, CRKJ17, DCMW17, GTGB14, GCCARP^+01, KHL17, KKB14, KSS^+18, LZW^+15, NRS92, PMC05, RAP19, SWH^+13, SWC08, ZLLL13]. HeteroOS [KGGS17, KGGS18]. HeteroVisor [GLS15]. Heuristic [BL17, LWW16, XH90, CD14, KMT14, TSR19]. Heuristics [ARMMA18, ATS16, BB12, KR16, Man15b, SBNU18]. HI [Shr89]. HICAMP [CFS^+12]. hidden [CW04^+06, WQG15]. Hiding [CLS07]. Hierarchical [ABB19a, DM75, Kee68, SPAK18, YWF09]. Hierarchies [TBS17]. Hierarchy [SBK15]. High [ACM98, ACM04b, AMA18, BPP^+17, BCW20, CW03, DMS02, DYL^+12, Han16, Hog02, IEE96b, IEE06a, IBBA20, KCWH14, KBK^+21, KKT17, KMM13, KKS^+19, LCK11, LGM01, LRP^+19, LJZ12, LHP06, MLG^+02, RC2M^+12, RB01, SD01, SCSL12, SY13, SYC14, UJR18, Vogn03, WQG15, WCC16b, WYBCF15, ZLS17, dGG^+17, AAF^+09, Ano96, BML^+13, DQR^+13, EMS15, FF96, Fu10, G^+01, GTH^+06, GGG^+02, GBCW00, HKJ19, LBZ^+11, LLE17, LM99, LGM00, LDL^+08, ML78, MUKX06, M^+06, MRC^+13, MMG^+18, RQD^+17, SB10, SPF^+07, SPAK18, WXW15, WW^+17, XJW^+18, ZYZ^+18]. High-Assurance [LJZ12]. high-availability [Fu10, LDL^+08]. high-bandwidth [WXW15]. High-Endurance [AMA18]. High-Fidelity [KKT17]. High-Level [DMS02, RB01]. High-Performance [ACM98, IEE06a, IBBA20, KCWH14, LGM01, SD01, SCSL12, UJR18, WCC16b, dGG^+17, Han16, Hog02, KBK^+21, SYC14, HKJ19, LLE17, LGM01, MUKX06, SPF^+07, SPAK18, WW^+17, ZYZ^+18]. high-performing [GBCW00]. High-Speed [KKS^+19, LRP^+19]. High-Throughput [BCW20]. Higher [BDW03]. Highly [KD78, ZFL15, CARB10, CGM17, GI12, GV113, TGF08]. Hilton [IEE09b]. HipHop [AEM^+14]. histograms [CL14]. History [Ran29, SKJ^+17]. History-Based [SKJ^+17]. HITAC [KAH83]. Hitless [ZWZ20]. HIVE [Tay76]. HLA [LCT^+15]. HLA-Based [LCT^+15]. hold [Yur02]. Holders [War11]. hold [EB20]. Holistic [LGJ^+18]. Home [DW14, See08b]. honeypots [ALL06]. Hood [Ven96, Ven97b, Ven97c, Ven97d].
Internetkommunikation [CK06b, CK06c, CK06d, CK06g, CK06f].

Internetprogramme [CK06b], Internetprogrammen [CK06e, CK06d, CK06g, CK06f]. Internship [HMS17].

Interoperability [GSS+18, CPM+18, Men03]. interoperable [KKB14].

Interpreted [ZSR+05]. Interpretation [FTNY69]. Interpreter [MS18, SMK02, Ber86, KMMV14]. interpreter/graphic [Ber86].

terpreters [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interpreters [HMS17]. Interpretive [AS76, OJG91]. interpretive-execution [OJG91]. Interpretive-execution [OJG91]. Interrupt [CL16a, TFtLcC15, AA18].

interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupt [CL16a, TFtLcC15, AA18]. interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].

Interrupts [AGH+16]. Interrupts [EG01, CEG07, EGKP02, EG03, Ert05, KKC+16, SYZZ+14, ZLBF14, Ert03].
Ano97d, Ano03b, AFT01, ABC+07, AC98, ANH00, BDF+98, BHDS09, BD01, BP01, BP03, Bri98, BZD17, Caa00, CW03, CT03, CH08, Cla97, Coh97, CDG97, Cra98, Cza00, Dalxx, Dal97, DHPW01, DD20, DEK+03, DS09a, DBC+00, DCA04, DLS+01, EG03, Eng99, EL98, Eng06, FFB+00, Fra98, FK03, G+01, GGG03, GCARPC+01, GPW03, GBCW00, HT98, Han05, HM01, HOKO14, HWB03, HB08, Ivo03, JR02, Jj02, Juo07, Kal97, KS13, LM99, LMG00, LB98, LV99, LY97a, LY97b, LY99, LYxxa, LYxxb, LYBB13a, LYBB14, LTK17, MSG01, MO98, Men03, MD97, MDxx, MLG+02, MB98, Mon97, NG13, OT97, Oak14, Oi05, Java, Oi06, PTHH14, PNM+20, PRB07, PV06, Qia99, RVJ01, RHR02, Ran02, R+13, Req03, RRB19, SMK02, SSB+14a, SD01, SE12, SH04, Sch13a, SSMGD10, Set13, SMSB11, SSB03, Sh03, SM01, SGV12, SEPV19, Siv04, Sm97, SSB01, SSB14b, SHB+03, Sun95b, Sun95a, SUN97, JCV99, Sun99, STS+13, SM02, Sun01, Tai98, Tol98, TO96, UBF98, UR15, Van98, Ven97a, Ven97b, Ven97c, Ven97d, Ven99a, Ven99b, VED06, VED07, VL00, WL96, WGF11, W99, WH99, Wes98, Wol99, Won97, WWMG06, WZL+18, YC98a, YC98b, YME05, YKM17, Yel99, YTY00, ZP14, ZS01, vLSM01, Ano97a.

Java-based [Ano96, FF96, HOKO14, KS13, YC98b].

Java/CORBA [GCARPC+01].

JavaCard [BDJdS02].

JavaScript [AHK+15, CBLFD12, VP16].

JavaScriptCore [Piz17].

Java(TM) [LMG01, SMES01, CF00, RB01, vD00].

Jarcy [GGG03].

JCloudScale [ZLHD15].

JDMM [Ano03a].

jetzt [KGG00].

Jikes [AAB+05a].

Jini [JJ02].

JiST [BHvR05].

JIT [JK13, PFH+16, THL03, WKJ17].

JIT-based [PFH+16].

JIT-compiler [THL03].

JITs [KRC14].

Job [MNT14, PS19b, HKJ19, PC21, RAP19].

jobs [KS18b].

jockey [Hin97].

John [IEE06a].

Joint [CTP+17, MAK18, NTH+17, RJK+17, WZV+13, YXL+20, ATZP21, LKR+19, SBU18].

Jointly [WL16, XHW+19].

Jon [Ano97a].

Jose [Ano04b].

journaling [HC12].

JP2 [SSB+14a].

JPDA [Sun99].

JPF [BA19, WKG17].

JPR [WKG17].

jRapture [SCFP00].

JS [AKH+15].

judgment [CSV15].

July [IEE06b, Sof83].

Jump [WBNH18].

June [ACM90, ACM01a, ACM01b, ACM05d, ACM06f, IEE85, USE85, USE86, USE01a, USE06].

JVM [Ano00, Ano01a, Ano01b, USE01c, USE01d, USE02, AC16, CSS+16, DBC+00, Guy14, Kha19, R+13, RRB17, SSB+16, SYZZ+14, SV15, Sub08, Sub11, Ven99b, WKJ20, WKG17].

JVMPI [Sun95a].

JVMs [BK14].

K. [Sch94a].

Kailua [Shr89].

Kailua-Kona [Shr89].

Kaleidoscope [LFBB94].

Kanazawa [HHK94].

Kanotix [CK06c, CK06h, CK06l, CK06r, CK06h].

Karlsruhe [RM03].

KDE [KGG00].

Keeping [NP13].

Kernel [FL13a, HD16, JJ91, KZB+90, SM90, SYB12, TY14, WLMD16, DD20, LWM14, Uhl07, VMBM12, KM13a, KM13b].

Kernel-based [TY14, KM13a, KM13b].

Kernelized [WCC16b].

kernels [HPHS04, RMB02].

Key [LCMV17, TF16, DPW+09].

Key-Value [TF16].
Kinder [CK06q, CK06t, CK06r, CK06s]. Kingdom [Vra05]. kit [Car06, LC09b]. knapsack [EYGS19]. knew [RAT17]. Knob [WUK+18, BR01]. Knoppix [CK06d, CK06i, CK06m, CK06s, Deu08, CK06i]. knot [LBF12]. Know [NBB+19]. Knowledge [FG91, FS19, IT86, RAT17]. knowledge-based [FS19]. Kochbuch [PO09]. kompletten [Mar08]. Kona [Shr89]. Konfiguration [Bor01, Lar09, WF03, Zim06]. konfigurieren [Dal97]. Konzeption [Zim06]. krill [BB20, KS18a]. KScalar [MRL02]. Kubernetes [BSNB20, ZB20]. Kubernetes-Based [ZB20]. Kubuntu [CK06e, CK06j, CK06n, CK06t, CK06e, CK06j]. Kuck [War11]. Kundenserversystemen [See08a]. KVM [Deu08, Hin08, DN14, GLC84, HWCH16, LZL+15]. KVM-based [HWCH16]. KVM/370 [GLC84]. KVM/ARM [DN14]. KylinX [ZZW+21]. L [Lot91]. lab [AL05, HMS04]. laboratories [DTW07]. Laboratory [GPM21, Kim84, SVN+10]. Labs [See08b]. lag [ZMD+21]. Lagrange [SS22]. Lagrangian [GR15]. Lagrangian-based [GR15]. Lake [ACM03b]. Lambda [Wat86, Wat87]. land [Tsa14]. Landing [ACM03b]. Language [CDM+10, ECM01, ECM02, ECM06, GSS+18, Hog08, Int05a, Int05b, Int06b, Int06c, Int06a, Kam83, Luc97, MR04, PW03, PFH+16, RSF03, SIR+17, SVB93, SUN97, WIDP12, WBHN18, Arv02, Ber86, BD01, BMER14, DH01, Don88, GLV99, Hog06, IT86, Juo07, KRC14, Les74, MD12, MC93, PRB07, RJK16, RSW91, SKC73, SMO84, Taf11, Tai98, WCG14, WWH+17]. Language-independent [PFH+16]. language-level [WCG14]. Language-Neutral [WBHN18]. Languages [BS90, Dan86, KP99, FLLB94, PTHH14, SSG90, Tol98, YKM17, ACM99, BDT13, Jou85, ML78, MRG18, PM05, PUL016, SSB+16, Sus76, TB14, Wel02, Wu13, YWF09]. LARD [WCG14]. Large [DK93, GKBBl5, PHL+12, RIP18, RGS17, SAPD21, SLM89, XDSL15, ZSZX07, ZLW+14, ZTA+21, BLRC94, DK75, FPGK18, LPD+11, Nie12, Req03, STM18, SZ13, SHTE11, WCG21, YZSC17]. Large-Scale [PHL+12, SLM89, XDSL15, ZLW+14, ZTA+21, SZ13, WCG21, YZSC17]. last [Rob12]. Latency [ASSB18, BPP+17, BL17, MV16, RZPX19, IMK+13, ZSW+06]. Later [FS12]. launch [AMIA19]. launch-time [AMIA19]. Layer [SKT+19, BTLNB+15, MA17, RSAGCLB16, ZFY18]. layered [PSC+07]. layering [YWF09]. LayerMover [ZFY18]. lazy [Wak99]. LDA* [YZSC17]. leadfoot [HHPV15]. Leaking [vSMK+20]. lean [SV15, Ven96]. Learn [BWH+19]. Learn-as-you-go [BWH+19]. Learning [BRX13, Che21, DS18, GPM21, KKE19, MSC+21, AD18a, GH20, GKT17, KRG+12, NTK21, RGAT18, RT18, WBW+19, WZZ+20]. Learning-based [DS18]. legacy [LU04]. LegoSim [RMB02]. Length [GR20]. Lern [CK06q, CK06t, CK06r, CK06s]. Lern- [CK06q, CK06t, CK06r, CK06s]. Lernprogramme [CK06k, CK06m, CK06l, CK06n, CK06o].
Lernprogrammen [CK06k, CK06m, CK06l, CK06n, CK06o]. Lessons [RM03, LJZ12, Rob06, UJRI18, HMS04]. Leuven [ACM04a]. Level [ASMA21, AC16, cCWS14, Chu06, DMS02, GCL+21, KHW+16, MMed19, NTR18, RB01, SV13, ZSR+05, ZQZ16, AD18a, AL05, BSM+12, BSD19, BSOK+20, But94, Cia07, EGD03, FLCB10, IM75, JHE14, LZW+17, ML78, SVN+10, SwCM12, SSG90, WHSE15, WF07, WCG14, ZLZ13]. Leveraging [LLF+18, LCL+17, Pfo13, RTL+18, WHD+09, ZL13, ADJ09, RAI17, ZBG+05]. Libraries [DK93, Int05b, DSS19, Won97]. Library [Cro93, SJSS+17, KS20b, PBWH+12]. Libvirt [Ano14c]. Life [ZR06]. Lifetime [WJ10]. Light [WWL+17a, HB08]. Lightweight [ABV12, CXLX15, PLZ20, Ran02, VN06, WJ10, YME05, ZLW+19b, ZTW17, vMAT14, AMA+11, CCL+17, DQR+13, DL19a, PDM20, RQD+17, SSU+12, TMJ+21, TB14, XZ11]. Like [Abr80, RHV17, SSOT17, Voe86]. LILA [Dan86]. Limbo [Luc97]. LimeVI [WLG+11]. limited [CH08]. Limits [WBB+16, vKF13]. line [SV17]. Linguistic [UR15]. Link [KLLT18, CRB12, GGJ+92, JK15]. linked [FC98]. linking [FC98]. LINUX [KGG00, Ano06a, CK06a, CK06b, CK06g, CK06f, CK06h, CK06l, CK06j, CK06o, G+06, Mar08, USE00a, WF03, ABB19a, BTH05, Bu06c, BBH10, Ble10, Bor01, CK06a, CK06b, Co00, Co03, DN14, Dav04, Fab13, G+06, GND16, MZG14, NSFH10, NV05, P+08, Ros14, Spr06, Spr07, VBM12, Wun13]. Linux-based [ABB19a]. Linux-Server [Mar08]. Linux/OSS [BTH05]. Liquid [Li14, ZL18a]. LISP [ACM90, CK87]. List [TT96]. List-based [TT96]. Listing [LKL+19]. Literature [BDF19, DCM22, ARA18, ARA20b, ARA20a, ZJR19]. LITL [Lam75]. little [Men03, YYPA01]. Live [AGC18, BWH+19, CCZ+06, Deu08, DK17, ECJ+16, JFPL16, JDW+14, KKL16, LSC+17, LZW+19, LH15, LZW+20, MZD+18, MSC+21, RJ+18, SHW+15, SKI+17, TUM18, XLL+14, XD16, XD17, ZRS+16, ZDL17, XZY+15, AS4, BAC15, BTH05, BS02, FLL15, GJK+20, HLW+10, HTB19, HLDG18, IMBB20, JKK+13, JFSL17, JGW+11, JGSE13, LHFQ19, NIA18, PKS+19, PDC+12, SS20, SSL+13, SLA+16, SLA+19, SLA+20, SSS+20, SSL+15, SSU10, TGD+09, WLG+11, WRSS11, WRS+15, WS+20, ZLL13, Is19]. Live-Distribution [Deu08]. live-migration [JMK+13]. Live-Streaming [MSC+21]. lively [STF15]. Liveness [ADM98, LDK14]. LLC [KKH14]. LLVM [LBH13]. Load [ARAAA19, CL16a, DY17, KAZS14, KKK19, LK12, LYS+18, YWR+14, BHR94, DSH18, GH20, KNHH18, TF16, XH90, XTBL17]. load-balanced [DS18]. Load-balancing [KAZS14]. Loading [LB98, HSC15, WGF11]. Loads [LTE12]. Local [ADM98, Oi08, PCR89, HJ10, KMT14, Oi05]. Locality [HSC15, SZ88]. Localization [YLC+15]. Located [LGZ16]. Location [USE93, OG16]. Location-Independent [USE93]. Locator [SJJPP11]. lock [YTS14, YQZ19]. lock-aware [YQZ19]. Logic [DMS02, FDO8, GH05b, UOHT84, AI19, BY20, BUR02]. Logic-Based [FD08]. Logical [Com65, RT93, LA05, TT93]. Logically [Jen79, KKK+18]. Logics [BW03]. Logsim [Bur02]. logistics [LZWC13]. LogP [CKP+93].
Long [KKLV16, KGS16]. Long-Distance [KKLV16]. long-running [KGS16].
Longest [HWHW18]. Look [HSM17]. lookaside [CFG+13].
Looking [LHW+20]. Lookup [HWHW18]. Loris [AvMT11]. Loss
[XDL15, CHCC07]. Lösungen [Th08]. LOTOS [MS91a]. Louis [ACM97].
Low [BPP+17, RZPX19, WCG14, ZHCB15, GE85, IMK+13, SJRS+13].
low-cost [SJRS+13]. Low-Latency [RZPX19, IMK+13]. Low-level [WCG14].
Low-overhead [ZHCB15]. low-resolution [GE85]. LSTM [EVLCL21]. LTTng [WKJ15].
Luminous [KNT02].

m [USE01c, Abr82, KAH83, AS85a, AS85b]. M-series [KAH83]. MA
[USE06]. MAC [SJV+05]. MAC-Based [SJV+05]. Mach
[USE91, MRGB91]. Machine [AGJS16, AS85a, ABCC66, AAAAF21, ABV12,
Ano00, Ano01a, Ano01b, Ano02, Ano04a, Ano04b, ILTNW14, AE01, Apr09,
Arc07, AAK18, AGIS94, BW85, BFHW75, Bai70, Bak83, Bal91, BDF+99,
BH73, BN75, BWD+15, BJH+16, BG73a, BCG73b, BG74, CTS+93, CW03,
CFH+79, CFH+80, Car13, CF00, CG16, CRZH15, Cox09, CWL+15,
CHY+17, CY+17, Dalxx, Dal97, DP01, Dan86, DCM22, DF96,
DGLZ+11, Dom80a, DL19b, DJ77, EG01, FG91, Fie68, Fis01, FPS+02, (Fo71,
(Fo78, FL13a, GKP99, Gci02, Gen66, Gol69, Gol71a, GLBJ18, HV+02,
HHW10, Hal79, HTW+19, Han73, HH79, HKM+18b, Hir17, Hor73, HKKW13,
IBM72, IBM73, IBM76b, Ibs84a, JHS12, JJK+11, JMSL92, JQWG15, JN15,
JADAD06a, KC16, KS08a, KKE19, KSS+20, KMK16, KNT02, KF91, Ken80,
KDB16, Kim84, KAH83, KGZ+04, KLF+15, LCWB+11, LMM18]. Machine
[Lau87, LW73, Law00, LW11, LSC+17, LLW98, LTE12, Li14, LVM+16, LG+18,
LTT92, Lg97b, LYxxa, LYxxb, LYBB14, LWLT10, LJJ+11, LPB17, LFBB94,
Loy92, LXM+16, MSG14, Mac79, Mad69, MS91a, Man16, Mar73, MZ20,
McC74, MS70, MD97, MDxx, MDGS98, MKKE12, IJ79, NBH08, NBK16,
NMG15, Nel04, NSJ12, NL19, Olb78, PPTHT2, PPT3, PAC+22, PXG+17,
Pfo13, PCC+16, PK75a, Pro00, Qin99, QTO6, RAW+22, RG17, RLZ+16, Ren78,
RI00, RSN+18, RT93, Ros99, RG05, Ibs84b, SL14, San88, Sch94b, Sch94a,
SSB03, SMA18, SCP03, SS+00, SHZ+14, SB73, SHB+03, SVL01, Sun95b,
Sun95a, SUN97, JCV99, TT96, TMV12, TY14, USE01c, USE01d, USE02,
VTW16, Ven97a, VL00, WL96, WIDP12, Wsk99, WH99, WDL+20, WB81,
WWL+17a, We94, WCG05, WDH+09, WP97, WLC17, WXJX15, XLJ16]. Machine
[XLWX19, YXY+17, YP15, ZLW+14, ZRS+16, ZL16, ZCG+17,
ZL18b, ZLZ+19b, ZCL+21, ZZF06, ZWL+18, ZHL16, ZJX11, ZTW17,
Zyt94a, Zyt94b, dSdF16, AD18a, Abr82, AS85b, AD19, AGSS10, AGH+15b,
AGH+15a, ATZP21, AAB+00, AC95, Ame13, Ano94, Ano96, Ano99a, AO16,
AFT01, ABC+07, Arm98, AW05, Arv02, AP18, ANH00, AMA+11, BB20,
BDF+03, BBTK+17, Beg12, BPC94, BJ20, BCM90, Bir94, Blu02, BADM06,
BFC02, BY20, Bri98, CARB10, CL14, CD14, Car14, CEG07, Cav93,
CFVP12, CS76, CHCC07, CL+20, CBLFD12, CK06a, CK06e, Clo85, Cof99,
CGV10, dCCDFo15, CWG00, CD01, DH01, DSC+08, DP11, DM93,
DBC+00, DLH+20, Don87, DHD20, DJ76, DX+17, EGK02, EG03,
Machine-Based

36

FLL+13, FS19, FM90, FA21, FSFP19, FMIF18, Fit14, FF96, FLM+08, FCG+05, Fre05, GQG+13. **machine**

[GTGB14, GH20, GSKJ18, Gol74, GCARP+01, GPW03, GR80, GBCW00, GA18, HZL+18, HJ10, HTB19, HUL06, HK07, HcC14, HPHS04, HLBZ20, HSC15, Hui18, IBM85, IBM88, Int88, IBM94, IBM96, IRB19, IKU15, JKK+13, JNR12, JC18, JGW+11, JADAD06b, Kal97, KOY05, KB21, KS13, KS20a, KSO+15, KS18a, KTB17, KK21, gKEY13, KCS+14, KJLY15, KCKC15, KKK+16, KMG+18, KFF12, KSS+18, Kou11, KCV11, KRG+12, Lam75, LBZ+11, Les74, LC02, LM99, LZWD15, LBL16, LYYY18, LLWW18, LFHQ19, LXRS19, LLZ+19, LZLY20, Lia05, LL14, LPZ+22, LPBB+18, Lot91, LG93, LQD+18, MSG+12, MD73, MD74, MSG01, DPBK16, MS17, Pon19, Pul91, RKT20, RHR20, Raj79, RJ14, Req03, RK18, RBFO01, RY10, RJK+17, RCTY19, SZKY21, SBBP20, SHR19a, SHR19b, Sch13b, SSMGD10, SEM+20, SLHJ13, She91, SCEG08, SAG13, SSEA18, SL00, Sig89, SGGB99, SGGBO0, SKC+73, Smi97, SYMA17, SJ120, SMA+10, SBP+17, SSU+12, TSLBYF08, TMLL14, TDD20, Tay76, tTR82, THG+18, TIN09, TB14, TT93, Tur84, Vag10, Van98, Ven96, VV19, Ven97b, Ven97d, Ven99b, VV13, WGF11, WKT08, WRX11, WZV+13, WKJ15, WCY+17, WSX+19, Web10, WHTW20, WLL+13, WW77, Won97, ZHL+13, XJ14, XJWY15, ZZ+16, XLWZ18, XZK+20, YME05, YZW+13, YLH+14, YLHJ14, YPLZ17, YLCH17, YY+20, YBY+15, YYY+19, YLK+10, Ye99, YSM+21, YC16, YRJ18, YGN+06, YQQZ14, YQZ19, YLY00, ZG13, ZXW16, ZY+18, ZLZ15, ZHL+15, ZHJC17, ZFY18, ZWC+19, ZWL+19a, ZBP07, ZWL+19a, ZLL+16, ZL+13, ZLL+13. **machine**

[PIz17, Pon19, Pul91, RKT20, RHR20, Raj79, RJ14, Req03, RK18, RBFO01, RY10, RJK+17, RCTY19, SZKY21, SBBP20, SHR19a, SHR19b, Sch13b, SSMGD10, SEM+20, SLHJ13, She91, SCEG08, SAG13, SSEA18, SL00, Sig89, SGGB99, SGGBO0, SKC+73, Smi97, SYMA17, SJ120, SMA+10, SBP+17, SSU+12, TSLBYF08, TMLL14, TDD20, Tay76, tTR82, THG+18, TIN09, TB14, TT93, Tur84, Vag10, Van98, Ven96, VV19, Ven97b, Ven97d, Ven99b, VV13, WGF11, WKT08, WRX11, WZV+13, WKJ15, WCY+17, WSX+19, Web10, WHTW20, WLL+13, WW77, Won97, XHL+13, XJ14, XJWY15, ZZ+16, XLWZ18, XZK+20, YME05, YZW+13, YLH+14, YLHJ14, YPLZ17, YLCH17, YY+20, YBY+15, YYY+19, YLK+10, Ye99, YSM+21, YC16, YRJ18, YGN+06, YQQZ14, YQZ19, YLY00, ZG13, ZXW16, ZY+18, ZLZ15, ZHL+15, ZHJC17, ZFY18, ZWC+19, ZWL+19a, ZBP07, ZWL+19a, ZLL+16, ZL+13, ZLL+13. **Machine-Based**

[LW11, WB81, CGV10, WKT08, YZW+13]. **Machines**

[Ano75, ASSB18, Att73, AH68, BMS16, BP99, BDsd02, BSSS14, BWH+19, Bee05, BB13, BPS07, BRX13, BG73b, BCG73a, CL17a, CWL12, CCML12, CWS12, CGMD19, CSS+13, CL16a, CCO+05, CH78, CHLY18, CDN02, DSM14, DEK+03, Den01, DK17, DMR10, DKW15, Do11, EGR15, EGJS15, ECJ+16, Ert03, EDS+15, Gai75, Gal73, G+01, GTS+15, Gol71b, Gol73b, Gum83, Han73, HKLM17, HB17, Hof20, HS06, HPP15, Ian14, JE12, Jen79,
JXL\textsuperscript{+}12, JAS\textsuperscript{+}15, JKJ\textsuperscript{+}10, KCWH14, KJL11, KP15, KPHA20, KA\textsuperscript{H}83, Kov19, LMR18, LYL\textsuperscript{+}15, LYY\textsuperscript{Y}17, LD05, LHAP06, LW12, LJL\textsuperscript{+}15, LLZ18, Mac79, Man15a, MD12, MGL\textsuperscript{+}17, MM94, Par71, Par72, PSBG\textsuperscript{G}11a, PS16, Ran20, Rev11, Ros04, SD01, SCSL12, SV13, SN05a, SN05b, Sta97, SKG\textsuperscript{+}17, Sup04, TTH\textsuperscript{+}19, TV12, UT87, Vog03, WLW\textsuperscript{+}15, WGLL13, WZL15, WLLZ16, Win71, XSC13, XLL\textsuperscript{+}14]. **Machines**

[XLL\textsuperscript{+}20, ZRD\textsuperscript{+}15, vLSM01, Agr99, ABB19a, AAH\textsuperscript{+}03, ADA\textsuperscript{+}19, AGH\textsuperscript{+}16, ATS16, AAM\textsuperscript{+}16, AMAB17, AS14, BAC15, Bac11, Bag76, BML\textsuperscript{+}13, BDF\textsuperscript{+}98, BH\textsuperscript{+}R05, Be06, BB12, BB15, BMM09, BBS06, BB95, CL17b, CGM17, CSSE21, CCL\textsuperscript{+}17, CH08, Cra05, Cra06, CWd0\textsuperscript{+}06, CLL\textsuperscript{+}13, DDS\textsuperscript{+}94, DC15, DEG\textsuperscript{+}17, DQLW15, DSZ11, DCMW17, EB20, EGD03, Ert05, EL98, EMS15, FBZS12, Fit14, FH\textsuperscript{+}L96, FGLI15, FX06, Fu10, GI12, GVI13, GJK\textsuperscript{+}20, Gol73a, GJ19, GLV10, HKS19, HM18, HMH17, HZZ\textsuperscript{+}14, Hin97, HD09, HDG09, Hol95, IMBB20, JES\textsuperscript{+}15, JWH15, JDW14, JGSE13, KDK20, KSSG16, KRCH14, KBB11, KBC21, KR16, LMJ07, LZC\textsuperscript{+}16, LZF19, LC13, LTZ14, LSS04, Man15b, Mat09, MK19, MG13, MRG17, hTMAC\textsuperscript{+}08, MPM\textsuperscript{+}20, NK10, NOR15, PKS\textsuperscript{+}19, PFH\textsuperscript{+}16, PSBG11b, PM05, PDM20, PBH\textsuperscript{+}08, PRS16, PV08, uRQS20, RK16].

machines [RH17, RHR02, RG19, RT18, SJB14, SS13, SENS16, SNV10, Sch09, SS12, SJJ\textsuperscript{+}12, SJW13, SWH13, SLC20, SL22, SSL\textsuperscript{+}13, SPAK18, Ste14, Str13, SK13c, SLA\textsuperscript{+}16, SHTE11, Syt07, TZE17, TGCFL08, TNMLV12, TDG\textsuperscript{+}06, TtC13, VT14, VED07, VWT13, WQG15, WXZ\textsuperscript{+}17, WDT18, WCS06, WSVY09, WRSvM11, WR\textsuperscript{+}15, WCG21, XHCL15, XWX\textsuperscript{+}17, XTB17, XA22, YC98b, YWF09, YWGH13, ZBG\textsuperscript{+}05, ZWHC17, ZW09, ZSRR22, ADM98, BHDS09, CT03, Cla97, MLG\textsuperscript{+}02, PEC\textsuperscript{+}14, SM01, UBF\textsuperscript{+}98, VED06, YC98a, ZS01]. **macro** [Wel02]. **macro-architecture** [Wel02]. **Made** [Sto05]. **Mail** [Joo06]. **Main** [AW17, AMH\textsuperscript{+}16]. **mainframe** [GBO87]. **Mainstream** [Uhl06, BBHL08]. **maintaining** [HBP06]. **maintenance** [LSS04]. **Major** [Cap21]. **Make** [THB06, BC10, DMH18].

**makes** [Wal10]. **Making** [HKKW13, Voe86, XLL\textsuperscript{+}14, CFRSSR19, FA21, SJJ\textsuperscript{+}12]. **Malicious** [SMA18]. **Malware** [CLS07, CD12, GG11, AD18a, CVWL13, CWd0\textsuperscript{+}06, PDM20, YJZY12]. **MAN** [TDG\textsuperscript{+}06, YYPA01]. **MAN/WAN** [TDG\textsuperscript{+}06]. **manage** [Car14, Fit14]. **Manageability** [Gua14, MW05]. **managed** [CBGM12, CFG\textsuperscript{+}13, GK05, RJK16]. **Management** [AW17, CTP\textsuperscript{+}17, DMR10, HTW\textsuperscript{+}19, HC17, KGGS17, KGGS18, KR18, KL14, Lar09, LJL\textsuperscript{+}15, LCMV17, LCFL12, LXZ\textsuperscript{+}16, MBWW86, MDGS98, PLMA18, PYYG21, RC18, SMES01, SC17, SDD\textsuperscript{+}16, SKT\textsuperscript{+}19, TB17, WIS\textsuperscript{+}15, WLW\textsuperscript{+}15, WGLL13, ZCL\textsuperscript{+}21, AHK\textsuperscript{+}15, ATS16, ARMMA18, BAC15, Beg12, BBMA91, BHDS09, BN89, CH08, Cla05, EB17, Fit14, Fu10, GTGB14, GLK\textsuperscript{+}12, GAHL00, HKJ19, HB13, IMK\textsuperscript{+}13, IPRS21, KCKC15, KMG\textsuperscript{+}18, KF18, KB17, LLS\textsuperscript{+}08, MS00, MBA\textsuperscript{+}12, NBS18, NS07, dOL12, RH17, RHMR02, RP07, RJK16, SBBP20, SG10b, SWC08, TRG13, Wal02].
WDCL08, WWWL13, WB16, WCS06, WSVY09, YLCH17, YWTC15.
Manager [Car13, Car14, KMT14, Apr09, MBA +12]. Managing [BB13, KGZ +04, LCZ +19, BCP +08, J +05, YLHJ14]. Manipulating [GK05].
manufacturing [LLS14]. Many [Bai70, JAD19, LPB17, SXM +18, CLL +13, DQR +13, WR07].
Mapper [AJ18]. Mapping [Bak83, CFM17, PS16, PCC +16, BSOK +20, CRB12, HSI3, HSCL5, JK15, UR15, YXL +20, WK08]. MapReduce [HSC15, RAP19, XYYY17]. March [ACM06d, Ano10, SS05].
Marketplace [KMK10]. Markets [TVKB16]. Markov [BL17, MTFK19, NZH20, RHR20, SC17, WQG15].
Markov-based [NZH20]. Marriott [USE01a]. Mars [BC19]. Maryland [Ano93]. Maschinen [Zim06]. Massachusetts [USE93, USE01a, IEE85].
Massively [BS90, Kra90, MM93]. Mastering [CBER09, Low09, Low11, LMG +14, McC08, Sub11]. Matching [CFM17, Cox07, Cox09, Cox10, Cox12, YDW18]. Maté [LC02]. matrix [Kra90]. maximally [SS19]. Maximization [MLXG19, ZHW +17, JWH +15, KTB17, IWLL16]. Maximizing [BYBYT16, ZRD +15]. May [ACM00, ACM06e, Ano04b, IEE84a, IEE90a, IEE91, IEE01, IEE06a, Mar81, TLC06, USE99, USE06, Yur02]. MBSA [CCL +17]. MC [XJW +18]. MC-VAP [XJW +18]. MC68020 [MMM84].
Memory-Aware [JJK+11], memory-limited [CH08], Memory-Oriented [ZL18a], memory-performance [SEP19], Memory-Resident [WK90].

merging [TLX17], mesh [SJRS+13, ZGW+06]. Message [GGM+16, DM93, TO91, UR15, XH90].

meta-heuristic [ATZP21, EYGS19, XA22]. metaheuristic [ATZP21, EYGS19, XA22].

meta-heuristics [ARMMA18, SEM+20]. metaheuristic-based [XA22].

metrics [BSOK+20, Sch13a]. Metriken [Sch13a]. Metron [KBK+21].

microkernel-based [XA22]. microservice-based [BNS18]. Microservices [Kol19].

Microarchitectural [MSI18, CJJ+22, EGD03, SK13b]. microcomputer [UBL+82]. microcomputers [GBO87]. Microgrids [GPM21]. microkernel [GMRI+93, Sto07, Uhi07], microkernel-based [Sto07].

Microprocessors [Bag76]. microprogramming [ML78, SP83, Tho73]. microservice [BNS18, WGW+18]. microservice-based [BNS18].

middleboxes [KRS+17, YDW18]. Middleware [ACM05b, HOKO14]. Migrate [YBZ+15, CLL+13, KB21]. Migrating [JE12].

migration [AGC18, ABV12, BWH+19, BFG+14, BWD+15, CYX+17, DK17, EMAL17, GWA+16, KC16, KS16, KKL+16, LSC+17, LZL+15, LJL+11, LH15, LZZ+18, MZD+18, NBF+16, PS19b, RSNK+17, RSN+18, RJS+18, SL14, SHW+15, TMV12, XWJX15, XLL+14, XD16, XDLX19, YWR+14, YWW+15, ZRS+16, ZCG+17, ZDL+17, vLSM01, AGH+15b, AGH+15a, AS14, BAC15, BB08, CLeC13, DS20, FMI+F8, FGLJ15, GJK+20, HLW+10, HTB19, HH19, HDG09, JKK+13, JGW+11, JDW+14, JGSE+13, KN18, KLY20, KSS+20, KTB17, KJLY15, LZWD15, LZC+16, LFWQ19, LLZ+19, DPK616, MG13, NAR19, NIA18, PC21, PKS+19, PDC+12, PFPJ18, PCB+18, RK16, RTCY19, SM+20, SM01, S122, SYMA17, SSL+13, SLA+16, SHTE11, TK20, TDG+06, WCY+17, WSX+19, WDT+18, WLG+11,
Motorola [Ano03a, MMM84]. move [BGS13]. Moving [Cre10b, Cre10a].
MPSoC [BHI15]. MPSoCs [OVI+12]. MS [Tho08]. MU5 [MDFS72].
Multi [AVNR19, ABV12, AP18, BB17, CLG+10, DY17, DLS+01, Fie68,
GSS+18, GLBJ18, HMI17, HC17, HCB18, HPcC04, KR18, LZLY20, LSL14,
LH15, LCZ+19, MMIE19, MD12, MP16, MM94, PXG+17, PNT12, RTL+18,
SL14, SCL+19, TTH+19, TSR19, TK20, WLL+13, XCSM18, XZL+20, ZL18a,
ZRZY15, AD18a, AL05, ATS16, BB20, Bor07, BY20, DEG+17, DHD20,
FGG14, GGQ+13, GKP+19, GH20, HZL+18, JHE14, KMT14, LC14,
LYYY18, LLZ+19, MP+20, RK18, RPE12, STMV18, SE12, SW+13, SS19,
SIK+16, SW+18, WDC08, XZ11, XJW+18, YKS16, YTS14, ZMD+21,
ZNSL14, ZLL+16, JDJ+06, NMS+14]. Multi-Access [Fie68, HCB18].
Multi-Agent [PXG+17, ABV12, DHD20]. multi-attribute [SS19].
Multi-Capacity [BB17, HMH17]. Multi-Channel [TTH+19].
Multi-Cloud [AVNR19, DEG+17]. multi-connection [XJW+18].
Multi-Context [ZL18a]. Multi-Core [KR18, RTL+18, PNT12, SW+13, YTS14].
multi-course [XJW+18]. Multi-Core-Aware [Man16].
multi-criteria [ATS16]. Multi-dimensional [HPcC04, ZMD+21].
Multi-Dispatch [DLS+01]. Multi-domain [TK20]. Multi-GPU
[NMS+14]. Multi-granularity [LLS14]. Multi-Language [GSS+18, MD12].
Multi-Level [MMIE19, AD18a, JHE14]. Multi-Objective
[GLBJ18, AP18, LZLY20, SL14, SCL+19, TSR19, BB20, BY20, GGQ+13,
GKP+19, GH20, HZL+18, MP+20, RK18, STMV18, ZLL+16].
multi-platform [XZ11]. Multi-processor [WLL+13]. Multi-Provider
[MP16]. multi-resource [LYYY18, LLZ+19]. multi-server [LC14, RPE12].
multi-source [SIK+16]. Multi-stage [CLG+10]. multi-start [KMT14].
Multi-tasking [JDJ+06]. Multi-Tenancy [DY17]. Multi-Tenant
[LCZ+19, ZRZY15, SW+18, YKS16]. Multi-threaded
[HC17, FGG14, SE12]. Multi-Thresholds [XCSM18]. Multi-Tier
[SL15, XZL+20, WDC08, ZNSL14]. multi-user [Bor07]. MultiCache
[NsP16]. multicast [AAC+17]. multicomponent [BR18]. Multicore
[FRD+08, HHW10, Ian14, Man16, ZD18, CP17b, KNHH18, SE12, SSMGD10,
SJJ+12, Sub08, WCC+16a, WCS09, WJGA12, YQZ14]. Multicore-Aware
[Man16]. multicriteria [CFRSSR19]. multidimensional [dCJR16].
multigrid [AGIS94]. multihost [Bar06]. MultiLanes [KHW+16].
Multilayer [VLZL16]. Multilayered [NsP16]. Multilevel [DD20].
Multimedia [Ano99b, CAF+91, FLZ17, ZKWH17, BTLNB+15].
Multipath [CFLL19]. multiple [BG20, CSV15, Com00, GMR93, IKU15,
OKAM17, SS22, SLA+16, TMMVL12, TtLcC13]. multiplicity [SM79].
multiplier [SS22]. multiprocessing [DBO+18, TLD+89]. Multiprocessor
[AGLM91, DmM86, NL19, KKJL14, WXZ+17, Bro89]. Multiprogressors
[Bad87, Cr93, SLM89, TO91, WWS89, WWT89, AGIS94].
multiprogramming [Abr82]. multitarget [Bar06]. Multitasking
[CD01, IBM96, TLD+89]. multitasking/multiprocessing [TLD+89].
multitenant [LZW+15]. Multithreading [LRZ16, ABB+15, PV06].


Nested [HBL+10, GHS16, KS20b, RQD+17]. nested-virtualization [RQD+17]. Net [MBK+92, Tur92]. NetAdvantage [Ano03b]. NetLCR [Joo06]. nets [NMC18a, NMC18b]. Netstumbler [Joo06]. NetWare [WF03]. Network [ACM98, RM03, AFG+17, AP22, AVNR19, ASL+20, Ano10, AO16, ACA16, BYZZ20, BLMP22, BRidM10, BL17, BHEP14, CFM17, CB22, CPS17, CFFL19, Che21, CFT08, Cre10b, CTP+17, DW14, EMAL17, ELC+19, EVCL21, EMW16, Fis01, FML+22, FLZ17, GHM+18, HTAY21, HLPY16, HSL17, HB12, HJG18, IK15, JW17, KKE19, KKT17, Ken80, KL+20, KAIS14, KLLT18, LLW+16, LHW+20, LCZ+19, LDRI18, LCFL12, MLXG19, MDZ+21, MAK18, MP16, MCZ06, Mou97, MR06, Non92, PHL+12, Pap20, PHXL19, PCCR99, PST+15, PHC20, Rix08, RS20, RKRK17, SADP21, SKT+19, SSOT17, UVL+13, VV18, WB81, XWH+16, XWW+21, XD16, XD17, YJJ+21, YWH+21, ZWFX17, ZHH17, ZSP+21, ZWH+17, ZKWH17, ACM06c, AM16, AMIA19, ALW15, BG20, BCC+15, BCM90, BL90, BH13, BBS06, CBZ+16, CB10, CRB12, Cre10a, DS19, DS18, DYL+12, FCD09, FLL+13].

network [FZS+20, FJKK17, FK13, FSH+13, GLQ+13, GLL16, HH18, HH19, HS13, HB06, IM03, JAC+19, JK15, KSO+15, KK21, KKK+18, KWZ+19, LYY17, LLL+19, LRP+19, LMDP19, LQD+18, DPBK16, MS09, NTH+17, OKAM17, OK90, PJJ+19, PPNC20, PBL+16, RK16, SH19, SLL+14, TSR19, TK20, TSCB19, Tur84, UBL+82, VOS12, WWS89, WHC16, WCC16c, WBV+19, WZZ+20, WC91, WY18, XWH+19, YCL+19, YLTF20, YXL+20, ZLL+19a, ZJR19, ZGL+17, BCZ19, HTAY21, MC19, TF16, YW+18].

Network-Aware [CTP+17, AO16, IK15, ZHH17, KK21, LQD+18].

network-based [LYY17]. Network-hosted [CTK08]. Network-I [RM03]. Network-I/O [RM03]. networked [CT03, NBS18, SNBU18, SGB99, SGB00]. Networking [ACM98b, CPKL17, IEE06b, LCK11, MLA83, Pap20, SS05, SB18, XWJX15, ZKWH17, BTMS10, Bo07, BH13, GD08, Ker15, MC19, M+06, Zho10].

Networks [BSI+15, CPKL17, CGC16, CFFL19, EVCL21, FML+22, HLF94, HHL94, JN15, KKLV16, LLW+16, LXZ+21, LCMV17, MP16, MBWW86, MSC+21, NGRF19, QLL+21, SIJP11, TVO92, VVC+17, XZL+20, ALW15, ABV12, BA21, BB15, BB89, BG20, BCC+15, BCM90, BL90, BH13, BBS06, CBZ+16, CB10, CRB12, Cre10a, DS19, DS18, DYL+12, FCD09, FLL+13].

networked [CT03, NBS18, SNBU18, SGB99, SGB00]. Networking [ACM98b, CPKL17, IEE06b, LCK11, MLA83, Pap20, SS05, SB18, XWJX15, ZKWH17, BTMS10, Bo07, BH13, GD08, Ker15, MC19, M+06, Zho10].

Networks [BSI+15, CPKL17, CGC16, CFFL19, EVCL21, FML+22, HLF94, HHL94, JN15, KKLV16, LLW+16, LXZ+21, LCMV17, MP16, MBWW86, MSC+21, NGRF19, QLL+21, SIJP11, TVO92, VVC+17, XZL+20, ALW15,
Ali91, AAC+17, CL15, CM18, DS19, FZS+20, GCARP+01, GLQ+13, GHM+18, HHGS18, KCV11, LC02, LZW+15, LWL16, MG19, MAK07, NRS92, OMB+15, RS16, THH+14, TK20, TO91, WZV+13, WT91, XWW+21, XYY17, XJW+18, YKS16, YPLZ17, YLT20, YMY17, AAJD+16. 

Netzwerk [KGG00], Netzwerke [WF03], Netzwerk-Fixierung [WF03]. Neumann [FS11, FS12, Sig89]. Neural [EVCL21, JAC+19, MBK+92, TV092, Tur92, WWS89, Ali91, BCM90, BL90, IM93, KCV11, OK90, RK16, TO91, WT91, WC91]. Numerical [GBF+92]. Neutral [WBNH18]. neutron [MM92]. Nevada [ACM81, ACM89]. newer [YK13]. Newfoundland [IEE06a]. News [Bri98, Kal97, Sta07]. Next [BDF+99, CF00, LPSS99, IIK+06, RGS+20].

generation [IJK+06, RGS+20]. NFV [ALW15, Pap20, TF16, ASL+20, BDF19, FS19, FLZ+20, GDSA+17, JWl+18, KBK+21, LH+20, LZX+21, SDM21, SHB19]. NFV-Based [SDM21].


Novell [WF03]. November [ACM75, ACM89, ACM96, ACM03a, ACM04b, ACM05b, ACM05c, IEE90b, IEE92, IE93b, IE00, IE04, LCK11, USE91, ACM97]. NSGA [TSR19].

NSX [PPS+18]. Nu [DNR06]. null [AT16]. NUMA [BMS16, GTS+15, KP15, LL14, LXM+16, SJA+17, SKJ+17].


NVMe [HCI18, PYYG21, PYDG22]. NVRAM [ZW+19b].

O [RM03, AJM+06, AMA18, ASMA21, AD11, ABG14, ABB+15, BMS16, BHEP14, CWH+16, CDD13, CRZH15, DCP+12, DS09b, GCL+21, GAH+12, HA79, HB12, JAD19, KS08a, KMN+16, LLE17, LMR18, LHAP06, NSP16, PST+15, Ras08, SBQZ14, SYC14, SVL01, THH+14, TtLc13, VV08, WR12, WTL+16, YJJ+21, ZWFX17, ZSR+05]. Oak [SVN+10]. Oakland [IEE84a, IEE90a, IEE91]. OAMulator [MS01]. OASIS [UBL+82]. OB [XHLCL15]. Oberon [WF03]. Object [Bad82, BBD+91, BP01, CAF+91, Low88, PTHH14, PMC05, San88, STFH15, USE99, USE01b, BPS86, BP03, BZD17, DNR06, GSN93, IT86, LM99, VED07, WML02]. Object-Based
Optimization-Based [SHZ+14]. Optimization
[HB12, NBK16, RLZ+16, CPST15, NG13, PGLG12]. Optimize
[OL16, LDL+08, RAT17]. Optimized
[CGC16, MZD+18, DS20, HZL+18, KCV11, LWL16, RGS+20, TMMVL12].
Optimizing [CEG07, dCCDFI15, EG03, GKT17, HHC+16, JGW+11,
KRS+17, LQW+12, LL14, LXM+16, MCZ06, SMK02, SV15, WWL+17b,
ZLL13, ZJXL11, FMIF18, HSC15, NNK21, ZLB14, ZGL+17, FL+13].
Options [HDM08]. Oracle [VSC+10]. Orbit [SSN94]. Orchestrating
[BR18]. Orchestration [ZB20, BSNB20]. Order [BW03, BFC02].
Ordering [HMH17, HTAY21]. ORE [OMB+15]. Oregon [IEE93b, USE85].
O’Reilly [Ano97a]. Organization
[BPC94, KNS83, RSGG15, Jnn07, Srrr1, Tho73]. Organizational
[PXG+17, GAHL00]. Organizer [MS00, SMES01]. Organizing [OK90].
Orient [IT86]. Oriented [BBB+91, BWD+15, BS90, CAF+91, DYS17,
ECET18, HW12, LVM16, LYYG20, MP16, PYYG21, RSGG15, SYB12,
USE99, USE01b, ZL18a, Beg12, BPP86, Fro13, GSN93, IJK+06, IT86,
PTTH14, PPMC05, PPO14, San88, WML02]. Origin [Com82, Den01].
Original [BDR+12]. Orthogonal [PNM+20]. Orthogonally
[LMG01, LMG00]. OS-Level [cCWS14, KHW+16, SWCM12]. OS/2
[Bri08]. OS/390 [BTC+00]. OS6 [SS72]. OSCAR [VS06]. OSS [Ble10].
Others [Den01, Mac79, KS13, Mtt10]. OtOt [DKF94]. Ottawa [ACM06f].
Out-of-Band [ZSXZ07, PBYY+08]. Out-of-order [BFC02].
Outage [Che21]. Outline [Kee77]. Output [ACL72]. Outsourced
[YDW18, CMP+13, QZDJ16]. Outsourcing [SASG13]. Over-Provisioning
[SC18]. Overbooked [LPBB+18]. Overcoming [APST05].
Overcommitment [GKKB15]. Overcommitted
[CWS12, WSSC06, ZHHC17]. overhead
[B20, LPD+11, LBL16, ZHCB15, ZLZ+19a]. overheads [MST+05].
Overlapped [LZM+20]. overload [LYY18]. Overloaded [BB13].
Overshadow [CGL+08a, CGL+08b, CGL+08c]. Overview
[Lau87, MLG+02, ALW15, BBO8, MNA16]. oVirt [Ano14d]. OVM [BFC02].

P [Dom80b, SSU+12, Syr07]. P-Code [Dom80b]. P.R.O.S.E [Van06]. P2P
[Sta07]. p5 [A+04, B+05, G+05]. PA [ACM04b, ACM96, IEE04]. PaaS
[ECET18, ZLHD15]. Package [PBR+90]. Packages
[JMSEML09, LT92]. Packet [VLZ16, LRP+19, Ste14]. Packeteer [Ano03a]. Packing
[BB17, GR15, RG17, SXCL14, XDLS15, LLZ+19, SZ13]. PACO [PAC+22].
PACT’06 [ACM06b]. Page
[AW17, CWL+15, CHLY18, KYP+17, LH16, LLZ+19, LZW+17, LZW+20,
MZD+18, MT16, MT17, WLW+15, AJH12, BMM08, CWC+14, WTLS+09].
Page-Aware [CW+15, CHLY18]. Page-level [LZW+17].
Page-sharing-based [LLZ+19]. Pages [GBKBo, Ano97a, JDW+14].
Page [BGM70, GHS17, HBL+10, GHS16, TKG89]. Pagoda [YSS+17].
Pallor [RHV17]. Palm [MS00, SMM01]. Palo [ACM01b]. Pandemic [Cap21].
Panel [G+01, UBF+98, BDF+98]. Papers [DC15, KM13b, ACM90, G+88].
parametric [PUL016, UTO13]. Paranoid [Bau05, Bau06b, Bau06a].
Password [CD12]. Past [Sup04, Var91, BJG19, BS96, JKDC05]. PASTE’01 [ACM01a]. patches [Ano07]. patching [PM9a]. Path [GR20, AM16].
PATHWORKS [Nou92]. Pattern [CFM17, HPP15, YDW18, ZDLG17, OK90]. Pattern-Aware [HPP15].
Patterns [CL17a, ESY+17, PMC05]. Paving [FLZ+20]. Paxos [HMS17].
PBS [ZLL+20]. PC [ACM04a, GBO87, Mon97, Voe86]. PCI [YLW+14].
PCs [Ros99]. PCVM.Arima [CSSE21]. PDB [HHH04]. PDCE [M+06].
PDP [Gal73, GBO87, Ham76, PK75a, SP83, She92]. PDP-10 [Gal73].
PDP-11 [GBO87, Ham76, PK75a, SP83]. PDP-11/40 [GBO87].
PDP-11/60 [SP83]. PDP-8 [She92]. PDS [AAC+05b]. Peak [LTE12].
Perfcotr-Xen [NB11]. performability [EBJ17]. Performance...
FMIF18, FMJ15, GGQ+13, GH20, GA18, HM18, HZL+18, IKU15, JC18, KN18, KHL17, KSO+15, KK21, LKR+19, LBZ+11, LZWD15, LIWW18, LZLY20, LPBB+18, MS17, Man18, MNA16, MHM19, EYG19, Pon19, RKT20, RK18, RJK+17, SZKY21, TML14, TSR19, TMMVL12, WHW20, XTB17, YPL17, ZWHC17, ZLW+19a, ZLL+16, ZWH+17], placing
[XW+21]. PLAN [CTP+17]. Plane [GGK18, AMIA19, LRP+19]. Planes
[UVEL+13]. PlanetFlow [HPB06]. PlanetLab [MPF+06]. Planning
[IBM72, IBM73, Hal08, MIS+05]. plans [Kal97, Lot91]. Plant [BYZZ20]. Planung [Zim05]. Platform
[DHPW01, DMG+15, Fra09, GWZ16, GPW03, HCB18, JXL+12, JJ02, MCE+02, PPS+18, SML18, Sum99, TCP+17, VGF16, WL96, Wal99, WBHN18, ZSP+21, AMB+17, BBD+10, CSMB15, DCA17, Fra06, MW18, PW03, WQG15, WCC+16a, WL+11, XZ11, YJZ+21, YMY17, Ros99]. platform-independent [PW03]. Platforms
[AMA18, ASMA21, Ana06a, BDG18, GLS15, SN05b, Uhl06, YP15, BSL+18, BSD19, DPW+09, GLK+12, MRM06, MBBS13, NV05, SWH+13, SBF+17]. Player [Joo06, Zim06]. Plex66 [Law00]. Pliant [KDB16]. Pliant-based
[KDB16]. plotter [MSC92]. plug [Kag09]. plug-in [Kag09]. Plural
[CTP+17, EMW16, JFPL16, LDRS18, SL14, JFZL17, SZKY21]. Policy-
[CTP+17]. Policy-Compliant [LDRS18]. Polling [PYDG22]. polymer
[NRS92]. polymorphism [PUL06, UTO13]. pooling
[WRSvdM11, WRS+15]. POPL [ACM99]. POPLOG [SSG90]. Port
[DBM92]. Portability [Hir92, JR02]. Portable
[HWB03, Ibs84a, SMK02, Ibs84b, FCG+05, HK07, LTK17, AEMWC+12]. Porting [Caa00, JJo91, Ke06, MB98, Shi03, vdK90]. Portland
[IEE93b, USE95]. position [Hin97]. position [USE01c]. Post
[AGJS16, HDG09]. Post-Copy [AGJS16, HDG09]. Postroom [Osb01]. Potential
[FRD+08, Got07, JK13]. Pour [Han73]. Power
[AA+16, DSM14, GPM21, HSK17, KBB11, KL14, L15, LGJ16, LLEE17, MAK18, MV16, MJW+06, PLZ20, RSNK17, RSN+18, SSN12, SDD+16, Sta07, VWT13, XDL15, ZWL+18, CBGM12, CMP+07, DLH+20, EB17, FLL+13, HH18, HH19, IMK+13, JKK+13, JNR12, KK21, NS07, RHZ+17, RCTY19, TGD+18, TUM18, THC+14, WRS13, XHL+13, YZLQ14, YLHJ14, YLCH17, YW20, A+04, B+05, G+05, MBBS13]. Power-Aware
[SDD+16, ZWL+18, KBB11, JNR12, RHZ+17]. power-capping [JKK+13]. Power-efficient
[AA+16, LLEE17, SSN12, KK21]. POWER5 [AAB+05c]. PowerPC
[But94]. ppXen [ASB18]. Practical
[Bor01]. Pre [LUL+05]. Pre-virtualization [LUL+05]. Precedence
product [IBM88, Int88, SV17]. production [SL00]. Products
[Ano03a, Ano03b, Ano05]. Professional [vH08, IIB09, Ham07, Khan09].
professionellen [Zim05]. Profile [WKJ20, AWR05, WKJ17]. Profiler
[Sh04, VL00]. Profiles [Int05b]. Profiling [LV99, Sm95a, YWW+15, DSZ11,
NK10, SSB+14a, STY+14, TKZ17, THC+14, YZLQ14]. Profiling-Based
[YWW+15]. Profit [BYBYT16, MLXG19, ZHW+17, LWLL16].
Profit-Maximizing [BYBYT16]. Profitability [WUK+18]. Program
[ACM01a, Com65, Cre65, FTNY69, Han05, HB08, MSG01, SZ88, ABDD+91,
BPB86, Olb78, She02, WGF11]. Programm [Mar08]. Programmability
[EMW16]. Programmable [DCG12, DMS02, FS11, Ken80, Kov19, MSS+15].
Programmer [PSBG11a, PSBG11b]. programmers [Hee07].
Programming [ACM90, Arm78, DK75, Eng99, Gai75, GMP89, GH91b,
LFBB94, Luc97, SYB12, Sub08, Sub11, Tho98, Tol98, ACM99, AS85b,
Alf91, BCG90, CM+18, Ham76, Jou85, Kaga99, ME87, MRRG18, RSW91,
SMD08, Tai98, AS85a]. Programming-in-the-small [DK75].
Programs [FS12, Kam83, MMMP15, We94, CK06b, CK06e, CRG16,
DKF94, EGD03, GMR93, IM75, Kee68, WKE99, WKE99].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Programmability [EMW16]. Programmable [DCG12, DMS02, FS11,
Ken80, Kov19, MSS+15].
Programmer [PSB11a, PSB11b]. programmers [Hee07].
Q [Che21]. Q-Learning [Che21]. QEMU
[WR07, WR08, CK06a, CK06b, CK06c, CK06d, CK06g, CK06f, CK06i, CK06h, CK06j, CK06k, CK06l, CK06m, CK06t, CK06r, CK06s, Bar06, MZG14, WR07, WR08, vdK09, CK06a, CK06b, CK06e, CK06c, CK06d, CK06g, CK06j, CK06k, CK06m, CK06xi, CK06u, CK06v, CK06w, CK06x, Deu08]. QM [Fli77]. QM-1 [Fli77]. QoE [KS18a]. QoS [FAA17b, BAC15, DXM17, FAA17a, HLFPY16, KN18, KP15, LCL14, LWL16, LYGG20, XZL20]. QoS-Aware [XZL20, KN18, LWL16]. QoS-Oriented [LYGG20]. qualitative [ALW15]. Quality

R [Fro13, KMMV14, Vit14, Wun13]. R2

Read-Performance [MJW14]. Real
[AE01, BE17, Ben21, CW03, Cla97, GPM21, HcC14, JAD19, KR18, LD05, Mac79, Mat09, NL19, PPG17, QT06, Ran20, Sta97, Swa06, ABB19a, AS76, AB70, BCC15, HK07, Ive03, KBB11, LTK17, NBS18, Nis12, PTD18, RK18, SBN18, WQG15, YCL19, ZEdP13]. Real-Time
Reconciling [KPHA20, ABG14]. Reconfigurable
[BHI15, IBB20, KGs16, SML18, STY+14, UVL+13, ZL18a, FX06, HH13].
Reconfiguration [MDGS98, QLL+21, ZWZ20, JES+15, LJR12].
Reconsidered [Sta07], reconstructed [AD18a], reconstruction [Sch13b].
Record [JKB15, IEE96a]. Record/Replay [JKB15], recorder [LBP+07].
recoverability [KY16], recovering [LR05]. Recovery
[KKLV16, AAF+09, BGS13, CHCC07, FL13b, Kou11, MSL+12, STFH15,
Tay76, ZWX16, BBMA91, Mar08, MSS91]. Recurrent [LCZ19].
Redirection [FL13a, LYS+18]. redistribution [KNHH18]. reduce
[FLL+13, GPS+18, LLZ+19, RJK16]. reduced [VED07]. Reducing
[ELC+19, HPHS04, Hu90, HS06, KY16, LBZ+11, MV16, PLMA18, SC18,
ZL19a, ZLW+19a, KJM+07]. Reduction
[JJK+11, Wat86, Wat87, ZHL16, HCJ07, LJYZ15, TDG+18]. Redundancy
[Tay76, GLV+10]. redundant [KJJ+16, ZWH+17]. Reference
[Ano03a, CRZ83, Hal79, HPP15, LCP+15, XWX+17, YTY00]. Referenz
[LC09a]. Reflection [FPS02, ORPS09]. Reflections [MLA83]. Reflective
[CGMD19]. region [HLW+13, LXR19, YC16, vKF13]. region-based
[YC16, vKF13]. Register [CK87]. registers [SCEG08]. Regular
[Cox07, Cox09, Cox10, Cox12, KP99, Tho08]. reification [RRB17].
Reincarnation [Ros04]. REINFORCE [KLR+20]. Reinforcement
[MSC+21, WZZ+20]. Reinvesting [Hof20]. Rejuvenation
[SAT09, AMA+14, MNT14, TUM18]. Relation [KLLT18]. Relational
[WK90]. Relationship [Mal73]. Release [IBM73, IBM94, IBM96]. Releases
[Ano03a, Ano03b]. relevant [NP13]. Reliability
[BCG73a, BCG73b, ESY+17, FZS+20, HXZ+16, XH16, MD74].
Reliability-aware [FZS+20]. Reliable [PEC+14, THB06, WYY+17, Car14,
SHR19a, SHR19b, Van06, WQG15, WXW15]. Reliably [TCP+17].
relocation [KJL15]. Remaining [XLWX19]. remapping [AS14, LJL12].
Remote [FLM+08, JKB15, JHS12, KBC21, KMN+16, Bor07, CPM+18,
GCARPC+01, RC+15, RS16, SIRP17, SWW+18]. Remoting [MGL+17].
removal [WGF11]. Remus [dSOK17]. RemusDB [MRC+13].
Renaissance [FDP05]. Rendezvous [SM92]. renewable [KTB17].
Renewal [WN17]. ReNIC [DCP+12]. Reno [ACM89]. rental [FBZS12].
Repair [SEK+19]. repeatability [Vit14]. Replacement
[GHD12, WBH18, LH13, uRQS20]. Replay
[BJH+16, JKB15, KM13a, KM13b, ROL+18, SCFP00, CLG+10, WXZ+17].
Replaying [WKG17]. Replica [GLBJ18]. Replication
[CWL+15, LJJ+11, DC+12, KJJ+16, LMV12, dSOK17]. replications
[CBJ22]. reply [DM76]. Report [Ano01a, Ano02, Ano04a, CBLFD12,
FDD+19, Int06a, Int06a, PBAM17, Pul91]. repository [AWR05, GKP+19].
representation [IT86]. representations [dCJR16]. reproducibility
[Vit14]. Reproducible [MB20, Boe15]. reproducing [PTM+15]. Request
Requests [MLXG19]. Requirement [YWR+14]. Requirements
[AP22, Gol71a, LCMV17, PG74, BG20, PG73]. ReRanz [WWL+17a].
Research [AP22, AAB+05a, Ano00, Ano01a, Ano01b, Ano02, Ano04a,
Ano04b, Boa90, Cre65, DMS02, IEE90a, IEE91, Kim84, Ten17, USE01c,
USE01d, USE02, ARA20b, ARA20a, AGH+15a, ADWM18, BJG19, Boe15,
CBLFD12, Gol74, Her10, SVN+10, Vit14, ZJRW19, HSM17]. ReSeer
[WXZ+17]. Reservation [HC18, ZWC+19]. reservations [THG+18].
reserved [DEG+17]. reset [RY10]. Reshaping [BHI15]. Resident
[WK90, LF19]. Resilience [NTR18, OMB+15]. Resiliency [KLR+20].
Resilient [VS19, BGS13, OMB+15, TDG+18]. resistive [JAC+19].
resolution [GE85]. resolving [ZWC+14]. Resource
[AJ18, AAMBE21, BKT+19, BBMA91, BL17, ECET18, EVCL21, FDF05,
GWZ16, GLS15, GA18, HC17, JSHM15, LZWC13, LTC+15, LCFL12, MSS91,
MBA+12, PFPJ18, RG17, SJBJ14, SC17, SC18, SZW+16, SXCL14, Sur01,
WIS+15, XSC13, YSS+17, ZQCZ16, ZLG+20, ATS16, AS14, BSOK+20,
Car06, CMP+13, DPWG+10, Fu10, HZZ+14, HH19, JWH+15, JC18, KF18,
LC09b, LYY+18, LLZ+19, MLS4, MB21, MS01, Mly09, NB18, PKS+19,
RGAT18, SBU18, SVG13, SVG12, TV18, VVB13, Wall2, WDC108,
WGY20, WB16, WSYV9, YGLY19, ZWC+19, ZB18]. Resource-aware
[GA18, PFPJ18, SGV12]. resource-constrained [TV18].
Resource-Latency [BL17]. Resources [CRZH15, ELC+19, HLPY16,
KGS16, PCC+16, SDS+21, ZB20, HMI17, HKJ19, KHL17, LTZ+14,
OKAM17, PSZ+07, TIK17, WRSvdM11, WRS+15, ZBP07]. Resourcing
[MSS+15]. Resourcing-on-Demand [MSS+15]. Responding [BSM+12].
Response [BE17, WZKP19]. Responsibility [GKKX13]. Resourc
[Mar08]. restart [BBHL08]. Restoration [AAC+17, BS96, XXW+17].
Restoring [EGJS15]. Results [HW93, Man15b]. Resurrecting [AKCP21].
Retargetable [GHF82, Fra83, GHF83a, GHF83b, WNL+83]. Rethink
[WRX11, JXWW15]. Rethinking [OTT18, PBWH+12, RSGH17, WSG05].
refactoring [CGL+08a, CGL+08b, CGL+08c]. Retrospect [GLC84].
Return [SYB12, Ven97c]. Return-Oriented [SYB12]. returned [BBS06].
Returning [PSBG11a, PSBG11b]. reuse [LUO4]. Reverse [SDS+21].
Review [AP22, Ano97a, BDF19, BDG18, DCM22, Fro13, GQ1a, GQ1b,
ARA18, ARA20a, AGH+15a, BJG19, BJ20, MB21, MA17, Van98, ZJR19,
Ma10, ARA20b]. Reviewer [Ano03b]. Reviewers [Ano06b]. Reviews
[Ano03b]. Revised [Ram93]. Revisited [SCD90]. Revisiting
[AJH12, CL16b, HSM17, IBB20, Ran20, WWL13]. revolution [Mck11].
Reward [BL17, NMC18b, NMC18a]. Rewriting [WMU19, XXW+17].
RHEL [P+08]. rich [RSLAGCLB16]. Ridge [SVN+10]. Right
[NBK16, HUL06]. rigor [Vit14]. Rigorous [KIJ13, MAN15b]. RISC
[ABDD+91, BSUH87]. Risk [HZL+18]. Risk-aware [HZL+18]. risks [Bel06].
roadside [YZB+15]. Rob [Bas04, Bas06]. Robinhood [PWJ16]. Robot
 [Arm78]. Robust [CCML12, PFNC20, SVG12, YZSC17]. robustness [SS19].
Rochester [Mar81]. Rockefeller [IEE90b]. role [GLA+08]. Rollback
[CHPY17]. Rome [BW03]. Rose [Ano03b]. Rosenblum [War11].
Roundtable [Cre10b, Sta97, Cre08a, Cre08b, Cre09, Cre10a]. route
[YPLZ17]. routed [AM16]. Router [GWZ16]. routers [GP13]. Routing
[EMAL17, ELC+19, FDO8, GR20, HLP+16, NGRF19, YWY+17, FLL+13,
FS19, FSH+13, LWL16, SJRS+13, XWW+21, YLTF20]. RPC
[CSS+13, KLY20]. RPC-based [KLY20]. RPython [MRG17]. RTLSim
[YYPA01]. RTOS [JK17]. rule [HTAY21, Pul91]. Rules
[Kov19, CFRSSR19]. rules-based [CFRSSR19]. Run
[Bad87, ACT94, AWR05, CGM17, Com00]. Run-Time
[Bad87, ACT94, CGM17]. Running
[Bad87, MDD+08, NL19, GMR93, KGS16, SLC20, SZ88]. runs [FIF+15].
Runtime [GSS+18, Kam83, KP15, MB98, NGRF19, Shi03, XLWX19,
KNHH18, ORPS09, RVJ+01, STY+14]. Runtimes
[HD16, Han05, CSV15, GK17, PBAM17, WW+17]. Rust [Kol19].
S [M+06, Ber86]. S-GRACE [M+06]. S.u.S.E [KGG00]. S/370 [Ber86].
S2H [YZJ+21]. SableSpMT [PV06]. Safe
[BHI15, RSF+15, SKI+17, VVC+17, CFS+12, CLDA07, MSZ09, TV18].
Safety [BSI+15, MTFK19, HM01, MSG01]. Sagamore [ACM03b].
Sampling [Lee16]. San
[ACM09, ACM06a, Ano04b, Ano10, IEE93a, USE99, USE01b, USE02].
Sandboxing [GG11]. Sandpiper [WSVY09]. SANs [ZXX+07]. Santa
[ACM00]. Sapphire [URJ18]. Satellite [QLL+21, CFVP12, SSN94].
Satellite-Terrestrial [QLL+21]. Satisfaction [LV16].
Satisfaction-Oriented [LV16]. SAVE [GKJ+19]. saving
[YLC17, YW20]. SC’11 [LC11]. SC2003 [ACM03a]. SCADA
[ADWM18]. Scala [AT16, SMSB11, Sub08]. Scalability
[KMK16, QNC07, TCP+17, VP16, BFS+18]. Scalable
[CL17b, DSM+18, FBL18, HJ10, JAD19, Kol19, Li14, RSN+18, SD01,
SADP21, UVL+13, XML+18, ZL18a, ZSP+21, DS18, HLW+10, HTAY21,
LKR+19, SJJ+12, SPF+07, SG10b, U107]. Scale
[CZX+19, HC17, PHL+12, RIP18, RJS+18, SLM9, XDL15, ZLW+14,
ZTA+21, FPGK18, LPD+11, MSG+12, Z13, WTT89, WCG21, YZC17].
scaled [KNHH18]. Scaling [CBJ22, HC17, JWL+18, JDJ+06, LIW0,
PBL+16, TCP+17, AB16, SBN18, SSEA18, TSCB19, XLQL18, AMAB17].
Scaling-Aware [HC17, AMAB17]. SCAN [Ble89]. Scenarios
[MF19, SADP21, KCV11, Sch13a]. Scenes [Cra98]. Schedulability
[SL19]. Scheduler [AGC18, ASB18, KCS14, RAP19, SWH+13]. schedules
[LCL]. Scheduling
[ARAA19, AD18b, BE17, EB20, EGR15, FLM+22, HSN17b, JJK+11,
KDB16, LMM18, LGJ+18, LD05, LWW16, LC13, PG17, PG18, RB17,
TTH+19, VS19, WDL+20, WWT89, WCG21, ZWFX17, ZQC16, ZL18,
ABB19a, ATZP21, BC10, CCL+20, CCW+20, DEE+16, DQLW15, DXM+17,
DCMW17, HKS19, JGW+11, KS18b, KJ+13, KNHH18, KCV11, NAR19,
PC21, RZ14, RHZ°17, SS13, SHLJ13, SSN12, Sto07, TMLL14, THG°18, VVB13, WQG15, WCC°16a, XJC°14, XLWZ18, XZK°20, YPLZ17, YXL°20, YWGH13, YQZ14, Yu20, ZSR°05, ZB18. \textit{Schema} [SI81]. \textit{Scheme} [AJ18, AMA18, KAZS14, RSN°18, SHZ°14, YWR°14, KK21, KJLY15, LHYIZ15, XJC°14, YPLZ17, YQZ14, YQZ19, FM90, FDD°19, KR94].

\textbf{Schemes} [Do11, MNA16, YWGH13]. \textbf{Schloss} [IEE01]. \textbf{School} [BGP00]. \textbf{Science} [ACM06d, BR01, DG05, SGV12]. \textbf{Sciences} [Shr89, MS91b].


\textit{SDWN} [AFG°17]. \textit{SE} [LYBB14]. \textit{Seamless} [Hir92, TDG°06, XWJX15, BADM06, DS20]. \textit{Search} [Cox12, MNS°14, VG20, CWdO°06, KMT14, Tho68, WXZ°17]. \textit{search-based} [WXZ°17]. \textit{Seattle} [ACM05c, ACM06b, LCK11, Ost94]. \textit{Sebastopol} [Ano97a]. \textit{SECD} [Abr82, AS85a, AS85b]. \textit{Second} [ACM06f, IEE93a, Shr89].

\textit{SecondSite} [RCOW12]. \textit{Secure} [AD19, AVNR19, AMH°16, CCLMI2, CLDA07, JSHM15, JAS°15, LJR12, LP11, PEC°14, QZDJ16, RC18, RJ00, RSGG15, THB06, TtLC13, WF07, YML°18, vD00, BDS°09, GNDB16, HKD°13, ISE08, LLX°17, SL12, TLBW12, ZPB05]. \textit{Secured} [TMV12, WCC16c]. \textit{Securing} [Sar01, Hal08, Hal09, PDM20]. \textit{Security} [AKK°07, Ano93, AEB19, Att79, Att73, BDG18, De06, ESY°17, FJKK17, GW07, HHSG18, HB17, IEE84a, IEE90a, IEE91, IEE05, JE12, KZB°90, KS08a, KS08b, LWLL10, NMM°15, PM19b, PVdS08, Pfo13, Rob12, SJV°05, SM90, SABL20, SEF°06, Sto05, TMV12, TV12, USE00b, VNO8, WHD°09, WTM18, ZL16, ZL18b, ZYH°19, Ano07, BTMS10, Bau05, Bau06b, Bau06a, Bel06, BCP°08, Bof07, BBS06, CBHF20, FA21, Hal09, HMS04, IIK°06, LLW°12, MD73, MD74, Mat09, MA17, PG11, PZH13, PBB13, Sch13b, SDN09, VT14, WHSE15, YSM°21, DTW07]. \textit{security-aware} [FA21].

\textit{Security-focused} [BDG18]. \textit{security-oriented} [IJK°06]. see [Yur02]. \textbf{SEED} [DTW07]. \textbf{Segment} [ELC°19]. \textit{seitens} [KGG00]. \textbf{Selecting} [GSkj18, NBK16]. \textit{selection} [HM20, JK13, LZWC13, LLWW18, MCJ19, NPK°21, ZB18]. \textbf{Selective} [WZW°11]. \textbf{Self} [BHI15, BRX13, HHW10, JC18, dOL12, SEPV19, XCSM18, BKT°19, CBLFD12, GK05, GKJ°19, KKB14, NPK°21, OK09].

Semi-automatic [MSZ09]. Semi-Autonomic [SEK+19]. Sensing [SML18]. sensitive [DK17, KSLA08, LCL14, ZBP07]. sensitivity [HB13, TZK17]. Sensor [BSI+15, LC02, MAK07]. sensors [ALL06]. Separation [KF91, WLMD16, LWM14]. September [ACM81, ACM04a, ACM05a, ACM06c, ACM06b, Ano93, BW03, GHH+93, Jou85, JPTE94]. Sequence [ARAAA19, EDS+15]. sequential [Clo85]. Serialization [BP01, BP03]. Series [Kec77, KAHS83]. Server [ARA18, Ano03a, Apr09, BE17, Bod10, Car06, CGS06, Do11, HSK17, Joo09, KSS09, KS10, KLLT18, LZ15, Lar09, LC09b, LC09a, LXZ+21, Mar08, MAK18, MG08, MG09, PZW+07, RX+12, R+02, SWC08, WN17, ZHW+17, Zim05, Zim06, ARA20b, ARA20a, A+04, AGH+15b, BKR20, B+07, DBC+00, EB17, Hal08, IMK+13, KF18, LC14, LLWW18, LLS+08, LL14, LDDT12, MNT14, MRM06, NTC+17, NMC18b, NMC18a, R+13, RPE12, Wal02, WDT18, YZW+13, AAH+03, Ano03a, B+07, D+04, Ham07, Lar09, MWHH05, OH05, R+06, Rul07, R+02]. serverless [NRdA+20]. Servers [DSM14, JJK+11, KAZS14, SDD+16, SKJ+17, WLW+17, A+04, BBHL08, G+05, Hal08, JDJ+06, Mly09, SZ13]. Service [AP22, AAMBE21, BB13, BCW20, BFG+14, DKW15, DPCA11, EMAL17, ESY+17, GR20, GGK18, HS21, HW12, HJJ18, HPHV17, JWL+18, KBB+21, LP14, LGZ+19, LLW+16, LW20, MP16, MSC+21, PHXL19, QLL+21, RSNK17, RSGG15, WVT+17, WCC20, WDH+16, ZXL+20, ZLG+20, ZLZ+21, BSM+12, BSOK+20, CMG+19, CHCC07, CFRSSR19, DS18, DYM+17, EdPG+10, ECAE13, EMII13, Fro13, GHC+18, HKJ19, KKB14, KS20b, LZW13, MCJ19, MDZ+21, NZ20, PAKY16, RFNC20, RCOW12, SHB19, SZ13, TDD20, TSCB19, VOS12, WB16, YCL+19, YXL+20]. service-aware [TDD20]. Service-Based [LP14]. Service-centric [AAMBE21]. service-chaining [GHM+18]. Service-Oriented [HW12, MP16, RSGG15, Fro13]. Serviceability [RB01]. Services [BFHW75, IEE06b, KLR+20, MSS+15, MLXG19, WC01, Wid01, ZLW18, BDS+09, HPB06, KBB11, KSLA08, LKR+19, LTZ+14, ZEDP13]. Set [AC98, EL98, NKY+18, ZDLG17]. sets [HW15]. setter [YJZ+21]. setups [RPE12]. several [FGG14]. SGAM [ZLZ+15]. SGX [VMW+19, KBC21, NBB+19]. Shadow [WLW+15, GHS16]. ShadowReboot [YK13]. share [DSS19, KNHH18]. Shared [Bro89, CH08, Cro93, KR18, Low08, RLZ+16, RKK17, SLM89, SV13, SNC91, SNS03, ZLS17, CFS+12, JGSE13, PW03, TKZ17, WWS89, WDC08, ZWKK17]. Shared-Memory [Cro93, RLZ+16, SLM89, WWS89]. shared-source [PW03]. Sharing [AGC18, ACA16, BFHW75, Cre65, CDN02, LYG20, Mad09, MS70, PTM+15, RG17, SAB+07, XML+18, GGK19, LLZ+19, LLS14, LTZ+14, OKAM17, TriLeC13, WTLS+09]. Sharing-Aware [RG17]. shell [FL13b]. Shift [ARAAA19]. shock [BG20]. Shoot4U [OLZ16]. Short [HW15, KKC+16]. Short-circuit [KKC+16]. shortest [AM16]. shot [JK15]. Should [NBB+19]. Shoulders [FS12]. Showcase [USE00a]. showdown
[SCEG08]. Shredder [AMH+16]. Shredding [AMH+16]. Shrink [LWB13].
Shrink-Fit [LWB13]. Shrinking [Stei14]. shuffling [ZWC+14]. Shuttle
[cCWS14]. Sibling [OG16]. side [LF19]. side-channel [LF19]. SIGACT
[ACM09]. SIGCOMM [RM03]. SIGCSE [ACM06d]. SIGMETRICS
[ACM81]. Signal [MBK+92]. SIGOPS [ACM04a]. SIGPLAN
[ACM01a, ACM99]. SIGPLAN-SIGACT [ACM09]. SIGSOFT [ACM01a].
Silent [AMH+16]. Silicon [ZL18a]. Silicon-Monona [ZL18a]. SILLIAC
[Gre10]. Sim [Sk01]. SIMD [PSBG11a, PSBG11b, PBR+90, Sig89]. Simics
[Ano14a, MCE+02]. similarities [CL14, CL17b]. similarity
[GV13, LLF+18, LLWW18]. Simple [Bak83, Cox07, NOR15, WDT18].
Simplicity [BGP00, DSSP06]. simplification [FS08]. Simplified
[Beg12, ZZW+21, PSC+07]. simplifying [Gl05]. simulated
[GE85, RH17, WDSW01]. Simulating
[Ben21, HO92, Pou90, RPE12, TO91, ZR06, FPGK18, Sk01, WC91].
Simulation
[ADG+92, AB16, DBMI92, JN15, KD78, Kut92, MCE+02, MBK+92, MJ93,
PBR+90, PY93, SMX+18, Tur92, WB81, WWMG06, YP15, Ano94,
BHvR05, Bur02, BS96, Clo85, DSSP06, IMBB20, IM93, JK79, LJM+00,
NRR92, RMB02, SK13b, SHB19,UBL+82, WWS89, YYC+19, ZSRR22].
Simulations
[ACM99, BGD+92, AB16, DBMI92, JN15, KD78, Kut92, MCE+02, MBK+92,
MJ93, PBR+90, PY93, SMX+18, Tur92, WB81, WWMG06, YP15, Ano94,
BHvR05, Bur02, BS96, Clo85, DSSP06, IMBB20, IM93, JK79, LJM+00,
NRR92, RMB02, SK13b, SHB19, UBL+82, WWS89, YYC+19, ZSRR22].
Simulator
[Ben21, CK96, CRZ83, Dun86, FTNY69, PCR89, Ber86, BR01, CMP+07,
DC15, GBO87, Hog02, KW80, MRL02, YYP01, Ano14a]. Simulators
[NMHS15, Sup04, Man18, Yur02]. Simultaneous
[ACM09, BGD+92, AB16, DBMI92, JN15, KD78, Kut92, MCE+02, MBK+92,
MJ93, PBR+90, PY93, SMX+18, Tur92, WB81, WWMG06, YP15, Ano94,
BHvR05, Bur02, BS96, Clo85, DSSP06, IMBB20, IM93, JK79, LJM+00,
NRR92, RMB02, SK13b, SHB19, UBL+82, WWS89, YYC+19, ZSRR22].
Size
[Lam75, NKY+18, HPHS04, UTO13]. Sizing
[JJ02, SSB03, DK75, HPHS04, SS72, WH08, WWT89]. Sizing
[AB16, EdPG+10, GTGB14, KB21, KKB14, RT18, SS22, ZHL16].
SMP
[ACM81, CL16a, KKJ+13, RZ14]. SnapFiner
[CHLY18]. SNAPS
[RG19]. Snapchat
[CHLY18, RG19]. Snapshots
[HC18]. St [IEE06a]. St. [ACM97]. Stack [AE01, Cia07, HB12, Ran02, SSOT17, WH99, WBHN18, KRCH14, LH13, WW77, SCEG08]. Stack-Based [Ran02, KRCH14]. Stackdb [JHE14]. stage [CLG+10]. Standard [MR04, RSF03, WKG17, Ano94, Rus08]. Standards [Mar81, SG10a]. standards-based [SG10a]. Stanford [IEE96a, IEE97, IEE99]. start [KMT14]. Startup [HIS06]. Starvation [KLY20]. State [BDG18, LHW+20, LJJ+11, SGB+16, SYC14, Sur01, TV12, AEB19, MPA+18, Sch13b, Sig89, Ven99b, Web10]. State-Based [TV12].


RI00, SSG90, Tur92, XD16, ZL18a, dGG+17, AC95, BADM06, BTLNBF+15, BP03, CHCC07, CFS+12, DJ76, GK05, NBS18, Olb78, ORPS09, PGLG12, RK18, SJRS+13, STFH15, SL12, TY14, THL03, WK08, WCS06, WLL+13.

Supporting [BMS16, CWS12, Kim84, Kov19, MSS+15, Mon97, RT93, SJRS13, STFH15, SL12, TY14, THL03, WK08, WCS06, WLL+13].

Supports [Ano03a].

surveys [PBL+16].

Survey [ASL+20, AAAF21, BAL15, FLZ+20, Gol74, HSN17b, KKLV16, KL14, KK19, Mal72, Man15a, PM19b, PS16, PS19a, QTR21, SB16, SGB+16, UOKT84, WMU19, AGH+15b, CB10, DS19, FMIF18, HKM19, MG13, NIA18, Olb78, ORPS09, PGLG12, RK18, SJRS+13, STFH15, ZF06, GD08, THL03, WK08, WCS06, WLL+13].

Surveyor [Fra83, GHF83a, GHF83b, WNL+83].

Survivability [YZW+13]. Survivable [ACA16, AM16].

Surveyor [Fra83, GHF83a, GHF83b, WNL+83].

survivability [YZW+13].

Survivable [ACA16, AM16].

SUSE [Bau06b].

Sustainability [FBL18, SS17].

Sustainable [GB19].

SVGrid [ZBP05].

SVLM [DS20].

SVM [JAS+15].

SVS [LJZ12].

SW [DCG12, Wu13].

swap [KB21].

Swapper [ZLSI17, ATS14].

Swapping [CC77, ABG14].

swarm [JNR12, KSS+20].

Swarm [WBB+16].

Swift [NOT+17].

Swiper [CRZH15].

switch [BR01, Ste14].

switches [YGLY21].

Switching [DMG+15, LBL16].

Sy [USE01c].

Sydney [MR91, Gre10].

symbiotic [LD11].

symbolic [MMP+12, TB14].

SymCall [LD11].

Symmetric [DBO+18, GMP89].

Symmetry [PBL+16].

Symposium [ACM75, ACM03b, ACM05a, ACM06d, Ano00, Ano01a, Ano01b, Ano04a, Ano04b, Ano10, HHK94, IE84a, IE85, IE90a, IE91, IE96a, IE96b, IE06a, IE06b, Qtr94, TLC06, USE91, USE93, USE00b, USE01d, USE02, Vra05, USE01c, USE90a, Ano02].

Synchronization [BC19, LJL+11, ZJXL11, Sub11, Uhl07, Ven97, YQZ19].

Synchronized [KS18b].

Synchronous [SIR+17].

synergy [BRX+18].

ty [KMMV14].

Synthesis [DMS02, BPB86].

Syracuse [IEE96b].

System [ACM75, Abr80, ABCC66, Ano10, AAK18, Bad82, BFHW75, BBD+91, BP+17, BH73, BYBYT16, Ben21, BPS73, BG89, B+05, Car13, CSS+13, CZX+19, Cre65, CWL+15, CHPY17, CHLY18, DMR10, DM75, Fis01, GGM+16, G+06, GH91b, HXZ+16, HW93, HHC+16, HWCH16, IBM76a, IN87, JAD19, Kung83, Kee77, KP15, Kut92, LP14, Li14, LCZ+19, LCFL12, LXM+16, MCE+02, Mar73, Mat10, MN05, MS70, MDG98, MB98, MS91b, MM94, NHSW10, NMS+14, P+08, PHXL19, QTR21, R+06, RV17, Sch86, SLM9, SVN+10, Shi03, Shr89, SJA+17, SWF16, Ste05, WLW+15, WK90, ZCJ+21, ZSXZ07, ZQCZ16, ZLL+20, ZZF06, ZXY+15, AD18a, AEMMC+12, AL05, AH12, ACT94, AP18, Bar78, BSD19, Bor07, Bur02, Cao00, CW+14, CK66a, CK06e, CKP78, CBFH20, DHD20, DCA17, FFBG08, Fis91, Fl177, GQG+13, HNO8, HKD+13, HC12].

system [Hui18, IBM88, Int88, KB21, KCKC15, KK79, LJN+00, Lia05, LLX+17, LMDP19, LDI+08, MD73, MD74, MDF572, NMC18b, NMC18a, PRB07, PK75b, RG19, ROb06, SNV10, SPF+07, SJJ20, SWW+18, SZ13, SS72, STY+14, TC10, Vag10, Vam06, VBM12, VSC+10, WKT08, WH08, WWT89, WHSE15, WF07, WC91, YLCH17, YZSC17, ADG+92, ABDD+91, Car14, Gum83, HTAY21, IBM76a, SNC91].

System-level [SVN+10, AL05, BSD19, WHSE15].

System/370
[IBM76a, Gum83, IBM76a]. System/6000 [ABDD+91]. System/9000 [ADG+92]. Systemarchitektur [See08a]. Systematic [BDF19, DCM22, ARA18, ARA20a, BJJ19, BJ20, ZJR19]. Systeme [WF03]. Systèmes [Han73]. Systems [ACM81, ACM03b, Ano99b, BBMA91, BHI15, BG74, CD12, CC77, CAF+91, Das91, DJ77, Fie68, Gol69, Gol71a, Gol73c, Han73, HHS18, Her10, HBL+10, IEE93a, IEE01, JAD19, Lar09, LW11, LZJ12, Mad69, MM93, MJW+14, MKKE12, NBB+19, NL19, PPG+17, RT93, SL14, SS75, Say66, SSVB93, SL16, SN05b, THB06, USE99, USE01b, Vra05, WN17, WLMD16, Win71, YVCB17, YVCB18, ZD18, ZTA+21, AJH12, ALW15, AT16, Ano93, AAB+05c, BKT+19, BSSM08, CGZ+06, CGL+08a, CGL+08b, CGZ+08c, CK06a, CGV10, CLDA07, Dav04, Don87, DCMW17, EBJ17, FP14, FLCB10, GHH+93, GK05, Ham76, HH13, JHS12, Kee68, KCS14, KS20b, LLLE17, LWM14, LZWD15, LCL14, LTK17, MRC+13, MA17, NS07, NV05, PSC+07, RVJ+01, RKT20, RHZ+17, RJK16, Ros06, RGS+20]. systems [SJB14, SK13b, SSMGD10, SJJ+12, Sto07, TT93, THC+14, Vac06, Vit14, WR07, WKC+09, XZK+20]. Systemverwaltung [Lar09].


Targeting [CD97]. Targets [Sta07]. Task [ARAAA19, KMM13, LW16, PCC+16, RRB19, ATZP21, ZB18]. Tasking [MB98, Shit03, JDJ+06]. Tasks [KGS16, VS19, YSS+17, ABB19a, FGG14, KLY20, YQZ14]. Taxonomy [FLZ+20, GB19, SGB+16, SB18, AGH+15a, HKB19]. TCAM [HWHW18]. TCAM-Based [HWHW18]. TCB [HCJ07, HPHS04]. TCP [CL16b, GKKX13, GI12]. TD [WBW+19]. teach [Don88]. Teaching [Agr99, Dav04, Don87, GGG03, ME87, Guz01, Ham76, KW80, MS01, NV05, WKC+09, YYPA01]. teasing [LBF12]. Technical [ACM06d, Ano06b, Han16, OH05, USE01a, USE06, BB08, Int06c, Int06a, LC09a, Wal10, ZMD+21].

Techniken [Tho08]. Technique [JHS12, JMSLM92, LTT92, SMK02, WMUW19, ACT94, FAA17a, FAA17b, KLY20, SLA+16, XHL+13, YKS16]. Techniques [ACM06b, ASL+20, BDG18, BCG73b, BG74, KK19, LKL+15, NKL+18, OVI+12, QTR21, SMA18, SLB15, Tho68, UOKT84, VV18, ZZF06, ADJ8a, ARA18, AA06, AH12, BADM06, HSC15, IM93, KS13, KRC+12, SSN12, SHT011, TSCB19]. technische [LC09a]. technologie [Apr09]. Technologies [DF96, LCMV17, PZW+07, RC18, SABL20, USE99, USE01b, AMIA19, Cha05, Kao17, MPA+18]. Technology [Ano00, Ano01a, Ano01b, Ano02, Ano04a, Ano04b, Cap21, DLM+06, Don06, ELC+19, Got07, Her06, RG05, USE01c, USE01d, USE02, UNR+05, WHD+09, ZAI+16, Apr09, BKR20, Int05a, Int05b, Int06b, Int06c, Int06a,

u.v.a [Tho88]. UCSD [SP83]. UKCF [JXL+12]. umfassende [Bod10, Fis09]. Umgebung [CK06]. Umgebung [CK06a, CK06c, CK06d, CK06g, CK06i, CK06h, CK06j, CK06k, CK06m, CK06l, CK06o, CK06q, CK06r, CK06s]. UML [Fre05, RFBL001]. UMLExe [Fre05]. uncertainty [LPBB+18]. underlying [FBZS12]. understand [DMH18]. Understanding
underutilized [HM20].

Undocumented [Sch94b, Sch94a]. Unexpected [Par71]. Unfairness [SJA+17]. Unhooking [AKCP21]. Unified [MBA+12]. Uniform [Eng06, Bod88]. Unifying [MD12]. unique [AM16]. Unit [DCG12, PXG+17]. United [Vra05]. uniting [LUL+05]. Units [VLZL16, Vol90]. UNIVAC [Kam75]. Universe [Nel04]. Universities [Sta07]. University [ACM75, ACM81, Gre10, IEE96a, IEE97, IEE99]. UNIX [JJ91, KAH83, NSHW10, Gen86, HO92, Kal97]. Unknown [CLW+14]. unleashed [Ano97d, HH08, MG08, MG09]. Unmodified [HLP+16, MKKE12]. unpicking [LBF12]. unreliable [MPM+20]. unsound [AT16]. Untrusted [CD12, HKD+13, HPHS04, WLL+13, ZBP05]. upcalls [LD11]. Update [LC14, SCL+19, VVC+17, J+05]. Updates [LCZ+19, LDRS18]. updating [CCZ+06]. upfront [ZLW+19a]. upgrade [CHCC07]. Upgrades [Ano03a]. uptrees [HB13]. UPWN [M+06]. Urgent [AGJS16]. USA [ACM81, ACM01a, ACM03b, ACM05a, ACM06c, ACM06b, ACM06d, Boa90, IEE93a, Shr89, USE01c, ACM75, ACM05d, ACM06a, Ano01b, Ano04b, IEE84b, Ost94, USE85, USE86, USE91, USE93, USE99, USE00a, USE01a, USE01b, USE06]. Usage [KLLT18, RSW+06, WH99, KTB17, RGAT18, SK13c, YW20]. USB [Ano03a]. Use [AAAF21, Bec09, CLLS12, Guy14, GGK19, KK79, Sch13a, SJJ+12]. use-case [GGK19]. used [tTR82]. useful [LC09a]. usefulness [SM79]. USENIX [ACM05d, Sof83, USE91, USE93, USE06]. User [Chu06, ZQCZ16, Ano93, ACT94, Bor07, Guz01, PG11, RSC+15, Sto07, Tho73, ZLZ13, ZLZ+19a, CKT08, Dav04]. user-controlled [Sto07]. User-Level [Chu06, ZQCZ16, ZLZ13]. user-space [PG11]. User-terminal [CKT08]. Users [Boa90, IBM76a, SS17]. userspace [DD20, Ste14]. Using [AAF+09, ARAAA19, ASL+20, ABV12, ALL06, Bas04, Bas06, Ben21, BRX13, CQLL18, Cne21, COO+05, DBMI92, Don88, ESY+17, Guz01, HLW+10, HWHW18, JMSLM92, JIN+00, LTT92, LD05, Mar73, MV16, CZLO16, PEC+14, RSW+06, Sar01, Sec10, SM06, SC17, SYB12, SAT09, SBK15, SXCL14, TDG+18, WDSW01, WKG17, WUNK17, Wil01, Woi99, XSC13, XCMS18, ZLZ+20, ZBP07, ZLW+19b, dGG+17, AD18a, Agr99, ATS16, AWR05, AP18, AGIS94, BSM+12, BHVR05, BSOK+20, CL14, CPN+18, CCZ+06, Dan12, DHD20, EB20, FFBG08, FA21, FL13b, GHM+18, HKJ19, HJJ0, HTAY21, HNJ0, HPSO04, Hol95, JNR12, JWH+15, JGSE13, Jno07, KSS+20, KKM+13, KSS18, KJF+16, KGS16, KL13, Knu11, KRG+12, LDL14, LLIW18, LQW+12, MHM19, NMC18b, NMC18a, NV05, PBL+16, Pon19, RHP07, SEM+20, SVG13, SSN12, SS22]. using [SLIPP11, SIK+16, SSH17, STFH15, SSN94, TSLBYF08, TSR19, TF16, VT14, WGW+18, WZZ+20, YK13, YLWH14, YWF09, YWCF15, ZLZ13, ZDLG17, ZB18]. usual [dCJR16]. UT [Ren78]. Utah [ACM01a, CK87]. Utility [LGZ+19, CSV15, JWH+15, PSZ+07]. Utility-Based [LGZ+19]. Utilization [HLBZ20, KCKC15, NL19, uRQS20]. Utilization-Based [NL19].
Utilization-prediction-aware [HLBZ20]. Utilizing [GVI13, KOY05].

V [Gal09b, Lar09, LC09a, Apr09, Car06, KVV09, KSS09, KS10, Lar09, LC09b, LC09a, MG08, MG09, SRS09, AJ18]. v-Mapper [AJ18]. V2E [YJZY12]. Validation [BSL+18, SSB14b, SSB01]. Value [TF16]. VAP [PM19a, XJW+18]. vApp [SG10a]. variability [ASB18]. Variable [ADM98, Lam75, Oi05, Oi08]. variation [CCL+20]. variation-aware [CCL+20]. VAX [KZB+90, LJZ12]. VAX/SVS [LJZ12]. vCache [KKH14]. vCloud [KMK10]. VCP [Khn09]. VCPU [WCC+16a]. vCPUs [OLZ16, WCG21]. vCUDA [SCSL12]. VDE [GD08]. Vector [Abr80, LRZ16, WWS89, Ble89, SZ88]. vectorized [SZ88]. vectorizing [LRP+19]. VEE [ACM05d, ACM06f]. VEs [LCT+15]. Vegas [ACM81]. VEhicle [RNA+22]. Vehicles [SDM21]. vehicular [MCC18, YBZ+15]. Velox [TV18]. Vergleich [Zim05]. verifiable [CMP+13, PK75b]. Verification [ABDD+91, JE12, JES+15, LZM+20, SSB14b, ZL18b, ZLZ+21, BSD19, DL19a, FC98, LLS+12, PBL+16, SSH17, SSB01, ZSRR22]. Versatile [EBJ17, SN05b]. Version [Bru07, Sim92, WR07, WR08, Ano94, Ano14a, IBM96, MIS+05]. versioning [STFH15, WF07]. Versus [Ban20, DK75, HPHS04, SCEG98, VED06]. vertical [BFS+18, STY+14]. Verwaltung [Zim05]. Very [RGSJ17, SSB03]. vFe [Ano05]. vGPU [LZM+20]. vGreen [DMR10]. VHDL [FS89]. VI [Inf06b]. via [FL13a, GI12, GLLJ16, HSK17, HB13, KJM+07, KNHH18, LF19, LJL+11, NGRF19, QZDJ16, SP83, SDD+16, TDG+18, XWJX15, YTS14, ZSW+06, vSMK+20]. viable [HW15]. viele [WR07, WR08]. vieles [Joo06b]. View [GB19, KKH14, AD18b, Guy14, LDDT12]. Viewpoint [LPSS19]. Views [PW03]. Vigilant [PBYH+08]. VIII [IEE01, IEE96a]. VINEA [EMW16]. ViNEYard [CRB12]. Violation [ZHL16]. violations [BSM+12]. VirtCL [YWTC15]. virtio [Rus08]. Virtual [ACM05d, ACM06f, AGJS16, AS85a, ABC66, AEM+14, ADM98, AGH+15a, AZEE17, AZEE18, AAF21, AAB+05a, ACL72, ABV12, Ano75, Ano97b, Ano97a, Ano97c, Ano97d, Ano00b, Ano01a, Ano02, Ano04a, Ano04b, Ano05, flaNW14, AE01, Apr09, Arc07, AD11, AAK18, ASSB18, Att79, Att73, AH68, ACA16, AC98, AMA+11, BWP85, BFH75, Bai70, Bak83, Bal91, BMS16, BYZZ20, BP09, BDF+03, BBTK+17, BDJdS02, BSSS14, BWH+19, BDF+99, Bec05, BCC+15, BHT3, Bel06, BB13, BN75, BJ20, BHD09, BPJST3, BBHL08, BL17, BFG+14, BWD+15, BBM+15, Blu02, BBM09, BD01, BP01, BP03, BZD17, Bro89, BRX13, VMW+19, BSS06, BJH+16, B+07, BG73a, BG73b, BCG73a, BCG73b, BG74, Caa00, CTS+93, CW03, CCWY05, CL17a, CFH+79, CFH+80, CWL12, CFM17, CCML12, Car13, CK87, CFVP12, CWS12]. Virtual [CHCC07, CGMD19, CF00, CT03, CSH+13, CGC16, CL16a, CL16b, Che21, CRZH15, COO+05, CC77, Cla97, Coh97, CDG97, Cox09, Cran05, Cra06, Cra98, CH78, CWW00, CWL+15, CHPY17, CYX+17, CHLY18, CDN02, Dalxx,
Virtual-Machine-Based [JN15], virtual-time [She91], Virtualbox [Deu08, Bec09], Virtualisation [Ska07, Apr09, Rob12, SDN09], virtualised [MPF+06], virtualisierte [Mar08, Kar07], Virtualisierung [Spr06, Spr07], Virtualisierungs-Buch [Tho08], Virtualisierungs-lösung [See08a], Virtualisierungslösungen [PO09], Virtualisierungssoftware [Zim05], Virtualisierungssystemen [Deu08], Virtualities [Den01]. Virtualizable [GG72, HH13, PG74, PG73].

Virtualization [AFG+17, AJM+06, AP22, AAJD+16, AVNR19, ASL+20, AAMBE21, ADVM18, APST05, Ano03b, AvMT11, Bac11, BE17, BLMP22, BJG19, Ble10, BHEP14, BDR+12, CZL08, CLS07, CGS06, CHW12, CXLX15, CWH+16, CQLL18, CD12, CDD13, cCWS14, CLLS12, Chu06, Coh10, Cre09, Cre10b, CGW07, DLLN18, DMS02, DW14, DPCA11, DLM+06, Don06, DMG+15, DY17, ECET18, EMAL17, ELC+19, FPR+06, Fer11, FDF05, FRD+08, FLZ17, Gal09a, Gal11, GHS17, GW07, GCL+21, Got07, GG11, HD16, HWF07, HTAY21, Her06, HN10, HHC+16, HSN17a, HSN17b, HDM08, HSL17, HB12, HW12, JAD19, JW17, KHW+16, KLY20, KS08a, KMM13, KR18, KS08b, KKS19, KGR16, Kot10, Kot11, KC12, KLR+20, LH16, LWC+17, LLW+16, LRYZ16, LZW+17, LYGG20, LCFL12, LDDT12, MZZ+18, MDZ+21, MMC18, MA10, MCZ06, MUX06, MA17, MGL+17, MWHH05, NTR18, NSL+06, NKK+06]. Virtualization

[NSP16, OVI+12, PZW+07, PHL+12, Pap20, PM19b, PZH13, PYYG21, PYDG22, PvsDS08, PNT12, PST+15, QNC07, QTR21, RC18, RSW+06, RCM+12, R+06, RTL+18, RZPX19, RRK17, RWX+12, RR09, SADP21, Sed07, SM06, SGB+16, SYB12, SABL20, SAT09, SJJPP11, SYC14, SWF16, Spr07, Sta07, SKYK16, Swa06, THLK10, TF16, Tre05, UNR+05, Uhl06, UVL+13, VNO6, VN08, WBB+16, WDC08, WWH+16, WZT19, WC01, WG07, WHD+16, WH05, WLW+17, XH16, XYD+18, XML+18, YSS+17, ZSXX07, ZQCC16, ZYH+19, ZSP+21, ZZW+21, ZZF06, ZAI+16, ZXY+15, ZLW+19b, ZKWH17, dGG+17, vMAT14, vdK09, AA06, AKK+07, AAF+09, A+04, AH12, AMIA19, ALW15, AJD09, Ano14c, Ano15, AKCP21, Apr09, AAB+05c, AEB19, ABB+19b, AA18, ABB+15, BDF+03, BBD+10, BSL+18,
BRIdM10, BKR20, B'05, BB08, Bor07, BH13, BC10]. virtualization
[BTLNBF+15, BSMF08, B'07, CPM+18, CSSS11, CMG'19, CBER09, CDm+10, CFG'13, CWW'14, CL15, CCZ'06, CGL+08a, CGL+08b, CGL+08c, CB10, CMM'06a, CMM'06b, CMM'06c, CIA07, CIA05, CBFH20, CM18, CKT08, CRE08a, CRE08b, CRE10a, CB07, DLL'16, DBO'18, DYL'12, DCP'12, DS09b, DRE08, EPG'10, ECAE13, FFBG08, FP14, FJKK17, FLCB10, FS08, FRO13, FKH13, FSH'13, GMK17, GLA'08, G'06, G'05, GTN'06, GAH'12, GTK17, HLW'10, Hal08, Han16, HII16, HSSH18, HPcC04, HC12, I1K'06, ISE08, IMK'13, IPRS21, J'05, JMO8, JXZ'10, JCZZ13, Kao17, KVV09, KSR10, KKB14, KWZ'19, KL13, KS20b, Kro09, LPD'11, LDL'05, LLE17, LLW'12, LZWC13, LLX'17, LJYZ'15, LQW'12, LCI14, LWL16, LRP'19, LLS14, LP11, LDL'08, MG19, MB21, MRO6, MSI'12, MDD'08, MIS'05, MBA'12, MPA'18, MBBS13, Mly09, MMG18]. virtualization
[MR06, NTH'17, NRdA20, NRO8, PG11, PBB13, PFNC20, QZJJ16, RSC'15, RS16, RQD'17, RX08, RSLA1B16, RSO6, RTO7, SVN'10, SJSR'13, SWCM12, SIRP17, SPF'07, SHB19, SWW'18, SAB'07, SWC08, SL12, TDG'18, TIZB19, TMJ'21, TSCB19, TLBW12, VW08, VSC'10, VSO12, WR12, WZW'11, WCC'16a, WCC'16c, WCS09, WJGA12, WHSE15, WYZAD20, XKY'11, XZ11, YKS16, YJZY12, YTS14, YLH14, YLWH14, YLZ13, vD06, vH08, Gu14, BC19, MC19, YWL'18]. Virtualization-Based
[CDD13, KLR'20, RZPX19, AAJD'16, DPCA11, MCC18, WDCL08, CGL+08a, CGL+08b, CGL+08c, LLX'17, QZJJ16, TSCB19]. virtualization-driven [CSSS11]. Virtualized
[AMA18, ASMA21, BB17, EGRI5, GKK13, GLBJ18, HBL'10, HLPY16, HCB18, HKW'16, KKH14, LIZ15, LGJZ16, MT16, MT17, MSC'21, NBB'19, NKY'18, PWJ16, PLZ20, RGSJ17, SB16, SL16, SDD'16, WIS'15, WKC'09, WLM16, WTM18, XWW'21, YVBC17, YVBC18, YW'15, YWCF15, ARA18, ARA20b, ARA20a, AJH12, ATS14, ACG18, ASB18, BGS13, BSD19, BKT'19, BSOK'20, BSM08, CP17a, CP17b, DS18, EBJ17, GPS'18, GGG19, HOKO14, HL13, JK17, KW13, KSR10, KRG'12, LKR'19, LWM14, LC13, MNT14, MAK18, NBS18, NS07, NMC18b, NMC18a, PSZ'07, PC21, PSC'07, QX19, RAP19, RZH'17, SBN18, SGO19, TRG13, WWL13, WB16, WTL'09, WTL'16, ZGL'17, ZWC'14, YJZ'21]. Virtualizing
[BTMS10, Sar16, SB10, SLO1, WRS13]. VirtualKnotter
[ZWC'14]. Virtually [Say67, Spi06, WL96, Tre05]. VirtualPower [NS07]. virtuelle [WF03, WR07, WR08, ZIM05, ZIM06]. virtuellen [CK06a, CK06c, CK06d, CK06g, CK06f, CK06i, CK06b, CK06j, CK06k, CK06m, CK06l, CK06n, CK06o, CK06p, CK06q, CK06r, CK06s]. Virtuelles [AH68, Han73]. Virtuoso [DGLZ'11]. VIRTUS [IIK'06]. Vision [Arm78]. Visual [Fra06, Fra09, MC98, Wil06, HEE07, Hog06, Hog08]. Visualization [Nel04]. Visualizing [WT91]. VLISP [Ram93]. VLSI [IN87].
VM
[Ano01a, Ano04a, Ano04b, FAA17b, Ano03a, AB16, ABG14, Att79, Bar73, Bar78, BCW20, BN89, BT15, Boz89, Cal75, CBZ+16, CCW+20, Com82, CTP+17, DS20, ESY+17, FAA17a, FMJ15, FGG14, FL13b, GH91a, G+06, GHD12, HM20, HKM+18a, HKJ19, HXZ+16, HC12, HW15, IBM94, JFPL16, JFZL17, KN18, LPSS19, LYY+20, LB12, LJZ12, LLWL10, MS91, MLA83, MA19, NOK+85, NS17, OIb78, OJG91, P+08, PDM20, PG17, PG18, RAT17, RSNK17, RJSS+18, STMV18, SSG+20, SHW+15, SM91, SN91, SLdLB15, TB17, TUM18, TV18, Var91, Wal10, WBNH18, XCM18, YZLQ14, YKM17, YZR+21, YWR+14, ZFL15, ZWFX17, ZDLG17, ZLSI17].

VM-based [ESY+17]. VM-protected [GHD12]. VM-scaling [AB16].

VM-to-hypervisor [NS17]. VM/370 [Att79, Bar73, Bar78, Cal75, Com82, Olb78, SM91].


VMBackup [ZXW16]. vmBBProfile [TZK17]. VMbuddies [LH15].

VM/ESA [Fis91, IBM94, MSS91, OJG91, SNC91]. VM/Pass [MLA83]. VM/Pass-Through [MLA83]. VM/XA [BN89, Boz89, IBM94].

VMBackup [ZXW16]. vmBBProfile [TZK17]. VMbuddies [LH15].

VM/ESY [219x226]. VM-protected [GHD12]. VM-scaling [AB16].


vulnerability-specific [JKDC05]. Vulnerable [JSHM15, JAS15].

W [ALW15]. W-SDNs [ALW15]. WA [ACM05c, LCK11]. Wale [DSS19].
walks [AJH12, BSSM08]. WAN [KKK18, TDG18, WRSvdM11, WRS15, ZFY18]. WAPPEN [Kag09].

WARMup [BBTK17]. Washington [ACM06b, Ost94]. Watches [BDG18].

Watchmen [BDG18]. Wavelength [AM16]. wavelength-routed [AM16]. Way [FLZ15, Ble10, Com00, WGF11].

weak [RO16]. web [YSM21, Ano96, CVWL13, DF96, FF96, Kag09, LGJZ16, SJJ12, SDD16, WP16, WDC08, YML18]. web-based [YSM21, CVWL13, Kag09].

Web/Java [BDG18]. Web/Java-based [BDG18]. Wavelength [AM16].

Way [FLZ15, Ble10, Com00, WGF11]. Weak [RO16]. Web/Java [BDG18]. Web/Java-based [BDG18].

Weights [BDG18]. Whispers [WXW15].

White [LKL19]. whole [BBM09]. whose [BBS06]. Whispers [WXW15].

Which [MS17, War80]. Whispers [WXW15]. Which [MS17, War80]. Whispers [WXW15].

Whispers [WXW15]. Whole [BBM09]. Whose [BBS06]. Whispers [WXW15]. Whole [BBM09]. Whose [BBS06].
x3950 [R⁺06]. X64 [dGG⁺17]. x86
[AGSS10, BDR⁺12, Cof99, MT16, MT17, MGL⁺17, Rev11, AA06]. XA
[BN89, Boz89, IBM94]. XBox [Ste05]. XC [GH91a]. XEN
[Hin08, PO09, Deu08, Kar07, Mar08, See08a, Tho08, RHM08, AJD09, Ano15,
BDF⁺03, B⁺07, CBZ⁺16, Chi08, CGW07, De 06, DLM⁺06, Don06, Fis09,
Hab06, HWF07, HHH04, IGBK19, Kar07, Kel06, MDD⁺08, MST⁺05,
MCZ06, NB11, NOT⁺17, PO09, FRS16, QT06, RHZ⁺17, SJV⁺05, SHLJ13,
Spr06, Spr07, TC10, VS06, WG07, dSOK17, vH08]. Xen-based
[CBZ⁺16, dSOK17]. Xen-Basis [Kar07]. Xen-virtualisierte
[Mar08]. XenEnterprise [CGW07, WG07]. XenExpress [CGW07, WG07].
XenServer [CGW07, WG07]. Xeon [GK19]. XHive [KJL11]. XHPC
[M⁺06]. XINU [BWP85]. XIVE [AA18]. XML [Int06c, Khn19]. XPL
[Kam75]. XSA [Ano15]. XScale [CMP⁺07]. xSeries [R⁺02]. XTREM
[CMP⁺07].

yang [CBGM12]. Years [FS12, BJG19]. yieldpoint [LWB⁺15]. yin
[CBGM12]. York [ACM03b, IEE90b, IEE96b, IEE90b]. Yountville [Tho93].
Yourself [AZEE17, AZEE18].

z [G⁺06, P⁺08]. z/VM [G⁺06, P⁺08]. z13 [ABB⁺15]. Zero [AMH⁺16,
CHCC07]. Zero-Cost [AMH⁺16]. zero-loss [CHCC07]. Zeroing [GPS⁺18],
ZNET [UBL⁺82]. ZSim [SK13b]. zur [KG00, See08a]. Zytaruk
[Sch94b, Sch94a].

References

[A⁺04] Bill Adra et al., editors. Advanced POWER virtualization
on IBM e-server p5 servers. Introduction and basic configura-
tion. IBM redbooks. IBM Corporation, San Jose, CA, USA,
2005274479.html.

[AA06] Keith Adams and Ole Agesen. A comparison of software and
hardware techniques for x86 virtualization. Operating Systems
Review, 40(5):2–13, December 2006. CODEN OSRED8. ISSN
0163-5980 (print), 1943-586X (electronic).

[AA18] F. Auernhammer and R. L. Arndt. XIVE: External inter-
rupt virtualization for the cloud infrastructure. IBM Journal
REFERENCES


Aryania:2018:EAV

Aroca:2016:PEA

Alqahiani:2021:ECR

Antonescu:2016:SSB

Axnix:2015:IZF
REFERENCES

Abeni:2019:HSR

Atzori:2019:SCI

Armbruster:2007:RTJ

Adair:1966:VMS

Aharon:1991:VIR


Ayoubi:2016:TPB


Anglano:2018:PFT


Ancilotti:1972:VIO


ACM:1975:POSS


ACM:1981:ASC

[ACM81] ACM, editor. *ACM SIGMETRICS Conference on Measurement and Modeling of Computer Systems, University of...
REFERENCES


REFERENCES


REFERENCES


REFERENCES


Aldossary:2019:EAC


Ackerman:1992:SIE


Agesen:1998:GCL


Alves:2018:VST

REFERENCES


Aridor:2001:DIV


Alshathri:2018:SLM


Ahmad:2015:VMM


Ahmad:2015:SVM


Amit:2016:BMP

Averbuch:1994:PES


Abe:2016:UVM


Aral:1991:PCS


Aagren:1999:TCC


Aagesen:2010:EXV

REFERENCES


REFERENCES


[ALL06]\ Asrigo, Kurniadi, Litty, L., and Lie, D. Using VMM-based sensors to monitor honeypots. In ACM [ACM06f],


[ANH00] Ana Azevedo, Alex Nicolau, and Joe Hummel. An annotation-aware Java virtual machine implementation. *Concurrency:

Anonymous:1975:VM


Anonymous:1993:NCS


Anonymous:1994:SAS


Anonymous:1996:TWJb


Anonymous:1997:BRJe

Anonymous:1997:BFJ


Anonymous:1997:IJV


Anonymous:1997:JVM


Anonymous:1999:MVM


Anonymous:1999:PII


Anonymous:2000:AJV


Anonymous:2001:CRJ

Anonymous:2001:PJV


Anonymous:2002:CRJ


Anonymous:2003:PJU


Anonymous:2003:PVF


Anonymous:2004:CRV

REFERENCES


Anonymous:2004:PTV


Anonymous:2005:NPV


Anonymous:2006:PGI


Anonymous:2006:TR


Anonymous:2007:VPS


Anonymous:2010:NDS

Anonymous:2014:ASS

Anonymous:2014:BIE

Anonymous:2014:LVA

Anonymous:2014:O

Anonymous:2015:CXB
Anonymous. Critical Xen bug in PV memory virtualization code (XSA 148). Web bug report, October 29, 2015. URL https://github.com/QubesOS/qubes-secpack/blob/master/QSBs/qsb-022-2015.txt. The report notes about this bug that allows memory pages to leak between Xen virtual machines on the same physical host: “... the bug is a very critical one. Probably the worst we have seen affecting the Xen hypervisor, ever. Sadly... it is really shocking that such a bug has been lurking in the core of the hypervisor for so many years.”.

Aral:2016:NAE

Ashraf:2018:MOD
REFERENCES


Abadi:2020:CCS


Al-Rahayfeh:2019:NAT


Arce:2007:GVM


Armstrong:1978:PPC


Armstrong:1998:CSH


[AS14] Muhammad Atif and Peter Strazdins. Adaptive parallel application resource remapping through the live migration of virtual


[AT16] Nada Amin and Ross Tate. Java and Scala’s type systems are unsound: the existential crisis of null pointers. *ACM SIGPLAN Notices*, 51(10):838–848, October 2016. CODEN SIN-
REFERENCES


[AvMT11] Raja Appuswamy, David C. van Moolenbroek, and Andrew S. Tanenbaum. Flexible, modular file volume virtualization in Loris. In André Brinkmann and David Pease,


REFERENCES

Baden:1987:RTP


Bockisch:2006:AVMa


Bagley:1976:SFM


Bairstow:1970:MOV


Baker:1983:MAS


Balzer:1991:PVM


Bauman:2015:SHB


Bard:1973:AMC

Y. Bard. An analytic model of CP-67 — VM/370. In ???, editor, Proceedings ACM SIGARCH-SIGOPS Workshop on Vir-
REFERENCES

Bard:1978:AMV

Bartholomew:2006:QMM

Bastiaansen:2004:RGU

Bastiaansen:2006:RGU

Bauer:2005:PPF

Bauer:2006:PPSb

Bauer:2006:PPSa

Bauer:2006:VWL
REFERENCES


[BB17] Christine Bassem and Azer Bestavros. Multi-capacity bin packing with dependent items and its application to the

**Baalamurugan:2020:MOK**


**Balter:1991:AIG**


**Barr:2010:VMV**


**Bhattiprolu:2008:VSC**


**Bratanov:2009:VMW**

REFERENCES


REFERENCES


[BCW20] F. Berghaus, K. Casteels, and J. Weldon. High-throughput cloud computing with the cloudscheduler VM provisioning

**Bruschi:2019:AAF**


**Bredlau:2001:ALT**


**Baride:2011:CBS**


**Brown:2003:SFE**


**Bak:1998:NCJ**

REFERENCES


Butrico:2008:SEE


Bugnion:2012:BVX


Baldwin:2009:PSS


Bolz:2013:SSC


Beckert:2017:RTA

REFERENCES


[BFC02] George Bosilca, Gilles Fedak, and Franck Cappello. OVM: Out-of-order execution parallel virtual machine. *Future Gen-
REFERENCES


REFERENCES


REFERENCES


REFERENCES


[BKT+19] Souhila Benmakrelouf, Nadjia Kara, Hanine Tout, Rafi Rabipour, and Claes Edstrom. Resource needs predic-

**Board:1990:PPN**


**Bianchi:2017:MRB**


**Blelloch:1989:SPP**


**Bledsoe:2010:VLO**


**Benomar:2022:CBN**


**Bershad:1994:ACM**

**[BLRC94]** Brian N. Bershad, Dennis Lee, Theodore H. Romer, and J. Bradley Chen. Avoiding conflict misses dynamically in large


REFERENCES


REFERENCES


REFERENCES


REFERENCES

CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic).

Burnet:1996:PCP


Baumann:2019:VSL


Branco:2015:TFS


Batalla:2018:VVP


REFERENCES


[Caamano:2000:PJS] Paul Caamano. Porting a Java Virtual Machine to an embedded system. Thesis (m.s.), Department of Computer Science,
University of California, Santa Cruz, Santa Cruz, CA, USA, 2000. viii + 56 pp.


REFERENCES

---

**Campanoni:2010:HFP**


---

**Cavender:1993:APV**


---

**Crosby:2006:VR**


---

**Chowdhury:2010:SNV**


---

**Cerling:2009:MMV**


---

**Compastie:2020:VSI**


---

**Cao:2012:YYP**

Ting Cao, Stephen M. Blackburn, Tiejun Gao, and Kathryn S. McKinley. The yin and yang of power and performance for


Chen:2020:SSV


Carbone:2012:SRM


Childs:2005:SCG


Cheng:2020:SVC

Chiueh:2014:SFI


Calder:2005:EVM


Chen:2006:LUO


Czajkowski:2001:MCV


Cheng:2012:VBP


Cao:2014:EAH

REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


[Chryselius:2006:IDQ] Toralf Chryselius and Andrea Kuntz. *Internetkommunikation in Debian unter Qemu Einführung in das Betriebssystem De-
REFERENCES

bian Linux in Qemu und Vorstellung der wichtigsten Internetprogramme. (German) [Internet Communication in Debian under Qemu: Introduction in the Debian Linux operating system in Qemu and creation of the most important Internet programs], volume 18 of Schriftenreihe Grenzgänger - Linux leicht verständlich; Schriftenreihe Grenzgänger - Linux leicht verständlich. CVTD, Bergfelde bei Berlin, Germany, 2006. ISBN 3-86768-117-1 (book), 3-86768-717-X (DVD). 109 pp. LCCN ????


[CK06e] Toralf Chryselius and Andrea Kuntz. Internetkommunikation in Kubuntu unter Qemu Einführung in das Betriebssystem Kubuntu und Vorstellung von Internetprogrammen in der virtuellen Umgebung Qemu. (German) [Internet Communication in Kubuntu under Qemu: Introduction to the Kubuntu operating system and creation of Internet programs in the Qemu virtual machine], volume 6 of Schriftenreihe Grenzgänger - Linux leicht verständlich; Schriftenreihe Grenzgänger - Linux leicht verständlich. CVTD, Bergfelde bei Berlin, Germany, 2006. ISBN 3-86768-105-8 (Buch), 3-86768-705-6 (DVD). 107 pp. LCCN ???


[CK06j] Toralf Chryselius and Andrea Kuntz. *Kubuntu unter Qemu Einführung in das Betriebssystem Kubuntu Linux*


References


Chryselius:2006:LOL


Chryselius:2006:OLQ

Chryselius:2006:SKD

Chryselius:2006:SKKb

Chryselius:2006:SKKc

[CK06o]

[CK06p]

[CK06q]

[CK06r]
REFERENCES


REFERENCES


[CL17a] Claudia Canali and Riccardo Lancellotti. Identifying communication patterns between virtual machines in software-defined data centers. *ACM SIGMETRICS Performance Evaluation*
REFERENCES


REFERENCES

Chen:2013:TVR


Coffing:1999:XPM


Cohen:1997:DJV


Cohen:2010:VS


Comeau:1965:PLS


Comeau:1982:COV


Compton:2000:VLB

REFERENCES


REFERENCES


[CQLL18] Chen Chen, Zhuyun Qi, Yirui Liu, and Kai Lei. Using virtualization for blockchain testing. In *Smart Computing and
REFERENCES


[Cre65] Robert J. Creasy. General description of the research time-sharing system with special emphasis on the control program. Memorandum 1, IBM Cambridge SR&D Center Research Time-Sharing Computer, Cambridge, MA, USA, January 29, 1965. ?? pp. This appears to be the earliest work on virtual machines that is cited in the IBM VM history [Var91]. That history reports on page 28: “Creasy and Comeau spent the last week of 1964 [36] joyfully brainstorming the design of CP-40, a new kind of operating system, a system that would provide not only virtual memory, but also virtual machines. [37] They had seen that the cleanest way to protect users from
one another (and to preserve compatibility as the new System/360 design evolved) was to use the System/360 Principles of Operations manual to describe the user’s interface to the Control Program. Each user would have a complete System/360 virtual machine (at first called a ‘pseudo-machine’).” Footnote 28 on page 28 says: “For the first few weeks, the CSC people referred to their concept as a ‘pseudo-machine’, but soon adopted the term ‘virtual machine’ after hearing Dave Sayre at IBM Research use it to describe a system he had built for a modified 7044.”.

Creeger:2008:CVR


Creeger:2008:PCR


Creeger:2009:CRV


Creeger:2010:MEC


Creeger:2010:MEA

Cruz:2016:DCG


Crowl:1993:CLI


Cohen:1983:PSR


Chiang:2015:SEV


Chandersekaran:1976:FVM


Caballer:2015:PDC

REFERENCES

Chen:2013:FRS


Chen:2016:CDD


Chehelgerdi-Samani:2021:PAP


Cecchet:2011:DVD


Cameron:2015:JFE


Chen:2003:EJV


Cui:2017:PJP

[Lin Cui, Fung Po Tso, Dimitrios P. Pezaros, Weijia Jia, and Wei Zhao. PLAN: Joint policy- and network-aware VM man-]
REFERENCES


REFERENCES


[Cui:2015:PPA] Lei Cui, Tianyu Wo, Bo Li, Jianxin Li, Bin Shi, and Jinpeng Hua. PARS: a page-aware replication system for efficiently storing virtual machine snapshots. *ACM SIGPLAN Notices,*
REFERENCES


REFERENCES

Danielsson:2012:OSU


Daszczuk:1991:SSD


Davoli:2004:TOS


Dillenberger:2000:BJV

REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


[Dall:2016:AVP] Christoffer Dall, Shih-Wei Li, Jin Tack Lim, Jason Nieh, and Georgios Kolosventzos. ARM virtualization: performance and

[Dall:2018:AVP]


[Dong:2006:EXI]


[Dutchyn:2001:MDJ]


[Deng:2017:DWT]


[Donovan:1975:HAC]

REFERENCES


REFERENCES

Dall:2014:KAD


Dyer:2006:NPD


Do:2011:CAS


Oliveira:2012:SMC


Dommergaard:1980:DVM


Dommergaard:1980:FDP


Donaldson:1987:TOS

REFERENCES

February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).


REFERENCES


REFERENCES


[DSM+18] Debski:2018:SRA


REFERENCES


REFERENCES


REFERENCES


REFERENCES

Estire:1998:STN


Eramo:2019:ESR


Eramo:2017:ASF


Esposito:2013:SES


Evoy:2015:ADP

Esposito:2016:VAV


Engel:1999:PJV


Ertl:2003:IVM


Ertl:2005:AIV


Estrada:2017:UDP


Eugster:2006:UPJ

Eramo:2021:PIC


Motaki:2019:CSB


Feizollahibarough:2021:SAV


Fard:2017:DVC


Fard:2017:EDV

REFERENCES


REFERENCES


[Farkas:2000:QEC] Keith I. Farkas, Jason Flinn, Godmar Back, Dirk Grunwald, and Jennifer M. Anderson. Quantifying the energy consump-

**Faibish:2008:SVU**


**Fertig:1991:FVM**


**Frincu:2014:ESV**


**Forsman:2015:AAL**


**Ford:1996:MMR**

REFERENCES


Flouris:2010:EBL

Flink:1977:EOS

Fang:2013:VO

Franklin:2008:RDV

Anonymous:2014:AVM

Fu:2017:MCD
REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES

Geiselhart:2006:IZV


Gupta:2018:RAV


Gordon:2012:EBM


Grefen:2000:CCO


Gaines:1975:ACV


Galley:1973:PVM

Galvin:2009:PA


Galvin:2009:PAT


Galvin:2011:PA


Gill:2019:TFD


Gu:2000:EHP


Gayer:1987:CPA

[GBO87] Richard Gayer, Catherine M. Beise, and G. Scott Owen. Conversion of a PDP-11/40 assembler and simulator from main-


REFERENCES

[GHF83b] M. Ganapathi, J. L. Hennessy, and C. N. Fischer. Sur-
veyor’s forum: Retargetable code generators. ACM Com-
CMSVAN. ISSN 0360-0300 (print), 1557-7341 (electronic). See
[GFH82, WNL+83, GHF83a, Fra83].

editors. Transputer applications and systems ’93: proceed-
ings of the 1993 World Transputer Congress, 20–22 September
1993, Aachen, Germany. IOS Press, Amsterdam, The Nether-
lands, 1993. ISBN 90-5199-140-1. LCCN ???.

[GHM+18] Abhishek Gupta, M. Farhan Habib, Uttam Mandal, Pu-
lak Chowdhury, Massimo Tornatore, and Biswanath Mukher-
jee. On service-chaining strategies using Virtual Network
Functions in operator networks. Computer Networks (Ams-
CODEN ???. ISSN 1389-1286 (print), 1872-7069 (elec-
article/pii/S1389128618300379.

paging: exceeding the best of nested and shadow paging. ACM
2016. CODEN CANED2. ISSN 0163-5964 (print), 1943-5851
(electronic).

paging for efficient memory virtualization. IEEE Micro, 37
(3):80–86, May/June 2017. CODEN IEMIDZ. ISSN 0272-1732
org/csdl/mags/mi/2017/03/mmi2017030080-abs.html.

[GI12] Balazs Gerofi and Yutaka Ishikawa. Enhancing TCP through-
pit of highly available virtual machines via speculative com-
REFERENCES

CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). VEE ’12 conference proceedings.


REFERENCES


**Gupta:2009:DE**


**Gupta:2010:DEH**


**Garg:2017:CGA**


**Giacalone:1989:FSI**


**Golub:1993:MER**

D. B. Golub, R. Manikundalam, and F. L. Rawson. MVM—an environment for running multiple DOS, Windows and DPMI programs on the microkernel. In USENIX [USE93],


References

[Goldberg:1973:APV]

[Goldberg:1974:SVM]

[Goth:2007:VOT]

[Ganegedara:2013:CPA]

[Gutierrez:2021:RTP]

[Gad:2018:ZMD]
Gregg:2003:PID


Groves:1980:DVM


Gupta:2015:LBO


Gao:2020:CMS


Green:2010:SUS

[Gre10] David Green. The Sydney University SILLIAC. Web site, August 14, 2010. URL http://members.iinet.net.au/~dgreen/silliac.html. The SILLIAC was the first computer installed at Sydney University, and was operational from 1956 to 1968. The Web site links to the SILLIAC Emulator, a C program for Microsoft Windows.

Gilesh:2018:SSV

REFERENCES


Gidra:2015:NGC


Guan:2014:HHV


Gum:1983:SEA


Guyer:2014:UJT


Guzdial:2001:UST


Geroﬁ:2013:UMC


Haletky:2009:VVV


Hamlet:1976:PBT


Hammersley:2007:PVS


Hans:1973:CAM


Hansen:2005:IJP

REFERENCES


REFERENCES


REFERENCES


REFERENCES


**Hejja:2019:EIT**


**Hong:2016:OCT**


**Ho:2004:PPD**


**Horiguchi:1994:ISP**


**Hussein:2015:DRM**

Ahmed Hussein, Antony L. Hosking, Mathias Payer, and Christopher A. Vick. Don’t race the memory bus: taming the
REFERENCES


Hines:1997:VMJ


Hinkelmann:2008:EKM


Hirschsohn:1992:PSS


Hirai:2017:DEV


Hansen:2010:SVM


Huin:2018:ONS


Henzinger:2007:EMP

REFERENCES


REFERENCES


REFERENCES


REFERENCES


Haghshenas:2020:PBU


Hallawi:2017:MCC


Hu:2004:TLI


Howard:2017:RPF


Hay:2008:FEV


Hollerbach:1995:FDA


Horton:1973:VMA


Huxtable:1977:HSI


Huang:2004:MDS


Hohmuth:2004:RTS


Hussein:2017:OPR

REFERENCES

CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).


[HSC15] Ching-Hsien Hsu, Kenn D. Slagter, and Yeh-Ching Chung. Locality and loading aware virtual machine mapping techniques for optimizing communications in MapReduce appli-
REFERENCES


REFERENCES


REFERENCES


REFERENCES


Ibsen:1984:PVM


SPE::Ibsen1984


IEEE:1984:PSS


IEEE:1984:DE


IEEE:1985:CPA


IEEE:1990:PIC

IEEE Computer Society Order Number 2060. IEEE Catalog Number 90CH2884-5.


REFERENCES


IEEE:2002:WII


IEEE:2003:IWI


IEEE:2004:FIA


IEEE:2005:PAC


IEEE:2006:PIC


Izquierdo:2019:SDA


Moore:1979:IVM


Inoue:2006:VNP


Ilgenfritz:2009:VCP


Ilkhechi:2015:NAV
REFERENCES


REFERENCES

ISO:2005:IIIa


ISO:2005:IIIb


ISO:2006:ITCb


ISO:2006:III


ISO:2006:ITCa

REFERENCES


Ive:2003:TER

Jacob:2005:DOE

JAC+19

Jiang:2019:BSR

JAD19

Jones:2006:GMB

Jarraya:2012:FVS


Jensen:1979:FAC


Jarraya:2015:VFR


Jiang:2016:FAF


Jiang:2017:DFA

Janakiram:1988:RPB


Jo:2013:ELM


Jin:2011:OLM


Johnson:2014:CML


Janthagen:2012:TRD


Jolitz:1991:PUS

REFERENCES


Jaer:2015:IRD


Joshi:2005:DPP


Jo:2010:TFT


Jeong:2013:AVM


Jansen:2008:SVC


Jim-Min:1992:IES

REFERENCES

Jin:2015:PSV


Jeyarani:2012:DIA


Joos:2006:OHE


Joos:2009:MWS


Jouannaud:1985:FPL


REFERENCES


REFERENCES


Huioon Kim, Kyungwon Chun, Hyounggyu Kim, and Youngjoo Chung. Utilization of workflow management sys-

**Kim:2014:ECS**


**Kousiouris:2011:ESW**


**Kang:2014:HSA**


**Kumar:1978:PEH**


**Kertesz:2016:PBV**

Karmakar:2020:BA


Keefe:1968:HCP


Keedy:1977:OIS


Kelly:2006:PMX


Kent:1980:PNV


Kermarrec:1988:SEA


Kereki:2015:CCC


Kannan:2018:HDH


Knodel:2016:MLR


Krsul:2004:VPM


Khan:2019:TEX


Karnagel:2017:AWP


Khnaser:2009:VVC


Kang:2016:MPV

Junbin Kang, Chunming Hu, Tianyu Wo, Ye Zhai, Benlong Zhang, and Jinpeng Huai. MultiLanes: Providing virtualized


REFERENCES


Kim:2007:VPR

Kim:2007:VPR


Kobayashi:1979:SMC

Kobayashi:1979:SMC


Kumar:2019:ICL

Kumar:2019:ICL


Kiani:2021:NAP

Kiani:2021:NAP

Mohsen Kiani and Mohammad Reza Khayyambashi. A network-aware and power-efficient virtual machine placement scheme in cloud datacenters based on chemical reac-


[KLR+20] Sameer G. Kulkarni, Guyue Liu, K. K. Ramakrishnan, Mayutan Arumaiturai, Timothy Wood, and Xiaoming Fu. REIN-

Kang:2020:PMT


Kiefer:2013:RDN


Kiefer:2013:SIP


Kimovski:2018:DEE


Krieger:2010:EMC

REFERENCES


REFERENCES


Kundu:2012:MVA


Kroeker:2009:EV


Kanizo:2017:OVB


Karger:2008:VVM


King:2008:GEI


Kelbley:2010:WSR

REFERENCES


[KSLA08] Jiantao Kong, Karsten Schwan, Min Lee, and Mustaque Ahamad. Protectit: trusted distributed services operating on
REFERENCES


**Kavvadia:2015:EVM**


**Keller:2010:NVC**


**Kelbley:2009:WSH**


**Kotsifakou:2018:HHP**


**Karthikeyan:2020:ECA**


REFERENCES


[LBL16] Mingfu Li, Jingping Bi, and Zhongcheng Li. Improving consolidation of virtual machine based on virtual switch-
REFERENCES


Laadan:2007:DPV


Le:2011:REC


Levis:2002:MTV


Larson:2009:WSHa

REFERENCES


REFERENCES


[Lv:2012:VCV]


[Loveland:2008:LVO]


[Li:2014:MHD]


[Ludwig:2018:TPC]


[Lee:1986:DSE]


[Lee:2016:ACS]

Lesser:1974:DEP


Lindemann:2019:DAC


Lopez:1994:ICI


Li:2019:ELV


Loyot:1993:VVM


Li:2018:HVM

REFERENCES


Lama:2016:APP


Li:2014:SCA


Liang:2019:UBO


Lameed:2013:MAS


Liu:2015:VCL

Lee:2016:HSC


Liu:2006:HPV


Lin:2020:LGN


Li:2014:LSD


Liang:2005:DLM


Li:2017:CSN

Liu:2011:LVM


Liao:2012:TGC


Liu:2015:HBC


Li:2000:UCS


Li:2012:SRS

REFERENCES


Liu:2014:OVM


Li:2018:LCS


Lee:2017:PEH


Liu:2008:PBH


Li:2012:GCV


Lewis:1999:EBP


Lopez:2019:TMT


Lewis:2000:APH


Lewis:2001:APH


Lowe:2014:MVV


Laureano:2007:PHB

REFERENCES


REFERENCES


REFERENCES


REFERENCES

Luccetti:2005:EDR


Linguaglossa:2019:HSD


Lu:2016:V


Ludwig:2015:DCM


Lei:2017:NHC


Lowell:2004:DVM

REFERENCES


Li:2012:VMP


Luckow:2017:HTP


Lin:1992:IES


Liu:2014:PA


LeVasseur:2004:SAR

Joshua LeVasseur and Volkmar Uhlig. A sledgehammer approach to reuse of legacy device drivers. In ACM [ACM04a], page ?? ISBN ???? LCCN ????

Lucent:1997:LPL


Luo:2020:OA


Lyons:2013:SFF


Lin:2015:SGU


Li:2017:AET


Lin:2016:JOQ


Liu:2010:VMF

Qian Liu, Chuliang Weng, Minglu Li, and Yuan Luo. An in-VM measuring framework for increasing virtual machine secu-
REFERENCES

Li:2016:VMT

Li:2014:VSK

Lin:2016:HTS

Liu:2018:TBG

Luo:2016:OMM
Li:2019:NIM


Liu:2021:ISD


Lindholm:1997:IJV


Lindholm:1997:JVM


Lindholm:1999:JVM


Lindholm:19xx:JVMa


Li:2015:ITA


Li:2020:MOO


Lu:2020:GEV


Li:2015:GHB

REFERENCES


Zoltán Ádám Mann. Allocation of virtual machines in cloud data centers — a survey of problem models and optimiza-


Mann:2016:MAV


Mann:2018:CSI


March:1973:DIV


Martin:1981:RFS


Marcy:2008:DRP

[Mar08] Hervé Marcy. *Disaster-Recovery Programm mit Xen auf Linux Servern [Elektronische Ressource]: Design und Imple-

Mattsson:2009:RSV


Matthews:2010:WPO


Millet:1998:PGT


Mesnard:2020:RWP


Mansouri:2021:REC


McGrath:1972:VMC


Ma:2019:ASF


McKusic:2004:JFF


McKinley:2011:HPC


McMillan:2011:SVM


Menon:2006:ONV


Madnick:1973:AAV

REFERENCES

Madnick:1974:AAV


Meyer:1997:JVM


Meyer:19xx:JVMb


Marr:2012:IUM


Matthews:2008:RXH

REFERENCES


Mengant:2003:NBJ


Merelli:2019:EDC


Morimoto:2008:WSH


Morimoto:2009:WSH


Medina:2013:SMM


Makowski:2019:EVT


Montella:2017:VCB


Mohammadhosseini:2019:EEA


Matthys:2005:IVE


Mzaik:1993:SP


Muller:2006:SVP


REFERENCES


Moore:2001:EFJ


Martini:2016:SOA


Meloni:2018:CBI


Muir:2006:POP


Monge:2020:COM

REFERENCES


REFERENCES

Malan:1991:MA


Moure:2002:KS


Marshall:2006:ASV


Meyer:1970:VMT


Manas:1991:VLM


Milutinovic:1991:PTA

REFERENCES

Mathiske:2000:APM


Menczer:2001:OTR


Mann:2017:WBA


Moreno:2021:OSF


Mebane:1992:EFD


Maessen:2001:PAS

REFERENCES


Ma:2012:DTD

Ma:2014:DBV

Matsumashi:2012:TVF

Mashimo:2018:VMS

Maslak:1991:CRR

Ma:2015:SDS
[MSS+15] Jiuyue Ma, Xiufeng Sui, Ninghui Sun, Yupeng Li, Zihao Yu, Bowen Huang, Tianni Xu, Zhicheng Yao, Yun Chen, Haibin

Menon:2005:DPO


Menon:2009:TSA


Merrfield:2016:PIE


Merrfield:2017:PIE


Mao:2019:AMC


REFERENCES


Nance:2008:VMI


Nathan:2016:SRO


Naranjo:2018:DEE


Nelson:2004:CDC


Ng:2001:VEW


Ng:2001:VEWa

[Ng01b] Choong Ng. VMware express 2.0 and win4lin 2.0: a comparison review. Linux Journal, 86:??, June 2001. CODEN LIJOFX. ISSN 1075-3583 (print), 1938-3827 (elec-


Dean Neumann, Dileep Kulkarni, Aaron Kunze, Gerald Rogers, and Edwin Verplanke. Intel Virtualization Technology in embedded and communications infrastructure applications.
REFERENCES


[NMC18b] Tuan Anh Nguyen, Dugki Min, and Eunmi Choi. Correction to: A comprehensive evaluation of availability and operational


REFERENCES


REFERENCES

Neiger:2006:IVT


No:2016:MMC


Nam:2017:JNE


Nagy:2018:NVI


Nieh:2005:ETO


Naeen:2020:AMB


**Oaks:2014:JPD**


**Ouarnoughi:2016:ICP**


**Odette:1987:CPF**


**OLoughlin:2016:SVM**


**Oglesby:2005:VES**


**Oi:2005:DLV**

[O05] Hitoshi Oi. On the design of the local variable cache in a hardware translation-based Java Virtual Machine. *ACM SIGPLAN
REFERENCES

Oi:2005:INH

Oi:2008:LVA

Osisek:1991:EIA

Ozgur:1990:SON

Ogino:2017:VNE

Ouyang:2013:PTS
REFERENCES


REFERENCES


REFERENCES


Porter:2012:RLT


Pelleg:2008:VBD


Padhy:2021:MCA


Pickartz:2018:PCV


Piraghaj:2016:VMC

Sareh Fotuhi Piraghaj, Rodrigo N. Calheiros, Jeffrey Chan, Amir Vahid Dastjerdi, and Rajkumar Buyya. Virtual machine

**Perez-Cazares:1989:DAL**


**Peng:2016:TCT**


**Pan:2012:CLM**


**Patil:2020:DVA**


**Pham:2014:BRS**


Popek:1973:FRV


Popek:1974:FRV


Payer:2011:FGU


Psychas:2017:NPV


Psychas:2018:NPV


Pavlou:2012:DBD


J. Pei, P. Hong, K. Xue, and D. Li. Efficiently embedding service function chains with dynamic virtual network function placement in geo-distributed cloud system. *IEEE Transactions on Parallel and Distributed Systems*, 30(10):2179–2192, October 2019. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic).


REFERENCES


**Popek:1975:PVM**


**Popek:1975:VPS**


**Pal:2019:NPR**


**Pascual:2018:ERV**


**Phung:2020:LPM**


REFERENCES


Ricardo J. Pfitscher, Mauricio A. Pillon, and Rafael R. Obelheiro. Customer-oriented diagnosis of memory provisioning for


REFERENCES


REFERENCES


Padala:2007:ACV


Pease:2018:IRT


Pape:2014:EJV


Pham:2015:SRD


Pulman:1991:EER

Stephen G. Pulman, editor. EUROTRA ET6/1: rule formalism and virtual machine design study – final report. Commission of the European Communities, Luxembourg, Luxem-


REFERENCES


REFERENCES


Ramsdell:1993:RVP


Raner:2002:LJV


Randal:2020:IVR


Rathinaraja:2019:DRB


Richards:2017:VAK


Russell:2001:HSA


REFERENCES


REFERENCES


[Raju:2019:STB]


[Rahmanian:2018:LAB]


[Rosendo:2020:AAD]


[Ryoo:2017:RTD]


[Rajabzadeh:2017:EAF]

Mehdi Rajabzadeh and Abolfazl Toroghi Haghighat. Energy-aware framework with Markov chain-based parallel simulated


Adam Ruprecht, Danny Jones, Dmitry Shiraev, Greg Harmon, Maya Spivak, Michael Krebs, Miche Baker-Harvey, and Tyler Sanderson. VM live migration at scale. *ACM SIGPLAN No-
REFERENCES

Radhakrishnan:2016:ECC


Riahi:2018:MOD


Rottenstreich:2017:MDN


Rahmani:2020:BAV


Ren:2016:SMO

REFERENCES


REFERENCES


Frederick Ryckbosch, Stijn Polfliet, and Lieven Eeckhout. VSim: Simulating multi-server setups at near native hardware


REFERENCES


Li Ruan, Huixiang Wang, Limin Xiao, Mingfa Zhu, and Feibo Li. Memory virtualization for MIPS processor based cloud server. *Lecture Notes in Computer Science*, 7296:54–63,


REFERENCES


**Schulman:1994:IWV**


**Schocken:2009:VMA**


**Schmeisser:2013:MOE**


**Schneider:2013:FVM**


**Sun:2019:MOO**

REFERENCES


REFERENCES


Song:2021:CRE


Sartor:2012:EMT


Sedighi:2007:EV


Seecker:2008:EGS


Seeling:2008:L


Seely:2010:BVD

REFERENCES


REFERENCES

Seth:2013:UJV


Spinellis:2009:BA


Schmidt:2010:VSB


Soundarajan:2010:CBS


Shuja:2016:SMD


Sirer:1999:DID

REFERENCES


[SHR19a] Monireh H. Sayadnavard, Abolfazl Toroghi Haghighat, and Amir Masoud Rahmani. Correction to: A reliable energy-


REFERENCES


REFERENCES


REFERENCES

CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic). OOPSLA ’13 conference proceedings.

Sanchez:2013:ZFA


Sudevalayam:2013:AAM


Skapinetz:2007:VBT


Sitton:1973:PEL


Suneja:2017:SIL


Song:2017:HBA


REFERENCES


[SMA+10] Ahmed A. Soror, Umar Farooq Minhas, Ashraf Abouhagag, Kenneth Salem, Peter Kokosiolis, and Sunil Kamath. Au-

Shi:2018:HAV


Schneider:2001:APM


Smith:1997:JNV


S:2002:SPI


Silva:2018:FPD

REFERENCES

Steensgaard-Madsen:1984:DPL


Sewe:2011:CCS


Santos:2018:HDD


Smith:2005:AVM


Smith:2005:VMV

REFERENCES


REFERENCES


REFERENCES


REFERENCES


Soundararajan:2017:SFC


Shooshtarian:2019:MRE


Singh:2022:OSA


Stark:2001:JJV


Shaylor:2003:JVM


Stefanovic:2017:TSS


Stoess:2012:LVM


Stankovic:1997:VRR


Stanik:2007:NVR


Steil:2005:MMM


Stecklina:2014:SHO

REFERENCES


Subramaniam:2008:PST


Subramaniam:2011:PCJ


Samples:1986:SSB


Sun:1995:JVMb


Sun:1995:JVMa


Sun:1997:JCL


Sun:1999:JPD

Supnik:2004:SVM


Suri:2001:SCR


Suski:1976:AGC


Simao:2013:ADQ


Steindorfer:2015:OHA


Steindorfer:2017:TSP

REFERENCES


REFERENCES


Sotiriou-Xanthopoulos:2018:OBV


Shuo:2012:PKR


Song:2014:AFB


Sohrabi:2017:EEA


Syropoulos:2007:PMV


Savrun-Yeniceri:2014:EHI

REFERENCES


REFERENCES

ters, 31(3):11–12, December 2011. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic).

Taivalsaari:1998:IJV


Taylor:1976:RRH


Torlak:2014:LSV


Tighe:2017:TA


Tsai:2017:JSD


Takemura:2010:BXP

References


Tuo:2014:PPP


Tian:2018:MTE


Tan:2014:DBD


Tikir:2003:RDS


Thiruvathukal:2010:VCS

REFERENCES


REFERENCES

Tetzla:1989:ABS

Tuch:2012:BSV

Turner:2006:SIS

Thomas:1989:AMM

Tan:2017:EPP
Tian Tan, Yue Li, and Jingling Xue. Efficient and precise points-to analysis: modeling the heap by merging equivalent automata. *ACM SIGPLAN Notices*, 52(6):278–291, June 2017. CODEN SINODQ. ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).

Tiburski:2021:LVM
Tang:2014:DFS

Tordsson:2012:CBM

Tavakoli:2012:FSC

Tollenaere:1991:SMN

Tremblay:1996:PHI
Marc Tremblay and Michael O’Connor. PicoJava: a hardware implementation of the Java Virtual Machine. In IEEE [IEE96a], pages 131–144. ISBN ???? LCCN ????

Tolksdorf:1998:PLJ
Robert Tolksdorf. Programming languages for the Java Virtual Machine. Technical report, Technische Universität Berlin,

Tucker:1988:AA


Treese:2005:VVE


Thorat:2013:OMV


Tsafrir:2014:ELV


Toosi:2019:EAS


Ta-Shma:2008:VMT

REFERENCES


Tu:2017:BEO


Tavakoli-Someh:2019:MOV


Tsai:1993:LMM


Tamm:1996:LBV


Tan:2019:VMC


Tu:2013:SDS

REFERENCES


Thanh:1982:ITC


Torquato:2018:MAP


Turek:1984:IDV


Turega:1992:CAS


Tupakula:2012:DSB


Tsiftes:2018:VVS

Nicolas Tsiftes and Thiemo Voigt. Velox VM: a safe execution environment for resource-constrained IoT ap-


REFERENCES


REFERENCES


REFERENCES


[USE01b] USENIX, editor. *Proceedings of the 6th USENIX Conference on Object-Oriented Technologies and Systems, January*
REFERENCES


[Urec:2013:MIS] Vlad Ureche, Cristian Talau, and Martin Odersky. Miniboxing: improving the speed to code size tradeoff in parametric
REFERENCES


development of virtual machine technology on IBM System/360 and later mainframes, and of the opposition by much of IBM to that technology until it was demonstrated that their performance could equal, or even exceed, that of an operating system running on bare hardware, and also allow a single physical host to support multiple operating systems, and software development, simultaneously. There are also several comments about the development of the REXX language, and about the influence of Unix on IBM’s software development.

vanDoorn:2000:SJV


vanDoorn:2006:HVT


vanderKouwe:2009:PQV


Villadeamigo:1997:EES


Visegrady:2014:SCV


REFERENCES

@article{Ven97d,
  title={Under the hood: How the Java virtual machine performs thread synchronization},
  journal={JavaWorld: IDG's magazine for the Java community},
  volume={2},
  number={7},
  pages={??},
  month={July},
  year={1997},
  CODEN={????},
  ISSN={1091-8906},
  URL={http://www.javaworld.com/javaworld/jw-07-1997/jw-07-hood.htm}
}

@book{Ven99a,
  title={Inside the Java Virtual Machine},
  publisher={McGraw-Hill},
  address={New York, NY, USA},
  edition={second},
  year={1999},
  ISBN={0-07-135093-4},
  LCCN={QA76.73.J38 V46 1999},
  URL={http://www.loc.gov/catdir/description/mh024/00269375.html}
}

@article{Ven99b,
  title={The state of the Java virtual machine (JVM)},
  journal={JavaWorld: IDG's magazine for the Java community},
  volume={4},
  number={1},
  pages={??},
  month={January},
  year={1999},
  CODEN={????},
  ISSN={1091-8906},
  URL={http://www.javaworld.com/javaworld/jbe/jw-jbe-jvm.htm}
}

@article{VG20,
  title={Search engine optimization},
  journal={Future Internet},
  volume={12},
  number={1},
  pages={6},
  month={December 31},
  year={2020},
  CODEN={????},
  ISSN={1999-5903},
  URL={https://www.mdpi.com/1999-5903/12/1/6}
}

@article{VGF16,
  title={Code manipulation for virtual platform integration},
  journal={IEEE Transactions on Computers},
  volume={65},
  number={9},
  pages={2694–2708},
  month={September 2016},
  CODEN={ITCOB4},
  ISSN={0018-9340 (print), 1557-9956 (electronic)}
}

@book{vH08,
  title={Professional Xen virtualization},
  publisher={Wiley},
  address={New York, NY, USA},
  year={2008},
  ISBN={0-470-13811-4 (paperback), 0-470-28918-X (electronic)},
  LCCN={QA76.9.V5 V665 2008},
}


Volz:1990:VNU


Voith:2012:QSP


Verdu:2016:PSA


Vrable:2005:SPA


Vallee:2006:OTX


Varshney:2019:ARC


[Verboven:2013:BBS] Sam Verboven, Kurt Vanmechelen, and Jan Broeckhove. Black box scheduling for resource intensive virtual machine workloads with interference models. *Future Genera-
REFERENCES

Vissicchio:2017:SUH


Varman:2008:SVP


Versick:2013:PCE


Wakeling:1999:CLF


Wallace:1976:SGI


Walters:1999:VVP


Sen Wang, Jun Bi, Jianping Wu, Athanasios V. Vasilakos, and Qilin Fan. VNE-TD: a virtual network embedding algo-

**Wu:1991:NNS**


**Welsh:2001:VCH**


**Wang:2016:ECA**


**Wang:2016:CIK**


**Wang:2016:TSN**

REFERENCES


Andrew Whitaker, Richard S. Cox, Marianne Shaw, and Steven D. Gribble. Rethinking the design of virtual ma-


November 10, 2018. CODEN CCPEBO. ISSN 1532-0626 (print), 1532-0634 (electronic).


Williams:2007:VXI


Wagner:2011: SJV


Weng:2013:HCM


Wan:2018: ADU


Wang:2020: OVR

REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


West:2016:VSK


Wang:2018:TCB


Wang:2015:HPI


Wu:2017:VPP


Whaley:2002:AEO


Wenzl:2019:HET

[WMUW19] Matthias Wenzl, Georg Merzdovnik, Johanna Ulrich, and Edgar Weippl. From hack to elaborate technique — a sur-

**Wei:2017:DCS**


**Wulf:1983:SFR**


**Williams:1975:CMI**


**Wolczko:1999:UTJ**

REFERENCES

Wong:1997:MHJ


Winterbottom:1997:DIV

Phil Winterbottom and Rob Pike. The design of the Inferno virtual machine. In IEEE [IEE97], page ?? ISBN ????. LCCN ???

Wang:2015:HRR


Warnke:2007:QVC


Warnke:2008:QVC


Waldspurger:2012:V

REFERENCES


Wang:2019:ATA


Wejchert:1991:VPN


Wu:2016:IBP


Wood:2009:MBE


Win:2018:BDB

REFERENCES


REFERENCES


[WZW+11] Xiaolin Wang, Jiariu Zang, Zhenlin Wang, Yingwei Luo, and Xiaoming Li. Selective hardware/software memory virtualiza-
REFERENCES


REFERENCES

ISSN 0362-1340 (print), 1523-2867 (print), 1558-1160 (electronic).


REFERENCES


[XWJX15] Ruitao Xie, Yonggang Wen, Xiaohua Jia, and Haiyong Xie. Supporting seamless virtual machine migration via named


[XYYY17] Cong Xu, Jiahai Yang, Kevin Yin, and Hui Yu. Optimal construction of virtual networks for Cloud-based MapReduce workloads. *Computer Networks (Amsterdam, Nether-


[YBZ+15] Hong Yao, Changmin Bai, Deze Zeng, Qingzhong Liang, and Yuanyuan Fan. Migrate or not? Exploring virtual machine

**Yalamanchilli:1998:CPJa**


**Yalamanchilli:1998:CPJb**


**You:2016:SRB**


**Yang:2018:CVG**


[YJZ+21] Ye Yang, Haiyang Jiang, Guangxing Zhang, Xin Wang, Yilong Lv, Xing Li, Serge Fdida, and Gaogang Xie. S2H: Hypervisor as a setter within Virtualized Network I/O for VM


REFERENCES

Yang:2014:ICV

Yan:2017:CAE

Yang:2014:MMG

Ye:2010:EES

Yi:2017:CDC
REFERENCES


REFERENCES

Yoginath:2015:EPD


Yang:2017:EEV


Yu:2014:MPP


Yu:2019:LAV


Yousefipour:2018:ECA


Yilmaz:2021:FGC


[Yur:2002:SIS] William (Bill) Yurcik. Special issue on specialized computer architecture simulators that see the present and may hold the future. *ACM Journal on Educational Resources in Computing*


REFERENCES


Ye:2021:SSD


Yi:2018:CSN


Yao:2014:GFT


You:2015:VFO


Ye:2015:PBW

REFERENCES


[YYPA01] Hailong Yang, Qi Zhao, Zhongzhi Luan, and Depei Qian. iMeter: an integrated VM power model based on performance

**Yut:2017:LRL**


**Yang:2013:QSE**


**Zhao:2016:SHC**


**Ziafat:2018:OSV**


**Zhong:2020:CEC**


[Zhan:2021:CAW] Yang Zhan, Alex Conway, Yizheng Jiao, Nirjhar Mukherjee, Ian Groombridge, Michael A. Bender, Martin Farach-Colton, William Jannen, Rob Johnson, Donald E. Porter, and Jun


[ZFL15] Junyuan Zeng, Yangchun Fu, and Zhiqiang Lin. PEMU: a pin highly compatible out-of-VM dynamic binary instrumen-
REFERENCES

Zhang:2018:LFV


Zaman:2013:CAB


Zinner:2017:DTM


Zimmermann:2006:AHM

Alexander Zimmermann, Mesut Günes, Martin Wenig, Jan Ritzerfeld, and Ulrich Meis. Architecture of the hybrid MCG-mesh testbed. In ACM [ACM06c], pages 88–89. ISBN 1-59593-540-0. LCCN ????

Zhang:2015:LOS


[Zim06] Dennis Zimmer. *VMware Server and VMware Player: [Installation, Anwendung und Konfiguration; Konzeption und Einsatzmöglichkeiten; virtuelle Maschinen erstellen und nutzen].*
REFERENCES


REFERENCES


[ZL18a]

[ZL18b]

[ZLBF14]

[ZLCZ18]

[ZLG+20]
REFERENCES


REFERENCES


REFERENCES


Zhang:2015:MIM


Zhang:2016:GDL


Zhao:2015:UPP


Zhang:2001:HJAb


Zhang:2021:CHP

Zhang:2005:ILS


Zolfaghari:2022:EAV


Zhang:2006:SPV


Zhang:2007:DIB


Zhao:2021:LSA


Zhu:2017:VLV

Min Zhu, Bibo Tu, Wei Wei, and Dan Meng. HA-VMSI: a lightweight virtual machine isolation approach with commod-

Zou:2014:VOV


Zhang:2019:EAV


Zeng:2017:RNN


Zhou:2017:NFA


Zhang:2017:CBV

**[ZWHC17]** Jiangtao Zhang, Xuan Wang, Hejiao Huang, and Shi Chen. Clustering based virtual machines placement in


REFERENCES


REFERENCES
