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**Title word cross-reference**

[SRW02]. + [Han81a]. <sup>TM</sup> [Bla03]. <sup>.5ex/</sup>  
[AW82]. || [DDDCG02]. A [DES12].  $\mathcal{R}$   
[JMSY92].  $\mathcal{R}_{Lin}$  [VR95].  $\ell$  [ADG<sup>+</sup>94].  
(*k*) [ADGM91, BL94b, KM81]. 2 [Dam03]. 3  $O(nm)$  [Pet82].  $\phi$  [CF95, DR05].  $\pi$  [ABL03].

-**calculus** [ABL03]. -**Exclusion** [ADG<sup>+</sup>94].  
**-function** [DR05]. -**Nodes** [CF95]. -**Tree**  
 [Han81a]. -**valued** [SRW02].

11 [ND16]. 16 [TGT20].

2018 [Ahm20]. 256 [App15].

40 [TGT20].

568 [Han81b].

8 [Ano18].

90 [DP99]. 95 [WJS<sup>+</sup>00].

**Abstract** [BGL93, BK11, CMB<sup>+</sup>95,  
 CFG<sup>+</sup>97, DGG97, DLR16, ELS<sup>+</sup>14, EO80,  
 GS98, HL82, JPP91, KRR18, Lan80, LO94,  
 LV94, LM18, LR13, Loe87, MSJ94, MP88,  
 SS98, She91, Wei89, van88, ABS09, BDL<sup>+</sup>08,  
 BdlBH99, Leu04, RM07, SYH07, SJ03].  
**Abstraction** [CGL94, CL94, Der85,  
 GMH81, GKM20, SM81, BMR05, BBTS07,  
 GMZ00, LN02, LH08, MOSS96, PR07, Ell82].  
**abstractions** [BCF04]. **Access**  
 [ABLP93, BCC04, KS83, Mis86, NBG13,  
 HR02, HO07, KSK07, PHP02, PSS05].  
**Access-Right** [KS83]. **accessed** [RR05].  
**Accessing** [CB80]. **Accumulation**  
 [Bir84, Bir85]. **Accumulators** [Cam89].  
**accuracy** [CEG07, HDH02]. **accurate**  
 [CG04, VBLG04, VALG05]. **ACE** [Le 88].  
**ACM** [Ano18, TGT20, Kro82, Kro83, Kro84,  
 Kro85, Kro86, Kro87, Kro88, Kro89, Kro90,  
 Kro91, Kro92]. **Across** [NSTD<sup>+</sup>15]. **Action**  
 [BKS88]. **Actions** [Lam94, LS83]. **Activity**  
 [Bar81, MTG80]. **Actor** [TCP<sup>+</sup>17]. **Acyclic**  
 [BE94, JF81]. **Ad** [MDCB91, PS08]. **Ada**  
 [Bak82, Dil90, Hil88, LP80, WJS<sup>+</sup>00].  
**Adaptation** [Dha91]. **Adaptive** [ABH06,  
 HOYY18, PXL95, TCVB14, UJ92, RD03].  
**adaptors** [YS97]. **Addendum** [Bir85].  
**Adding** [ACW90, BN94]. **Addition**  
 [CBMO19]. **Addressing** [Hol87, ZP10].  
**Adequacy** [KKSD94, Wey83]. **adjusting**  
 [ABB<sup>+</sup>09]. **advice** [WKD04]. **Æminium**  
 [SNS<sup>+</sup>14]. **Affine** [BAC16, BCEM15,  
 CFNH18, DG19, ELS<sup>+</sup>14, VJB12]. **Affix**  
 [GF85]. **agents** [BCC04]. **aggregate**  
 [LSLR05]. **Ahead** [BLH12, DP82]. **al**  
 [Ano18, TGT20]. **Alarms** [LLK<sup>+</sup>17].  
**Algebra** [Koz97, Wil82a, KBC<sup>+</sup>99].  
**Algebraic** [BP82, BWP87, CIJGP18,  
 CGG<sup>+</sup>19, Jen97, Lin93, SV20, JB06, SP07].  
**Algorithm**  
 [AB81, Bak82, BB79, BAC16, BP82,  
 DSW82, Dha91, DP93, GHS83, Hua90,  
 Hud91, JJCO19, LV94, LY98, Lei90, LT79,  
 LH91, MM82, MC82a, Pet82, SH89, TB98,  
 Wis79, BKRW98, BH99, DR05, DVD07,  
 JNZ06, Van96a, Van96b, Han81b, BKRW05].  
**Algorithmic**  
 [BP82, CFNH18, GM12, Loe87].  
**Algorithms** [Apt86, BA84, CIJGP18,  
 CGG<sup>+</sup>19, CS95, CN83, GLO88, KRS84,  
 KKM90, Kro82, Kro83, Kro84, Kro85,  
 Kro86, Kro87, Kro88, Kro89, Kro90, Kro91,  
 Kro92, MM89, RD87, RH87, RP88, TM93,  
 WW95, Apt00, DAS98, GC01, ZGZ05].  
**Alias** [Hor97, HBCC99, RRSY08]. **Aliasing**  
 [Boe85, Ram94, RLS<sup>+</sup>01]. **All-Purpose**  
 [Spo86]. **Allocating** [ZP07]. **Allocation**  
 [BB79, Bre89, BCT94, CH90, CS95, FLBB89,  
 GSO94, LCBS19, Rob79, SH89, CGS<sup>+</sup>03,  
 HCS10, LGAT00, PS99, PF96, RDG08,  
 SRM10, TP04]. **Alma** [ABPS98]. **Alma-O**  
 [ABPS98]. **almost** [Duc08, Ram99].  
**Alternative** [Gho93, GH80, Zav85]. **Always**  
 [Gri79]. **ambients** [BCC04, LS03, MH06].  
**Ambiguity** [Tho94]. **amortized** [HAH12].  
**Amulet** [VHM<sup>+</sup>01]. **Analyses**  
 [AC94, CC95, CFM94, TN19, KSV96, SJ03].  
**Analysis**  
 [AKNP17, ABE<sup>+</sup>05, AD98, Bac84, BNN18,  
 BC85b, Blo94, BE13, Bur90a, CFNH18,  
 CFG19, CDK<sup>+</sup>18, CMN91, DKKL18, DL93,  
 Deb95, DP97, DAW88, FPS19, FJK<sup>+</sup>17,

GNS<sup>+</sup>15, GKM20, GJ93, HP96, HOYY18, Hil88, Hor97, ISY88, Jen97, JJCO19, KD94, LLK<sup>+</sup>17, LTMS20, LR13, LHR19, McG82, MWB94, MOS07b, OHL<sup>+</sup>14, OLH<sup>+</sup>16, Pal95, PO95, PCC85, PP91, PW94, PW98, Pur91, RTD83, RTP17, RRB19, RP88, SR95, SSS83, SGL98, SS13, ABB<sup>+</sup>09, BDFZ09, BAL07, Bla03, Blu99, BCG<sup>+</sup>07, CSW06, Cha02, CGS<sup>+</sup>03, CKT86, DDV99, DGS97, FF99, GHB<sup>+</sup>96, GJ05, GZ04, GCRN11, HAM<sup>+</sup>05, HPMS00, HBCC99, HVDH07, HAH12, IK05, JLRS10, KBC<sup>+</sup>99, KK07, KSK07, LP00, LH08, MPM03, NS13, PHP02, Pal98, PKH07, Ram00, Rep00, RSL10, RD97, RRSY08, RR03, RR05, RLS<sup>+</sup>01, SRW98].

**analysis** [SRW02, STS03, SdSCP13, SS96, ST00a, WP10, WJ98, ZSD09, dHB<sup>+</sup>96].

**analyze** [DMM01, VBLG04]. **analyzer** [SMP10]. **Analyzing** [AW85, BEF<sup>+</sup>16, CFP<sup>+</sup>04, GMM99].

**And/Or** [Har80]. **Annotations** [Bur84].

**AOP** [DES12]. **APL** [Bud84, GD82, Hob84].

**Applicability** [DAW88, How80, LS98].

**applicable** [Gom92]. **Application** [CD79, DF80, DF81, LBN17, LR13].

**Applications** [BLRS12, Bou88, BALP06, CMLC06, NR06].

**Applicative** [AC94, KS86]. **apprentice** [MP02]. **Approach** [AKNP17, ABR81, AR80, BAC16, BP82, Bur90a, CH90, CD79, DS90, Ell82, ES97, FT94, GGL15, Har80, Hes88, KKW14, Lam79, Lam80, Lee86, LTMS20, MW80, MDCB91, ND16, OA88, Sam80, Spo86, SM81, SNS<sup>+</sup>14, Bou05, CRN<sup>+</sup>08, DHM<sup>+</sup>12, FGM<sup>+</sup>07a, JLRS10, KV00, LP80, MBT09, PSS05, PCJD08, RC03, SP07, WS97].

**approximations** [BGP99]. **Apt** [Moi83].

**architected** [ZP07]. **Architecture** [Wal92].

**Architectures** [Han94, KPF95, NSTD<sup>+</sup>15, PAS<sup>+</sup>15].

**Arising** [Bac84]. **Arithmetic** [Fis80, GNS<sup>+</sup>15, Hen83, LdR81, MOS07b].

**ARM** [FKW98]. **Array** [CGST95, CG95, LS79, Per79, PW98, JB06, LSLR05, NI05, PHP02, RMH06, RR05, ZCG<sup>+</sup>07].

**array-valued** [RMH06]. **Arrays** [BBC16].

**Article** [Ano18, TGT20]. **ASF** [VHKO02].

**aspect** [DWWW08, WKD04].

**aspect-oriented** [DWWW08, WKD04].

**AspectML** [DWWW08]. **Aspects** [Bor81, Set83]. **assembly** [AAR<sup>+</sup>10, MWCG99]. **Assertions** [BKB80].

**Assessing** [BDH<sup>+</sup>16, Wey83]. **Assignment** [BM94, CFR<sup>+</sup>91, GL80, GPF08, LDK<sup>+</sup>96].

**Assisted** [HCHP92]. **Assisting** [Fea82].

**Associated** [PPS79]. **associativity** [Cha02].

**Associons** [Rem81]. **assume** [HQRT02].

**assume-guarantee** [HQRT02].

**Assumptions** [ES97]. **AST** [GVC15].

**Asynchronous** [Bag89, GLO88, Mis86, GM12, HR02]. **ATL** [WSH15]. **Atomic** [WL85, Wei90, AE01].

**Atomicity** [JLP<sup>+</sup>14, Wei89, FFLQ08].

**Attacks** [SBE<sup>+</sup>19]. **Attribute** [CP95, Hud91, JP81, Jon90, Kat84, KR79, MK94, RD87, WW95, Boy96, CP96, Wu04].

**Attributes** [HT86]. **Author** [Ano86a, Ano88a, Ano89a, Ano90a, Ano91a, Ano92a, Ano94, Ano95, Ano98, Bur91].

**authorization** [FGM07b]. **Authors** [Ano82, Ano83, Ano84, Ano85, Ano86b, Ano87, Ano88b, Ano89b, Ano90b, Ano91b, Ano92b].

**auto** [ZP10]. **auto-addressing** [ZP10].

**Automata** [BMW91, CBMO19, ES97, Pro95, KV00].

**Automata-Theoretic** [ES97, KV00].

**Automated** [GRSK<sup>+</sup>11, KZC15, KF00, Sok87, JNGG10].

**Automatic** [AKNP17, AK87, Ano02a, BBC16, Cat80, CES86, DS90, KK98, Le 88, LK02, LS04, MS83, PZJ05, RH87, SSS81, SLC03, She91, Wat91, Wha94, ABHI11, ATD08, BdlBH99, CRN<sup>+</sup>08, ZCG<sup>+</sup>07].

**Automatically** [Slo95]. **Automating** [GKL94, MTSS09]. **Avoidance** [FGL94].

**aware** [MQ05]. **Axiomatic** [AR80, App94a, Boe85, Sou84, YB87, YB88, LP80]. **Axioms**

[Mis86].

**B** [Han81a]. **backpropagator** [PS08].  
**Backtracking** [Lin79, VR95, FM87a].  
**Backward** [DL18, Mye18]. **Balanced**  
 [AS80, PB80, vHK00]. **Barrier** [CHMY19].  
**Base** [NcS20, LS98]. **Based**  
 [BPP16, BGL93, Bur90a, CGJ<sup>+</sup>97a, CI84,  
 CP95, CH90, CPS93, DVLM15, DLR16,  
 EGP14, GG85, HT86, JTM98, Kai89, KH92,  
 KR79, LFF14, PW98, RTD83, SR95, SGL98,  
 Ste18, SNS<sup>+</sup>14, TY18, Wat94, WGS92,  
 vPS81, BFG08, BMR01, BHM<sup>+</sup>07, BCG<sup>+</sup>07,  
 CTT07, DDV99, Eug07, FF99, HBJ98,  
 KBC<sup>+</sup>99, KK07, KC01, LP00, LH08,  
 LGAT00, MTSS09, MH06, Pal98, PPT08,  
 PCJD08, SP97, SP07, SMP10, SYN06,  
 BDP14, WGS93, WM12]. **Basic**  
 [CGG<sup>+</sup>19, GLR83]. **Bayesian** [HOYY18].  
**BDD** [LH08]. **BDD-based** [LH08]. **Be**  
 [Bee94, Coh91, Wir91, CG04, LP99].  
**Behavior** [KLS92, GMM99, VBLG04].  
**Behavioral** [LN15, LW94]. **Behavioural**  
 [SV20]. **Being** [Cop94]. **benefits** [GMP<sup>+</sup>00].  
**Better** [Gri79, Lam88]. **between** [BS88].  
**Beyond** [GSW95]. **BI** [BBTS07].  
**BI-hyperdoctrines** [BBTS07].  
**Bidirectional**  
 [DP93, MMR95, FGM<sup>+</sup>07a, GPWZ08].  
**binaries** [STSP05]. **Binary**  
 [Sip82, DDD05, MMM<sup>+</sup>07, RC03, YF09].  
**binding** [ACE96]. **Birrell** [MDJ05].  
**Bisimulation** [FDY12, MH06, San09].  
**bisimulation-based** [MH06].  
**Bisimulations** [SV19, SKS11]. **Bit**  
 [CDK<sup>+</sup>18, KD94, KK07]. **Bit-Precise**  
 [CDK<sup>+</sup>18]. **bitvector** [KSV96]. **Bliss**  
 [GNS<sup>+</sup>15]. **Block** [LS81, Mur91].  
**Block-Structured** [LS81]. **Blocked**  
 [FTJ95]. **Blocks** [Jag94]. **Boolean** [XA07].  
**Bootstrapping** [App94a]. **Both** [KZC15].  
**bottlenecks** [RD03]. **Bottom**  
 [BGL93, GCRN11]. **Bottom-Up**  
 [BGL93, GCRN11]. **bound** [KK07, NI05].

**Bounded** [ADG<sup>+</sup>94]. **Bounds**  
 [CP17, PW94, BP12, CEI<sup>+</sup>07, RR05, SS05a].  
**Box** [WLBFB16]. **boxed** [BCC04]. **Branch**  
 [CGJ<sup>+</sup>97a, CEG07, YUW02, YS99].  
**Branches** [WZ91, RC03]. **Branching**  
 [CBMO19]. **Broad** [DAW88]. **Buddy**  
 [Kau84]. **Buffer** [Žic94]. **bugs** [HCS10].  
**Building** [Jag94]. **BURS** [Pro95]. **Bus**  
 [Pur94]. **Bytecode**  
 [SA99, BDL<sup>+</sup>08, CSCM00, FM99, GPF08,  
 KR01, Qia00, SMP10, WR08]. **Byzantine**  
 [LSP82].  
**°C** [PHEK99, BR97, HSS<sup>+</sup>14, ND16, PKH07,  
 PFH11, Ven95]. **C#** [BCF04]. **C/C** [ND16].  
**C11** [JP17]. **Cache**  
 [GMM99, KLS92, MMM<sup>+</sup>07, SS96, VBLG04].  
**Caching** [ABM93, FK85, KS86, LST98].  
**Calculational** [Bou06]. **calculi** [ABS09].  
**Calculus** [ABLP93, BKL<sup>+</sup>97, BN94,  
 Gom92, Kob98, Miq19, MRG88, Nel89,  
 Oho95, WM95, ABL03, AH10, Bou05,  
 Bou06, BCC04, DES12, HR02, IPW01,  
 Jay04, TA08a, KPT99]. **Call**  
 [DP97, GL80, GC01, HL05, KK07, SW97a].  
**call-by-value** [HL05, SW97a]. **Calls**  
 [BNN18, Coh83, Coh85, FF08]. **Can**  
 [Boe85, Coh91, Wir91, CG04]. **Capabilities**  
 [SDB20, WCM00]. **capability** [TA08a].  
**Carlo** [FL15]. **carrying** [AM01]. **Case**  
 [CFG19, FTJ95, WW95, BdlBH99, KF03].  
**Cats** [AMT14]. **Cause** [Cas95]. **CCP**  
 [EGM01]. **CCured** [NCH<sup>+</sup>05]. **Cedar**  
 [SZBH86]. **Cells** [ISY88]. **Centered**  
 [CHY12]. **Centers** [KRS84]. **Centralized**  
 [HM84]. **centric** [DHM<sup>+</sup>12]. **Certificate**  
 [BGKR09, BK11]. **certified** [STSP05].  
**Chaining** [LS80]. **Chains** [HS94].  
**challenge** [MP02]. **change**  
 [BA08, CP96, Lee09]. **Changes**  
 [Ber94, MTSS09]. **changing** [MP07].  
**Chariots** [PB97]. **Check** [AP94]. **checked**  
 [KN06]. **checker** [NP08]. **Checking** [Car95,  
 CGL94, ES97, FF08, GL94, ND16, AY01,

ACM11, BGP99, FFLQ08, HQRT02, JJD98, KF10, KV00, NI05, SG04, VJB12, YMW97].

**Checks** [CG95, CEI<sup>+</sup>07]. **Choice** [BN94, JCMM19]. **CIRCAL** [Mil85].

**Circular** [Jon90, Pet82]. **Circularity** [WW95, Wu04]. **Clarification** [PA86a].

**Class** [CBMO19, HKMN94, Han92, SJ03, SDTF13, HS11, MH04, ST00a]. **Classes** [SDTF13, WT11, HHPW96, HMS06].

**Classical** [JSB<sup>+</sup>12, Miq19]. **Classification** [KZC15]. **Classifying** [GSW95]. **Claus** [WP10]. **Cliché** [Wat94]. **Cliché-Based** [Wat94]. **Clique** [GSO94]. **Closure** [Pal95, SW97b, SA00]. **CLP** [DHM00, GLMM05, JMSY92, KMM<sup>+</sup>98, VR95].

**Clustering** [LLK<sup>+</sup>17]. **Clusters** [BGH<sup>+</sup>13, HBG<sup>+</sup>09]. **coalescing** [GA96, Hai05, PM04]. **Code** [AGT89, BHM<sup>+</sup>19, Cat80, Cop94, DF84, FGL94, GF85, Hen82, HG83, JSB<sup>+</sup>12, KRS94, LR13, ND16, Rob79, TvS82, Wan82, AM01, DEMD00, Hai98, HBG<sup>+</sup>09, HK07, JNZ06, LDK<sup>+</sup>96, MSRR00, ME97, Oho07, PHEK99, WS97, vHK00, CM93, Pem83, WST85].

**Cohen** [Coh85]. **coherence** [SS96]. **coinduction** [San09]. **Collect** [JCMM19].

**Collecting** [HY91]. **Collection** [BA84, CN83, DSW82, Lan80, TM93, URJ18, WLBF16, BALP06, HDH02, PBK<sup>+</sup>07, Piq96].

**collector** [BBYG<sup>+</sup>05, LP06, TSBR08].

**Coloring** [BCT94, CH90, GSO94].

**combination** [BCG<sup>+</sup>07]. **Combinator** [FRW90, KLS92]. **Combinatorial** [LCBS19]. **Combinators** [FGM<sup>+</sup>07a, KS88, KS89]. **Combinatory** [RS97]. **Combining** [Ber94, BP82, CC95, CMB<sup>+</sup>95]. **Come** [LH91]. **Comments** [AB94, KS79, LaL84, NN86, Sor89].

**Communicating** [AFdR80, GC86, HM84, MW84, MC82b, Moi83, Oss83, PP91, Pur91, Sou84, Ber80, KS79]. **Communication** [Ang89, CHY12, FJK<sup>+</sup>17, FY85, Gel85, Hua90, LH91, MB83, vPS81, KBC<sup>+</sup>99, Mil85, SWU10, WM12].

**Communication-Centered** [CHY12].

**Communications** [RS84b].

**Commutativity** [RD97, Apt00, Cha02].

**Compact** [BC79, Sip82, Wad90].

**Compactification** [RH87]. **Compacting** [CN83]. **Compaction** [CP17, Wis79, BP12, DDD05, DEMD00].

**Comparative** [WCW90, WCW91].

**Comparing** [Hai05]. **Comparison** [CN83].

**Compartmentalized** [WLBF16].

**CompCert** [BDP14]. **Compensation** [FGL94]. **Compilation** [DLR16, FKW98, FL91, JLP<sup>+</sup>14, JF81, Oho95, PAS<sup>+</sup>15, Sit79, KMM<sup>+</sup>98, LST02, LDM07, SYN06].

**Compile** [ABR81, GW99, Hol87, Tra08].

**Compile-Time** [ABR81, Hol87, GW99, Tra08]. **Compiler** [App94a, Bud84, CM86b, DK17, DEMD00, FT94, FGL94, JSB<sup>+</sup>12, Rei83, Slo95, Son87, Wha94, YBL16, Ano02a, CMLC06, DHS09, GMM99, KN06, PE08, PHEK99, SYK<sup>+</sup>05, VHKO02]. **Compiler-Driven** [YBL16].

**Compilers** [BDFH97, DDH84, HP96, Han94, BGKR09, RD97, SYN06].

**Compiling** [Cha93, CH87, Fis80, Set83, VHKO02].

**Complementation** [CFG<sup>+</sup>97]. **Complete** [BDFH97, WM95]. **Completeness** [LBN17, TB95, WGS92, Wu04, WGS93].

**completion** [KR01]. **Complexity** [BEF<sup>+</sup>16, Deb95, Le 88, RRSY08, SSD09].

**component** [LS98, YS97].

**component-base** [LS98]. **Componential** [FF99]. **Components** [CIJGP18].

**Composing** [AL93, HKMN94]. **Composite** [Fea87]. **composition** [AH10, Pau01].

**Compositional** [Fos96, Jon94, JTM98, LFF14]. **compressed** [DAS98]. **Compression** [BMW91, CSCM00, DKV07].

**Computability** [HMS06]. **Computable** [PK82]. **Computation** [AC94, BOV85, DP82, HS94, LST98, PB97, ABB<sup>+</sup>09, AE01,

DR05, LK02, SWU10, SGL97, Hal85].  
**computational** [ATD08, SSD09].  
**Computations** [DW89, MC82b, VSS94, YS91, LSLR05, Mon08, YF98]. **Computer** [HCHP92, Wol92]. **Computer-Assisted** [HCHP92]. **Computers** [Fis80, LK02].  
**Computing** [ANP89, CFR<sup>+</sup>91, CF95, KM81, HVB<sup>+</sup>99, MMG00]. **Concept** [Tur86, ST00a]. **Concepts** [Eug07].  
**Concerning** [Sha82]. **Concrete** [Bar81].  
**Concurrency** [BG89a, Lam90, Wei89, BCF04, Mil85, TA08a, CPS93]. **Concurrent** [BC91, Car95, CIJGP18, Cla80, CES86, CPS93, CFM94, DGMP97, FT94, Hal85, HSP83, HW90, Her93, JTM98, Kar84, Lam83, LFF14, MSM<sup>+</sup>16, OL82, Pet83a, Pet83b, RY88, Sku95, SNS<sup>+</sup>14, AE98, AE01, AAE04, BBYG<sup>+</sup>05, BGP99, CSW06, JPS<sup>+</sup>08, RS97, SRM10, YS10].  
**Concurrent-by-Default** [SNS<sup>+</sup>14].  
**Concurrent-Program** [FT94].  
**Condensation** [JTM98]. **Condition** [HW90]. **Conditional** [Boy96, WZ91, Dam03]. **Conditioning** [OGJ<sup>+</sup>18]. **conditions** [KWL09].  
**Conference** [Wol92]. **confined** [GPV07].  
**Conflict** [Cas95]. **Conjecture** [KPS92, Sag86]. **Conjoining** [AL95].  
**conservative** [Hai05]. **considered** [Gor04].  
**Consistent** [XBOS20]. **Constant** [CIJGP18, CGG<sup>+</sup>19, Coh91, WZ91, Wir91].  
**Constrained** [BG89a, DAW88, PS96, Žic94, LPP01].  
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**Constraints** [AKP94, DFR15, HG83, Mye90, BA08, RM10, TFK<sup>+</sup>11, Van96b, VHM<sup>+</sup>01, Van96a].  
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 LO94, LN02, Loe87, Mal82, MMR95, MCT96,  
 PP91, QG95, RCRH95, RP88, SSS81, Sku95,  
 SGL98, SM81, TWW82, WL85, Wei89, Wei90,  
 Wet82, Wey83, CFP<sup>+</sup>04, DHM<sup>+</sup>12, DGS97,  
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**data-centric** [DHM<sup>+</sup>12]. **Data-Driven**  
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**data-independence** [Rep00].  
**data-member** [KF00]. **Data-Parallel**  
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**DeRemer** [Sag86]. **Derivation**  
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**Descriptors** [Hol87]. **Design**  
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[BCP08, CSCM00, HK07, Rhi03, SRM10, TP04, ZP10]. **Embedding** [HF87]. **Empirical** [BHK07, BDH<sup>+</sup>16]. **Empowering** [JSB<sup>+</sup>12]. **Emulator** [ML80]. **Enabled** [ADG<sup>+</sup>94]. **Encapsulating** [GPV07]. **Encapsulation** [AR84, DDM11]. **Encoding** [Hob84, GZ05, ZP07]. **Encodings** [BC79]. **End** [BDP14, CSCM00]. **enforcement** [HMS06]. **Enforcing** [CEI<sup>+</sup>07]. **engines** [SS08, SS09]. **enhanced** [GH97]. **Entries** [LaL84, SS82]. **Enumeration** [BB94, JJD98]. **Environment** [CO90, SZBH86, CKT86]. **Environmental** [SKS11, SV19]. **Environments** [BS86, GKL94, HK85, HT86, Kai89, dJKVS12]. **Epochs** [Sol92]. **equalities** [FMoPS11]. **Equality** [Pal98]. **Equality-based** [Pal98]. **Equations** [HO82, Bou06, GS11, GMM99]. **Equiprobable** [PB80]. **Equivalence** [SV20, VJB12, VSS94]. **Equivalent** [PO95, NP08]. **Erlang** [TCP<sup>+</sup>17]. **Erratum** [SS09]. **Error** [AB81, Bac84, BN99, BF87, FL15, KC01, LaL84, MF88, MYD95, PK80, Ric85, SSS83, SS82, Wet82, ZMVPJ17, dJKVS12, Jef03, XA07]. **Errors** [AWW95, SBB<sup>+</sup>19, Wha94, CPRT02, JNGG10]. **Escape** [Bla03, CGS<sup>+</sup>03]. **ESOP** [Ahm20]. **ESOP'05** [Sag07]. **Essential** [DES12]. **Esterel** [Tar07]. **Estimation** [SBB<sup>+</sup>19]. **Eta** [DMP96]. **Eta-expansion** [DMP96]. **Euclid** [HW82]. **Euclidean** [Bou92]. **Evaluating** [BLH12]. **Evaluation** [AFV98, Bur84, CGST95, CK93, Gri82, Hud91, Jon90, LV94, PA85, PA86a, PA86b, RD87, RL98, Slo95, SG90, WCW90, WCW91, ZSS20, ADR06, CP96, CG04, GJ05, LDM07, Leu04, ST00b, SYK<sup>+</sup>05]. **Evaluations** [BDH<sup>+</sup>16]. **Evaluator** [Gom92, JP81, KR79, Le 88]. **Evaluators** [CP95]. **Event** [Bar81, YMW97]. **event-driven** [YMW97]. **Events** [Bal94]. **Ever** [Gri79]. **Evidence** [CGJ<sup>+</sup>97a]. **Evidence-Based** [CGJ<sup>+</sup>97a]. **Example** [CM86a, Mye90, Nix85]. **Examples** [Oss83, Jef03]. **Exception** [YB85, YB87, YB88, LS98, LP80, OKN06]. **Exception-Directed** [OKN06]. **Exception-Handling** [YB85, LS98]. **Exceptional** [WN08]. **Exceptions** [ASF17, Hau96, LP00]. **Exclusion** [ADG<sup>+</sup>94, LH91, ABHI11]. **Executable** [Hob84]. **executables** [YF09]. **eXecute** [BR10]. **Execution** [CS87, Dil90, GJ93, JW17, JNGG10, JF81, SS98, SS88, BALP06, GPA<sup>+</sup>01, TSY00, YF98]. **Exemplars** [LaL89]. **Exemplified** [DGL<sup>+</sup>79]. **Exercise** [Kna90, Mis81]. **Exhaustive** [Bur90a]. **Existential** [MP88]. **existing** [LS98]. **expansion** [DMP96]. **Expansions** [SBB<sup>+</sup>19]. **Experience** [FSS83, Wal92]. **experiences** [Eug07]. **Experimental** [LV94, SSS83, Ven95, ABB<sup>+</sup>09, BGP99]. **Experiments** [Tur84]. **Explanation** [Mis81]. **Exploiting** [KOE<sup>+</sup>06]. **exploring** [WS97]. **exponential** [Wu04]. **exponential-time** [Wu04]. **Expression** [GP81, YB87, YB88, HVP05]. **Expression-Oriented** [GP81, YB87, YB88]. **Expressions** [BG89b, CGST95, CC97, DAW88, Fis80, Geo84, Gri82, Hen83, HY91, KS83, LdR81, PK82, Sha82, Sit79, Wat91, Dam03, NN86]. **Expressive** [MFRW09]. **Expressiveness** [WGS92, WGS93, PS96]. **Extended** [CBMO19, KGMO04]. **Extending** [CEW14, CMS03, MSRR00, MK94]. **Extensible** [HSG17, Sto04, ATD08, MBC04]. **Extension** [Bur90b, Coh91, WSH15, Wir91, ALZ03, KKN06, LS08]. **Extensions** [Wir88]. **Extent** [MF88]. **External** [Wal80, Wal81]. **Extracting** [GP95]. **extraction** [TSL<sup>+</sup>02]. **extrapolation** [WM12]. **Extrema** [Pet82]. **F** [MWCG99]. **Facets** [ASF17]. **factoring** [DRSS96]. **Failure** [BN99, Dar90, GHH<sup>+</sup>19, Kar84].

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**Generalizing** [DB85]. **Generals** [LSP82].  
**Generate** [Son87]. **Generated** [Slo95, dJKVS12]. **Generating** [HBM<sup>+06</sup>, HT86, Jef03, LR13, JNZ06].  
**Generation** [AGT89, AS80, BOV85, BM94, DS83, DS90, GF85, GVC15, HKR92, HKR94, Pro95, Rei83, Rob79, She91, ST00b, UJ92, DAS98, MSRR00, PHEK99].  
**Generative** [Gel85]. **Generator** [PPS79].  
**Generators** [Cat80, GHK81]. **Generic** [LV94, DDM11]. **generics** [IV06].  
**Geometry** [CR87]. **Georgeff** [NN86]. **GJ** [IPW01]. **Glanville** [MSRR00]. **Global** [Bac84, Dha91, GHB<sup>+96</sup>, OHL<sup>+14</sup>, PK80, PS92, Sch85, dHB<sup>+96</sup>, CS04, KBC<sup>+99</sup>, DS88, Sor89]. **GLR** [SJ06]. **Goal** [Dar90, Gud92, SYH07]. **Goal-Directed** [Gud92, SYH07]. **Goal-Oriented** [Dar90].  
**Goto** [CF94]. **GPU** [BCD<sup>+15</sup>]. **Gradual** [TGT18, TGT20]. **Graham** [MSRR00].  
**Graham-Glanville** [MSRR00]. **Grained** [PBR<sup>+15</sup>, DNS<sup>+06</sup>]. **Grammar** [CI84, CP95, GF85, JP81, KR79, Web95].  
**Grammar-Based** [CI84]. **Grammars** [BS88, Jon90, Kat84, LaL81, RD87, RH87, Tai79, WW95, Boy96, CP96, Wu04].  
**Grammatic** [Tho94]. **Grammers** [BB94, MK94]. **Granularity** [RRB19].  
**Graph** [Ass00, Bee94, BCT94, CFR<sup>+91</sup>, FOW87, KKSD94, KLS92, MC82a, Son87, CTT07, GC01]. **graph-based** [CTT07].  
**Graphic** [Mal82]. **graphical** [VHM<sup>+01</sup>].  
**Graphs** [GKM20, HRB90, KPS92, Kna90, SGL98, DR05, JC97, KSK07, SGL96, UM02].  
**grid** [VWJB10]. **Grimmer** [Aho18].

**groundness** [CSS99]. **Grover** [BH99].  
**growth** [BALP06]. **Guarantee** [GEGP17, LFF14, HQRT02]. **guarantees** [LS09]. **guard** [MP07]. **guarded** [SP07].  
**Guardians** [LS83]. **Guards** [Ber80]. **Guest** [FP02, OP04, DeM83, Per90, Rep86, Wol92].  
**Guide** [App94a, BDH<sup>+16</sup>]. **Guided** [OLH<sup>+16</sup>]. **guiding** [VALG05].

**Hackers** [App94a]. **Hancock** [CFP<sup>+04</sup>].  
**handle** [VJB12]. **Handling** [Hau96, LdR81, Piq96, SSS83, UM02, YB85, YB87, YB88, CRN<sup>+08</sup>, LS98, LP80, SSD09, Hen83]. **Hard** [Hor97]. **Hardware** [BKL<sup>+97</sup>, Mis86].  
**harmful** [Gor04]. **Hashing** [PB80, Duc08].  
**Haskell** [GRSK<sup>+11</sup>, HHPW96]. **Heap** [KSK07, BALP06, KF00, YS10].  
**heap-manipulating** [YS10]. **Heavily** [BG89a]. **Hennessy** [CM93, WST85].  
**Herding** [AMT14]. **Heuristic** [SL92].  
**hiding** [LN02, OYR09]. **hierarchic** [AG04].  
**Hierarchical** [BA99, CP95, CD79, AY01, CP96].  
**hierarchically** [MBC04]. **hierarchies** [ST00a, Van96a, Van96b]. **hierarchy** [KF00].  
**High** [Cam89, Fat82, MSM<sup>+16</sup>, URJ18, CMS03, VWJB10]. **High-Level** [Cam89, Fat82, CMS03, VWJB10].  
**High-Performance** [URJ18]. **Higher** [AC94, AD98, CJK95, DJP<sup>+16</sup>, FPS19, SV19, BBTS07, DF11, SKS11, SP97].  
**Higher-Order** [AC94, AD98, CJK95, DJP<sup>+16</sup>, FPS19, SV19, BBTS07, DF11, SKS11, SP97].  
**Highly** [Her93, Sku95]. **Hoare** [Apt81, GM81, LS84, Sok87, Yin11]. **Hoc** [MDCB91]. **Holistic** [ZMVPJ17].  
**Homomorphisms** [HIT97]. **HOP** [BLRS12]. **Hybrid** [KF10, KS10].  
**Hyperball** [LM18]. **hyperdoctrines** [BBTS07].

**I-Structures** [ANP89]. **I/O** [Car95]. **Icon** [GHK81, Gri82]. **id** [Bee94]. **idempotency**

[KOE<sup>+</sup>06]. **Identical** [FLBB89]. **Identification** [BGH<sup>+</sup>13, SBE<sup>+</sup>19]. **identify** [MMM<sup>+</sup>07]. **Identifying** [Ram99, SGL96]. **Idioms** [PP94]. **IDL** [Lam87]. **IEEE** [Fat82]. **Ignorance** [GNS<sup>+</sup>15]. **Illustrative** [Oss83]. **Impact** [BHM<sup>+</sup>19, OLH<sup>+</sup>16, CKT86]. **Imperative** [AB20, ABPS98, DFR15, Gro06]. **Implementation** [AKBLN89, AOC<sup>+</sup>88, BCD<sup>+</sup>15, Bou88, Bre89, BS83, CM86b, GMH81, Gaz83, Lin93, MDCB91, PXL95, RL98, WL85, CMLC06, FM87a, GB99, LDM07, LPSO04, Tra08, Zho96]. **implementations** [BBF<sup>+</sup>11, BFGT08, DF98]. **Implemented** [DB85]. **Implementing** [BR97, Her93, HW82, Sku95]. **Implications** [Fat82]. **Implicit** [BH05b, SJP12]. **Implicit-signal** [BH05b]. **improve** [KF00]. **Improved** [GHR80, Mur91, KK07]. **Improvement** [MS83, San96]. **Improvements** [BCT94]. **Improving** [CK94, CMB<sup>+</sup>95, MCT96, TCP<sup>+</sup>17, WS97]. **impure** [Pip97]. **incomplete** [GLMM05]. **Incremental** [Bur90a, CP95, DMM88, GM79, HKR92, HKR94, HPMS00, Hud91, Kai89, Lar95, LST98, LHR19, PS92, RTD83, RP88, SGL97, WG98, YS91, BBYG<sup>+</sup>05, CP96, Van96a, Van96b]. **Incrementally** [QL91]. **Independence** [DHM00, Rep00]. **Independent** [ML80, Mul92]. **Index** [Ano86a, Ano88a, Ano89a, Ano90a, Ano91a, Ano92a, Ano94, Ano95, Ano98]. **indexed** [AM01]. **indices** [RR05]. **Indirect** [Piq96, CEG07, YK97]. **Induction** [GSW95, Sit79]. **inefficiencias** [MMM<sup>+</sup>07]. **Inessential** [SS82, LaL84]. **Inference** [CEW14, Deb89, Hen93, LO94, LY98, Pad19, TB98, Wey83, FFLQ08, JB06, PM06, PT00, PS03, Van06]. **Influence** [FTJ95]. **Information** [AR80, Ano82, Ano83, Ano84, Ano85, Ano86b, Ano87, Ano88b, Ano89b, Ano90b, Ano91b, Ano92b, ASF17, BC85b, HR02, NBG13, PBR<sup>+</sup>15, PS03, GS99, HY07, LN02, OYR09, TZ07]. **Information-Flow** [BC85b, TZ07]. **infrastructure** [SWU10]. **Inheritance** [LN15, WT11]. **initialization** [FM99]. **Injection** [SBE<sup>+</sup>19]. **Input** [BS83, vPS81]. **Input-Output** [BS83]. **Inputs** [PA86a]. **Insensitive** [Hor97, FJKA06]. **Insertion** [AKNP17, GJ05]. **inspection** [CF04, FG03]. **Instantiation** [Der85]. **Instead** [Lam84, Rem81]. **Instruction** [KPF95, LCBS19]. **Instructions** [LS80, PS93, RF97, Rob79, LPP01]. **Integer** [BAGM12, BEF<sup>+</sup>16, BGP99]. **Integrated** [SS13]. **Integrating** [HPR89, WJS<sup>+</sup>00]. **Integration** [CO90, Leu04]. **Intensional** [STS03]. **Interaction** [WSH15, WT11, van88, BCM99]. **Interactions** [JS94]. **Interactive** [ACS84, BS86]. **Interconnectability** [TY18]. **Interface** [Win87, van88]. **Interfaces** [DS90, Mye90, TLHL11, WT11]. **Interferences** [FTJ95]. **Interfering** [Jon83]. **Intermediate** [Lam87, Pem83, TvS82]. **Internal** [Han81a]. **International** [Wol92]. **Interoperability** [Ano18, GSS<sup>+</sup>18]. **interoperable** [BFGT08]. **Interpretation** [BGL93, CFG<sup>+</sup>97, DLR16, KRR18, LV94, MSJ94, BDL<sup>+</sup>08, BdlBH99, DGG97, Leu04, SYYH07]. **Interpretation-Based** [DLR16]. **Interpretations** [CMB<sup>+</sup>95, HY91, SJ03]. **Interpreters** [LR13, CEG07]. **Interprocedural** [Bur90a, BT93, DP97, HAM<sup>+</sup>05, HS94, HBCC99, HRB90, NR06, SH89, CKT86, DVD07, DGS97, FMoPS11, JLRS10, KK07, RLS<sup>+</sup>01]. **Interprocess** [RS84b]. **Interprocessor** [Ang89]. **intersection** [Dam03]. **Intertask** [FY85]. **Interval** [Bur90a, GNS<sup>+</sup>15, FH04]. **Interval-Based** [Bur90a]. **Introduction** [Ahm20, DeM83, HCW82, Per90, Rep86, Sag07, Wol92]. **Invariant** [BKB80]. **Invariants** [Cla80, GEGP17]. **Irreducible** [Hav97, UM02]. **irregular** [YF98].

**Irrelevant** [GP81]. **Iso** [LBN17].  
**Iso-Recursive** [LBN17]. **Isolation** [Wha94].  
**Isomorph** [JJD98]. **Isomorph-free** [JJD98]. **Issue** [Ahm20, Ano18, TGT20, Sag07]. **Issues** [BO94]. **Iterated** [GA96]. **Iteration** [Cam89, MOSS96, GS11, JLF02, Qia00].  
**Iterative** [Ans87, Par90, DR05, JNGG10, LS04].

**Jade** [RL98]. **Jam** [ALZ03]. **Java** [AFF06, ALZ03, AAD<sup>+</sup>07, BH05a, Bla03, BALP06, CGS<sup>+</sup>03, CMS03, CSCM00, FFLQ08, FM99, GPF08, IPW01, KKN06, KGMO04, KN06, KR01, LST02, LP06, LS08, Loc13, MVV<sup>+</sup>01, MME<sup>+</sup>10, MFRW09, MMG00, NR06, OKN06, Qia00, RRB19, SLC03, SMP10, SBE<sup>+</sup>19, SA99, SYK<sup>+</sup>05, TN19, TSL<sup>+</sup>02, WR08]. **Java-like** [KN06].  
**JavaCOP** [MME<sup>+</sup>10]. **JavaGI** [WT11].  
**join** [WKD04]. **JR** [KGMO04]. **Jump** [LS80, RS84a]. **Just** [DLR16, TN19, SYK<sup>+</sup>05]. **Just-In-Time** [TN19, DLR16, SYK<sup>+</sup>05]. **JVM** [HO07].

**KaffeOS** [BH05a]. **Kaiser** [Tic88]. **Kernels** [BCD<sup>+</sup>15, ATD08]. **Keys** [PB80]. **Kilbury** [Lei90]. **Kitsune** [HSS<sup>+</sup>14]. **Kleene** [Koz97].  
**Knot** [MC82a]. **knowledge** [GLMM05].

**labels** [Sto04]. **Laboratory** [Bor81].  
**LaLonde** [Hen83, LaL83]. **LALR** [DP82, KM81, PCC85]. **Lambda** [Geo84, Gom92, NN86, PS08]. **Laminar** [PBR<sup>+</sup>15]. **Lamport** [Ang89, Pet83b].  
**Language** [ACPP91, AOC<sup>+</sup>88, Ano18, ABPS98, BS86, BPP16, BO94, Bor81, BC91, DVLM15, Fat82, Fea87, FFF<sup>+</sup>18, GSS<sup>+</sup>18, Gud92, Hal85, HSG17, JMSY92, JPP91, Kai89, McG82, Per79, PPS79, RTD83, RCS93, Spo86, SNS<sup>+</sup>14, Tur84, Wet82, Win87, YS91, YB87, dJKVS12, van88, Bou05, BSvGF03, CFP<sup>+</sup>04, DWWW08, DF98, FM99, Gro06, HBJ98, KN06, LP99, MF09, MWCG99, PPT08, PHEK99, Tra08, VHKO02, HCW82, YB88].  
**Language-Based** [Kai89, RTD83].  
**Languages** [Ano18, AR84, AD98, Bar81, BL94b, BHM<sup>+</sup>19, Blo94, BM94, BWP87, CDFP89, Dug99, Fos96, FL91, HU96, Lee86, LR19, MSM<sup>+</sup>16, Mur91, Ryu16, SV19, TK94, TGT20, AAR<sup>+</sup>10, ACM11, DHM00, GW99, RS97, Rhi03, SRW98, SKS11, SP97, SWU10, Wol92]. **Larch** [Win87]. **Large** [GLR83, MK94, MH86, WCW90, WCW91, ZSS20]. **Large-scale** [ZSS20]. **Lattice** [AKBLN89, MMR95, FH04]. **Lauer** [GM81].  
**Layout** [KK98, LVV<sup>+</sup>83, GPWZ08, KF00].  
**Lazy** [ABM93, FKW00, HKR94, Hud91, TCVB14, Chi05]. **LCF** [Sok87]. **lead** [SS05a]. **Leader** [Hua93, KKM90]. **leak** [HDH02]. **learned** [VHM<sup>+</sup>01]. **Learning** [CGJ<sup>+</sup>97a, HOYY18, JJCO19]. **Least** [AB81, Bac84]. **Least-Cost** [AB81, Bac84]. **Left** [FKW98]. **Left-Linear** [FKW98].  
**legacy** [NCH<sup>+</sup>05]. **length** [SMP10].  
**Lessons** [URJ18, VHM<sup>+</sup>01]. **Let** [LY98].  
**Let-Polymorphic** [LY98]. **Level** [Cam89, Fat82, GP95, YBL16, CMS03, VWJB10].  
**Lexical** [HKR92]. **libraries** [Dug02]. **LIFE** [AKP94]. **lifetime** [HBM<sup>+</sup>06]. **Lightweight** [SW97b]. **Like** [Hua90, KN06]. **Limitations** [CP17]. **Linchpin** [BGH<sup>+</sup>13]. **Linda** [Gel85]. **Line** [Bal94]. **Linear** [BL94b, FKW98, PS99, RS84a, YR94, BKRW98, BKRW05, FMOPS11, KBC<sup>+</sup>99, Ram99, Rep98, RM10]. **Linear-Time** [YR94, BKRW98, BKRW05]. **Linearity** [KPT99]. **Linearizability** [HW90, DSW11].  
**Linguistic** [LS83, Wei90, FGM<sup>+</sup>07a]. **Link** [DDD05]. **Link-time** [DDD05]. **Linking** [QL91, Dug02]. **LIPS** [CDFP89]. **LISF** [GCRN11]. **LISP** [Mul92, Pip97, SH89, Wat83]. **List** [BC79, HIT97, Kau84, Sij89]. **listing** [MDJ05]. **Literature** [Oss83]. **Live** [MWB94]. **Live-Structure** [MWB94].  
**Liveness**

[ACW90, GC86, OL82, RY88, HDH02]. **LL** [BF87]. **Load** [KPF95]. **Loaded** [BG89a]. **Local** [BDFZ09, CBDGF95, PT00, SDB20, TSBRO8, Wei89, Dam03, San96]. **Locality** [BAC16, MCT96, VALG05, ZSD09]. **Locally** [AB81, Bac84, Min84]. **locating** [JNGG10]. **Locator** [ZMVPJ17]. **Lock** [GEGP17, KS10]. **Lock-Free** [GEGP17]. **lock-freedom** [KS10]. **locking** [AFF06]. **LOCKSMITH** [PFH11]. **Logic** [AS89, AFV98, Apt81, BGL93, BL87, BCD90, BDJ13, BMPT94, CS04, CES86, CFM94, DW89, Deb89, DL93, Deb95, DJP+16, JPP91, Kar84, LS84, Lam94, MW84, MSJ94, MMG92, SS98, Sok87, TK94, TB95, BBTS07, BMR01, BCG+07, BdlBH99, CU08, CG86, CSS99, DDV99, DPPR00, GHB+96, GW99, HVB+99, HPMS00, KWL09, LMD98, Leu04, PM06, RKR04, SRW02, Yin11, dHB+96]. **Logical** [BNN18, GGL15, GS98, TY18, RSL10, Tar07]. **Look** [DP82]. **Look-Ahead** [DP82]. **Lookahead** [KM81, MF88]. **Loop** [BAC16, CS87, MCT96, Sit79, RKSR12]. **Loops** [BAGM12, Boo82, CK94, DB85, FTJ95, Hav97, Wat91, Ano02b, LS04, LSLR05, Ram99, RDG08, SGL96, UM02]. **low** [CSCM00]. **low-end** [CSCM00]. **Lower** [PW94]. **LR** [ADGM91, BL94b, BF87, CPRT02, DMM88, Jef03, JP17, KC01, LaL81, LaL84, SS82, ST00b]. **LR-based** [KC01].

**M** [Bur91, Mul92]. **M-LISP** [Mul92]. **Machine** [CGJ+97a, Cat80, GNS+15, Gie83, Han94, JJCO19, LR13, ML80, RF97, SS98, SDB20, Wal92, Zav85, Ano02a, CEG07, CF04, HK07, KN06, Oho07, RRB19]. **machine-checked** [KN06]. **Machine-Code** [LR13]. **Machine-Independent** [ML80]. **Machine-Learning** [JJCO19]. **Machine-Specific** [Gie83]. **machinery** [FKW00]. **Machines** [ACW90, Bee94, CGST95, GC86, KK98, PS93, PP91, Rob79, RCRH95, AY01, AG04, ABE+05, ABS09, TSY00, Pur91]. **Madsen** [Ell82, SM82]. **Magma2** [Tur84]. **Maintenance** [GKL94]. **Making** [JC97, Loc13]. **malware** [PCJD08]. **Management** [JP81, Mur91, SDB20, van88, BP12, WCM00, Zho96]. **Managing** [Bob80]. **Manifest** [SIG17]. **manipulating** [YS10]. **Manipulation** [DVLM15]. **many** [AE98]. **massive** [BHK07]. **Massively** [CGST95]. **Matching** [AC96, AGT89, CP95, KPS92, ADR06, Van06]. **Matching-Based** [CP95]. **materializations** [RMH06]. **Mathematical** [Ban11, Hes88, LW93]. **MATLAB** [DP99]. **MATLAB(R)** [JB06]. **Matrix** [FTJ95]. **Matrix-Vector** [FTJ95]. **Maximal** [BG89b, Rep98]. **Maximal-munch** [Rep98]. **Maximization** [GLO88]. **Maximum** [Kna90]. **May** [Hor97]. **May-Alias** [Hor97]. **MCALIB** [FL15]. **Measures** [NcS20]. **Measuring** [FL15]. **Mechanically** [DSW11]. **Mechanism** [CO90, YB85, DNS+06]. **Mechanisms** [Rei83, HMS06]. **Mechanizing** [Pau01]. **Median** [Com80]. **Medians** [KRS84]. **megaflops** [MMG00]. **member** [KF00]. **Memory** [AMT14, CK94, Cha93, CBMO19, KZC15, KK98, KRS88, MSM+16, Mis86, RCRH95, SS88, ABHI11, BP12, GMM99, GW99, JNGG10, KF00, LK02, Loc13, QR00, RR05, TSY00, TP04, VBLG04, WCM00, MMM+07]. **memory-efficient** [TP04]. **memory-hierarchy** [KF00]. **Merge** [Ber94]. **Merlin** [HBM+06]. **Message** [CSW06, SS84, Gor04]. **Messages** [BB79, Jef03]. **meta** [Tra08]. **meta-programming** [Tra08]. **Metalevel** [Jag94]. **Metaprogramming** [CI84]. **Method** [BNN18, BCD90, BF87, HL82, Jon83, Loe87, JJD98]. **Methodology** [Ban87, Her93, Sku95]. **Methods** [DAW88, KM81]. **METRIC** [MMM+07]. **Mezzo** [BPP16]. **Microanalysis** [HCHP92].

**Microcode** [MV87]. **Middle** [BDP14]. **Middle-End** [BDP14]. **Might** [Bee94]. **migration** [Piq96]. **Minification** [HLH19]. **Minimal** [FKW98, IPW01]. **Minimization** [RS84a]. **minimizing** [RMH06]. **Minimum** [GHS83]. **Minimum-Weight** [GHS83]. **Mining** [AMT14]. **Misled** [Cop94]. **miss** [GMM99]. **Mixin** [HL05, RD13]. **mixins** [ALZ03]. **ML** [Blu99, CBMO19, HM93, HT04, PS03, RD13, Spo86]. **Mobile** [LS03, VHB<sup>+</sup>97, BCC04, KS10, SWU10]. **mod** [Bou92]. **Modalities** [SV20]. **mode** [PS08, ZP10]. **Model** [AY01, Ang89, BK11, BL87, BGP99, CGL94, DLR16, ES97, GS98, GG85, GL94, Han81a, HW82, Hol87, JJCO19, KH92, MSM<sup>+</sup>16, MMG92, ND16, VSS94, ACM11, AM01, AE01, JJD98, JPS<sup>+</sup>08, KN06, KV00, Loc13, NP08, QR00, SG04, VWJB10, VALG05, YMW97]. **Model-Checking** [ES97, BGP99]. **Modeling** [AF84]. **Modelling** [AMT14]. **Models** [GJ93, KZC15]. **Modern** [BCF04, RAB<sup>+</sup>07]. **Modes** [Deb89]. **modest** [LS08]. **Modification** [Lei90, RLS<sup>+</sup>01]. **Modula** [EO80]. **Modular** [AG04, BMPT94, CDK<sup>+</sup>18, EMH20, GL94, JBK18, Jag94, KKM90, LN15, MBC04, Wei89, YB85, dJKVS12, KV00, MFRW09, MOS07b]. **modularity** [BA99]. **Module** [PAS<sup>+</sup>15, RD13]. **Modules** [CL95, HW82, Lam83, HL05]. **Monadic** [DG19, MH04]. **Monitors** [BLH12, BH05b]. **Monolingual** [HK85]. **Monte** [FL15]. **Morel** [Dha91, DS88, Sor89]. **Morphing** [HS11]. **Morris** [Wis79]. **Mostly** [YF09, BBYG<sup>+</sup>05]. **Motion** [KRS94, Hai98]. **MPI** [FJK<sup>+</sup>17, TSY00]. **Multi** [Ano18, GSS<sup>+</sup>18, MF09]. **Multi-Language** [Ano18, GSS<sup>+</sup>18, MF09]. **Multialgebraic** [WM95]. **multidimensional** [RDG08]. **MultiJava** [CMLC06]. **Multilisp** [Hal85]. **multimethod** [DAS98]. **Multimethods** [CL95]. **Multiparty** [JS94]. **Multiple** [ASF17, NSTD<sup>+</sup>15]. **Multiply** [FTJ95]. **Multiprocess** [Lam79, Lam80]. **Multiprocessing** [ABR81]. **Multiprocessor** [GP81]. **Multiprocessors** [Cha93, KRS88]. **Multisource** [MMR95]. **Multithreaded** [EGP14, JBK18, JSB<sup>+</sup>12, KKW14, NR06]. **Multivariate** [HAH12]. **Multitway** [Cha87, Van96a, Van96b]. **munch** [Rep98]. **Mutandis** [SHB<sup>+</sup>07]. **Mutatis** [SHB<sup>+</sup>07]. **Mutual** [LH91, ABH11]. **Mutual-Exclusion** [LH91]. **Myths** [Gor04]. **n** [CKT86]. **Naming** [BDP93]. **Natural** [GZ04, dJKVS12, ACE96]. **Neighborhood** [BG89a]. **Neighborhood-Constrained** [BG89a]. **Nested** [Cha93, NB99, ACM11]. **Nesting** [Hav97, Boy10]. **Nests** [BAC16]. **Net** [JTM98]. **Network** [WGS92, WGS93]. **Networks** [CGJ97b, GC86, KRS84, dBB85]. **Newtonian** [RTP17]. **Nicholson** [FA93]. **No** [Ano18, TGT20]. **node** [JC97, UM02]. **Nodes** [CF95, Han81a]. **Nomadic** [SWU10]. **Nominal** [CU08]. **Non** [CFG19, DL18, LLK<sup>+</sup>17, Mye18, BS88]. **non-** [BS88]. **Non-Deterministic** [Mye18, DL18]. **Non-polynomial** [CFG19]. **Non-Statistical** [LLK<sup>+</sup>17]. **Noncanonical** [Tai79]. **Noncorrecting** [Ric85]. **Nondeterminate** [TK94]. **Nondeterminism** [Ber80, Hes88, WM95]. **Nondeterministic** [QG95, MT08]. **Noninterfering** [HPR89]. **nonnumerical** [ME97]. **Nonprocedural** [PPS79]. **nonrectangular** [JLF02]. **nonscalars** [CRN<sup>+</sup>08]. **Nonsequentiality** [Bar81]. **Nonstrict** [Blo94]. **Nontermination** [PM06]. **normal** [LMD98]. **Normalize** [CRN<sup>+</sup>08]. **norms** [BCG<sup>+</sup>07]. **Notation** [Rem81, Wil82b]. **Note** [Com80, CM93, MS88, WST85, Coh85, Pal11b, YK97]. **Notes** [Sku95]. **Nothing** [BDH<sup>+</sup>16]. **Notion** [LW94]. **NP** [Hor97]. **NP-Hard** [Hor97]. **NQLALR** [BS88]. **nulled** [SJ06]. **Numbers** [GLR83]. **numeric** [Hau96].

**O** [ABPS98, Car95]. **Object** [DF84, HU96, KH92, Ryu16, WCW90, WCW91, BSvGF03, DMM01, DDDCG02, FM99, GPWZ08, HBM+06, JPS+08, LPSO04, Piq96, WJS+00]. **Object-Based** [KH92]. **Object-Oriented** [HU96, Ryu16, BSvGF03, DMM01, JPS+08, WJS+00].

**Objects** [AM85, CJK95, HF87, HW90, Her93, SM89, VHB+97, Wal80, Wal81, Win84, GPV07, HBJ98, KF00, Sto04, WJS+00, Sku95].

**obligations** [DSW11]. **Observability** [Gaz83]. **Observations** [Sha82]. **Occur** [AP94]. **Occur-Check-Free** [AP94]. **Off** [SBB+19]. **Offline** [CG04, GJ05]. **Old** [AL94]. **Old-Fashioned** [AL94]. **On-Line** [Bal94]. **On-The-Fly** [CF95, BA84, URJ18, LP06, PBK+07]. **One** [Bak82, BG89b, VHM+01]. **One-Pass** [Bak82]. **one-way** [VHM+01]. **online** [CG04, HVDH07]. **only** [PZJ05]. **Opacity** [QG95]. **Operating** [HM84, BCP08]. **Operational** [BLRS12, Han94, MF09].

**Operations** [AKBLN89, CK94, Lee86, LS79]. **Operator** [CSV01, Hen83, LdR81]. **Operators** [Ive79, She91]. **Optimal** [BOV85, CGST95, FK85, JCMM19, KRS94, Lar95, PB97, Hai98, JNZ06, KSV96, MSRR00]. **optimality** [CP96]. **Optimally** [BL94a]. **Optimistic** [PM04]. **Optimization** [Bee94, BBC16, Blo94, BAC16, BT93, DF84, DP97, DDH84, Dha91, DS88, FOW87, HG83, HOYY18, Pem83, PP94, RRB19, SS82, Sor89, TvS82, Web95, Ass00, BHK07, KBC+99, KF03, PE08, TVA07, ZP10, CG95, LaL84, OKN06]. **Optimizations** [CC95, JSB+12, CGS+03, CKT86, GMP+00, SYK+05]. **optimize** [DMM01, VBLG04].

**Optimized** [CM93, Cop94, Hen82, WST85, DS98, UM02]. **Optimizer** [DF80, FSS83, DF81]. **Optimizers** [Gie83]. **Optimizing** [CEG07, KMM+98, LSLR05, ML80, NSZS13, QR00, BGKR09].

**Or-Parallel** [GJ93]. **orchestration** [PE08]. **Order** [AC94, AD98, Bur84, CJK95, DP97, DJP+16, JPP91, JS94, SS98, BBTS07, DF11, FPS19, SKS11, SV19, SP97]. **ordering** [GS99]. **Organization** [Han81a]. **Oriented** [Bor81, Dar90, Ell82, FFF+18, GTWA14, GKL94, GP81, HU96, Ryu16, SM81, Tur84, YB87, YB88, BSvGF03, DWWW08, DMM01, JPS+08, WKD04, WP10, WJS+00]. **origins** [San09]. **OSI** [CDFP89]. **Output** [Ber80, BS83]. **overflow** [KOE+06]. **overhead** [BP12, SS96]. **overlays** [SWU10]. **Overload** [Bak82]. **overloading** [SS05b]. **Overview** [AOC+88]. **ownership** [DDM11, SS96]. **Oz** [VHB+97].

**Package** [Hil88]. **Paper** [GM81]. **Parallel** [ANP89, BOV85, BO94, BE13, Cha93, CGST95, CMN91, CL94, DS83, Fos96, GLO88, GJ93, GPA+01, HCHP92, HIT97, JF81, Kna90, LHR19, Mis94, NSZS13, OA88, Rao94, SS88, BBYG+05, CG86, GB99, HBJ98, KSV96, LK02, MVV+01, RR03, YF98]. **Parallelism** [Bur84, GP95, KSV96, NB99, PW94, TCVB14, YBL16].

**Parallelization** [BAC16, BDJ13, PP94, BdlBH99, HAM+05]. **Parallelizing** [HP96, ME97, RD97]. **Parameter** [Gaz83, Zho96]. **Parameterization** [TWW82]. **Parameterized** [CGJ97b, CK93, Gaz83, RKS12].

**Parametric** [HFC09, MMG92, SRW02, IV06]. **Parenthesis** [AS80]. **Parlog** [CG86]. **Parsed** [Wad90]. **Parser** [DDH84, JP17, LaL84, SS82]. **Parsers** [BN99, LaL81, MYD95, PK80, CPRT02, SJ06, ST00b]. **Parsing** [CH87, DMM88, Fis80, GM79, Lar95, RH87, Sam80, WG98, KC01]. **Part** [LaL81, PA85, PA86a, PA86b, Apt81]. **Partial** [AFV98, CP17, CK93, DS88,



Gom92, KCL<sup>+</sup>99, Sor89, ADR06, BP12, CG04, GJ05, LMD98, Leu04, ST00b]. **Partially** [BLH12, Kob98, RRSY08]. **partially-flow-sensitive** [RRSY08]. **partitioning** [RM07, YF09]. **Parts** [Son87]. **Pascal** [LS79]. **Pass** [Bak82, BM94]. **Passing** [BDM15, Gaz83, SS84, CSW06, Gor04, Zho96]. **Passive** [AKP94]. **past** [PM09]. **Path** [Blo94, CIJGP18, SMP10]. **path-length** [SMP10]. **Patient** [FFF<sup>+</sup>18]. **Patient-Oriented** [FFF<sup>+</sup>18]. **Pattern** [EGP14, ADR06, Jay04, MTSS09, Van06]. **Pattern-Based** [EGP14]. **Patterns** [GH80]. **PDS** [Han81b]. **PEAK** [PE08]. **Peephole** [DF80, DF81, Pem83, TvS82]. **PegaSys** [MH86]. **Pennello** [Sag86]. **Perfect** [Duc08]. **Performance** [HU96, MSM<sup>+</sup>16, PB80, URJ18, KF00, PE08]. **Performed** [Coh91, Wir91]. **Permission** [BPP16, SNS<sup>+</sup>14]. **Permission-Based** [BPP16, SNS<sup>+</sup>14]. **permissions** [Boy10]. **Persistent** [AM85]. **Petri** [JTM98]. **Petri-Net-Based** [JTM98]. **Phases** [Bar81]. **Philosopher** [CM84]. **Philosophers** [MS88]. **pi** [HR02, KPT99]. **pi-calculus** [HR02, KPT99]. **pict** [SWU10]. **Pictures** [MH86]. **Pipeline** [HG83]. **Pipelined** [BG89b, LPP01, RDG08]. **pipelining** [ME97]. **pitfalls** [Mon08]. **PL** [CD79, CZ84, FFF<sup>+</sup>18]. **PL/CS** [CD79]. **PL/CV3** [CZ84]. **place** [GW99]. **Placement** [DP93, GS99, vHK00]. **Platform** [TCP<sup>+</sup>17]. **pluggable** [MME<sup>+</sup>10]. **Pluto** [BAC16]. **Point** [CK94, Fat82, SBB<sup>+</sup>19, GJ05, Hau96, Mon08]. **Pointer** [LTMS20, LHR19, LS79, RR03, SDB20, HBCC99, HVDH07, PKH07, RLS<sup>+</sup>01]. **Pointers** [SS13, RR05]. **Points** [GKM20, WKD04]. **Points-to** [GKM20]. **Pointwise** [VSS94]. **Policies** [NBG13, BDFZ09, FGM07b]. **Policy** [Kro82, Kro83, Kro84, Kro85, Kro86, Kro87, Kro88, Kro89, Kro90, Kro91, Kro92, UJ92, BFG08]. **policy-based** [BFG08]. **Polyhedra** [GVC15]. **Polyhedral** [GVC15, QR00]. **POLYLITH** [Pur94]. **Polymorphic** [BMR05, Dug99, HT04, Hen93, KTU93, LO94, LY98, Oho95, SIG17, SV96, WJ98, BSvGF03, DWWW08]. **Polymorphism** [Bur90b, MDCB91, HFC09]. **polynomial** [BAL07, CFG19]. **PolyTOIL** [BSvGF03]. **polyvariance** [LMD98]. **Polyvariant** [AC94, WJ98]. **POP** [FFF<sup>+</sup>18]. **POP-PL** [FFF<sup>+</sup>18]. **Portable** [DDH84, Han81b, HK07]. **Possibly** [JP17]. **Postfix** [DS83]. **Postpass** [HG83]. **Power** [TWW82, SSD09]. **Powerlist** [Mis94]. **PPMexe** [DKV07]. **PQ** [GZ05]. **PQ-encoding** [GZ05]. **Practical** [AD98, BAC16, BF87, CP17, Dha91, LR19, ND16, PBR<sup>+</sup>15, SS13, TSL<sup>+</sup>02, WC97, Bou05, DR05, DVD07, DGS97, JNZ06, PFH11]. **Practice** [KRS94, Ryu16, Bla03, DRSS96]. **Pragmatic** [BDH<sup>+</sup>16]. **Pragmatics** [Gom92]. **Pre** [OLH<sup>+</sup>16]. **Pre-Analysis** [OLH<sup>+</sup>16]. **Precedence** [Hen83, LdR81]. **Precise** [CDK<sup>+</sup>18, FJK<sup>+</sup>17, GKM20, Hor97, TN19, PHP02]. **Precise-Yet-Efficient** [TN19]. **precision** [ZGZ05]. **Precondition** [Boo82]. **Predicate** [Lam90, BMR05, Bou05, Bou06, MFRW09, MMS96, PR07]. **Predicates** [CBDGF95, Lam88]. **predictable** [SHB<sup>+</sup>07, HK07]. **Prediction** [CGJ<sup>+</sup>97a, CEG07, YS99]. **Predictive** [FJK<sup>+</sup>17]. **Prepaging** [FK85]. **Prescription** [FFF<sup>+</sup>18]. **Presence** [AWW95, CF94, KTU93]. **preserving** [DHS09, LST02]. **pretenuing** [BHM<sup>+</sup>07]. **Pretty** [Chi05]. **Prettyprinter** [Wat83]. **Prettyprinting** [Opp80]. **Primitive** [App15]. **principals** [TZ07]. **Principled** [LTMS20]. **Principles** [Bou88, DRSS96]. **printing** [Chi05]. **Priority** [CH90, Fid93]. **Priority-Based** [CH90]. **Privacy** [BKOZB13]. **Privileges** [Min84]. **Probabilistic** [AB20, BKOZB13, CFNH18, DG19, HSP83, MMS96, OGJ<sup>+</sup>18, Rao94, SV19, BH99, PPT08]. **Problem** [ADG<sup>+</sup>94,

CM84, DS88, Gho93, LSP82, MS88, Pet82, Pet83b, PB97, Sor89, FGM<sup>+</sup>07a, Wu04].

**Problems**

[Bac84, CFNH18, DP93, MMR95, SRW98].

**Procedural** [HF87, Lin93, VSS94].

**Procedure** [CDK<sup>+</sup>18, GS99, GL80].

**Procedure-Modular** [CDK<sup>+</sup>18].

**Procedures** [AM85, Kat84, NO79].

**Process** [Kob98, vPS81, WP10].

**process-oriented** [WP10]. **Processes**

[AFdR80, Bag89, FDY12, HM84, KS79, MW84, MC82b, Oss83, RY88, Sou84, TY18, dBB85, AE98, KS10, Ber80, Moi83].

**Processing** [GH80, HSG17, Rei83].

**Processor** [BG89b, Bud84]. **Processors**

[GLR83, Per79, LPP01, ZP10]. **Product**

[EMH20, RTP17]. **Production** [Wad90].

**Productivity** [Sij89]. **Profile**

[BHM<sup>+</sup>07, YUW02]. **Profile-based**

[BHM<sup>+</sup>07]. **Profiling**

[ASAVF19, BL94a, SP97]. **Program**

[Bal94, Bar85, BAL07, BKB80, Col84,

DKKL18, Der85, FPS19, Fea82, FOW87,

FT94, FL91, HSP83, HKR94, Jen97,

JJCO19, KKW14, KWL09, Lam83, Lam88,

LFF14, MS83, MW80, Mis81, Nie85, PP94,

PPS79, Rem81, RTP17, TSY00, Wat94,

Wey83, ZSD09, Ass00, DDD05, GZ04, KF03,

LH08, NS13, Pau01, RAB<sup>+</sup>07, SLC03,

WZ07, WN08, YF09, DKV07].

**Programming** [AGT89, Ano18, AR84,

ABPS98, BS86, BPP16, BHM<sup>+</sup>19, BL87,

Bir84, Bor81, BMPT94, BWP87, BCEM15,

CHY12, CL94, Dar90, DFR15, DGL<sup>+</sup>79,

Dug99, FFF<sup>+</sup>18, Fos96, FL15, GTWA14,

Har80, HK85, HO82, Kai89, KH92, Lee86,

LVV<sup>+</sup>83, MK94, Mye90, OGJ<sup>+</sup>18, Pet83b,

RCS93, SS84, SNS<sup>+</sup>14, SZBH86, TK94,

TGT20, ABH06, BMR01, Bou06, BdlBH99,

CU08, CG86, CKT86, DWWW08, DPPR00,

GW99, HBJ98, JPS<sup>+</sup>08, KGMO04,

MVV<sup>+</sup>01, MTSS09, MQ05, Tra08, VWJB10,

WKD04, WJS<sup>+</sup>00, Bir85, SWU10].

**Programming-in-the-Large** [MK94].

**Programs**

[AWW95, AK87, AFV98, AB20, AR80, AP94,

AC94, BL94a, Ban87, BGL93, BC85a, BC85b,

Ber94, BCD90, BE94, BE13, BEF<sup>+</sup>16, CR87,

CB80, CM86a, Cha93, CFNH18, CFG19,

CEW14, CMN91, Cla80, CFM94, CS87,

DL18, DGMP97, DW89, Deb89, DL93,

Deb95, DP97, Dil90, EMH20, EGP14,

FJK<sup>+</sup>17, GG85, GM81, Har80, HCHP92,

HPR89, How80, HIT97, ISY88, JBK18,

JW17, Jon83, JF81, Kna90, Lam79, LS83,

MSJ94, MH86, Mye18, NSZS13, OA88, OL82,

PS92, QL91, Rao94, SS98, Sch82, SSS81,

SS88, TN19, Ven95, Wad90, Web95, Wil82a,

AE01, AAE04, BCG<sup>+</sup>07, CSW06, CSS99,

DP99, DDV99, DS98, DMM01, EGM01,

GM12, GHB<sup>+</sup>96, GH97, GPA<sup>+</sup>01, Hau96,

HPMS00, JPS<sup>+</sup>08, KSV96, LMD98, Leu04,

LS09, MF09, NR06, PM06, RKRR04, RR03].

**programs** [San96, VJB12, WM12, YS10,

Yin11, dHB<sup>+</sup>96, Bur84, Lam80]. **PROLOG**

[LV94, AP94, AB94, BC91, CH87, FA93,

GPA<sup>+</sup>01, MWB94, NF89, Zho96].

**Promotion** [Bir84, Bir85]. **Proof**

[AFdR80, BDJ13, FRW90, GL80, Moi83,

Sag86, SS84, Sok87, WGS92, WGS93, AM01,

DSW11, Oho07]. **proof-carrying** [AM01].

**Proof-Directed** [BDJ13]. **Proofs**

[Apt86, BC85a, CM86b, JW17, LY98, Oss83,

GRSK<sup>+</sup>11]. **Propagation** [SR95, WZ91,

Apt00, CP96, SS05a, SS08, SS09].

**Properties**

[ACW90, AS89, CIJGP18, Kar84, LM18,

OL82, RY88, TB95, Wei89, YS10].

**Proposed** [Fat82]. **prossima** [MP10b].

**Protected** [PAS<sup>+</sup>15, WJS<sup>+</sup>00]. **Protocol**

[SL92, YS97]. **Protocols**

[MB83, BFGT08, SS96]. **Prototype**

[WCW90, WCW91]. **Prototypes** [HW82].

**Provably** [SDB20, GB99]. **Provenance**

[ZSS20]. **provenly** [AAD<sup>+</sup>07]. **Proving**

[DGMP97, GC86, Hen86, Kar84, Lam79,

Lam80, OL82]. **Pruning** [BN99]. **PSG**

[BS86]. **publish** [Eug07].

**publish/subscribe** [Eug07]. **Pure** [BNN18, HU96, Pip97, Tar07]. **Purpose** [App94b, HSS<sup>+</sup>14, Spo86]. **Pushdown** [CBMO19]. **PYE** [TN19].

**qualifiers** [FJKA06]. **Qualitative** [CFNH18]. **Quality** [BHM<sup>+</sup>19]. **Quantification** [Vol91, Bur91]. **Quantified** [Gro06, STS03]. **Quantitative** [CFNH18]. **Quantum** [FDY12, BH99, Yin11]. **Queries** [Bal94, CGG<sup>+</sup>19]. **Queuing** [BB79]. **Quiescence** [CM86a].

**R** [AW82, CKT86, KMM<sup>+</sup>98]. **R.** [Tic88]. **race** [AFF06, PFH11]. **Races** [KZC15]. **Random** [AS80]. **Range** [CG95]. **Rank** [Dam03]. **Ranking** [Lee09]. **Ratio** [CK94]. **rational** [GS11]. **rationale** [CMLC06]. **Reach** [FKW98]. **Reachability** [NS13]. **Reactive** [DFR15, AG04, DGG97]. **read** [AE01, PZJ05]. **read-only** [PZJ05]. **read/write** [AE01]. **Readable** [Spo86]. **Reading** [Pet83a]. **Real** [AL94, MMG92, RS84b, GH97, HK07, LS98, YMW97]. **Real-Time** [MMG92, RS84b, GH97, HK07, LS98, YMW97]. **realities** [Gor04]. **Reals** [DK17]. **Reasoning** [BKOZB13, BLRS12, BDP93, BP82, BH99, CB80, Lam88, LN15, Rao94, SDB20, TSBRO8]. **receive** [Gor04]. **receptive** [ABL03]. **Recipe** [AL94]. **reclassification** [DDDCG02]. **recognition** [ATD08]. **Recognizer** [GHR80]. **Recognizing** [BL94b]. **Recombination** [Kau84]. **Recombination-Delaying** [Kau84]. **Recompilation** [BT93, SK88, Tic86, Tic88]. **Reconciling** [HU96]. **Reconstruction** [YR94]. **Record** [LS79, Oho95]. **Recovery** [AB81, ACS84, Bac84, BF87, GHH<sup>+</sup>19, PK80, Ric85, dJKVS12]. **recurrences** [VJB12]. **Recursion** [AK82, Col84, Hen93, KTU93, Mis94, YK97]. **Recursive** [AC93, AK82, Ban87, CFG19, Coh83, Coh85, LBN17, Sij89, ABE<sup>+</sup>05,

AM01, CF04, Dug02, Pal98]. **Recursively** [BE13]. **Reduce** [BN99, MYD95, BALP06, KOE<sup>+</sup>06, SS96]. **reduced** [SG04]. **Reducible** [Hav97, JC97]. **Reduction** [Bee94, Bur84, FRW90, Geo84, KLS92, Mul92, NN86, CSV01]. **Redundancies** [DS88, Sor89]. **redundancy** [KCL<sup>+</sup>99]. **Redundant** [Coh83, Coh85]. **Reentrant** [Bob80]. **Reexamination** [CG95]. **Refactoring** [Ste18, TFK<sup>+</sup>11]. **Reference** [Bob80, Wis79, KSK07, KOE<sup>+</sup>06, LP06, MDJ05]. **reference-counting** [LP06]. **References** [Han92, TGT18, TGT20, SV96]. **Referencing** [LS81]. **Referential** [QG95]. **Refinement** [BBF<sup>+</sup>11, BKL<sup>+</sup>97, BCEM15, CM86a, DGL<sup>+</sup>79, GEGP17, JLP<sup>+</sup>14, MRG88, SL92, AG04, QG95]. **reflecting** [HS11]. **reflection** [SW97a]. **Region** [TB98, SYN06]. **region-based** [SYN06]. **regions** [RR05]. **Register** [BCT94, CH90, GSO94, JLF02, LCBS19, RDG08, SH89, GA96, HCS10, LGAT00, PM04, PS99, PF96, TP04]. **registers** [ZP07]. **Regular** [CC97, HVP05, LaL81]. **Relation** [LBN17, MTG80]. **Relational** [BKOZB13, CB80, GS98, TLHL11, JJD98, JLRS10]. **Relations** [ELS<sup>+</sup>14, HT86, LH08]. **Relationship** [BS88]. **Reliability** [LM18, WN08]. **Reliably** [TCP<sup>+</sup>17]. **Rely** [GEGP17, LFF14]. **Rely-Guarantee** [GEGP17]. **Rely-Guarantee-Based** [LFF14]. **Remembrances** [PM09]. **Remote** [BCP08, SG90]. **Removal** [AK82]. **Rendezvous** [Cha87]. **Renvois** [Dha91, DS88, Sor89]. **Reoptimization** [PS92]. **reordering** [YUW02]. **Repair** [BN99, MF88, MYD95, KC01]. **Repairing** [CPRT02]. **Replacement** [MM89]. **Replicate** [RB94]. **replication** [RD03]. **Reply** [Bur91, Fra81, LaL83, Tan83, Wir91, SM82]. **Representation** [DGL<sup>+</sup>79, Mul92, SM89, Wad90, Wan82, Mil85]. **Representation-Independent** [Mul92].

**Representations**

[Lam87, RF97, Wal80, Wal81, BGP99].  
**Reproduction** [BHM<sup>+</sup>19]. **reshaping** [ZCG<sup>+</sup>07]. **Resilient** [GHH<sup>+</sup>19, WL85].  
**Resolution** [ABR81, Bak82]. **Resolved** [SIG17]. **Resource** [CS95, Cla80, IK05, MQ05, BDFZ09, CEI<sup>+</sup>07, HR02, HAH12].  
**Resources** [And81, FLBB89]. **Respect** [Gaz83]. **Response** [Tic88].  
**Responsiveness** [HU96]. **Restores** [Wis79].  
**Result** [TB95]. **Results** [Ven95, BGP99, SYH07]. **Retargetable** [DF80, DF81, MV87]. **Retention** [LS81].  
**Rethinking** [LHR19]. **retrofitting** [NCH<sup>+</sup>05]. **Return** [SDB20]. **reuse** [DNS<sup>+</sup>06, GW99, ZSD09]. **Reversal** [ACS84]. **Reverse** [PS08]. **Reverse-mode** [PS08]. **Revised** [SIG17]. **Revision** [FM87b]. **revisited** [MDJ05, Zho96].  
**Revisiting** [DI09]. **Rewrite** [FKW98, Ass00]. **Rewriting** [KKSD94, BCM99, DDD05, FKW00, GRSK<sup>+</sup>11, MMM<sup>+</sup>07]. **Right** [KS83, LaL81, SJ06]. **Rigorous** [SBB<sup>+</sup>19].  
**Rings** [BP89, Hua93]. **RISC** [PS93].  
**Rivieres** [Hen83]. **RMI** [MVV<sup>+</sup>01].  
**Robust** [LS83]. **Roever** [Moi83]. **role** [Apt00]. **Roman** [PB97]. **Round** [SBB<sup>+</sup>19].  
**Round-Off** [SBB<sup>+</sup>19]. **Rounding** [FL15].  
**Row** [MM89]. **RSMs** [CGG<sup>+</sup>19]. **rule** [HQRT02]. **Rules** [GL80, JTM98, SS84, LS09, SSD09]. **Run** [ISY88, TZ07, GMP<sup>+</sup>00]. **Run-Time** [ISY88, TZ07, GMP<sup>+</sup>00]. **Runtime** [Ano18, BLH12, BEF<sup>+</sup>16, GSS<sup>+</sup>18, TCVB14, BH05a, TSY00].

**S** [HCW82]. **S/SL** [HCW82]. **Safe** [AWW95, Dug02, JW17, SDB20, AFF06, BSvGF03, LS03, Loc13, NCH<sup>+</sup>05, SA00, ZCG<sup>+</sup>07, MH06, SHB<sup>+</sup>07]. **safe-for-space** [SA00]. **safety** [FF08, YS10]. **same** [SS05a].  
**sampling** [PPT08]. **Santa** [WP10].  
**Sapphire** [URJ18]. **Sather** [MOSS96].

**Satin** [VWJB10]. **satisfaction** [DF11].  
**satisfiability** [XA07]. **satisfying** [Van96a, Van96b]. **Saturn** [XA07].  
**Scalability** [TCP<sup>+</sup>17]. **Scalable** [FT94, GKM20, ZSS20, XA07].  
**ScalaExtrap** [WM12]. **scale** [ZSS20].  
**Scaling** [TCP<sup>+</sup>17]. **scan** [PS99]. **Scanners** [HKR92]. **Scanning** [GVC15]. **Scavengers** [UJ92]. **Schanuel** [KPS92]. **schedulability** [GH97]. **schedule** [TVA07]. **Scheduler** [TCVB14]. **schedules** [MH04]. **Scheduling** [BG89b, FGL94, KR79, KPF95, LPP01, LJ99, LCBS19, NB99, NSTD<sup>+</sup>15, PS93, TCVB14, Ban11, ME97, YF98]. **schema** [RLS<sup>+</sup>01]. **Scheme** [Mur91, YR94, IV06, WC97]. **Schemes** [Son87, TM93]. **Schorr** [BP82]. **Schwanke** [Tic88]. **Scientific** [How80]. **Scope** [App94b]. **Scratchpad** [SRM10]. **Screen** [MM89]. **SDF** [VHKO02]. **Search** [Dar90, BH99, SS05a]. **Searching** [CC97].  
**Section** [Wol92]. **Secure** [BCEM15, PAS<sup>+</sup>15, BBF<sup>+</sup>11, HY07].  
**Securely** [RB94]. **Security** [TGT18, TGT20, BFGT08, BFG08]. **see** [BR10]. **Selection** [DF84, SSS81]. **Selective** [LTMS20, Min84, OLH<sup>+</sup>16, ME97]. **Self** [BP89, DHS09, Gho93, Gom92, ABB<sup>+</sup>09]. **self-adjusting** [ABB<sup>+</sup>09]. **Self-applicable** [Gom92]. **Self-Stabilization** [Gho93, DHS09]. **Self-Stabilizing** [BP89].  
**Semantic** [AAR<sup>+</sup>10, AWW95, GGL15, MH06, HCW82].  
**Semantics** [ABHI11, Ans87, AB94, AW82, BGL93, Ber94, BLRS12, Bou88, Boy10, CPS93, CD79, FA93, GM81, Gud92, Han94, JPP91, Kai89, Mul92, NF89, Set83, Sou84, WM95, Wan82, dBB85, ACE96, BMR01, Bou06, GZ04, MF09, PCJD08, SWU10, SJ03, Tar07, WKD04].  
**Semantics-Based** [BGL93, CPS93, PCJD08].  
**Semantics-Directed** [Han94, Set83].  
**Semaphore** [CR87]. **Semiring** [BMR01].

**Semiring-based** [BMR01]. **Send** [Gor04]. **Send-recv** [Gor04]. **Sensitive** [OLH<sup>+</sup>16, PKH07, Ram00, Rep00, RRSY08]. **Sensitivity** [FL15, KRR18, LTMS20]. **Separating** [DDM11]. **Separation** [BDJ13, DJP<sup>+</sup>16, OYR09, BBTS07]. **Separators** [GSO94]. **Sequences** [GSW95]. **Sequent** [ABS09, Miq19]. **Sequential** [AFdR80, Ber80, GLR83, HM84, KS79, MC82b, Moi83, Sou84]. **Series** [Wat91]. **Served** [LH91]. **server** [LDM07]. **servers** [BBYG<sup>+</sup>05]. **service** [CMS03]. **Services** [CHY12, RB94, BFG08, CGP09]. **Session** [Pad19, TY18]. **Session-Based** [TY18]. **Set** [Sha82, FF99]. **set-based** [FF99]. **SETL** [DGL<sup>+</sup>79, FSS83, SSS81]. **Sets** [DP82, DPPR00]. **Setting** [Lin79, Nie85, HL05]. **SHA** [App15]. **SHA-256** [App15]. **shape** [GCRN11, JLRS10, JB06, SRW98, SRW02]. **shape-analysis** [SRW98]. **shaping** [HS11]. **Share** [SS88]. **Shared** [Cha93, FLBB89, KH92, KRS88, Pet83b, Dug02, HBJ98, TSY00, BC91]. **Shared-Memory** [Cha93, TSY00]. **Sharing** [CSS99, Lam87]. **SHErrLoc** [ZMVPJ17]. **Shift** [BN99, MYD95]. **Shift-Reduce** [BN99, MYD95]. **Short** [Sag86]. **Should** [LP99]. **Side** [Boe85, KWL09, RLS<sup>+</sup>01, TA08b]. **side-effect** [RLS<sup>+</sup>01]. **sign** [KKN06]. **signal** [BH05b]. **Signatures** [BR97]. **Signedness** [GNS<sup>+</sup>15]. **similar** [AE98]. **Simple** [Boe85, GLO88, JP17, SH89]. **simpler** [BKRW98, BKRW05]. **Simplification** [NO79]. **Simula** [Lan80]. **Simulating** [KKSD94]. **Simulation** [AMT14, Bar81, Bor81, LFF14, HQRT02]. **sin}** [Lam90]. **Single** [BM94, CFR<sup>+</sup>91, JBK18, GPF08]. **Single-Assignment** [BM94]. **Single-Pass** [BM94]. **Single-Threaded** [JBK18]. **Sit** [AKNP17]. **situations** [WN08]. **Size** [BA08, BEF<sup>+</sup>16, Lee09, LDK<sup>+</sup>96]. **Size-change** [BA08, Lee09]. **Sized** [DG19]. **Slicing** [AB20, AHJR14, CF94, DL18, GH97, HRB90, Mye18, Ven95, WZ07, BHK07, GZ07, NR06, RAB<sup>+</sup>07, WR08, ZGZ05]. **SLR** [BS88, Tai79]. **Small** [FLBB89, LH91, Pet83b]. **Smart** [Tic86]. **Smarter** [SK88, Tic88]. **Smooth** [JF81]. **Soft** [WC97]. **Software** [ACM11, AW85, Ber94, DAW88, HSS<sup>+</sup>14, How80, JW17, PXL95, PPS79, Pur94, Wal92, YBL16, CTT07, HN05, LS98, ME97, NCH<sup>+</sup>05, RDG08, SHB<sup>+</sup>07, SRM10]. **Software-Defined** [Wal92]. **Soininen** [LaL84]. **Soisalon** [LaL84]. **Soisalon-Soininen** [LaL84]. **Solution** [ADG<sup>+</sup>94, DS88, Gho93, Pet83b, Sor89, WP10]. **Solving** [GS11, HLH19, NSTD<sup>+</sup>15, SRW98]. **Some** [AB94, AK82, Sha82, Sor89]. **Sometimes** [Gri79]. **Sound** [LLK<sup>+</sup>17]. **Soundness** [Sok87]. **source** [HBG<sup>+</sup>09]. **Space** [BP12, BB79, FLBB89, JP81, NB99, RD87, YF98, LS09, SS05a, SA00]. **Space-Efficient** [JP81, NB99]. **Space/time** [YF98]. **Space/time-efficient** [YF98]. **spaces** [JLF02]. **Span** [LS80, Rob79]. **Span-Dependent** [LS80, Rob79]. **Spanning** [GHS83]. **Sparse** [OHL<sup>+</sup>14]. **Spatial** [NSTD<sup>+</sup>15]. **Special** [Ahm20, Wol92, Sag07]. **Specialization** [AHJR14, BCP08, GJ05, HT04, SLC03]. **specialization-point** [GJ05]. **Specializing** [BCD90]. **Specific** [ASAVF19, Gie83, Tra08]. **Specification** [BCM99, CDFP89, EO80, Fea87, GMH81, Jon94, Kam83, LN15, Lin93, LJ99, Loe87, Mal82, Mor88, PPS79, RY88, TWW82, LP99, LPSO04]. **Specificational** [MB99]. **Specifications** [AL93, AL95, BNN18, CES86, DB85, Gaz83, Loe87, MW84, MB83, Rei83, Sch85, Win87, Zav85, Žic94, vPS81, JJD98, YS97]. **Specifying** [GM81, Lam83, RF97]. **Speculation** [YBL16, GB99]. **speculative** [KOE<sup>+</sup>06]. **SPL** [HSG17]. **Split** [Com80].

**splitting** [JC97, UM02, WJ98]. **SPMD** [WM12]. **SR** [AOC<sup>+</sup>88]. **SSA** [BDP14, GSW95, KCL<sup>+</sup>99]. **SSA-Based** [BDP14]. **Stabilization** [Gho93, DHS09]. **Stabilizing** [BP89]. **Stack** [CGS<sup>+</sup>03, FG03, LaL81, SDB20, CF04, Zho96]. **Stack-Controlling** [LaL81]. **Standard** [Fat82, HM93, Qia00, Blu99]. **State** [ACW90, BLH12, CES86, GC86, PP91, Pur91, Zav85, AY01, ABE<sup>+</sup>05, MBT09]. **Statement** [Ell82, Mor88, SM81]. **Statement-Oriented** [Ell82, SM81]. **Statements** [CF94]. **States** [ADGM91, CBMO19]. **Static** [AKNP17, AC94, BM94, CGJ<sup>+</sup>97a, CF94, CFR<sup>+</sup>91, DL18, Deb89, HOYY18, LLK<sup>+</sup>17, LST98, MOS07a, Mye18, PW94, SBE<sup>+</sup>19, YS99, ZMVPJ17, CEI<sup>+</sup>07, GPF08, GZ04, HO07, PSS05, PFH11, RSL10, VJB12, WCM00, YF09, AFF06, FFLQ08]. **Statically** [ACPP91]. **Statistical** [LLK<sup>+</sup>17]. **Statistics** [Lan80]. **Staveren** [Pem83]. **Steensgaard** [Ell82, SM82]. **Steensgaard-Madsen** [Ell82, SM82]. **stencil** [LS04]. **Step** [Col84, TVA07]. **Steps** [Jon83]. **Stepwise** [CM86a, SL92]. **Stevenson** [Pem83]. **Storage** [BBC16, Bre89, JP81, LDK<sup>+</sup>96, Mur91, Rob79, Sip82, KOE<sup>+</sup>06, TVA07]. **Strategies** [Bir84, Bir85, Geo84, NN86]. **Strategy** [Bre89, PK80, WSH15, ZSS20, GS11]. **Stratified** [SS98]. **Stream** [HSG17]. **streams** [CFP<sup>+</sup>04]. **strength** [CSV01]. **Strict** [Bee94]. **Strictness** [Bee94, SR95]. **String** [GH80]. **Strings** [AS80, KS88, KS89, ADR06, KK07]. **Strong** [KZC15]. **Structural** [SZBH86, MTSS09]. **Structurally** [HS11]. **Structure** [BC79, GKL94, HM93, Mis94, MWB94, She91, HY07]. **Structure-Oriented** [GKL94]. **Structured** [BM94, CHY12, GD82, Har80, LS81, Mur91, RR03]. **Structures** [ANP89, Bob80, FL81, GEGP17, RCRH95, SSS81, LPSO04, RAB<sup>+</sup>07]. **Study** [BHM<sup>+</sup>19, FTJ95, BHK07, BdlBH99, DF98, KF03, LS98]. **Style** [BDM15, LR19]. **Sublanguage** [DGL<sup>+</sup>79]. **Sublinear** [RD87]. **Sublinear-Space** [RD87]. **Submodule** [MB83]. **Subroutines** [SA99]. **subscribe** [Eug07]. **Subscript** [CG95]. **Subsequence** [Han92]. **Subset** [BL87]. **Substrings** [BL94b, Han92]. **subtype** [Duc08, KR01]. **Subtypes** [Vol91, Bur91]. **Subtyping** [AC96, AC93, GGL15, LN15, LR19, LBN17, LW94, XBOS20, GZ05, IV06]. **Subtyping-Relation** [LBN17]. **SUIF** [HAM<sup>+</sup>05]. **Supercompiler** [Tur86]. **Superimposition** [Kat93]. **Support** [Bal94, DS90, Fea87, LS83, MK94, Wei90, TSY00]. **Supporting** [RCRH95]. **Supports** [ABPS98]. **Suppression** [DS88, FGL94, Sor89, JNGG10]. **Survey** [Apt81, GPA<sup>+</sup>01]. **Suspension** [CFM94]. **Symbol** [ABR81, Rei83]. **Symbolic** [Dil90, HP96, Hal85, Hen82, NcS20, RR05, SBB<sup>+</sup>19, YMW97, BGP99, MPM03, CM93, WST85]. **Symmetric** [FY85]. **Symmetry** [ES97, SG04]. **Synchronisation** [CHMY19]. **Synchronization** [Bag89, DJP<sup>+</sup>16, Her91, KRS88, RS84b, Sch82, CGS<sup>+</sup>03, DHM<sup>+</sup>12, Ram00, RD03]. **synchronization-sensitive** [Ram00]. **Synchronizing** [And81]. **Synchronous** [CS87, TLHL11]. **synchrony** [CS04]. **Syntactic** [BF87, GMZ00, MF88, PK80, Wil82b]. **Syntax** [DMM88, Ode93, Ric85, SSS83, BMR01, CPRT02, Jef03, HCW82]. **Syntax-Directed** [DMM88]. **Syntax-Error-Handling** [SSS83]. **Syntax/Semantic** [HCW82]. **Synthesis** [AE98, AE01, AAE04, Ban87, BDJ13, BKL<sup>+</sup>97, Cla80, DKKL18, MW80, MW84, MV87]. **System** [AFdR80, AW85, BS86, Bou88, CB80, Fea82, GD82, GP81, Han81b, HM84, JMSY92, LR13, ML80, Moi83, MH86, PO95, RD13, SA99, WC97, BH05a, FH04, FM99, HO07, JB06, KS10, MTSS09, NP08,

PE08, STSP05, MWCG99]. **systematic** [DF98, PSS05]. **Systems** [ABLP93, Ano18, AR84, ACS84, BKS88, BG89a, BDP93, CI84, CDFP89, CBDGF95, CIJGP18, CES86, CPS93, CBMO19, DL18, DAW88, Fea87, FKW98, Hen86, Jag94, Jon94, JTM98, Kar84, Kat93, Kau84, Lam84, LW93, Mis86, Mye18, TGT20, WGS92, WGS93, WCW90, van88, Ass00, AE98, BCP08, BCM99, BGP99, CSCM00, DGG97, GS11, TP04, TZ07, YMW97, WCW91]. **Systolic** [Hen86].

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