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**Title word cross-reference**

2 [VSS+13, Wal18]. 2564 [IKY+10]. 3  
[AKW19, ARR99, BGM15, CSGM17,  
FIMU19, GGS01, HSLK11, KC18, PR95,  
SSCF19, THL88]. 2 [AMC+18]. 3 [KPST18].  
α [TKSK88], d = 2 [BRT+92], H [YIYD19],  
$\text{CH} + \text{H}_2 \iff \text{CH}_3 \iff \text{CH}_2 + \text{H}$ [ASW91],  
$\text{CuO}_2$ [SSSW91]. $\text{ILU}$ [SZ11]. k [TNLP13].  
$K_2$ [CBW95]. $LU$ [BLRR01, DD89, DD91,  
IGDQO19, MC21, YZC+15]. $M \times N$  
[BYCB05, DP05, JLO05]. N [HJ96, SWW94,  
DAB+12, FT19, RTRG+07, INS+20]. *  
[NC18].

-Body [HJ96, SWW94, INS+20, RTRG+07,  
DAB+12, FT19]. -D  
[SSCF19, ARR99, GGS01, PR95, THL88].  
-matrix [YIYD19].

0th [RAGW93].
1A [HXW+13]. 1s [McN89].


3 [BG00, CM97, JLO05]. 3-D [BG00, CM97]. 3.0 [BRM03]. 3090 [DD89]. 3090-200 [DD89]. 3090-200/VF [DD89]. 31G* [PUR94]. 3800 [WOG95].


6 [Pla99, PUR94]. 6-31G* [PUR94]. 600J [DEKV92]. 623 [LYL+16]. 64-core [VEMR17].

80 [DD91]. 860 [HGD91, KR95]. 87545 [Bus87]. 90 [DL97].

A&M [Nas92]. abstraction [MFOAGE18]. accelerate [GLZS14]. Accelerated [ELEB21, AWWG19, BLU+22, CSGM17, GDKWS15, IJB22, KNPS21, NOM+19, RDG12, RWM17, SFLC18, SE12, TRS13]. Accelerating [CLG13, JDD18, KPST18, LDL19, MPD+12, VOL+14, WZH+20, CAE+13, JCK21, MP18, YFS+14].

Acclereation [AGC+19, ATL+15, CKE08, ŠCKW19, CLBS17, KDO16, LQJG16, MGS+15, SDF+17, SSSF19, VMPW20].

accelerator [RMV+19]. accelerators [HDL+15, MCU+13, MFOAGE18, NOM+19]. accelerators/InfiniBand [NOM+19].

Access [Bri10, KR11, NTKP06, WHL03, DKMT18, DCNi17, HGMW12, Wal18]. Accessing [HLP+03]. Accuracy [HCCG20, SK20]. Accurate [LR09, LRO10, TMWS91, VFDO4, WSD+14].


Adaptive [AH93, CKPD99, CW05, EDSV06, FSC+11, HT04b, HRW19, JSSZ09, Kal09b, RV15, SR05, TRS13, VR00, Wri12, dRADS+18a, IJB22, KBY+19, LST15, LPB+16, LSLR+20, ZMG+21, FSC+11].


Albedo [Tho90]. Algebra [CDQS04, CDP+94, Don02a, Don02b, Ede93, GJMS88, JO92, KJH96, MA15, PB19, Poz97, AAB+21a, ATD17, FTB13, AAT+20, LRLG19, MBvdG13]. algebraic [BGO20].

Algorithm
BH17, BRGR11, BPR18, BS\textsuperscript{+14}, BEK\textsuperscript{+18}, BGB\textsuperscript{+18}, BG11, CDRV15, CRS\textsuperscript{+19}, CBD\textsuperscript{+17}, DAB\textsuperscript{+12}, DMQS12, ECG\textsuperscript{+13}, EJD\textsuperscript{+19}, GCSK13, HGWN14, IMB\textsuperscript{+19}, JRT16, KPR17, LRG\textsuperscript{+16}, Lap22, LSES20.

**applications** [LWT\textsuperscript{+11}, MGB12, MFB\textsuperscript{+19}, MCR\textsuperscript{+17}, MDH\textsuperscript{+18}, MCU\textsuperscript{+13}, MBF\textsuperscript{+21}, PH91, PNFC16, RV15, SDJ17, SKZ\textsuperscript{+18}, SIC\textsuperscript{+19}, SLG95, SMZ\textsuperscript{+18}, TSLR13, THC\textsuperscript{+11}, TNNC21, UZM\textsuperscript{+14}, VMPW20, WDV\textsuperscript{+12}, WD91, ZMG\textsuperscript{+21}, Ano98b, Ano99, Ano91a, Ano98a, Ano00, Ano01b].

**Applications-Information** [Ano92g].

**Applied** [vLRA\textsuperscript{+03}, BE17, IKMS\textsuperscript{+19}].

**Applying** [Dem90, LDGR03, LSES20, MBHF15].

**Approach** [BYCB05, DZ07, FBW\textsuperscript{+87}, KS90b, LDB\textsuperscript{+06}, NTKP06, Sha88, uITH07, SpR06, DCM\textsuperscript{+17}, FTB13, GS18, HLC\textsuperscript{+19}, HGWN14, IDGOQ19, KBY\textsuperscript{+19}, MGB12, MP18, MJD16, PNFC16, ZB20].

**Approaches** [SWHP05, MJGL13].

**Approximate** [Cho01, HVF\textsuperscript{+12}, MGFP20].

**Approximation** [DGJ09, LSLR\textsuperscript{+20}].

**Aqueous** [PRT90].

**Architectural** [Gro03, TXD\textsuperscript{+07}].

**Architecture** [BAA\textsuperscript{+06}, Hua03, HWP03, Ish91, KBA00, KFM\textsuperscript{+10}, SC04b, HCGG20, MM1A19, RH21].

**Achromatic** [BFFL99, GD09, HD05, HvV18, HLW00, HSLK11, MS02, RW03, RS03, SSQ08, AKC\textsuperscript{+19}, BS14, AAT\textsuperscript{+20}, GGMJF\textsuperscript{+20}, HVF\textsuperscript{+12}, IMH\textsuperscript{+11}, IMH\textsuperscript{+12}, INS\textsuperscript{+20}, JO92, KILL13, LNSMMA15, STP\textsuperscript{+13}, Udd17, VOL\textsuperscript{+14}, YFS\textsuperscript{+14}].

**Area** [DFP\textsuperscript{+96}, MYCR06, MAJJS03, NBB\textsuperscript{+96}, Ade21, Rad18], **Argonne** [Don89].

**ARGONNE** [Don89].

**ARION** [HLP\textsuperscript{+03}].

**Arising** [Ma00].

**Arithmetic** [BSBF89, Gro03, AAB\textsuperscript{+21a}, LH19].

**ARMCI** [NTK06].

**Army** [Aus92].

**Array** [BBDR95, CYT\textsuperscript{+02}, JO92].

**Arrays** [HC08, NPT\textsuperscript{+06}, CBD\textsuperscript{+17}, DFT\textsuperscript{+15}, Wal18].

**Arrival** [Wit92].

**Art** [KNPS21].

**Artificial** [Ano87d, YIME19].

**ASC** [PK04].

**Aspects** [RW03, ZOF90].

**Aspen** [SVBP13].

**Assessing** [ACM88, MWC\textsuperscript{+05}, TDG\textsuperscript{+19}].

**Assessment** [ZO90].

**Assist** [BB02].

**Association** [GDKWS15].

**astronomy** [CLG13, VJF\textsuperscript{+15}].

**Atmospheric** [ARR09, DFS\textsuperscript{+05}, GSS01, W005, AWWG19, MKM\textsuperscript{+19}, NBE\textsuperscript{+22}].

**Atom** [TSH\textsuperscript{+19}].

**Atomic** [HB90, IHMM38, LRT07, SYF96, HYY\textsuperscript{+22}].

**Atmospheric** [ANK99].

**Audio** [TC10].

**Auto** [THC\textsuperscript{+11}, CH13, KFJ20, TRS13].

**Auto-tuning** [THC\textsuperscript{+11}, CH13, KFJ20, TRS13].

**Automata** [AP08, MHS11, RES87, DGS17].

**Automatic** [BHK\textsuperscript{+06}, CBL10, CDCV06, Cza03, KMPJ08, MJ04, RCAE\textsuperscript{+20}, Ye04, CH13].

**Automaton** [BCZM07].

**Automobile** [HDKS90].

**Autonomous** [SKBO1].

**AutoParallel** [RCAE\textsuperscript{+20}].

**Autotuning** [OY13, BHK\textsuperscript{+13}, CBM13].

**Availability** [Pra01].

**Aware** [KCC\textsuperscript{+06}, TCH06, YBA\textsuperscript{+03}, BGO20].

**Awareness** [HBS08].

**axisymmetric** [SG91].

**B** [Ano02, Ano02a, Ano02g].

**B.E.** [BPBL11].

**Back** [BPBL11, BIC\textsuperscript{+10}, BBD\textsuperscript{+17}].

**Balance** [BG90].

**Balancing** [BFNV07].

**Band** [GS05, GLGB\textsuperscript{+11}, SK20, ZMBK11].

Caching [KLCW07]. Cactus [AAF+01].

calcium [CHW+15]. Calculation [ACG+90, BGK+90, TMW91, HIT+14].


Caltech/JPL [Din91]. Caltech/JPL [Din91]. CAM [TD08, DEE+12, LMT+12]. Campus [GNTLH97].

Campus-Wide [GNTLH97]. Can [Pan97, VFJ+15]. Canada [Num87].

Cancers [GBK93]. Candidate [MC+01].

Cane [YW+14]. capabilities [IMS16].

Capability [GS+90, BB+13, CY+20, DV+12].

capable [RWM17]. Capacity [BL99].

Carcinogens [HB+00]. cardiac [BS+14].

Cards [Gro03]. Carlo [BE+90, CH+44, DFT+15, FSS13, LM03, LPB+16, MWR+87, MB87, MFP+17, SABD+13, SSSW91, SSR+14, VSS+13, ZK93].

Carolina [LC90]. Case [BF+01, BDFVP15, CB+95, CDH+97, GLGB+11, GL97, HL10, HE01, HLP+03, MT89, PPK+04, SG09, WG+91, WLB92, WW+92, BS+14, CGGC+16, CMS+11, DTL19, GMJ+20, IMB+19, MBvdG13, MCR+17, OF17, TKA+17, THC+11, WZH+20, YW+14].

cases [CDL+19]. cat [YIME99]. cat-scale [YIME19].


Cellular [AKP08, BCZM07, MHS11, GDS17]. Center [BB+21, AI88, ISD9, Mer87, RS88, MP95, Aus92, ABB+94, BBW90, DGH+93, KT94, LC90, MAI87, MIR90, Nas92, ScI92, TR92].

Centers [AI88, Aus92, BB+91b, Bra91, BBW90, GS09, KT94, Nas92, TR92, Web91].

Centre [Ga88, MHW15]. Centric [SR05].

Century [BHdR90]. cerebellum [YIME19].

CERFACS [IS89]. CESM1 [CVJ12, CMHB+15].

CFD [GS09, BBH+13]. Capability [IMS16].

Chaining [RWM17]. Checkpoint [CY08, SSB+05, BR+17, IFA15].

Checkpoint/Restart [SSB+05]. checkpoint/verification [BR+17].

Checkpointing [GN11, SSB+05, HLC+19, KHS+19].

Chemical [ARR99, Bro88, DFC90, Ko+90, Mar86, MMS88, TWK87, YZZW21].

chemical-potential [YZZW21].

Chemically [FP+98, Koi90, AI88, ISD9, Mer87, RS88, MP95, Aus92, ABB+94, BBW90, DGH+93, KT94, LC90, MAI87, MIR90, Nas92, ScI92, TR92].

Chemos [BB+90, BB+91b, Bra91, BBW90, GS09, KT94, Nas92, TR92, Web91].

Chesapeake [WLV+96]. chimera [HLZ+20]. China [CY+20, SKC10].

chip [KD18, VEMR17]. chips [LTPK17].

Cholesky [CDL20, Jea13]. Chroma [JC+12].

Chromodynamics [Liu90]. CICE [CMHB15]. Circular [AEPR92].

Circulation [KMK95, PLS05]. CLAS [DZD95]. Class [MC+01]. Classification [CJ+01].

Client [kLCCW07].
Client-Side [kLCCW07]. Climate
[CKJ+05, DJC05, GS05, JLO05, WOS08, WHL03, BBA+21, NBE+22, WDH+15, YWL+14]. Climatic [WBMV90]. Cloud
[LJC+10, BTRZ+19, LNK22, MRC+17, NBE+22, TR17, TPG+18]. Cloud-based [TPG+18]. Clouds [Dec10, DT11, DT17, Tho90, DT19, MGB12, MRD+15]. Club
[BCK+89]. Cluster
[BFNV07, CK01, DMT01, Fra05, GSHL03, JSSZ09, KT99, LWL05, WG07, GDKWS15, MHS11, NOM+19, WZHGI7, JDD18].
Clustering [NRR97, DSH+16, ZWS21].
Clusters
[AWS01, BG09, CTD05, CAK+07, CGW09, CDCV06, DT99, DT11, DT17, Gir02, KS05, LDB+06, MWC+05, PPK+04, PC08a, SG09a, Ste01, YB07, CvG11, DTD14, DT19, EEL15, HLS+17, JRT+16, JC12, MBC+18, MGFF20, Pap11, PFGDM20].
CM [CC95, KJH96], CM-2 [CC95], CM-5 [KJH96], CM-5/SE [KJH96], CM2 [CH94].
CMP [ABG+19]. Co
[ABD+18, ABG+19, FAB+21, GD09, Ger21, Mat03, BPR18, Jon12, UCZ+15, AAB+21c].
Co-Design
[GD09, FAB+21, Ger21, UCZ+15, AAB+21c].
Co-reservation [Mat03]. Co-scheduling
[ABD+18, ABG+19, Mat03, BPR18, Jon12].
Coarse [BG+96].
Coarse-Grained [BG+96, DZRS99].
Coastal [Cow08].
Code
[AD89, AJL+97, BBA87, BH00, CK01, CEL+97, De93, DZDR95, HL10, HE01, IWL05, MMD98, MS02, MT89, MBF+11, MSK92, PPR03, Pla09, WZH+20, YW93, BSH+16, DWT+19, DAC+14, FU12, HIT+14, HMK+21, INY+14, JKD+11, MBvdG13, MGS+15, PHF21, RHK21, SSR+14, TRS13, TGP19, VR+19].
Codes
[AS00, BGB+18, CL95, DL97, IHMM87, MCW+00, Ren92, SWW94, ESD+22].
Coexistence [BBA+18].
Coherent
[Wad99, PS12].
Collaborative
[DFH+96, HBSP08, NBB+96].
Collaboratory [YFH+96].
Collapse
[Gun00, HTSK90].
Collection
[DT06].
Collections [HLP+03].
Collective
[BMR06, FCLG07, KFM+10, LCZ+15, TRG05, VFD04, KMH+14, SCB14].
Collectives
[DJ+19, WLFH16].
Collision
[NBB+96, collision [VOL+14]].
Color
[IMH+11, IMH+12, Tho90].
Color/Albedo
[Tho90].
Columbia
[MAB07, HBC08].
Combatant [BCSY11].
Combination
[ASHH16, combinatorial].
Commercial
[AAB+21b, BG11].
Commercialization
[SG09b].
Common
[ZM07].
Communication
[BCG+10, BYCB05, BK+07, BBDR95, FIMU19, HC10, INY+14, JLO05, LR09, LRO10, LRT07, NTP06, PE05, QH08, RW03, SWHP05, TRG05, TGT05, BGO20, BBH+13, CSC19, DGB+14, IYK16, NOM+19, OGM+16, RWI17].
Communication-overlap
[INY+14].
Communication/Computation
[BBDR95].
Communications
[ANO87e, BMR06, Bus87, VFD04, SCB14].
Communicators
[GFD05].
Community
[DB+09, HBSM03, CJK+05, DYW+12, DEE+12, DJC05, ESW+12, HKV05, JLO05, MS05, MW12, TD08, WD05].
Comparative
[MOK00].
Comparing
[BF01, KdOCR+20].
Comparison
[BSK14, CAK+07, Gen88, HCl0, Jon92, KM95, Mat95, SR98, SFCL18, WKLW21].
Comparisons
[Ma00].
Compensation
[MSMW07].
ComMPI
[FSC+11].
Compilation
[BJK07, CW05, PG18].
Compiler
[CW05].
Compilers
[ANO01a, YHG+07].
Complete
[LK01].
Completely
[PH19].
Completion
[CY08].
Complex
[ASHH16, Dar99, GKB93, GHZ10].
Component-Based [PGTS10, MGB12].
Components [CTD+05, WSD+14].
Composing [HGWN14].
composite [NMAE13].
composites [LPB+16].
Composition [Cot04, DLB07].
Compositional [AWS01, BBD00, KR94, KR95].
Compounds [FWZ91].
compressible [HHSM19].
Compression [Arn07, DLY+98, DF08, FSC+11, FG97, FFNP97, GP93, Gun00, IS96, Jon92, Meu88, CGST19, FAB+21].
Computing [ATN+00, Ano87a, Ano87d, Ano94c, Ano95b, Ano98b, Ano98a, Ano99, Ano00, Ano01b, Aus92, BV11, BM12, BM13, BGI+99, BQOS21, BAA+06, BRT+92, Bus87, CWHP99, DF18, Dar00, Dem90, Don89, DT99, DMT01, DT11, DT17, DCL+08, Ede93, EDV06, EW06, EW22, ESD+22, Ewi88, Eyr06, FGC+05, FGJ+04, Gaf88, GHM+10, Ger21, GMWG10, GNTLH97, GL97, HME90, Her09, JLL04, JSSZ09, Joh01, KDH11, Kep04a, KT90, Kuc04, KHK+09, KS05, LS90, LJC+10, LD07, MPS15, Mat90, Mycr06, Mar87a, Mat95, ME14, PPK09, PA11, Ra02, RAGW93, Sab91, Sal87, SKB01, Ste01, Ste04, SFP02, SK10, THDC09, Wal03, YBA+03, ABH+18, AFGQ019, AMB+18, ARPY19, Bai20, BE17, BTRZ+19, BBA+21, BLOR18, BAP+12, CGW19, Cez20, DTPD14, DHL16, DT19, DAC+14, ECG+13, EDB19, EKD+12, Fen90]. computing [FKA+17, GR17, GSND20, Har11, IYK16, IFA15, JdSa+17, KT94, LDLD19, LBB17, MEK+19, MFB+19, MUI+13, MCF+16, MBF+21, PPC+16, RRJ+20, SWA+14, STS17, TNL13, VSHN14, WZH017, WD19, ZKRA14, Lee03, Ano94a, Ano95a, Ano96a, Ano97b, Ano97c, Ano97a]. Computing [Ano94c, Ano95b]. Computing/Numerical [THDC09]. concurrency [DBG+14].
cutting [HLZ+20]. CYBER
[ABAS87, McN89]. cycle [AHB+16].
CYDRA [HRM89]. CYDRA-5 [HRM89].

D [KR94, KR95, SSCF19, VSS+13, AKW19,
ARR99, ARPY19, BGM15, BG00, CSGM17,
CM97, FIMU19, GGS01, HSLK11, KC18,
PR95, THL88, Wal18]. D-DM [ARPY19].
DAC [Cza03], DAD [TR17], DAG-based
[TR17]. Daily [Mar89b], DAME [PG18].
DAMPVM [Cza03], DAMPV/DAW
[Cza03]. DARE [CGT+18]. Data
[ACF+11, AF09, Ano87e, BCG+10,
BHK+88, BCM+03, BH06, CFK+94,
CBW95, DP05, DH96, DZ07, DT17,
DFT+15, Fei99, Fol90a, GMLP08, GG11,
HJ96, JW06, Joh01, KUE700, LR07,
MAJJS03, RR06, SS89, SS10, TldS22,
VS03, WHL03, ZRC+06, AKW19, APD+15,
ATL+15, AMB+18, BTRZ+19, CDL+19,
CCBL18, DCN17, DT19, EMP+18, FKA+17,
FAB+21, HLV+16, KV19, Lap22, LGH16,
MRD+15, OWC+21, Osz16, PH91, PBB+20,
PG18, RWM17, STP+13, SZ11, TDG+19,
TM+17, WDH+15]. Data-driven
[TldS22, BTRZ+19, OWC+21].

Data-Intensive
[GMLP08, KUE+00, ACF+11, FKA+17].

Data-Parallel [HJ96]. Database [MS09].

Databases [RGB+18]. Dataflow
[ACMS88, Sha88, JDD18, WZHG17].
dataflow-based [JDD18, WZHG17].

Datagrid [PHB04]. Datasets
[SE92, ZM07, GVR+21]. Datatype
[SWHP05]. Davidson [UF89]. deadline
[CVR20]. Deadlock [LBB17].

Deadlock-free [LBB17]. Dealing
[GSHL03]. Debuggers [Ano01a]. Decision
[GWKN80, JCK21]. Decision-Making
[GWKN08]. Decomposition [BLRR01,
Cha88, GCD97, Meu88, NK89, DFT+15,
IKMS19, KLR+21, Lai93, YZC+15].

Decoupled [PH91]. Dedicated
[CAK+07, GSHL03, DJJ+19]. deep

[CHT+19, JMM+21, VRB+19]. defined
[ADMP18, JDAD19]. Defining [KKS04].
deformable [SE12]. degrees [TAM+16].
degrees-of-freedom [TAM+16]. Delay
[Rao02]. Demand [EW06, dPIdA03].

Demystifying [TNCC21]. Dense
[Ano02k, BG05, BDL+07, Ede93, LRLG19,
MBvdG13, SCR11]. density
[HBKR21, LNSMMA15, QSX+20].
density-functional [QSX+20].

Department [Kit90]. dependencies
[ELEB21]. Dependent [MBF+11].

Deployable [GCL93]. Deploying
[CdVL+18]. Deployment
[CDCV06, GCL93, GMLP08]. deposited
[GSK+15]. Deposition [MD99]. depth
[JCAD19]. derivatives [Haj93]. Derived
[SWHP05, MDH+18]. deriving
[IGDQO19, MBvdG13]. describing
[ABH+18]. Design
[AEG+03, BGI+99, BBH+13, BBMB19,
BRM03, BH06, CE00, CLP+99, CTD+05,
Dar00, DZRS99, DFH+96, DJC05, EGMP93,
FGC+05, GJMS88, GCCC+03, GHM+10,
GD09, KS09b, PPK09, SD97, AAA+22,
BG11, DTL19, FAB+21, Ger21, JMM+21,
UZM+14, UCZ+15, AAB+21c, Mar87a].

Designing
[RWM17, SWHP05, SKS+13, ZWS21].

Desmos [SDI+19]. Detailed
[EAD95, SBBB06, CHWS20]. Detection
[CBL10, YZC+15, AG18, BSS15, HGMW12,
KDNE18, VOL+14, WLG+18, ZCZ+13].

Detector [DZDR95, Ano19, BBG+14].

Determination [BH+88, CSY10].

Determined [CGB+94]. Deterministic
[DR06, DMSMG18, MV20, SL+19]. DEUS
[RAB+15]. developed [CV12].

Developing [THDC09, PPC+16].

Development [Ano01a, BLU+22, BCC+01,
BBD00, Dar99, HL00, HRM89, Kal09a,
LC90, LD07, MM90, MS19, PPS09, Eri88].

Development/Tuning [Kal09a].

Developments [YSS+06]. device
[Lai93, OF17, SKP+22]. Devices
PHC+10, RKKC90, Rad18, DG [MV20].
DG-MOSFETs [MV20]. diagnosis
DCM+17. diagonal [YLL+14]. Diagrams
FWZ91]. Dialogue [LS06, Diego [Mai87].
Dielectric [ZOF90]. Diet [CD06].
Difference
CC95, THL88, EKF+19, WKLW21]. different [LWT+11]. Differential
[Key09, Meu88, KS89, RMS+18].
differentiation [HSHM19]. diffract
[EEL15]. Diffusion [BFNV07, EDS95, SG91, TWK87, BG22, LMT+12].
Diffusion-Limited [TWK87].
diffusion/filtering [LMT+12]. Digital
[MPG93, YFH+96, GHL15]. dilation
[LST15]. Dimensional
BCZM07, CSY10, EGG05, LT90, MT89, BE17, KS89, KRR19, LSS93, YFS+14].
Dimensionality [BFLL99]. Dimensions
[TWK87]. Dip [LT90]. Dipole [DGJ09].
Dirac [PHF21]. Direct
[Bri10, CM97, HVWS09, HVSW09, LWL05]. Direction
[Mah90]. Directionally [SZC12].
Directions [Fol90a, PBB+20]. Discharge
[YW93]. discontinuous [AWWG19].
Discovery [AEG+03, AAF+01, ASAK19, GVR+21, PBB+20, AEG+03]. Discrete
[DGJ09, Ham91, DMSMG18, Mon12].
discretizations [KF+21, LH19].
discriminating [SKS+13]. disembarking
[GDS17]. Disk [KNP+87]. Dislocation
[HSLK11]. Disordered [KVY+90].
dispe14py [FKA+17]. Dispelling [Ano87c].
Dissemination [GL97]. Dissolution
[Cha91]. Distance [HME90, KR11].
Distances [KTWL18]. Distributed
[AKP08, AF09, BGG05, BFLL99, BGF02, CWHP99, CYT+02, CLF87, CIB95, Dec10, DFMD94, DCCS10, EDSV06, GKN+96, GGS01, Gir02, HC10, HD05, HvD18, JMP02, KT99, LWOB97, MYCR06, MWAR+87, Mat95, MCW+00, Nag89, NKP+00, QWIC02, Rao02, RBMF87, SWG+03, SPNB14, YIYD19, YRA+02, ZRC+06, dPIdA03, ABH+18, CBD+17, EDB19, GEKO19, JRT16, JO92, RACE+20, THDS19, VMPW20].
Distributed-Memory
MCW+00, YIYD19]. Distributing
[CBSB01]. Distribution
[TCW06, TC10, QSX+20]. Distributions
[DZ07]. diverse [PBB+20]. Divide [Cza03].
Divide-and-Conquer [Cza03]. dividends
[DTL19]. Divisible [DLG06, MYCR06].
Division [Bus87, Don89]. DNA
[DTDP14, GPO+20, HB90, MP18, PRT90].
Docking [GHM+10]. DOE [HBSM03].
Domain [Cha88, CDH+97b, GCD97, Lai93, Meu88, WCD89, CSGM17, IKMS+19, KLR+21, PHF21, YJZN22].
Domain-Specific [CDH+97b, PHF21].
Donation [TCW06]. Donation-Based
[TCW06]. Double [PRT90]. Drift
[BFNV07]. Drift-Diffusion
[BFNV07]. Drive [HE01, PPS09]. Driven
[CHZ02, DLC+08, YB07, BTRZ+19, CDG+21, DAB+12, OWC+21, TLdS22].
drug [GVR+21, JMM+21, MSPI15]. Dual
[BBC+00, FT19, Ish91]. Dual-Level
[BBC+00]. Dumont [BGP+20]. Duration
[CY08]. DV [TKSK88]. DV-X [TKSK88].
Dynamic [AAF+01, ABAS87, BCM+03, BG00, CY08, DLY+98, DFMD04, GFDF05, HWPO3, IMB+19, SCB+95, SVNO9, TM99, LGDH16, MJD16, PMP+20, SCB14].
Dynamical
[DFS+05, FBW+87, HT04b, MS05, SWW94, DEE+12, DDKK99, LMT+12]. Dynamics
[ACD07, BMT89, CGB+94, Cha88, CWG09, DQFW90, DGD+04, Gen88, Gun00, HL10, HSLK11, JLP91, KVY+90, MP94, Nak99, NHG+96, PRT90, RBMF87, SK90, ABH+18, AKC+19, AKW91, CDG+21, CHW+15, HXW+13, KFJ20, KKL+19, KNPS21, PIR+20, SDI+19].
E-Science [HWP03, HT04a]. E3SM
[LNK22]. **E3SM-MMF** [LNK22]. eager-release [ELEB21]. **Early** [GKN+96, GNTLH97, HGD91, Kal09a, SLG95]. Earthquake: [DVW+12, ESW+12, MEK+19, CTD+05, CVJ12, DEL+12, IKY+10]. **earthquake-cycle** [AHB+16, CMS+11, MTW+22, BAM+16]. **earthquakes** [AHB+16]. ease [MFOAGE18]. **EC2** [Pap11]. **ECG** [Arn07]. **ECJ** [CdVL+18]. Ecological [ABAS87, GP93, PS87]. **Economic** [BE07, LC90, NKR90, SG07]. **Economic-Based** [SKP]. **ECONOMIC** [BSW]. **Economics** [BEH07, Dar00, DW97, Joh01, MMS88, MS02, THC+96, de 89, Ade21, AFL+18, BSW+14, DWT+19, DEE+12, EAG+19, KFM+21, MGS+15, Mon12, PH19, SMK+20, ŚCKW19, WZH+20]. elements [ZB20]. Eliminating [HME90]. **Embedded** [KPR17, KK01]. **Embedded/** [KK01]. **EMD** [LSES20]. **EMD/HHT** [LSES20]. emergency [GDS17]. emerging [AAE+20, HFV+12, IMH+11, IMH+12, WD19]. emitting [Rad18]. Empirical [VDB04, CBM13]. Employing [GVF+18]. emulation [BAP+12, LST15]. **Enabled** [CD06, CD07, CBB+04, DD06, MWM+08, DSH+16, LDDL19, NBE+22]. **Enabling** [AGR+03, BTRZ+19, DGB+14, FKT01, JMM+21, MBB+21, PBB+20, Ste09b, SKP+22, AAB+21b]. **Encoder** [BKRSR09]. **Encoding** [DLY+98]. encryption [KV19, Lap22]. End [BV11, GHM+10, LD07, NKIN+08, PA11, Raa02, SC09]. **End-To-End** [GHM+10, Raa02, SC09]. **Endangered** [BB02]. **Endmember** [HC08]. endpoints [DGB+14]. energetic [GSK+15]. energies [PUR94]. **Energy** [BEH+90, ECG+13, HTSK90, IHMM87, KLR+21, LTPK17, LWT+11, Mir90, SGFC09, YCHH90, ZOF90, ATD17, BDC21, BRGR11, BLOR18, BBMB19, CHT+19, EJ+19, JdSA+17, LRLG19, SKSG19, Kit90]. energy-efficient [BBMB19]. Energy-optimal [LTPK17]. energy-saving [SKSG19]. Engine [DCL+08, HSBS08, WZH+17, SS10]. Engine-Driven [DCL+08]. Engineering [Bro88, Dar00, DW97, Joh01, MMS88, Nas92, PK04, ADMP18, EHTW21, VMPW20, WH20, Mar88a]. Enhance
[CRS+19]. Extended [Ano02b]. Extending [GRC08, Pap11, LRG+16]. Extensible [CJK+05, KHS+19]. Extension [SVN09, AHB+16]. Extraction [CBL10, HC08]. Extreme [Her09, Key09, KC92a, KC92b, MPS15, ZKRA14, AAA+22, AMB+18, BEK+18, DCM+17, FAB+21, HRW19, INS+20, KDNE18, PBE+19, WD21]. Extreme-scale [ZKRA14, AMB+18, BEK+18, DCM+17, FAB+21, INS+20]. extremely [Ade21].

face [CdVL+18]. Facility [Ano87a, Don89]. FACOM [IHMM87]. Factor [DH96].

Factorization [DD99, DD01, IGDOQ19, Jea13, YIYD19].

factorizations [DEKV92]. Failure [GCSK13, KS05, Ano19, BBH+13, BBG+18, KDNE18]. failures [SWA+14, TNLP13]. far [KKB+21]. farm [KBY+19]. Farming [CKP99, MBHF15]. Fast [BGM15, BEW16, BMT89, CvG11, DIB00, NDMR20, PS12, PFGDM20, SWW94, IYK16, KKB+21, KDH18, SCR11, TKS88, TDM+17, YB12, CKE08, KNP+87, LDW+12, MJ04]. Fault [BHK+06, Cap09, FD04, FGC+05, GKP97, GL04, JSSZ09, KWB06, WvNM+06, ASHH16, AG18, BBA+21, LRG+16, MSHPV18, MTW+22, SKZ+18, Sta19, SMZ+18, YZC+15].

fault-to-structure [MTW+22].

fault-tolerance [SMZ+18]. Fault-Tolerant [BHK+06, FD04, WvNM+06, ASHH16]. faults [RMS+18]. Faulty [LK01].


FETI [GCD97, RMV+19]. FFT [Bai88, GGS01, KMPJ08, Wad99]. FFT-Based [GGS01]. Fidelity [SKP+22, TBB+22]. Field [HC08, HSLK11, KKB+21, PUR94, VSHN14].


Fine-Grain [ACM88]. Fine-Grained [BBG+10, WvNM+06, LH18, HTD+14].

Finite [AJL+97, BBA87, CC95, CBV97, EGG05, GCD97, KM95, MMD98, MS02, MS05, PH19, PL505, TH+96, TIL88, de 89, AFT+18, BSW+14, DWT+19, EKF+19, KPM+21, LH19, SMK+20, ŠCKW19, WKLW21].

Finite-Element [MS02, BSW+14].

Finite-Volume [MS05, LH19]. First [DQFW90, GKN+96, TMWS91, HIT+14, MMDA19]. first-principles [HT+14].


Flowfield [MKG90]. Flows [CB95, GMWG10, MYC92]. Fluid [Cha88, DFMD94, Gen88, HL10, JL89, KT99, LWL05, PGTS10, RBMF87, SWW94, SS89, SK90, YW93, KC18, LSS93].


focused [JRT16]. Footprint [JMC05].
RPdB+19, SZC12, SPTT08, SE12, SKS+13, SDI+19, SK20, SSCP19, VMFP20, WDW+12, YLL+14, ZZG+14].

GPU-accelerated
[AWWG19, CSGM17, JLB22, KNPS21].

GPU-based
[ATL+15, JKBW18, JCK21, MJGL13, SDI+19].

GPU-enabled
[NBE+22].

GPUTDirec[OGM+16].

GPUUs
[ATD17, AKP+18, BLU+22, DEQO21, EHTW21, FT19, HNL+15, HBRK21, HPW+16, NCA21, NS21, SLFCL18, TKA+17].

Gradient
[AH93, CSV91, MG87, DHL16, IVG+20, KMM16, PVS+16, PF16].

Gradient-like
[CSV91].

GrADS
[BCC+01].

Grain
[ACM88].

Grained
[BBG+10, BGB+96, DZRS99, WnVM+06, HTD+14, LH18].

Grand
[BEH+90, CBB+96, DSD+91, Kit90].

Grangularity
[LQJG16, SKG19].

GRAPE
[CKE08].

Graph
[AAB+219, CDT05, CSC19, GLZS14].

graphic
[LQJG16, PH19, YZZW21].

Graphical
[DMQS12, KDO16].

Graphics
[CLF87, GLGLB+11, LP10, MA15, NTD10, RBMF87, Sal87, BE17, CLG13, GHHS15, Mon12, RDG12, RWM17, ZCZ+13].

Graphs
[LK01].

Gravitational
[SWW94].

Gravity
[Ham91].

Great
[BAM+16].

Green
[ODD07].

Greenbook
[HBSM03].

Greenhouse
[WBMY90].

Grid
[CKP99, Lee03, SBWS99, ASHH16, BCYS11, HLZ+20, MCR+17, PCC+16, PS12, AEG+03, AAF+01, AGA+03, BCCLO9, BCM+03, BCC+01, BPK+07, BSCCO3, BCC+06, CD06, CBSS01, CBB+04, CBLO6, CCBS11, CY08, DCL+08, FKT01, GHM+10, GRC08, GHZ10, HBSPO8, HT04a, HLP+03, Hu03, HWP03, KHK+09, LM03, MWM+08, Mat03, MCS+06, PPK09, PB01, PHB04, QH08, RIF01, RTRG+07, SWG+03, Wal03, WBFB04, WPBB01, WHL03, WnVM+06, YBA+03].

Grid-Based
[GRC08, QH08, LM03].

Grid-Enabled
[CBB+04, MWM+08].

Grid-Ireland
[MCS+06].

Grid'5000
[BCC+06].

Gridded
[BM07].

GridLab
[AGR+03].

GridPACK
[PPC+16].

GridRPC
[CJ06].

Grids
[DT99, DT11, Joh01, MA00, VR00, MMLH11, MGB12, Sta19, BKS+07, BBH+06, Dee10, Fra05, GMLP08, IKY+10, MS09, SG07, SW04, TCW06, vLRA+03].

GridSolve
[YSS+06].

Groundwater
[ABF+99, MMD98].

Group
[Bus87, BCR+14].

Growth
[BCZM07, Blo87, Cla91].

Guest
[DT18, DT19, WD21, BM13, Cec20, DT17, WD18, WD19, da03].

Guidance
[SDJ17].

Guided
[FBBC03, BEK+18].

GWAS
[WLG+18].

Gyrofluid
[KPM+96].

gyrokinetic
[IMW+13, INY+14, WET+19].

Hadoop
[CdVL+18].

Hadron
[GBK+91, Lin90].

HARM
[WZH+17].

Harbor
[BBC+00].

hard
[RMS+18].

Hardware
[BB06, S09b, Spr06, BLU+22, HNL+15, MC+13, MFOAEG18].

hardware-accelerated
[BLU+22].

Hari
[NS21].

Harmonics
[KMPJ08].

Harnessing
[HLH+19].

Hartree
[CLM+16, KKB98, MMDA19, TMW+99].

Head
[GBK93].

Heavy
[QH08, Reu92].

Heavy-Ion
[Reu92].

Helicity
[DVC88].

Helium
[Fro91].

Helix
[PT90].

Helmholtz
[BEF+95].

hemodynamics
[AFL+18].

Hermetic
[YK07].

Hermitian
[RDG12].

Heterogeneity
[TCW06, WD21].

Heterogeneity-Aware
[TCW06].

Heterogeneous
[BM13, BLRR01, BMR06, BG09, CHZ02, CLBS17, Dee10, EGG05, KT99, KS05, LR07, LR09, LR010, ME14, NBB+96, RAGW93, RRV06, VLO+08, dRAD+18a, BJWS20, CMS+11, CGST19, EDB19, GB18, HGWN14, IMW+13, INS+20, LST15, LDW+12, MFP+17, NC18, SB19, UZM+14, BM12].

HeteroMPI
[VLO+08].

Heuristic
[SG07].

Heuristics
[CJ06].

HHT
[LSES20].

Hi
[TD+17].

Hi-C
[TD+17].

hierarchic
[EDB19].
Hierarchical
[DD06, GJMS88, HJ96, HWP03, IGDQO19, PBAL09, SG09a, WT99, DSH+16, GBB18, LSLR+20, MJ16, Wal18, ZBMK11].

Hierarchy [HL10, YK04]. High
[Ano87d, Ano87f, Ano94a, Ano94c, Ano95b, Ano95a, Ano96a, Ano97b, Ano97c, Ano97a, Ano98a, Ano98, Ano00, Ano01b, ARPP99, Aus92, Bai88, BV11, BGI+99, BCC+01, BAA+06, BEH+90, BEF+95, BRT+92, CWHF99, CC5, CDP+94, CSY10, CB95, CJK+05, DTD14, DFS+05, DGJ09, DBA+09, DHL16, ISD9, EKD+12, FGJ+05, FGJ+04, GBB18, GHM+10, GHIL, GVR+21, GMGW10, GSK+15, HSLK11, IS96, IKY+10, KDH11, KBA00, Kep90, KWB06, KFM+21, Kuc04, KMM16, LST15, LPB+16, LD07, MAB07, MSPS15, NKN+08, NZG98, NTKP06, PPK+04, PPK09, PA11, Poz97, Prola1, QWIC02, Sab01, STS17, SKB01, Ste01, Ste04, SKP+22, SKC10, TR17, TML88, TMW+09, THDC09, VRB+19, Wad99, WLC91, WLG+18, WOS08, YSP+05, AFGQ09, AGHR19, BAKM+16, BLU+22, BLCC+17, BBA+21, BAP+12, CGW19, CEC20, CZR+11, DAC+14, ECG+13, Fem90, FMR+20, GR17, GSND20, Har11, HBBR21, IYK16, IFA15, JRT16, LDLD19, LH19, MUC+13, OGGM+16, PPC+16, PSTR+16, PFF16, SCWK19, TLDSS2, TNLIP13, Udd17, WDH+15, WD19, Mar87a]. High-Cost [PPK09]. high-density [HBBR21].

High-End [BV11, NKN+08, PA11]. high-intensity [JRT16]. High-Level [BCC+01, GBB18, Udd17]. High-Order [CC95, KFM+21, LH19, OGGM+16, SCWK19].

High-Performance [Bai88, BAA+06, BRT+92, CSY10, DGJ09, DBA+09, ISD98, HSLK11, IKY+10, KWB06, PPK+04, Sab91, TMW+99, THDC09, DTD14, DHL16, EKD+12, GHIL, GMGW10, GSK+15, KDH11, KMM16, LST15, LPB+16, SKC10, TR17, VRB+19, WLG+18, AFGQO19, BAKM+16, BAP+12, CGW19, CEC20, CZR+11, DAC+14, ECG+13, Fem90, FMR+20, GR17, GSND20, Har11, IYK16, IFA15, PPC+16, PSV+16, PF16, TNLIP13].

High-Pressure [WLC91]. High-Resolution [DFS+05]. High-Speed [Ano87d, BAKM+16, Mar87a].

High-Throughput [GHM+10, GVR+21, AGHR19].

High-Wave [BEF+95]. Higher [Mah90].

Highly [Ade21, BG22, BCC+06, DBBA1, Sim90, KKB+21, PS12, WKLW21]. HIP [KNPS21]. History [MT89, ZC92, Bra91]. Hitachi [WGO95]. HLA [RTRG+07].


HPVM-Based [CLP+99]. human [ABH+18, BE17, GGMMPJ+20]. Hut [INS+20]. Hybrid [BBG+10, BBH+06, CGW09, MS02, MV20, MGFP20, RW03, BSK14, BBG+14, CAE+13, GLH15, GGO16, HDT+14, HILW+16, IVG+20, LYL+16, NOM+19, NMAE13, QSX+20, RMV+19, STP+13, SZC12, SD17, SMZ+18, SHK+18, TDHS19, WSD+14].

hybrid-core [BBG+14]. Hybridisation [EMP+18]. hydrodynamic [HLH+19, SZC12]. Hydrodynamics
Implementing [CDT05, KV19, LRT07, YFH+96]. 

Implications [RES87]. Implicit

[AGKMT00, MS02, NS21, EAG+19, HLT+20, KC18, AGC+19]. Importance

[BCG+10, SC09]. Important

[TC10, FAB+21]. improve

[JaSA+17, LFB+15]. Improved

[Ano87b, CMHB15, FSN08, NTD10, DMSMG18, INY+14]. Improvement

[SVN09, KMM16]. Improving

[ARPY19, BL99, BJK07, CGGC+16, DAB+12, ILCGL20, JMC05, KLM13, MJM16, MW12, YK04]. in-depth [JDAD19].

in-memory [WZH17]. in-situ [MBF+19].

Incomplete [ILJ93, KAL99b, MC21].

Increased [DLT+21, WBM19].

Increasing [PHC+10, Winy92].

Independent [BRU05, CCRV20]. Index

[Ano96b, Ano97d, Ano99, Ano100, Ano11b, Ano102a, Ano102b, Ano102c, HC10, BCJ07, HC08, BE07]. induction [JCK21]. Industrial

[DG+17, GMWG10, LDGR03, JB019, VMP19]. inefficiency [HGMW12].

Inequality [DK98]. Inertial [GBG+18].

Infer [RS03]. inference [KPS18].

InfiniBand [NO+19, OF17, SW05].

Influence [CK01, Ede93]. Information

[Ano91b, Ano91a, Ano92g, Ano96c, Ano96a, Ano97b, Ano97c, Ano98a, BH06, CHZ02, FSW02, FP02, IMS16].

Information-Driven [CHJ02].

Information-Theoretic [FW02].

Infrastructure [FK97, HLP+03, Wol03].

Infrastructures [HdV18]. Initial

[WLW+99]. Initiated [SB+05]. Initial

[AS91, HY+92, LD019]. injection

[CW917, WSY+14]. Innovative [MPS15].

input [Lay22, LCZ+15, WL+16].

input/output [LCZ+15, WL+16].

inspired [CGW19]. Instance [LJC+10].

Instance-Intensive [LJC+10]. instances

[TR17]. Institute [DK91, EM91, IHM87].

Instruction [HRM89]. Instrument
Instrumentation [TM99].
Integer [Gro03]. Integrate [BFLL99].
Integrated
[CFV+94, GLZS14, MHW15, WBG06, FT19].
Integration [ACD07, QWIC02, BTRZ+19].
Integrative [KHK+09]. Intel
[GLZS14, HG91, HLS+17, KLJ87, KR94, KR95, LSES20, SB19]. Intelligence
[Ano87d]. Intel(R)
[MMDA19]. int
[JRT16, LH19]. Intensive
[GMLP08, KUE00, LJC10, Mah90, ACF11, FKA17]. Inter
[FWZ91]. Inter-Semiconductor
[FWZ91]. Interacting
[KWB06]. Interaction
[AEPR92, Liu90, HYY+22, KC18]. Interactions
[TMWS91, PFGDM20]. Interconnect
[CdVL+18]. Interface
[Ano93d, Ano94b, BDG+00, KFM+10, LWOB97, MPI98, SLG95, ESW+12, IMS16, ZKRA14, BC14, BBI+06, BRU05, C04, GL04, IBC+10, KKD05, KK05, SWHP05, TGT05]. Interfaces
[BDG22]. Interference
[KCC+06, TNCC21]. Interference-Aware
[KCC+06]. Interleaving
[KNP+87]. International
[Ano91b, Ano92g, Ano92e, Ano92f, Ano93a, Ano94a, Ano95b, Ano95a, Ano96a, Ano97b, Ano97c, Ano97a, Ano98a, Gaf88, Lee03, Ano98b, Ano99, DBA+09, DBM+11, Ano91a, Ano00, Ano11b]. Internet
[EDSV06, Raa02]. Interoperability
[Kal09b, LDB+06, SIC+19, EK0+12]. Interpolation
[JLO05, SBB06]. Interpretation
[Fei99]. Intrepid
[BWB+10]. Introduction
[Ano02a, BM13, BL18, BQS01, DTT99, DT13, Hau94, KM20, Mas19, Nag93, O13, SB18, SDS12, Ste01, Tur95, dS21]. Inverse
[Cho01]. inverses
[MGP20]. inversion
[BGM15]. Investigating
[CW05, PHF21]. Investigation
[CK01]. Investigations
[Mav02]. investing
[DTL19]. Invitation
[Mar87c]. Invocation
[DP05]. Involving
[MBF+11]. IO
[BIC+10, LRT07]. Ion
[Reu92]. ions
[KFJ20]. Iowa
[BCYS11]. IPC
[Udd17]. iPS/C
[HGD91, KR94, KR95]. iPSc
[KR94]. iPSC/860
[HGD91, KR95]. Ireland
[MCS+06]. Irregular
[Cza03, Man97, TRS+10, KPR17, MMHL11]. ischaemic
[SKS+13]. Ising
[BM89, BRT+92]. island
[NC18]. island-based
[NC18]. isolating
[ALL13]. Issue
[BD11, BM13, BQOS21, BQ18, DT97, DT99, D06, DT13, DT17, Fol90b, Hau94, KM20, MP98, Mas19, ME14, Nag93, O13, PA11, Yel04, dS21, BH17, C020, DT19, HD18, MF0+19, WH20, W19, WD21, SDS12]. issued
[CSGM17]. Issues
[AD93, BMWD87, CLSS09, C97, Dem90, EGMP93, Men00, GCSK13]. Italy
[OL05]. Iterated
[RR96]. iterations
[MC21]. Iterative
[BDL+07, CSV91, CN12, CM97, FF0+10, MC90, MCW+00, PHC+10, SC04b, SCFK04, AKP+18, CSGM17, C011]. Iteratively
[ML20]. Jacobi
[BBDH14]. Jaguar
[BWB+10]. Jam
[MCG04]. Japan
[EM89, IHMM87]. Java
[BJK07]. Jini
[Hua03]. Jini-Based
[Hua03]. JISGA
[Hua03]. job
[GJMV18]. Josephson
[IKY+10]. Journal
[Ano91b, Ano91a, Ano92g, Ano92e, Ano92f, Ano93a, Ano94a, Ano95b, Ano95a, Ano96a, Ano97b, Ano97c, Ano97a, Ano98a, Gaf88, Lee03, Ano98b, Ano99, DBA+09, DBM+11, Ano91a, Ano00, Ano11b]. Jumpshot
[ZLGS99]. JPL
[Din91]. Jumpshot
[ZLGS99]. Junctions
[IKY+10]. Jupiter
[Th090]. Just
[BPBL11]. Just-in-Time
[BPBL11]. K-computer
[INY+14]. Kepler
[HPW+16]. Kernel
[TM99, ALL13, BLU+22, Jom12, LNSMMA15]. Kernels
[BELF07, IVY04,
MTW+22, PNFC16, RRJ+20, JO92, KJH96. 

Local-Creutz [BRT+92]. Locality 
[AKW19, BPBL11, PHC+10]. Localization 
[CYT+02, MJGL13]. Localized [WCE95]. 

Logical [Chu99, SR98]. Long 
[Gro03, HRM89]. longest [Ozs16]. look 
[BBD+17]. Looking [AK93]. Loop 
[IS96, YK04, RACE+20, WKLM19]. Loops 
[WGI90, RRJ+20]. Loss [ZOF90]. Lossless 
[Arn07]. lossy 
[CCO+19, CDL+19, TDG+19]. Low 
[DF08, MCR18]. macromolecular 
[AKC]. Many-Body 
[TMWS91, AKW19, BPBL11, PHC+10]. Malleable 
[PR18]. Malleability 
[AKC]. Machines 
[CH95, CSVV91, CBV97, EEL15, IKMS+19, KFJ20, MC90, SS89, Wit92, ZK93, BAP+12, CBM13, DMJS19, DEQO21, EJD+19, KWEF18, MP18, NSl20, SK20, SSU+12, BJ92, GKH+91, HZ91, KKD03, KKD05, LK10, LPG88, Don87]. 
machine-learning-based [CBM13]. 

Machines 
[AH93, BBDR95, CTD+05, CB95, HC10, HGWN14, Jea13, KS89]. macromolecular 
[DFF+18, MCR+17]. made 
[ASHH16]. Madre [SS10]. MAGMA 
[AAT+20, NTD10]. magnetic 
[JKBW18]. Magnetically 
[ACG]. Magnetohydrodynamic 
[ACG+90, FU12]. mainstream 
[BHK+13]. Major 
[GL09]. makes 
[SDF+19]. Making 
[BPBL11, Dee10, GWKN08, BHK+13, KT94]. malleable 
[PR18]. Man 
[Wit92]. Manage 
[HBSP08, ESW+12]. Management 
[AF09, AD93, BPK+07, DD06, Dar00, HTSK90, MWM+08, MFK09, PK04, SE92, YB07, PBB+20]. manager 
[IK18]. Managing 
[Spr06, TGP91]. 

manufacturing [TBB+22]. Many 
[GLZS14, TMWS91, AKC+19, BH12, INS+20, LDLD19, LNSMMA15, MSPSI15, PSV+16, Udd17, VRB+19, VOL+14, YFS+14]. many-core 
[AKC]. Many-Body 
[TMWS91]. many-nucleon 
[LDLD19]. manycore 
[AGC+19, DJJ+19, HFV+12, LTPK17, MBC+18, SCD+19]. manycores 
[BH17]. Mapping 
[CDRV15, QH08, ASA91, DCN17, GJMV18, Jea13, KPR17]. Mappings 
[PTGB02]. Marenostrum 
[RBL08]. marine 
[GEKO19]. Market 
[McN87, NK89, WPB01]. Market-Based 
[WPB01]. Markets 
[IIJ93]. Mass 
[Mc87]. Massive 
[GBN11, dSSB+08, Cdv+18, GVR+21]. Massive-Scale 
[GBN11]. Massively 
[BBDR95, CH94, CBW95, CB95, Dem90, DCLS19, HVWS09, HVWS09, HS93, HZ91, JL89, Jon92, LP98, MA15, MPG93, Mon89, NZ93, PK04, SBF90, SCB+95, SK92, TMW+99, AHB+16, BCLP17, EK019, IJB22, KHS+19, KRR19, KDH18, NMAE13, RMV+19, SPMW18, YJZ+22]. match 
[Ozs16]. Matching 
[ZC92, HFV+12]. Materials 
[EGG05, GKN+96, KYY+90, Nak99, WLC91, ZOF90, MP+12, PHF21]. Mathematical 
[Mon89]. Mathematics 
[Don89]. MATLAB 
[BK07, Lus99b, ZZG+14]. Matrices 
[KC92]. Matrix 
[AGL+87, Chn99, DL09, GG11, IYV04, MCG04, KNR90, BDC21, BJWS20, DEK92, EHTW21, GGP14, GGO16, HDL+15, MSHP18, PHF21, SCR11, SMK+20, WZH+20, YID19, YLT+14]. matrix-free 
[PHF21, SMK+20]. Matrix-vector 
[GG11, GO16, YLL+14]. matter 
[HHHS15, HYY+22]. Maximization 
[GLG+11]. Maximizing 
[PIR+20]. MCell 
[CBS01, CBB+04]. MCHF 
[SYF96]. Means 
[BRT+02]. Measure 
[BH06]. Measurement 
[SMW07, FU12]. Measuring 
[FGJ]. Man 
[Har11, KKS04, SB04]. many-nucleon 
[Ytt97]. Many-Body 
[MBvdG13]. Mechanics 
[HOPB92, Her88, Ytt97]. Mechanism
mechanisms
[CDG^{+21}, GGMJF^{+20}]. Media [PGTS10].

medical [THH^{+13}]. Medicine [SSNM92].

Mediterranean [CDG^{+14}]. Medium
[MHW15]. Meetings [Ano91c, Ano91d, Ano91e, Ano92i, Ano92j, Ano92k, Ano92l, Ano92m, Ano93b, Ano93c, Ano93d].

Melting [MWC^{+05}]. Member [HTSK^{+90}].

memetic [NC18]. memoization
[CGGC^{+58}].

memories [TKSK^{+88}]. Memory [AH93, AD93, BPLL^{+99}, BMWD^{+87}, Brik^{+90}, BCD^{+95}, CWG^{+09}, CB^{+95}, FSS^{+13}, GJMS^{+88}, GSHL^{+03}, Gir^{+02}, HC^{+10}, HL^{+10}, HD^{+05}, JLL^{+04}, JMC^{+05}, MWAR^{+87}, MCW^{+00}, NPT^{+06}, NTKP^{+06}, WT^{+99}, YRA^{+02}, YK^{+04}, YIN^{+11}, ZC^{+92}, BH^{+12}, CHT^{+19}, DEK^{+92}, DCN^{+17}, HTD^{+14}, HGMW^{+12}, IK^{+18}, JOD^{+92}, KDO^{+16}, LF^{+15}, LCZ^{+15}, RMV^{+19}, SPNB^{+14}, SB^{+19}, THDS^{+19}, Wal^{+18}, WZGH^{+19}, YIY^{+19}, SS^{+10}].

Memory-Aware [SS^{+10}]. memory-efficient
[RMV^{+19}]. merger
[HLH^{+19}]. Merging
[YBA^{+03}]. Mesh
[DFS^{+05}, HT^{+04b}, Mavl^{+02}, MCW^{+00}, SR^{+05}, WCE^{+95}, WCDS^{+99}, DLCS^{+19}, ZMG^{+21}].

Mesh-Iterative [MCW^{+00}]. Meshes
[Yttr^{+97}, KC^{+18}]. Meso [GGS^{+01}]. Meso-Scale
[GGS^{+01}]. Message
[Ano93d, Ano94b, CWG^{+09}, MPI^{+98}, BBG^{+14}, SMZ^{+18}, ZKRA^{+14}, BC^{+14}, BBH^{+06}, BRU^{+05}, Cot^{+04}, GL^{+04}, IBC^{+10}, KKD^{+03}, KKD^{+05}, LK^{+10}, SWHP^{+05}, SLG^{+95}, TGT^{+05}].

Message-Passing [Ano93d, Ano94b, CWG^{+09}, MPI^{+98}, SMZ^{+18}, ZKRA^{+14}, BC^{+14}, BBH^{+06}, BRU^{+05}, Cot^{+04}, GL^{+04}, IBC^{+10}, KKD^{+03}, KKD^{+05}, LK^{+10}, SWHP^{+05}, SLG^{+95}, TGT^{+05}].

Messages [JW^{+06}]. Messaging
[KFM^{+19}]. Metacomputing
[FK^{+97}, GS^{+99}].

METADOCK [ICPS^{+18}]. metaheuristic
[ICPS^{+18}]. Metaheuristics
[QH^{+08}, TPG^{+18}]. Metal
[TBB^{+22}, NMAE^{+13}]. metal/polymer
[NMAE^{+13}]. Metals
[Cla^{+91}]. Metascheduling
[Mat^{+03}]. Method


Metric [HE^{+01}, DHL^{+16}]. Metrics
[CMS^{+11}, Num^{+04}, Ste^{+04}]. Mexico [Bus^{+87}]. MFIX [MAF^{+22}]. MFIX-Exa [MAF^{+22}].

MHD [ACG^{+90}]. MIC [HLS^{+17}, SHK^{+18}].

Micro [BBW^{+10}, SKS^{+13}].

Micro-benchmarks [BBW^{+10}].

micro-ischaeic [SKS^{+13}].

Microbenchmarks [JLL^{+04}].

Microcanonical [BMT^{+89}]. microfluidic
[KDH^{+18}]. micromagnetics [YZ^{+22}].

Microprocessors [WT^{+99}]. Microscopic
[YFH^{+96}]. microscopy
[RPeB^{+19}, TKA^{+17}]. microstructure
[TBB^{+22}]. Microtask
[MSK^{+92}].

Microtasking [HA^{+91}]. microthreaded
[Udd^{+17}]. MICs [TKA^{+17}]. Middleware
[BA^{+01}, CKP^{+99}, CDC^{+06}, EDS^{+06}, MCS^{+06}].

Migration
[KL^{+87}, UB^{+95}, QC^{+17}]. millions
[LYL^{+16}]. MIMD
[AH^{+93}, BOD^{+91}, FFP^{+97}]. Mimicking
[ACD^{+07}]. Mini [BGB^{+18}, Gen^{+88}].

Mini-applications [BGB^{+18}].

Mini-Supercomputers [Gen^{+88}].

MiniApps [MDH^{+18}]. minimal [LBP^{+18}].

Minimization [Rao^{+02}, LPB^{+16}].

Minnesota [Auz^{+92}, ATD^{+88}]. MiPax
[HKK^{+88}]. MIPSPRO [CW^{+05}]. Missing
[Mar^{+87d}]. Missions [SKB^{+01}]. Mixed
[Ano^{+02b}, BD^{+07}, AAB^{+21a}].

mixed-precision [AAB^{+21a}]. MM
[MFP^{+17}]. MM2 [PUR^{+94}]. MMF [LNK^{+22}].

Mobile
[FP^{+02}, WZIC^{+02}, YBA^{+03}]. Mode
[LRT07, HHSM19]. **Model**

[ATN+00, ACD07, ABAS87, BFLL99, BE07, BFNV07, BG02, BMT99, BRT+92, CBW95, DVC88, GS05, GP93, Ish91, JLO05, Kep04a, KJ05, KM95, LR07, LPJ98, PPR03, SSSW91, SG09b, SG09a, SR05, Ste09a, TD08, VFD04, VS89, WBC06, WHL03, AGC+19, AWG19, ABH+18, CDL20, CDG+14, CMHB15, DAS+12, EDB19, EMP+18, EAG+19, GDW15, IYK16, KKL+19, LB18, LNK22, MKM+19, PMP+20, SDF+17, TNL13, WD+15, YWL+14, Cow08, CJK+05, DWW+12, DEE+12, DJC05, ESW+12, HVKW05, JLO05, KTWL18, LJO05, MS05, MW12, PLS05, WD05].

**Modeled** [WJS+90]. **Modeling**

[AS00, AGHR19, BCZM07, BELF07, CWHF99, CC95, CTD+05, DRO6, DMS87, DSD+01, DCN17, EGG05, EDS95, HVWS09, HVSW09, JO00, MOM00, MWC+05, Men00, MUC+13, Rad18, SG91, SVB13, SK92, THC+96, THL88, WSC05, YK07, YW93, CV12, CHWS20, DCM+17, GSK+15, JKBW18, MMHL11, OWC+21, SE12, SK20, SK+22, UCD+15]. **modelling** [QHCC17, STS17].

**Models**

[ARR99, BV11, BRGR11, BR03, BBD00, DGD+04, DFC90, Gir02, HD05, HAF+96, IIJ93, Kall96, LJO05, LR09, LRO10, MA89, PA11, PS87, RW03, Ste04, Ste09b, UB05, VDB04, WOS08, WW92, ZC92, de 89, Ade21, BH17, DTDP14, DEL+12, EJD+19, HCC+22, HLS+17, JMM+21, KdOCR+20, KBY+19, MEK+19, MTW+22, MDH+18, SCD+19, VSN14, WKL19]. **Modern** [BDG+00, WET+19, ESW+12, SB19].

**Modified** [HB90]. **Modisazure** [ACF+11]. **modular** [AFQ019]. **Module** [PLS05].

**Modulo** [Gro03]. **Molecular**

[BYT91, CGB+94, CH94, CWW90, CS10, DQFW90, DGD+04, DVC88, DFC90, KKV+90, MP94, Nak99, NHG+96, AKC+19, AKW19, HXW+13, KFJ20, KNP21, PIR+20, SDI+19]. **molecule** [JMM+21].

**Monitor** [BH06, SSU+12]. **Monitoring**

[LWOB97, MR04, PHB04, SC09, Spr06, VR00]. **Monte**

[BEH+90, CH94, DFT+15, FSS13, LM03, LPB+16, MWAR+87, MB87, MFP+17, SADB13, SSSW91, SSR+14, VSS+13, ZK93]. **mortar** [LPB+16]. **Morton** [Wal18].

**MOSFET** [VSS+13]. **MOSFETs** [MV20]. **MOTEUR** [GMLP08]. **motif** [FAB+21].

**motion** [NSI20]. **Motions** [DFC90].

**moulded** [WSD+14]. **movement** [PG18].

**Moveout** [LT90]. **moving** [BG22]. **MP**

[AEPR92, Del93, DH96, Lai93, LT88, MYC92, MSK92, YW93]. **MP/416**

[THL88]. **MPH** [HD05]. **MPI**

[SLG95, Ano94b, Ano01a, BBG+10, BCG+10, BBS99, BBG+14, BF01, BBDH14, BBH+13, BIC+10, BHK+06, BBC+00, BRM03, Bt10, CBL10, DJJ+19, DLB07, DGB+14, FD04, FCLG07, FSC+11, GF05, GVFM+18, HC10, HGMW12, IMS16, KWF18, KM+14, LRG+16, LRT07, kLCW07, MS02, MMFA19, OL05, OGM+16, MPR+07, SCB14, SS+05, SDJ17, SC04b, SIC+19, THDS19, YSP+05, ZKRA14, ZSC12].

**MPI-2** [HGMW12]. **MPI-Based** [FSC+11].

**MPI-IO** [BIC+10, LRT07]. **MPI-OpenMP** [MS02]. **MPI/OpenACC** [OGM+16].

**MPI/OpenMP** [MMDA19].

**Mpi/Openmp/GPU** [ZSC12]. **MPI2** [MPI98].

**MPI_L** [GVF+18]. **MPICH**

[BHK+06, Cot04, GL97, TRG05].

**MPICH-G2** [Cot04]. **MPICH-V**

[BHK+06]. **MrBayes** [KPST18]. **MRI**

[SKS+13]. **Much** [RAGW93].

**Multi**

[BP09, BH12,BH14, OKT11, SSR+14, TNBG07, YK04, APD+15, BGM15, BGO20, CAE+13, CZR+11, DAC+14, HCC+22, IKM+19, IK81, KTLW18, KKL+19, KILL13, LDW+12, LVA+13, LNSMA15, MGFP20, PSV+16, TKA+17, VSS+13, VMPW20, VOL+14, YFS+14].

**multi-** [PSV+16]. **Multi-Core**

[Bri10, BH12, KDH11, SSR+14, CAE+13,
Operation [BBR10, BHdR09]. Operational [CBA+18]. Operations [FCLG07, GFD05, MS09, TRG05, TGT05, GG14, KMH+14, ŠCKW19]. Operators [FSN08, GRC08, ZM07, LMT+12]. Opportunities [Ano87a, Cap09, KMW+13]. Optimal [GSK+15]. Optimal [BR03, FG97, DEQQ02, LTPK17]. Optimisation [BG+18, VSS+13].

Optimization [AKP+18, ABB+94, BFLL99, BGB+96, BELF07, CGST19, HL10, HA91, IYV04, KMH+14, LT88, PPK09, RW03, SCD+19, SCB+95, SR05, TXD+07, TRG05, YLL+14, ABH+18, BRGR11, BH12, FIMU19, IMW+13, KES+17, NMAE13, SDJ17, SHK+18, UZM+14, WD21, YWL+14].

Optimizations [PSV+16, CDC+13, Jea13, PUR94, WKLW19]. Optimize [KKCB98, GV+18]. Optimized [MSK92, THD19, IK18]. Optimizing [AKC+19, DDKK19, FSS13, GI11, KILL13, MAB+13, MCG04, Mor89a, NS120, TGT05, WCE95, WCD99, BJWS20, EJD+19].

Optorsim [BC+03]. Order [CC95, uTH07, THL88, CZR+11, KFM+21, LH19, OGM+16, PFEDM20, ŠCKW19, THDS19].

ordering [Wal18]. orderings [AKW19]. ordinates [DMSMG18]. Organic [CBL06]. Organize [FWSW02, FKT01].

Organized [BGF02]. Organizing [CBL06, GHZ10]. Oriented [Hua03, NHG+96, CMN12]. Orography [GS+05]. Oscillatory [SPHW18]. OSWALD [RGB+18]. Other [CBA+18]. Our [WW92].

Outlooks [RAB+15]. Output [Lap22, LCZ+15, WVL+16]. Overarching [Kep04b]. Overhead [HYH+20, MSMW07].

Overheads [BCG+10, GNB11]. Overlap [BBDR95, BRU05, INY+14]. Overlapping [PR95, DJJ+19]. overset [KBY+19].

Overview [AGR+03, DFP+96, DJC05].

P [MAB+13, GNB11, SSU+12]. P4 [Mat95].


PAM-CRASH [CEL+97]. Panel [Sal87]. PANARAMA [DCM+17]. Papers [Lee03, Moh09, OL05, DT11, KKD03].

PAPI [JDAD19]. papillomavirus [ABH+18]. Par-BF [LGHD16]. Paradigm [BGB+96, DCL+08]. Parallel [AWS01, AAC+97, AS00, APD+15, AK91, AM00, AHB+16, AEPR92, ABB+94, BGG05, BDP01, BCCL09, BB+91a, BCZM07, BOD+91, BYCB05, BK07, BBDR95, BBC+00, BSH+16, BG00, BEF+95, BGB+96, BH99, CCH+88, CCZ07, CE00, CDH+93, CL95, CCBS11, CH94, CBW95, Ch01, CSV91, Chu99, CEL+97, CB95, CM97, CJK+05, DEKV92, DLY+98, Dem90, DIB00, DFS+05, DZRS99, DMT01, DZDR95, Ede93, EGG05, EDS05, FG97, Ga88, GCC+03, GKN+96, GKP97, GDS17, GP93, GGS01, GL7, GKM100, HKK88, HVW09, HVS09, HR97, H4V18, HLW00, HJ96, HT04b, HS93, HZ91, IBC+10, JLO05, JL89, Jon92, KDL01, KC92a, KC92b, KT99, Kok88, KR11, KS05, Lap22, LJO05, LPJ98, LWOB97, Lns09b, MC90, MS09, MMD98, MA15, MS02, MSMW07, MT89, MWAR+87, MPG93, Mat95, Nav02, MD09, MWC+05].

Parallel [McR87, Meu88, MFB+11, Mou89, Mor89b, MSK92, MS95, NK89, NKR00, NKi+08, NHG+96, NZ93, NFK98, NKP+00, OW098, ODD07, Pan92, Pan97, PR95, PPR03, PC08a, PK04, RW03, RR96, RS03, SBF90, SWW94, SABD13, SW01, S86, SPTT08, Sha88, SCB+95, SM06, SR98, Sim90, SSNM92, SG91, SK92, SBR05, SMW87, TBA+17, TLC98, TMW+99, TR92, Tis97, TD08, UB95, VLO+08, VSNH41, WSCZ05, WG07, YRA+02, YHG+07,YW93, Ytt97, ZK93, ZCZ+13, Ade21, AKW19, dR ADS+18a, dRAD S+18b, BLC17, BH12, BCLP17, CSC19, CMHB15, DKMT18, DAB+12,

Parallel-algorithm [AHB+99].

parallelisation [BSW+99, RAC+99, VSS+99, WSD+99].

Parallelism [ACM98, CFK+99, MYC99, VRLL18, dSSB+98, DMSMG+98, DLL+99, Jon12, KDMN18].

Parallelization [AJL+97, CDL+97, CBV99, Cow00, Cza00, DGP+99, GCD99, HE00, KM99, LP10, LVA+99, MRU99, Reu99, WGG+99, CIW17, CDG+99, MFP+99, MMDA19, OZS19, SZC19].

Parallelizing [AFL+99].

Parameter [FBBC03, KFJ20, SH93].


PARCOACH [SCB94]. Park [UB95].

Parkbench [HL01]. ParMetis [LDG03].


Participate [Mas99c]. Particle [DR00, DDMS97, MB99, MR99, PGTS99, ABH+99, MBF+99, NS20, WET+99].

particle-in-cell [WET+99].

particles [PMP+99]. Partition [LQJG16].

Partitioned [MHW15, SBG10, ABG+10, LGD16].

Partitioner [SR95].

Partitioner-Centric [SR95].

Partitioning [LR07, SR07, WCD09, Yt97, BJWS20, SABD13].

Partitions [WCE95]. Passing [Ano93d, Ano94b, BC94, BBH+94, BRU05, CWG09, Cot04, GL04, IBC+99, KKD05, KK05, LK10, MPI99, SWH05, TGT05, SMZ+99, ZKRA14, SLG95].


Paths [Rao09]. patients [KSK+99].

Pattern [BE07, APD+99].

Patterns [Cho01, OCI08, SGR99, dRADS+99, BRR99, DKB18, DDL15, HGM12, WEPB12].

Patterns/Operators [GOR08].

PC [CDT05, CK01, LWL05, Ste01].

PCISPH [VMP+99].

PDE [CCO+99, CHT+99, DTL+99, FMR+99].

PDEs [Ma00]. Peaks [FC10].

PERFECT [BCK+99].


Performance [NTP06, NKP+00, Num99, OCC+99, PPK+99, PB99, PFB16, POZ97, PLS05, QHCC17, QWIC02, RIF01, RBL08, SBF90, SB91, SWH05, SSQ08, SCB+99, SM06, SVN99, SC90, SPR06, SKB01, STE01, STE04, SFBG10, SPF02, SBB06, SWO4, SB19, THC+99, TMW+99, TAR+99, TMD09, VC89, VR00, VDB04, WAD99, WT99, WBF04, WGO7, WD05, YWL04, YK04].
[Mic09]. Practical [Cho01, WKLW19].
Practice [BR03]. Practices [PK04].
Pragmatic [DCD+13, Eyr06]. Precision
[Ano02b, BDJ+07, AAB+21a, AFG0Q19, 
Bai20, LHI18]. Preconditioned
[MG87, IVG+20]. Preconditioner
[BBS99, de 89, IJB22, RMS+18].
Preconditioners [CE00, Cho01, Ma00].
preconditioning [MC21]. Predict [VS03].
Predicting [BE07, WLC91, MCU+13].
Prediction [FFR+10, HL00, KUE+00, 
NKP+00, SCB+95, BAM+16, BBA+21, 
GCS13, MKM+19]. Predictions
[RIF01, TCD12], preeminent [YB12].
Preface [BBH+06]. Preface
[Ano17b, Bak01, Bam12, BO08, CCF+06, 
CCD+06, CJB+06, DDS00, DT97, 
DT01, Don02a, Don02b, Fow05, IK02, 
Kah07, KZ07, MD06, OL05, Pat05, PC08b, 
Wal03, YD07, da103]. Prefetching
[BIC+10, CBR+11], prefix [Oza16].
Preprocessing [DHT797]. Preprocessors
[Ano01a]. Pressure [WLC91]. Pricing
[BBM19, YB07]. Prime [Ano22h, Sim90].
Principal [DF08]. Principles
[DQFW90, GKN+96, TMW91, HIT+14].
Priori [Cho01]. Priority [PBB+20].
Privacy [Mar89a]. Prize [dS21, BBD+17].
probabilities [Haj93]. Problem [CDH+93, 
CSV91, DL09, UFM89, CCBS11, RRJ+20].
Problems [BGG05, CD97, FG07, FBW+87, 
GGS01, MR90, NK89, NKR90, SSW94, 
ulTHT07, TRS+10, TMRR10, DLT+21, 
KC18, Lai93, MC21, MBHF15, SPW18].
Procedure [CGB+94]. Process
[AM00, FGC+05, GL93, SC04b, KILL13, 
WSD+14]. Processes [MWC+05, GSK+15].
Processing [AK91, FP02, GLLB+11, 
KHP+04, LP10, MA15, MT89, Mor89b, 
MSK92, NTD10, OW098, PC08a, PMS+04, 
SaI87, SPTT08, SWG+03, VLO+08, YW93, 
BE17, BLC17, CLG13, CMN12, DMQS12, 
GHSH15, KDO16, LQJ016, PH91, RGD12, 
RWM17, SFLC18, YZSW21, ZCZ+13].
Processor
[MPG93, RRV06, SBF90, SK92, BM15, 
DJJ+19, MAB+13, MMDA19, Mon12, PH19].
Processors [Bri10, BDG+00, LR07, LT88, 
MVAR+87, Mor89b, TMW+99, AGC+19, 
BBG+14, CZR+11, MBC+18, MPS2015, 
PSV+16, SB19, THH+13, YIME19].
Product [MCG04, BDC21, Eri88, SCW19].
Production [MSK92, MDH+18, SH13].
Productivity [Bar09, FGJ+04, KKS04, 
Kep04a, Kep04b, Kuc04, SB04, Ste04].
Profiling [MSMW07, SGFC09]. Program
[Kit90, NHG+96, WG07, Fem90, KJ05, 
Web91]. Programmability
[CCZ07, CLS09]. Programmable [HC08].
Programme [HT04a]. Programmer
[BEK+18]. Programmer-guided
[BEK+18]. Programming [BBG+10, BV11, 
BF01, BDG+00, CCH+88, CWG09, Cza03, 
EGG05, Gan88, Gir02, Kael9b, KKS04, 
Kok88, Lus09b, Mat95, NPT+06, PA11, 
PRAL09, Poz97, RW03, Sha88, SCB+95, 
SMW87, VEMR17, WLB92, BH17, CCBL18, 
EVB19, GBB18, GDKWS15, HLS+17, 
IVG+20, LBP18, MGB12, MDH+18, SB19].
Programs [ACM88, DLB07, GL04, HC10, 
LWO97, NZ87]. Progress [AGL+87, 
BRU05, CAE+13, DJJ+19, MEB+19].
Project
[BHK+06, CBB+96, EDS+22, PK04, 
BCC+01, DAB+09, DMB+11, EW22, Ger21, 
Mic09, OKTR11, PS87, PHB04, Wit92].
projection [MGFP20]. projects [ACF+11].
Promising [Gir02]. Propagation
[AK91]. Property [Eyr91].Properties
[AGC+90, DFS+05, WLC91, ZM07, AKW19, 
PHF21]. proposal [ZKRA14]. prospectus
[Bra91]. Protein [ACD07, BHK+88, Jon92, 
RGB+18, DSH+16]. Protocol [TNBG07].
Prototypical [WLVL+96]. Provided
[LS06]. Providing [GKP97, SLL+19].
Proximal [N93]. Pruners [SL+19].
pulse [ASAK19]. Purity [HC08]. Purpose
[CKE08, Gus04, BE17]. Purpose-Based
Pushing [THH+13]. PVM [BDG+95, Mat95, SYF96]. PVMGeant [DZDR95]. PVODE [BH99]. PyCOMPSs [TBA+17]. Python [FKA+17, LD07, RACE+20, TBA+17].


Redistribution [DP05, JW06, RRV06, SS10]. reduce [APD+15, CGW19]. Reduced [BFLL99]. Reduced-Dimensionality [BFLL99]. Reducing [BLOR18, BGO20, CdVL+18, CSC19, DLY+98, JMC05]. Reduction [NRR97, ATL+15, FAB+21]. References [Ano02p, Ano02q]. refined [Sta19].

Refinement [BDL+07, HT04h, SR05, ZMG+21]. region [SPN14]. region-based [SPNB14].

Regional [KM95, CDG+14, MTW+22, WSCZ05].

Regression [VS03]. related [BQOS21].

Relational [MS09]. Relative [PUR94, VC89]. Relativity [RIF01].

release [ELEB21]. Reliability [TNLP13, BEK+18]. Remeshing [LDGR03]. Remote [BB02, DP05, NTKP06, HGMW12].

Remotely [VLO+08]. Renaming [BPBL11]. rendering [BH12]. repeatable [NDRM20].

Replication [BCM+03, BCR+14]. Report [Buz89, Sal87]. Representations [AS00, WW92, CRS+19, DF18].

Reproducibility [Bai20, IVG+20, MEK+19, NDRM20, PBE+19, SLL+19]. reproducible [IGDQO19]. Request [DD06]. required [CdVL+18]. Requirements [LPJ98].

Research [Ano87a, Aus92, ABB+94, Bus87, Cap09,
CDP+94, Don89, Duk91, IHMM87, KHK+09, Mar88a, Mii90, Pan97, SG09b, SKC10, TR92, BBW90, KT94, PBB+20, EM89, dS21.

reservation [GSA+19],
reservation-based [GSA+19]. Reservoir
[AWS01, Ewi88, KR94, KR95, PR95, ZC92, MS19]. Resilience [BBA+21, CGG+09, BCR+14, CBD+17, LFB+15]. Resiliency [AAA+22]. Resilient [BPR18, CGW19, KS05, RMS+18].

Resolution
[DFS+05, HB00, MAB07, WOS08, CHW+15, DWV+12, NBE+22, WDH+15]. resolutions [TLdS22]. resolved [KBV+19]. resolving [LNK22]. resonance [JKB+18]. Resource
[AAF+01, EW06, FBB+03, MKF09, Mat03, WPBB01, YB07, CDRV15, MRD+15, PIR+20]. Resources [QH08]. respiratory [GGMJ+20]. Response [BBC+00, ZOF90].

Restart [SSB+05]. restoration [APD+15].

Restrained [CBG+94]. Results
[BMRO6, GNTLH97, Jea13, PUR94, WLV+96, BRGR11, BSH+16]. Rethinking [KES+17]. Retracted [IMH+12].

Retrospective [Mar88]. reuse [JCK+21].

Reverse [HHSM19]. Review
[Bus87, Con88, Mar88a, NAG89]. Reviewers
[Ano20c]. Reviews
[Don87, Mar87a, Mar87b, McR87].

Revisited [MS09, ZS11]. RF
[HTWS08,YW93]. ride [VFJ+15]. Ridge
[ABF+08, DGH+93, HGD01]. Rigid
[Nak99]. Rigid-Body-Based [Nak99].

Rings [RRV06]. RISC [Gro03].

RISC-Based [Gro03]. RNA [SCB+95].

road [TDM+17]. Roadmap
[THDC09, DBM+11]. Rocks [Pap11]. Role
[Pan97, Sab91, DMJS19]. Roles [MMS88].

roll [HRW19]. roll-forward [HRW19].

Rolling [FFNP97]. Roothena [MMDA19].

Routines [CDQS04]. Routing
[CHZ02, MOK00]. RTX [BLU+22]. Run
[DLY+98, BDC21, LYL+16]. Runge
[KR11, RR96]. Running [Fra05, MGB12].

runs [CdVL+18, SL1+19]. Runtime
[AJL+97, BH00, Dar99, GGMJ+20, Kal9b, LS06, PG18, HI12, HI13, HI15, LRLG19, WK121]. Runtime-compilation [PG18].

S [Lai93, WOG95, LYL+16]. S-3800
[WOG95]. S-MP [Lai93]. SAM [LNK22].

SAMCEF [GCD97]. Sampling [MR04].
San [Mai87]. Santos [BCP+20]. SAR
[AAC+97]. SARA [SBWS99]. SARS
[CDG+21]. SARS-CoV-2 [CDG+21].

Satellites [BKS+07]. saturation [CIW17].

Saving [TNBG07, SKSG19]. Scala [SFP02].

Scalability [BCYS11, DR06, FSC+11, FMR+20, GS05, HILW00, KCI8, MWC+05, YIN+11, DAB+12, MW12, SPW18].

Scalable [CD06, CHZ02, DW97, DMT01, FKT01, HGMLW12, IB+10, JSSZ09, MCW+00, MS05, MAJJS03, SDJ17, SFP02, WLB92, ZLGS99, ZRC+06, dPlA03, BG22, DEE+12, EKF+19, AAT+20, GEK019, HLH+19, JMM+21, JBOT19, KHS+19, TDM+17, YB12, ZB20].

Scalar
[Ish91, OCC+08, FU12, KS89]. scalar-type
[FU12]. Scale
[AS00, AK01, BDP01, Ber92, BBA87, BCC+06, CWPH09, Ewi88, Fra05, GGS01, Gun00, GNB11, Her09, HILW00, HSLK11, Joh01, Key09, KUE+00, LT88, LC06, MPS15, Mor89b, NKR90, Nak99, PS87, SD87, YRA+02, ZRC+06, dSBB+08, AAA+22, AMB+18, BAM+16, BLOR18, BEK+18, DCM+17, EEL15, FAB+21, GDKWS15, GMW10, HIT+14, HY+22, HRW19, IKMS+19, INS+20, JBOT19, LM03, LDW+12, MBHF15, MJ16, MRD+15, STP+13, SIC+19, VOL+14, YIME19, ZKRA14]. scales [BEW16, PBE+19].

Scaling
[CBG+94, CK01, CLM+16, GHHS15, ZM07, GR17, INY+14, MKM+19, SKSG19].

Scattering [MBF+11]. scene [SABD13].

Schedule [SBWS99]. Scheduler
[LS06, TR17]. Scheduling
Simulating
[BEH+90, Din91, Haj93, VMPW20].

Simulation
[AWS01, ABF+99, BDP01, BHdR09, 
BFNV07, CK01, Cla91, CB95, CM97, 
DCCS10, DZDR95, Ewi88, FFNP97, GCL93, 
GP93, HTSK90, IKY+10, Koo90, KR94, 
KR95, LP10, IWL05, LC06, MKG90, Nak99, 
PSP09, PR95, PS87, PHC+10, Ren92, 
RKKC90, TWA87, WBG06, WBM90, 
ASA19, ARPY19, BLO+22, BG22, 
BSS+14, CHW+15, DAC+14, HCC+22, 
HLH+19, HYV+22, HXW+13, IKMS+19, 
JKD+11, JRT16, KDO16, KDH18, LPB+16, 
MTW+22, MS19, NBE+22, STS17, TSH+19, 
TAM+16, TBB+22, Udd17, VOL+14, 
WET+19, WH20, WSD+14, YME19, ZB20].

Simulation-Based [PPK09]. Simulations
[ABAS87, BG00, BYT91, BRT+92, CBSB01, 
CBB+04, CH94, DLY+98, DFMD94, FSS13, 
GGS01, Ham91, HKK88, HSLK11, HZ91, 
KDH11, KT99, KWB06, MD99, MHS11, 
NKN+08, PGTS10, PK04, RTRG+07, 
SSSW91, SKP+22, THC+96, AAA+22, 
AKC+19, AKW19, BEW16, CCO+19, 
CGST9, CDG+21, CMN12, CHWS0, 
DFT+15, FIMU19, FT19, GGMJF+20, 
HBRK+21, HPW+16, IMW+13, IJBB22, 
JBOT19, KF20, KMW+13, KBY+19, 
KHS+19, LVA+13, MFP+17, MAR+22, 
PPC+16, PMP+20, Rad18, RAB+15, 
THDS+19, YW+14]. Simulator
[BCM+03, CGGC+16, VSS+13, IKY+10]. 
Simulato rs [AHB+16]. Simultaneous
[ABAS87, DTL+21, TNLP13]. Single
[BCJ01, TR17]. Singular [Ber92], situ
[AGHR19, ARPY19, BCLP17, CAA+20, 
MFB+19, PBB+20]. situation [GCS13].
Six [WOG95, KRR19]. six-dimensional
[KRR19]. SKA [VFJ+15]. skeletonisation
[BE17]. Skeletonization [DBI00]. Skewers
[HC08]. skinny [HETW21]. SLA [QH08].

Slouching [Lus09a]. small
[JMM+21, PUR94, WZH+20]. Smart
[MBF+11, Gro03]. sMC [KPST18]. Smith
[RGB+18]. Smoothed [PGTS10]. SOA
[DCL+08]. SOA-Based [DCL+08]. Social
[NKR90, KWLI18]. Sodium [DQFW90].

Soft [AG18, GHHS15, RMS+18, ZCY+15].

Software [ADMP+18, Ano87c, Ano87f, BV11, 
BCC+01, BFNV07, CD+94, Dar99, DW97, 
DE03, DBA+09, DBM+11, DGJ+97, DJC05, 
Fol90a, GCD97, GKMJ00, Her09, KS99b, 
LO10, LQJG16, LDB+06, MM90, PPS09, 
PA11, PK04, SG09b, CYZ+20, CSCI9, 
DLT19, ESD+22, GSN20, JDAD19, 
JdSA+17, JC12, KNSP21].

Software-defined [ADMP+18, JDAD19].

Soil [CWHP99, MTW+22]. soil-structure
[MTW+22]. Solaris [Ano01a]. Solid
[DQFW90, SK92]. Solidification
[MWC+05, SHK+18]. Solution
[BHK+88, BDL+07, CGB+94, MR90, 
PR90], RS03, uITH07, TMRR10, CSGM17, 
CCBS11, CVGI1, CMI12, ESL+12, 
MEK+19, RDG12]. Solutions
[Fro91, WD19]. Solve
[BCCL09, CDH+93, CDL20]. Solved
[CSV91]. Solver [BBG05, BH99, CM97, 
HR97, KDL01, MV02, PR95, AKP+18, 
AFL+18, BSS+14, CDL20, CHT+19, 
EKF+19, ESU+12, HHS19, KC18, 
KRR19, KDH18, MV20, OGM+16, 
RMV+19, RBM17, YJZ+22, ZZG+14].

Solvers [DR06, GSS01, Key09, KR11, 
ATL+15, EAG+19, FMR+20, MSHPV18, 
MSKM21, NCA21, WKL21]. solves 
[SZ11]. Solving [BS88, BEF+95, CD97, 
HT04b, ILJ93, KSR9, Kum89, Man97, NZ93, 
SBF90, WT99, Ade21, AEL+20, MI20].

Some [Gir02, PPS09]. Sometimes
[RAGW93]. Sonic [WW92]. Sorting
[Arn07, BSK14]. sound [MJGL13]. Source 
[CYT+02, BSW+14, MJGL13]. sources 
[PBB+20]. Sowing [GL97]. Space
[FBBC03, JSSZ09, MHW15, ODD07, SBS10, 
DTR+21, FU12, HLL+16, MDF+12]. 
space-aware [HLL+16]. space-parallelism
[DTL+21]. Spaceborne [SKB01]. SPAI [BBS99, Ma00]. spanning [dAVCM+19].
spare [HYH+20]. Spark [KWEF18].
Sparse [AD93, Ano02a, AGL+87, BJWS20, Ber92, BELF07, ChoH1, GG11, HR97, IYV04, KC92a, KC92b, MC90, Ma00, Man97, MCG04, SZ11, SCFK04, UF89, WT99, ASH16, ATD17, BDC21, CvG11, GG14, GO16, MSHPV18, ML20, MGFP20, SCR11]. Sparsity [ChoH1, IYV04]. spatial [SPHW18, WDH+15]. Spatially [WBG06].
Spatially-Explicit [CME08]. specialization [CBM13]. Species [BB02]. Specific [BH06, CDH9+97b, PHF21]. Spectral [BG00, CB95, DFS+05, FSN08, The90, Dee12, EAG+19, MGS+15, WZH+20, ZB20]. Speed [Ano87d, BAM+16, Mar87a]. Spherical [KMPJ08]. spike [CDG+21]. Spiral [PMS+04]. Spline [Fro91]. Splines [uTH07]. Splitting [IS96]. Splotch [DGRK17]. SpMV [BJWS20, DEQ021].
Special-Purpose [CME08]. Spatio-temporal [STP+13]. Spatial [BV11, BM13, BH17, BQOS21, BE18, C20, CKE08, DT97, DT99, DT06, DT13, DT17, DT19, HidV18, KM20, MP198, Mas19, MFB+19, ME14, Nag93, OV13, PA11, WH20, WD19, WD21, Yel04, dS21, SDS12].
Special-Purpose [CME08]. special [CB95, DFS+05, FSN08, The90, Dee12, EAG+19, MGS+15, WZH+20, ZB20]. Speed [Ano87d, BAM+16, Mar87a]. Spherical [KMPJ08]. spike [CDG+21]. Spiral [PMS+04]. Spline [Fro91]. Splines [uTH07]. Splitting [IS96]. Splotch [DGRK17]. SpMV [BJWS20, DEQ021].
Sponsored [Sal87]. Spotlight [MPG93]. Spread [GBK93]. SRP [MJGL13]. SSOR [Ma00].
Stability [ACG+90, BE07, FW91, KDOCR+20]. Stacking [BRR10]. Standard [Ano94b, Don02a, Don02b, MP198, MSKM21, THH+13, Poz97]. Standards [Pan92]. StarPU [HGWN14]. stars [HLH+19]. StarSS [PBAL09]. State [CBV97, DKMT18, KNPS21, MYCR06, WLC91]. State-of-art [KNPS21]. Static [BLRR01, BR03, dRADS+18b, QXS+20, SCB14, TR17]. Stationary [SCFK04].
Statistical [EGMP93, EJD+19, FWSW02, Her88, MR04, NRR97, VDB04, ZM07].
Status [MB87]. Steady [MYCR06].
Steady-State [MYCR06]. Steering [GK97, KWB06, VR00]. Stefan [CS91]. stellar [HCC+22]. Stencil [HCCG20, APD+15, PHF21, WKLW19, YFS+14]. stencil-based [WKLW19]. stencil-reduce [APD+15].
val [EB02]. strongly [ZZG+14]. Structural [YCHH90, MJ16, PUR94]. Structure [BH06, CGB+94, CBL10, CSY10, FWZ91, Jon92, KT99, Liu90, SCB+95, SY96].
TMW+99, HTD+14, HIT+14, KC18, LDLD19, MTW+22]. Structure-Specific [BH06].
Structured [LDGR03, Ma00, SR05, WBG06, Ytt97, RV15, ZM+21].
strongly [ZZG+14]. Structural [YCHH90, MJ16, PUR94]. Structure [BH06, CGB+94, CBL10, CSY10, FWZ91, Jon92, KT99, Liu90, SCB+95, SY96].
TMW+99, HTD+14, HIT+14, KC18, LDLD19, MTW+22]. Structure-Specific [BH06].
Structured [LDGR03, Ma00, SR05, WBG06, Ytt97, RV15, ZM+21].
strongly [ZZG+14].
Studying [BCM+03, BOD+91]. subband
[VSS+13]. subcellular [CHW+15].
Subdomains [FG97]. Subgrid [GS05].
Subprograms [Don02a, Don02b].
Subroutines [KJH96, J092]. Subsetting
[ZRC+06, AMC+18]. substitution
[DTDP14]. substructures [SCR11].
successful [CBA+18]. Suggestions
[Ano02r, Ano02s]. Summary
[Moh09, Sal87]. Summations [NDMR20].
summit [NBE+22]. Sunway [WZH+20].
Supercluster [HBC+08]. Supercomputer
[ATD+88, Ano87b, Ano91b, Ano91a,
Ano92g, Ano92e, Ano92f, Ano93a, Ano94a,
Ano94c, Ano95b, Ano95a, Ano96a, Ano97b,
Ano97c, Ano97a, BBW90, CL95, CLP+99,
Con88, MKG90, Mai87, McN89, MM90,
MA98, Mir90, Mor99a, MR90, Nas92, Sci92,
SB04, Web91, WOG95, BCP+20, Bra91,
FU12, KMH+14, NBE+22, SDI+19, Duk91,
MAB07, Mar88a]. Supercomputing
[COT+08]. Supercomputers
[Ald89, ABF+99, AGL+87, Bai88, BSFB89,
BCK+89, BBW+10, BYT91, Bro88,
CDD+90, DDM87, Gen88, Mar89a, McN89,
MG87, NKn+08, YMI91, ZC92, DCD+13,
HI12, HI13, HI15, PH91, SLL+19, WET+19,
ZMBK11, Gen88, Bus87, Mar87b]. Supervenial
[All88, Blo87, DFP+96,
EM89, Era88, Gan88, GKN+96, LC90,
Mar89b, McN87, MMS88, Nas92, NBB+96,
Num87, RS88, SABK94, Aus92, BBB+91b,
Bra91, BBW90, KT94, MP95, TR92, All88].
Superconductors [JP93]. Supersonic
[MYC92]. supervised [HGWN14].
Supplemented [SBBS06]. Support
[BBG+10, BV11, BCC+01, CBB+04,
CFK+94, Dar90, Gro03, YSP+05, RMV+19,
SKZ+18]. Supporting [ZRC+06].
SUPRENUM [MST88]. surface
[BCYS11, MCR+17]. surfaces [DF18].
survey
[AAB+21a, ESD+22, GR17, JdSA+17].
survive [GGMJF+20]. Sustained
[MSK92, TAR+08]. SVD [NS21]. Swapping
[SC04b]. swarm [ABH+18]. SwinDeW
[LJC+10]. SwinDeW-C [LJC+10]. SWIRL
[VRB+19]. SX [LT90, Mor89a]. SX-2
[LT90, Mor89a]. Symbolic [Jea13].
Symmetric [BGG05, Gir02]. Symposium
[Mar88a]. synchronised [MBHF15].
Synchronization [TGT05, SPN14].
Synchronous [DGP+97, Jon12, WD+12].
syntax [J092]. Synthesis
[CBB+96, Kep04a, Wri12]. Synthetic
[MPG93, SVBP13, ZCZ+13]. System
[AM00, BGI+99, BCJ01, CL95, CLF87,
CTD+05, CJK+05, DVM+12, DJC05,
ESW+12, GHM+10, GS99, GHZ10, GNB11,
HLP+03, JLO05, JLL04, LDL+06,
MWM+08, MST88, SSB+05, SGR09a,
uITH07, SBG10, SFP02, WLM+96, CVJ12,
DE+12, HLW+16, IBC+10, JC12,
LDW+12, MEK+19, ML20, SKS+13, SH03,
TNLP13, DCCS10, EDSV06, GCCC+03,
MHW15, SM06, WSCZ05].
System-Initiated [SSB+05]. Systems
[ATN+00, AGL+87, BGG05, BCLL09, BV11,
BS88, BHdR09, BSCC03, BRT+02, BD+07,
CJ06, Cap09, CW01, CY08, CBW95, Dar00,
Del93, DFH+96, GJMS88, GNB11, Her09,
HT04b, Kal09b, KR11, LP10, MC90,
Ma00, Man97, MCW+00, MR04, NKP+00,
Sim90, SDA+01, SKB01, VC89, WT99,
YRA+02, de 89, dPA03, ABG+18, BG22,
BLOR18, BBMB19, BCR+14, BAP+12,
CSGM17, CAE+13, CAA+20, CvG11,
DHL16, FUG12, GCSK13, GKB18, HI12,
HI13, IFA15, IH15, KI18, KTWL18, Kus89,
LES12, LST13, LSL19, LWL+11,
LVA+13, LKH0, OPW+12, RV15, RDG12,
SCD+19, TKA+17, WD19, YB12, ZWS21].

T3D [ABF+99]. T3E
[BBS99, Ma00, SBBS06]. Tables [vLRA+03].
TaihuLight [WZH+20]. tailored [FTB13].
tale [Hea15]. tall [EHWT21]. Target
[BG02]. targetDP [GS18]. Task
[BR03, CKPD99, CFK +94, CCBL18, PBAL09, CDL20, CHT +19, EDB19, ELEB21, MBHF15, ML20, OPW +12, SMZ +18].

**Task-Based** [PBAL09, CCBL18, CDL20, CHT +19, EDB19, ELEB21], **task-parallel** [SMZ +18]. **Tasking** [JMP02, IK18]. **Tasks** [GHZ10, WvNM +06, CCRV20, HTD +14, HLH +19], Tau [SM06]. **Taxol** [CGB +94].

**TCGMSG** [Mat95]. **Technical** [Don02a, Don02b]. **Technique** [ODD07, WGI90, ASHH16].

**Television** [Don07, WGI90, ASHH16]. **Techniques** [Arn07, BDL +07, FFR +10, KM95, VS03, INY +14, MSHPV18, UZM +14].

**Technologies** [AAB +21c, AB01, Dar99]. **Technology** [BB02, Dar00, Mer87, VFJ +15].

**Tefloin(R)** [DVC88]. **Telescopes** [Wri12].

**Televisualization** [HME90]. **Template** [Poz97, BLC17], **templates** [AAT +20].

**Temporal** [BPBL11, CY08, STP +13, WD +15]. **tensor** [SCKW19], **tensor-product** [SCKW19]. **Terafloph** [HLW00].

**Terafloph-Scalar** [HLW00]. **Teraflophs** [SS99, TAR +08]. **TeraGrid** [Har11].

**Terapixel** [ACF +11], **terminology** [CAA +20]. **Testbed** [BCC +06]. **Testing** [CDT05, KDL01]. **Texas** [Nas92], **texture** [IMH +11, IMH +12]. **Tflop** [LYL +16].

**Tflops** [LYL +16]. **Thanks** [Ano20c].

**Their** [LRO10, Mar87b, RES87, Haj93, PUR94].

**Thelma** [OKTR11]. **Theme** [Haut94].

**Theoretic** [FWSW02, WEPB12]. **Theoretical** [ASW91].

**Theory** [BR03, Mer87, Mor89a]. **Thermochemical** [vLRA +03]. **Thermodynamics** [GKH +91].

**Thin** [MD99, GSK +15]. **Thin-Film** [MD99].

**Thinning** [DI80], **third** [PFGDM20, Lee03]. **third-order** [PFGDM20]. **thousands** [GHHS15].

**Threaded** [BBG +10, LVA +13], **threads** [DJJ +19]. **Three** [BCM07, BWB +10, CSL +10, EGG05, LT90, MT89, TKW87, BE17, CRS +19, LSS93, YFS +14].

**Three-Dimensional** [BCZM07, CSY10, EGG05, LT90, MT89, BE17, LSS93, YFS +14].

**three-phase** [CRS +19]. **Throughput** [GHM +10, McN89, AGHR19, CMN12, GVR +21].

**throughput-oriented** [CMN12]. **Tianhe** [CLM +16, HXW +13, LYL +16]. **Tianhe-1A** [HXW +13]. **Tianhe-2** [CLM +16, LYL +16].

**tightly** [NOM +19], **tiled** [TRS +13]. **Tiling** [SCF04].

**Time** [ACD07, BPBL11, KK01, LJC +10, MBF +11, NK99, NRR97, Sim90, VR00, Wri12, BE17, BDC21, BSS15, DTL +21, LST15, MJGL13, QHCC17, WZH17, YME19, YJZN22].

**Time-Dependent** [MBF +11]. **time-domain** [YJZN22].

**time-simultaneous** [DTL +21].

**time-stepping** [BSS +15]. **times** [MP95].

**Tissues** [BBG +10]. **Titanium** [YHG +07].

**Tokamak** [DS +91, KPM +06]. **Tolerance** [Cap09, FGC +05, GKP97, GL04, JSSZ09, KWB06, BBA +11, LRG +16, MSHPV18, SKZ +18, SMZ +18, YZC +15].

**Tolerant** [BHK +06, FD04, WvNM +06, ASHH16].

**Tomographic** [BG +05].

**Tomography** [CDH +97b, FFR +10]. **Too** [RAGW93]. **Tool** [LRO10, WBF04, Ytt97, Eri88, GPO +20].

**Tools** [CBM13, DW97, DMT01, DT06, GRC08, LDB +06, MWC +05, MM90, Pan97, PA11, SSS9, SKZ +18].

**Toolset** [KNP +00]. **top** [WET +19].

**Top500** [Fei99]. **topological** [PHF +21].

**Topologies** [MOK00, SW04]. **Topology** [Chn99, GJM18, KPR17].

**Topology-aware** [GJM18, KPR17].

**toroidal** [IMW +13]. **Total** [YCHH90, RMV +19]. **Toys** [SS99].

**Trace** [JKD +11, NRR97, BDFVP15]. **Trace-based** [JKD +11]. **traces** [LES +20]. **tracing** [PS12].

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