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## Title word cross-reference

<sup>arc</sup> [GS93]. *N* [SHG95, Mae85].

**-Body** [SHG95].

**11/780** [Cla83, CE85]. **1988** [ACM88].

**2.6** [PTS<sup>+</sup>14]. **2011** [Mow12].

**432** [CGJ88, CCLP83].

**Abstract** [Her86, SS84]. **abstraction** [CRL03, Kel00]. **Abstractions** [SKH<sup>+</sup>16]. **Accelerating** [BJS01]. **Accelerator** [CZL<sup>+</sup>15]. **Accelerators** [LAB<sup>+</sup>13]. **Accent** [FR86]. **Access** [AT83, LZCZ86, LP93, Smi84b, GB01].

**Access/Execute** [Smi84b]. **Accesses** [HY92, Kel00]. **accessing** [ACM04]. **accounting** [EV03]. **accuracy** [Jim05]. **Accurate** [GVM<sup>+</sup>11, NTW09]. **Ace** [RR99]. **Achieve** [LLL<sup>+</sup>16]. **ACM/SIGOPS** [ACM88]. **Action** [Sch84]. **Actions** [Ree83]. **Activations** [ABLL92]. **active** [SJS<sup>+</sup>00]. **Activity** [IRH86, MSB<sup>+</sup>06]. **Ad** [BYFK08, FKA10]. **Adaptable** [AC92]. **Adaptation** [BS91, AD03, FS04]. **Adaptive** [ALHH08, AS95, MLS97, CT01]. **Address** [CLFL94, SV99]. **Adrenaline** [HZL<sup>+</sup>17]. **Affected** [IRH86]. **Aggregate** [AB83]. **aggregation** [JMB05]. **Aggressive** [GWSU13]. **Air** [CDD96]. **Algorithm** [Bad86, DC85, HBAK86, Lam87, Mae85, Ray89, SK85, Zha91]. **Algorithms** [CM86, GD87, GLM91, KS91, KH92, LA93, MCS91, San87, Sau83a, Sau83b, TS89, KY04].

**allergies** [QTZS07]. **Allocation** [DTM95, Koc87, MVZ93]. **Alpine** [BKT85]. **Analysis** [BCZY16, HBAK86, PL85, SS96a, Smi85, Smi87, TR84, TS89, WB91, WY13, WPB<sup>+</sup>14, ZTQ<sup>+</sup>17, AV04, CDW06]. **Analytical** [AHH89]. **Analytics** [JLL<sup>+</sup>16]. **Analyzing** [AB83]. **anomaly** [COM<sup>+</sup>09]. **Anticipation** [Kin90]. **Apache** [CCC<sup>+</sup>17]. **APLOS** [Mow12]. **Apple** [HDV<sup>+</sup>12]. **Application** [CFKL96, CDY<sup>+</sup>17, YFLS11, dBBB11, CKP<sup>+</sup>04, GEK<sup>+</sup>02]. **Application-Controlled** [CFKL96]. **application-level** [GEK<sup>+</sup>02]. **Application-Specific** [CDY<sup>+</sup>17]. **Application-Tailored** [dBBB11]. **Applications** [BPH15, CKC12, FAK<sup>+</sup>12, GS93, HDV<sup>+</sup>12, HMMS98, Ste97, APD03, BMK01, COM<sup>+</sup>09, GDL<sup>+</sup>04, NL03, YN06]. **Applied** [GF93]. **applying** [SJS<sup>+</sup>00]. **Approach** [CP94, Kem83, NCPM17, RS92, SS83, SBRP12, Sno88, WZKSL15, LM01, SMS08, SCZM05, VVP<sup>+</sup>06]. **Appropriate** [WM87]. **Approximate** [SNSC14]. **Approximation** [BKLC84, SLJ<sup>+</sup>14]. **Architecting** [LLL<sup>+</sup>16]. **Architectural** [CGJ88, HL91, LM01, NEC<sup>+</sup>15]. **Architecture** [BDR<sup>+</sup>12, CLVW94, CM88, DAH<sup>+</sup>12, GHPR88, KCR11, MGW11, MF90, OP92, RBvR94, SLI11, Ste97, ZFF<sup>+</sup>17, HVP99, SSM<sup>+</sup>07]. **Architectures** [BMVS15, LDT<sup>+</sup>16, PPA<sup>+</sup>15, SHG95, Smi84b, HS03]. **Area** [AOST93, SS96b, CRW01, KSH<sup>+</sup>05, LN06]. **Arguments** [SRC84]. **Arm** [Kin90]. **Arrakis** [PLZ<sup>+</sup>16]. **Array** [HKS<sup>+</sup>83]. **Arrays** [SHCG94]. **Asbestos** [VEK<sup>+</sup>07]. **Assignments** [BGM86]. **Assistant** [HLZ<sup>+</sup>16]. **Assisting** [KMG16]. **Associative** [SA95]. **Astrolabe** [VBV03]. **Asymmetric** [SFKP12]. **At-Most-Once** [LSW91]. **Atomic** [AC92, Ng89, Ree83, SBS91, AKS11]. **Atomicity** [GS93, Her87]. **Audio** [And97]. **Audio/Video** [And97]. **Authentication** [BAN90, LABW92, WABL94]. **Author** [Ano96]. **authority** [ZSV02]. **Authors** [Ano83, Ano84b]. **Automated** [COM<sup>+</sup>09, ABG<sup>+</sup>01]. **automatic** [HSY05, KY04]. **automatically** [DR99, Rin99]. **AutoRAID** [WGSS96]. **AutoScale** [GHBRK12]. **Availability** [BGMS89, Her87, LLSG92, SBL00, YV06]. **Avoidance** [RJ90]. **Aware** [BZF10, DK13, BA06, FS04].

**Back** [TS89]. **Backtracking** [KC05]. **Balanced** [RPC<sup>+</sup>13]. **Balancing** [CJ10, HS03, HBD97]. **bandwidth** [KSV<sup>+</sup>08]. **BASE** [CRL03]. **Based** [AISS98, Bab87, BYFK08, Bat95, BS96, CJ10, CP86, GFN89, JEJ13, Koc87, KS97, LSW91, Ray89, SGH<sup>+</sup>13, TE95, WY13, BM00, BMK01, HBSBA03, JMB05, JVG<sup>+</sup>07, SBL00, SH00, YV02, ZMAB09]. **Basis** [HS96]. **Batteries** [GWSU13]. **battery** [FS04]. **Behavior** [Bat95, HDV<sup>+</sup>12, Str83, WZKSL15, GS00, HKM02]. **Behind** [MBH<sup>+</sup>94]. **being** [BMVS15]. **Benchmark** [SS96a]. **benchmarking** [NYN03]. **Benchmarks** [CP94, MT99]. **between** [FAK<sup>+</sup>12, LAB<sup>+</sup>13]. **BFT** [AGK<sup>+</sup>15]. **Big** [JLL<sup>+</sup>16]. **Bigtable** [CDG<sup>+</sup>08]. **Bijective** [Oka88]. **Billion** [LLL<sup>+</sup>16]. **Billion-Requests-Per-Second** [LLL<sup>+</sup>16]. **Bimodal** [BHO<sup>+</sup>99]. **Binary** [DC85, RJ90]. **Binomial** [SA95]. **Block** [AS95, KS97, Tic84, YSS<sup>+</sup>14]. **BlueDBM** [JLL<sup>+</sup>16]. **Body** [SHG95]. **Boosting** [HZZ<sup>+</sup>17]. **Bound** [ES83]. **Bounds** [Slo83, TS85]. **branch** [JL02, Jim05]. **Bringing** [BDR<sup>+</sup>12]. **Broadband** [Kir87]. **Broadcast** [CM84, KS91, EGH<sup>+</sup>03, GLPQ10]. **Buddy** [Koc87]. **Buffer** [CE85, CT01, HJK07]. **buffering** [PDZ00]. **bugs** [QTZS07]. **Building** [KS97, AMS<sup>+</sup>09, CBG<sup>+</sup>08]. **Building-Block** [KS97]. **Bus** [HKB95, TE95]. **Bus-Based** [TE95].

**Byzantine** [CL02, KAD<sup>+</sup>09, Sch84].

**Cable** [Rom84]. **Cache**

[AHH88, AHH89, AB86, BCZY16, Cla83, MBH<sup>+</sup>94, Smi85, Smi87, Str83, SA95, TS87, TE95, WB91, YFLS11, BMK07, CT01, GO05, GVO07, HKM02]. **Caches**

[KH92, HKM02]. **Caching**

[CFKL96, NWO88, PDZ00, SH00].

**Calculations** [HKS<sup>+</sup>83]. **Call**

[APD03, BALL90]. **Calls** [BN84, Bir85].

**Calypso** [DKM96]. **Capacity** [GHBRK12].

**cardinality** [NTW09]. **Cascade** [EG85].

**Case** [GF93, KWDB06]. **Cases** [MMM95].

**Causal** [SBS91]. **Cells** [DAH<sup>+</sup>12]. **Cellular**

[GTHR00]. **Centers** [GHBRK12]. **Central**

[Kam84]. **Centralized** [BAA90]. **Certes**

[ONA04]. **certification** [ZSV02]. **chain**

[CKP<sup>+</sup>04]. **Challenge** [EBS<sup>+</sup>12]. **Channels**

[Kem83]. **CHAOS** [GS93]. **Characteristics**

[SS96a]. **characterizations** [GS00].

**checking** [YTEM06]. **Checkpointing**

[TR84]. **Chip** [GF93]. **Choices** [WM87].

**Chores** [EJ93]. **Ciphers** [EG85]. **Circuit**

[MLS97]. **Circuit-Switched** [MLS97].

**CISC** [BMVS15]. **Class**

[LCWB<sup>+</sup>11, MCB84]. **click** [KMC<sup>+</sup>00].

**client** [AFG99, LN06, NYN03, ONA04].

**client-server** [AFG99]. **climbing** [CY09].

**clock** [BM00]. **Clocks** [Lam90, LSW91].

**Cloning** [LCWB<sup>+</sup>11]. **Closed** [KG83].

**Closely** [KLS86]. **Closely-Coupled**

[KLS86]. **Cloud** [BPH15, LCWB<sup>+</sup>11,

MSL<sup>+</sup>11, NCPM17, SJS<sup>+</sup>17]. **Cluster**

[VBR<sup>+</sup>04, GLPQ10, SBL00]. **cluster-based**

[SBL00]. **Clusters**

[EPP<sup>+</sup>12, GTHR00, KSH<sup>+</sup>05]. **Coarse**

[PPA<sup>+</sup>15]. **Coarse-Grained** [PPA<sup>+</sup>15].

**COCA** [ZSV02]. **Coda** [KS92, Sat02].

**Code** [MC11, KY04]. **Codesigned**

[KMG16]. **Coherence**

[AB86, LH89, LWZ15, ZY17]. **Coherent**

[MBH<sup>+</sup>94]. **Coin** [PW97]. **Collaboration**

[LSPM15]. **collection** [AFG99, KPHV11].

**Combining** [BPP<sup>+</sup>17a, BPP<sup>+</sup>17b, PS16].

**commit** [AKS11]. **Commodity**

[BDGR97, SBL05]. **Communication**

[BW84, BALL91, BJ87, Bir85, CBZ95,

CGL85, CCLP83, FR86, GMS91, GG88,

LHM<sup>+</sup>84b, PPA<sup>+</sup>15, PBS89, TL93, BHSC98,

FLS01, MG01, VBR<sup>+</sup>04]. **Commutativity**

[CKZ<sup>+</sup>15]. **Comparison** [JW98, LE91].

**Compiler** [BMK01, KMG16, MCB<sup>+</sup>93,

Mow98, ACM04, KY04, LM01].

**Compiler-based** [BMK01].

**Compiler-Controlled** [MCB<sup>+</sup>93].

**compiler-enabled** [ACM04].

**Compiler-Inserted** [Mow98]. **Complex**

[Sno88]. **Complexity** [CGJ88, PS16].

**component** [CBG<sup>+</sup>08]. **Compositions**

[KS97]. **Comprehensive**

[GO05, GVO07, KAE<sup>+</sup>14]. **compression**

[BA06]. **Computation** [JW98, LHM<sup>+</sup>84b].

**Computational** [Sau83a, Sau83b, ZFF<sup>+</sup>17].

**Computer** [AB83, AK90, BW84, CEC<sup>+</sup>96,

IRH86, RJ90, Smi84b]. **Computers**

[HLZ<sup>+</sup>16, HZL<sup>+</sup>17, LP93]. **Computing**

[ARJ97, Bab87, EJ93, SS83, SGH<sup>+</sup>13, ZR17,

KSH<sup>+</sup>05, LN06]. **Concurrency**

[AC92, CM86, Her87]. **Concurrent**

[FH07, GY90, HLS95, Lam90].

**Configurable** [ELMP12, BHSC98].

**Configuration** [SBRP12]. **conflict** [CT01].

**Congestion** [RJ90]. **conit** [YV02].

**conit-based** [YV02]. **connection** [SMS08].

**connection-oriented** [SMS08]. **Conscious**

[KWS97]. **Consensus** [Bab87, Her86].

**Consensus-Based** [Bab87]. **Consideration**

[Smi87]. **Considerations** [Smi85].

**Consistency**

[AW94, CBZ95, GS00, HJK07, YV02].

**Consistency-Related** [CBZ95].

**Consistent** [PMJPKA05]. **Constraints**

[BGMS89]. **Constructing**

[CGL85, Smi86, BHSC98]. **construction**

[KY04]. **consumption** [XMM07].

**containment** [CCC<sup>+</sup>08]. **Content**

[BW84, CJ10, JEJ13]. **Content-Based**

[CJ10, JEJ13]. **Content-Induced** [BW84]. **Contention** [BZF10, Kir87]. **Contention-Aware** [BZF10]. **Context** [PBS89]. **Continuous** [AOG92, And93, ABD<sup>+</sup>97, HKB95, Mar90, YV02]. **Continuous-Valued** [Mar90]. **Continuum** [GD87]. **Control** [AT83, AC92, CM86, CDD96, PPA<sup>+</sup>15, PLZ<sup>+</sup>16, SBWT87, Sha89, Zha91, GB01]. **Controlled** [CFKL96, MCB<sup>+</sup>93, SV99]. **controller** [BI13]. **conventional** [ACM04]. **Conversation** [CP86]. **Conversation-Based** [CP86]. **Converting** [LEL<sup>+</sup>97]. **Cooperative** [HLRW93, LM01, SH00]. **coordinated** [AD01]. **Copy** [RS92]. **Core** [SFKP12, BMK01]. **CORFU** [BMD<sup>+</sup>13]. **Correction** [Tic84]. **Corrigendum** [BPP<sup>+</sup>17a, Sau83b]. **coscheduling** [AD01]. **Cost** [JB86]. **costs** [YV06]. **Counting** [HLS95]. **Coupled** [KLS86]. **Coupling** [ACM04]. **Coyote** [BHSC98]. **CPU** [LSPM15, YN06]. **CPUs** [ZR17]. **Critical** [RS92]. **Criticality** [WLMD16]. **Cryptographic** [AT83]. **Cryptographically** [Sha83]. **Cryptography** [KWDB06]. **Cryptosystems** [Oka88]. **customizable** [RR99]. **Customized** [HS96]. **Cycles** [ABD<sup>+</sup>97].

**Dadda** [CS83]. **Dark** [EBS<sup>+</sup>12]. **Data** [AC92, GHBK12, Her86, Her87, JB86, JLL<sup>+</sup>16, LAB<sup>+</sup>13, Ree83, SBN<sup>+</sup>97, Sha89, BA06, CDG<sup>+</sup>08, CKP<sup>+</sup>04, HLMM05, KSV<sup>+</sup>08, VBV03]. **Data-Parallel** [LAB<sup>+</sup>13]. **Database** [CDE<sup>+</sup>13, LHM<sup>+</sup>84b, PGM89, APD03, CASM08, PMJPKA05]. **Datacenter** [GWSU13]. **datacenters** [DK13, GLL14]. **Datagram** [DC90]. **Dataplane** [BPP<sup>+</sup>17a, BPP<sup>+</sup>17b]. **DDoS** [WVB<sup>+</sup>10]. **DDRx** [BI13]. **Deadlock** [Bad86, CHM83]. **Debugging** [Bat95, GY90]. **Decay** [Epe98, HKM02]. **Decay-usage** [Epe98]. **Decentralized** [Mae85, Ree83]. **Decentralizing** [CM89]. **Declarative** [SBRP12]. **Decoupled** [Smi84b]. **defense** [WVB<sup>+</sup>10]. **Delays** [AB83]. **deliberate** [VVP<sup>+</sup>06]. **Delivery** [RS92]. **denial** [MSB<sup>+</sup>06]. **denial-of-service** [MSB<sup>+</sup>06]. **Dependent** [Sau83a, Sau83b]. **deployed** [YKKK10]. **Deployment** [HE16]. **Depot** [MSL<sup>+</sup>11]. **Deriving** [GvB90]. **Design** [CRW01, CKC12, DAH<sup>+</sup>12, GF93, RO92, SRC84, Smi85, Smi87, UNS<sup>+</sup>94, WM87, YV02, AKS11]. **Designing** [CKZ<sup>+</sup>15, HLZ<sup>+</sup>16, SS83]. **designs** [ASS<sup>+</sup>05]. **Desktop** [BWD<sup>+</sup>15, HDV<sup>+</sup>12]. **Detection** [Bad86, CHM83, WZKSL15, COM<sup>+</sup>09]. **Detector** [SBN<sup>+</sup>97]. **Determining** [CL85, CDY<sup>+</sup>17, Ske85]. **deterministic** [AV04]. **Development** [GM87, HP94]. **Device** [And97, SBRP12, SABL06]. **Devices** [LSPM15, YSS<sup>+</sup>14]. **Diagnosability** [YZP<sup>+</sup>12]. **DieCast** [GVM<sup>+</sup>11]. **Different** [Atk88]. **Differential** [WZKSL15]. **Diffraction** [SZ96]. **Digital** [Oka88, MRG<sup>+</sup>05]. **Dimension** [San88]. **Directed** [Kot97]. **directions** [EV03]. **Directories** [ZY17]. **Directory** [MBH<sup>+</sup>94]. **Discipline** [CGL85]. **disco** [GTHR00, BDGR97]. **Disconnected** [KS92]. **Discovery** [HS96]. **Disk** [CFKL96, GD87, Kin90, Koc87, Kot97, Smi85, Smi87, SHCG94]. **Disk-Directed** [Kot97]. **Diskless** [LZCZ86]. **Dispatching** [CCLP83]. **dissemination** [KSV<sup>+</sup>08]. **Distance** [BCZY16, MLS97, WY13, ZY17]. **Distributed** [AE91, AJ93, Bab87, Bad86, Bat95, BAA90, CBZ95, CHM83, CL85, CZ85, Che87, CDE<sup>+</sup>13, EPP<sup>+</sup>12, Fal87, GG88, GVM<sup>+</sup>11, HKM<sup>+</sup>88, JB86, JLSU87, JLL<sup>+</sup>16, KvRvST93, KLS86, LABW92, LHM<sup>+</sup>84b, MBH<sup>+</sup>94, NTW09, Ray89, San87, Sat89, SBN84, SB90b, SS96b, Ste97, SY85, SK85, AMS<sup>+</sup>09, AD01, BMD<sup>+</sup>13,

CDG<sup>+08</sup>, FKM02, HYC<sup>+03</sup>, KSV<sup>+08</sup>, NCF06, RS04, VBV03, YKKK10, ZSV02].

**Distributed-Memory** [Ste97].

**distributing** [ADK<sup>+07</sup>]. **Distribution** [BBF83, CY09]. **Distributions** [HBD97].

**Diversity** [SJS<sup>+17</sup>]. **Domains** [LWZ15].

**DoublePlay** [VLW<sup>+12</sup>]. **Driven**

[MR97, WB91]. **drivers** [SABL06].

**Dynamic** [BGMS89, BS91, GHBRK12, GWS96, HBD97, KMG16, MVZ93, OP92, PS16, SBN<sup>+97</sup>, BM00, DR99, HLMM05, JMB05, JL02, XMM07]. **dynamic-sized** [HLMM05]. **Dynamics** [ZFF<sup>+17</sup>].

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[Bir97, Che10, Ell03, Ell05, Lev97, Mow13].

**effect** [MG01]. **Effective**

[ABLL92, HY92, Rin99, TE95, LM01].

**Effects** [CGJ88, Kam86, MF90]. **Efficiency**

[BPP<sup>+17a</sup>, BPP<sup>+17b</sup>, LAB<sup>+13</sup>, LCG<sup>+16</sup>, NCPM17, WM87, ACM04]. **Efficient**

[AE91, BCZY16, GJT<sup>+12</sup>, GG88, HKB95,

LSW91, MC11, PPA<sup>+15</sup>, RPC<sup>+13</sup>, TS89,

WB91, WY13, ZR17, AD00, NTW09,

RLCV11, YN06]. **Electronic** [Bir97, PW97].

**elephants** [EV03]. **Eliminating**

[DR99, MR97]. **Emerald** [JLHB88].

**Emerging** [FAK<sup>+12</sup>]. **Empirical** [SS96b].

**enabled** [ACM04]. **End**

[CCC<sup>+08</sup>, HLZ<sup>+16</sup>, SRC84]. **End-to-End**

[HLZ<sup>+16</sup>, SRC84, CCC<sup>+08</sup>]. **Energy**

[BA06, BWD<sup>+15</sup>, BMVS15, CDY<sup>+17</sup>,

GJT<sup>+12</sup>, RPC<sup>+13</sup>, WPB<sup>+14</sup>, YN06, ZR17,

ACM04, FS04, HKM02, RLCV11, XMM07].

**Energy-aware** [BA06, FS04].

**Energy-Efficient**

[GJT<sup>+12</sup>, RPC<sup>+13</sup>, ZR17, YN06, RLCV11].

**Energy-Oriented** [BWD<sup>+15</sup>]. **Enforce**

[Slo83]. **enforcement** [GB01]. **Engines**

[SLJ<sup>+14</sup>]. **Enhance** [Sta84]. **Enhanced**

[EJ93]. **Enhancement** [YZP<sup>+12</sup>].

**enterprise** [COM<sup>+09</sup>]. **Enterprises**

[KCR11]. **Environment**

[KMG16, VVP<sup>+06</sup>]. **Environments**

[GKXK13, GLPQ10]. **EOLE** [PS16].

**epidemics** [CCC<sup>+08</sup>]. **Eraser** [SBN<sup>+97</sup>].

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**Estimates** [KP91]. **estimation** [NTW09].

**Ethernet** [KCR11]. **Etherphone** [TS88].

**Evaluation**

[AB86, BBH<sup>+98</sup>, CP94, DAH<sup>+12</sup>, GHPR88,

MCB84, CRW01, SMS<sup>+03</sup>, YV02].

**Evaluator** [CCC<sup>+17</sup>]. **Event**

[Bat95, BBF83, CRW01, VEK<sup>+07</sup>].

**Event-Based** [Bat95]. **EventGuard**

[SLI11]. **evolution** [Sat02]. **Exchange**

[Blu83]. **Exclusion** [AE91, BGMS89, Lam87,

Mae85, Ray89, San87, SK85]. **Execution**

[CCC<sup>+17</sup>, GM98, MCB<sup>+93</sup>, KY04, NCF06,

SMS<sup>+03</sup>]. **exokernel** [GEK<sup>+02</sup>]. **expansion**

[SV99]. **expected** [XMM07]. **Experience**

[ADK<sup>+07</sup>, SBN84]. **Experimental** [LE91].

**Experiments** [Atk88]. **exploitation**

[HKM02]. **Exploiting** [HBD97, SJS<sup>+17</sup>].

**Exploring** [LAB<sup>+13</sup>]. **Extended** [DC90].

**Extensible** [EPP<sup>+12</sup>, GB01]. **Extensions**

[AISS98]. **Extraction** [HS96].

**extrapolation** [GVO07].

**Factor** [NEC<sup>+15</sup>]. **Fail** [SS83, Sch84, Ske85].

**Fail-Stop** [SS83, Sch84]. **Failures**

[BJ87, Mar90, QTZS07, ZMAB09]. **Fairness**

[ELMP12]. **Fast**

[CCW<sup>+17</sup>, FKM02, GEK<sup>+02</sup>, Lam87,

LDT<sup>+16</sup>, MJLF84, SV99, YSS<sup>+14</sup>]. **Fault**

[AE91, Bab87, BBG<sup>+89</sup>, BS96, CM89,

CDD96, DD98, JB86, MC11, RBvR94, SS83,

ZTQ<sup>+17</sup>, CL02, CRL03, KAD<sup>+09</sup>].

**Fault-tolerance** [CDD96]. **Fault-Tolerant**

[AE91, Bab87, JB86, RBvR94, SS83]. **Faults**

[PTS<sup>+14</sup>]. **Fay** [EPP<sup>+12</sup>]. **Feedback**

[HMMS98, RJ90, ALHH08, DR99]. **File**

[AISS98, AOG92, ADN<sup>+96</sup>, BKT85,

CFKL96, CF96, DKM96, GJT<sup>+12</sup>, HDV<sup>+12</sup>,

HO95, HP94, HKM<sup>+88</sup>, KS92, Koc87, KS97,

LZCZ86, MBH<sup>+94</sup>, MJLF84, NWO88, RO92,

SS96b, FKM02, GMSP00, NCF06, SFKW14,

YTEM06]. **File-system** [HP94]. **Files** [HL91]. **filter** [BMK07]. **find** [YTEM06]. **finding** [ASS<sup>+</sup>05]. **Fine** [JLHB88, BHSC98, Rin99]. **fine-grain** [BHSC98, Rin99]. **Fine-Grained** [JLHB88]. **Fireflies** [JVJ15]. **Firefly** [SB90a]. **firewall** [BMNW04]. **Firmato** [BMNW04]. **First** [LCWB<sup>+</sup>11]. **First-Class** [LCWB<sup>+</sup>11]. **Flash** [JLL<sup>+</sup>16]. **flexibility** [HS03]. **Flexible** [KS97, GEK<sup>+</sup>02]. **FLIP** [KvRvST93]. **Flow** [EGH<sup>+</sup>14, Sha89]. **Focusing** [EV03]. **Footprint** [CZL<sup>+</sup>15]. **Footprints** [TS87]. **Formal** [BAA90, GM87, GF93, KAE<sup>+</sup>14]. **Framework** [CCC<sup>+</sup>17, CKP<sup>+</sup>04]. **Free** [ARJ97]. **Full** [LLL<sup>+</sup>16]. **Full-Stack** [LLL<sup>+</sup>16]. **fully** [RD99]. **functionality** [GB01]. **Future** [EBS<sup>+</sup>12, HLZ<sup>+</sup>16, Kin90].

**Gaining** [WM87]. **Garbage** [AFG99, KPHV11]. **gating** [BM00]. **General** [Smi86, ZR17, BJS01, CKP<sup>+</sup>04]. **General-Purpose** [ZR17, BJS01]. **Generalized** [MCB84, SA95]. **Generals** [Sch84]. **Generating** [MMM95]. **Generation** [AJ93, Sha83, GO05]. **generational** [HKM02]. **generic** [CBG<sup>+</sup>08]. **Global** [AISS98, CL85, CM89]. **Globally** [CDE<sup>+</sup>13]. **Gone** [ABD<sup>+</sup>97]. **Google** [CDE<sup>+</sup>13]. **Gossip** [JVG<sup>+</sup>07, JVJ15, JMB05]. **Gossip-based** [JVG<sup>+</sup>07, JMB05]. **GPU** [LSPM15, SKH<sup>+</sup>16]. **GPUfs** [SFKW14]. **GPUnet** [SKH<sup>+</sup>16]. **GPUs** [SFKW14]. **grain** [BHSC98, Rin99]. **Grained** [JLHB88, PPA<sup>+</sup>15]. **Grammars** [DD98]. **Grapevine** [SBN84]. **Graph** [DD98, AV04, APD03]. **Graphics** [SLJ<sup>+</sup>14]. **Group** [SBS91, FLS01, KSMD02]. **Grouping** [Sta84]. **Groups** [CZ85, San88]. **Growth** [SBN84]. **Guest** [Lev97].

**Hardware** [DRG17, GM98, GF93, HLRW93, WPB<sup>+</sup>14, HS03]. **HARTS** [KS91]. **hash** [NTW09]. **Haven** [BPH15]. **HDLC** [SL83]. **Heap** [DTM95]. **Heracles** [LCG<sup>+</sup>16]. **Heterogeneous** [Bat95, Fal87, LWZ15, DK13, GLL14]. **HFS** [KS97]. **Hierarchical** [GJT<sup>+</sup>12, SHG95, WGSS96]. **Hierarchies** [BCZY16, ES83, YFLS11]. **Hierarchy** [AT83]. **High** [AOST93, BPP<sup>+</sup>17a, BPP<sup>+</sup>17b, ELMP12, GY90, GFN89, KSV<sup>+</sup>08, LLSG92, SBWT87, Ste97, TL93, Kel00, VVP<sup>+</sup>06, WVTP01]. **High-bandwidth** [KSV<sup>+</sup>08]. **High-level** [GY90, Kel00, VVP<sup>+</sup>06]. **High-Performance** [ELMP12, SBWT87]. **High-Speed** [Ste97, TL93, AOST93, GFN89, WVTP01]. **highly** [SBL00]. **Hill** [CY09]. **Hill-climbing** [CY09]. **Hint** [SH00]. **Hint-based** [SH00]. **Hints** [YFLS11]. **Hipster** [NCPM17]. **Histories** [Ng89]. **Hoc** [BYFK08, FKA10]. **HOP** [GF93]. **Hot** [HY92]. **Hot-Spot** [HY92]. **HP** [WGSS96]. **HTM** [CCW<sup>+</sup>17]. **HW** [KMG16]. **HW/SW** [KMG16]. **Hypercubes** [MLS97]. **Hypervisor** [BS96]. **Hypervisor-Based** [BS96].

**I/O** [BMK01, CP94, Che87, HDV<sup>+</sup>12, Kot97, PDZ00, YSS<sup>+</sup>14, dBBB11]. **identification** [CT01]. **Identifying** [BCZY16, Kem83]. **ignoring** [EV03]. **Image** [SL83]. **Implement** [Ng89]. **Implementation** [CFKL96, CKC12, DAH<sup>+</sup>12, DC85, RO92, WM87]. **Implementations** [GFN89]. **Implementing** [BN84, Ree83, Sch84]. **Implications** [SHG95]. **Implicit** [AD01]. **Improve** [GKXK13, SFKP12, CRL03, HBSBA03]. **Improved** [CM89, Jim05]. **improvement** [HSY05]. **Improving** [KP91, LCG<sup>+</sup>16, NCPM17, QBD<sup>+</sup>08, SBL05, YZP<sup>+</sup>12, BM00]. **In-Memory** [CCW<sup>+</sup>17]. **Including** [GvB90]. **inconsistencies** [YKKK10]. **Increase** [GM98, PS16].

**Increasing** [BGMS89]. **Incrementally** [CASM08]. **Independent** [Smi86]. **Index** [Ano84a, Ano96]. **Indexed** [KH92]. **Induced** [BW84]. **infer** [ONA04]. **Inferring** [MSB<sup>+</sup>06]. **Information** [Ano83, Ano84b, EGH<sup>+</sup>14, HS96, PBS89, San87, AD01]. **Information-Flow** [EGH<sup>+</sup>14]. **Informing** [HMMS98]. **Injection** [MC11]. **Inserted** [Mow98]. **Instruction** [LEL<sup>+</sup>97, MF90, LM01, SMS<sup>+</sup>03]. **Instruction-Level** [LEL<sup>+</sup>97]. **Integrated** [CFKL96, RD99]. **Integrating** [Sat89, SFKW14]. **Integration** [FR86]. **Intel** [CGJ88, CCLP83]. **Intensive** [DTM95]. **Interface** [Che87, Fal87, Ste97, BJS01]. **interfacing** [BI13]. **Internet** [CCC<sup>+</sup>08, MS01, MSB<sup>+</sup>06]. **Internetwork** [KvRvST93]. **Internetworks** [DC90]. **Interposed** [ACV02]. **interposition** [RS04]. **Interprocess** [BALL91, CCLP83, FR86, PBS89]. **Interrupt** [MR97]. **Interrupt-Driven** [MR97]. **Introduction** [Jon83a, Mow12]. **intrusions** [KC05]. **Invocations** [GS93]. **IO** [PDZ00]. **IO-Lite** [PDZ00]. **ISA** [BMVS15]. **Issue** [Jon83b, Jon84, Jon88, Mow12, Sch83, Smi84a]. **IX** [BPP<sup>+</sup>17a, BPP<sup>+</sup>17b].

**Java** [GS00]. **Job** [Kam84, Kam86].

**K2** [LWZ15]. **Kernel** [ABLL92, CZ85, GS93, LSPM15, MR97, WLMD16, CG86]. **Kernels** [EPP<sup>+</sup>12]. **Key** [BBF83, LLL<sup>+</sup>16, Oka88]. **Keys** [Blu83].

**L4** [HE16]. **Labels** [VEK<sup>+</sup>07]. **Language** [Fal87, GY90, SBRP12, RR99]. **languages** [HYC<sup>+</sup>03]. **LANs** [DC90]. **Large** [CZL<sup>+</sup>15, KH92, KCR11, LA93, RPC<sup>+</sup>13, Sat89, ABG<sup>+</sup>01, JMB05, KSV<sup>+</sup>08]. **Large-Scale** [CZL<sup>+</sup>15, LA93, RPC<sup>+</sup>13, ABG<sup>+</sup>01, KSV<sup>+</sup>08]. **Last** [Ske85]. **Latency** [BPP<sup>+</sup>17a, BPP<sup>+</sup>17b, Mow98, TL93, Jim05]. **Lattice** [AJ93]. **Layers** [HP94]. **Layout** [CS83]. **Lazy** [LLSG92]. **leakage** [HKM02]. **Lessons** [HE16]. **Let** [HKM02]. **Level** [AISS98, ABLL92, Har87, LEL<sup>+</sup>97, BALL91, CASM08, GEK<sup>+</sup>02, GY90, Kel00, KY04, PMJPKA05, SCZM05, VVP<sup>+</sup>06]. **Level-Structured** [Har87]. **Leveraging** [SFKP12]. **Liberty** [VVP<sup>+</sup>06]. **Library** [SJS<sup>+</sup>17]. **Lifetime** [HBD97, FS04]. **Lifetimes** [Slo83]. **Lightweight** [BYFK08, BALL90, EGH<sup>+</sup>03, SMK<sup>+</sup>94, SBS91, VACG09]. **Limitations** [EBS<sup>+</sup>12]. **Limits** [TL93, YV06]. **Linda** [CG86]. **Linearizability** [AW94]. **linked** [CKP<sup>+</sup>04]. **Linux** [PTS<sup>+</sup>14]. **Lite** [PDZ00]. **Livelock** [MR97]. **Load** [CJ10, HBD97]. **Loading** [Kam86]. **Local** [AOST93]. **Local-Area** [AOST93]. **Locality** [Mog92, HSY05, MT99]. **Lock** [ARJ97]. **Lock-Free** [ARJ97]. **Locking** [HA06, LDT<sup>+</sup>16]. **locks** [FH07]. **LOCKSS** [MRG<sup>+</sup>05]. **Log** [RO92, YZP<sup>+</sup>12, BMD<sup>+</sup>13]. **Log-Structured** [RO92]. **Logging** [SHCG94, VLW<sup>+</sup>12]. **Logic** [BAN90, GMP92, MMM95]. **Long** [HZL<sup>+</sup>17]. **lookups** [SV99]. **Loop** [LP93, WY13, MT99]. **Loop-Based** [WY13]. **Loss** [PW97]. **lossless** [BA06]. **Low** [BPP<sup>+</sup>17a, BPP<sup>+</sup>17b, CDY<sup>+</sup>17, JB86, TL93, ZMAB09]. **Low-Latency** [TL93]. **low-overhead** [ZMAB09].

**Machine** [BWD<sup>+</sup>15, LCWB<sup>+</sup>11]. **Mail** [CP86, SBL00]. **Maintenance** [AMMSB98]. **Manageability** [SBL00]. **Managed** [UNS<sup>+</sup>94]. **Management** [ABLL92, FR86, GHBRK12, HMSC88, HKB95, JB86, LE91, YFLS11, BMNW04, GTHR00, HLMM05, SJS<sup>+</sup>00, VBV03]. **Manager** [LHM<sup>+</sup>84b]. **Managing** [FS04, TS88, GLL14]. **Markers** [BBF83]. **Market** [GLL14, MS01]. **masking** [ZMAB09]. **matching** [WVTP01]. **Matrix** [Kem83]. **Mean** [HBAK86]. **Measured** [CEC<sup>+</sup>96]. **Measurement**

[CE85, GHPR88, IRH86, EV03]. **Measuring** [BHSR02, NYN03]. **Mechanisms** [Her87, HMMS98, Slo83, GLL14]. **Mechanistic** [NEC<sup>+</sup>15, EEKS09]. **Media** [AOG92, And93]. **Membership** [AMMS<sup>+</sup>95, BYFK08, JVVJ15, KSMD02]. **Memories** [SNSC14, Str83, TS89]. **Memory** [BALL91, CBZ95, CCW<sup>+</sup>17, DRG17, DTM95, EJ93, ELMP12, FR86, HLRW93, HMMS98, HL07, LE91, LH89, MVZ93, MCS91, MF90, SMK<sup>+</sup>94, Sta84, Ste97, ACM04, BJS01, BI13, GS00, GTHR00, HLMM05, HJK07, KSH<sup>+</sup>05, YKA00]. **mesh** [ADMER10]. **Message** [LHM84a]. **Messages** [LSW91, RS92]. **metadata** [GMSP00]. **Metascheduling** [And93]. **Method** [AB83, Her86, QTZS07]. **Methodology** [Kem83]. **Methods** [GF93, SHG95, WB91, JL02]. **mice** [EV03]. **microarchitectures** [GLL14]. **microkernel** [KAE<sup>+</sup>14]. **Microkernels** [HE16]. **Microprocessor** [HKS<sup>+</sup>83]. **microprocessors** [HL07]. **microsecond** [AD00]. **MIDDLE** [PMJPKA05]. **MIDDLE-R** [PMJPKA05]. **middleware** [PMJPKA05]. **Migration** [BWD<sup>+</sup>15]. **Military** [LHM84a]. **MIMD** [Kot97]. **Minerva** [ABG<sup>+</sup>01]. **Minimal** [MSL<sup>+</sup>11]. **Minimizing** [XMM07]. **Minimum** [MLS97]. **Minimum-Distance** [MLS97]. **mining** [VBV03]. **MIPS** [GHPR88]. **Mismatch** [FAK<sup>+</sup>12]. **Miss** [Smi85, Smi87, CT01, GO05, GVO07]. **misses** [CT01]. **Mixed** [WLMD16]. **Mixed-Criticality** [WLMD16]. **Mobile** [LWZ15, RLCV11, SGH<sup>+</sup>13, ZR17, AKS11]. **Mobility** [JLHB88]. **Model** [AHH89, AB86, BAA90, GVM<sup>+</sup>11, LHM84a, MCB<sup>+</sup>93, CBG<sup>+</sup>08, EEKS09, YTEM06, YV02]. **Modeling** [IRH86, NEC<sup>+</sup>15, COM<sup>+</sup>09, GVO07, VVP<sup>+</sup>06]. **Models** [Bat95, JW98, GO05]. **Modern** [BMVS15, FAK<sup>+</sup>12, HL07]. **modular** [KMC<sup>+</sup>00]. **Monitoring** [EGH<sup>+</sup>14, JLSU87, Sno88, VBV03]. **Moshe** [KSMD02]. **Most** [LSW91]. **motion** [NYN03]. **Movement** [Kin90]. **Moves** [Tic84]. **Multi** [GHBKR12, CKP<sup>+</sup>04]. **multi-chain** [CKP<sup>+</sup>04]. **Multi-Tier** [GHBKR12]. **Multicast** [DC90, GMS91, SBS91, BHO<sup>+</sup>99, MS01]. **Multiclient** [YFLS11]. **Multicomputers** [SB90b]. **Multicore** [BCZY16, BZF10, CKZ<sup>+</sup>15, ELMP12, EBS<sup>+</sup>12, LDT<sup>+</sup>16, SFKP12, WY13, ZY17]. **Multidimensional** [AAC91]. **Multigrain** [YKA00]. **Multilevel** [GM87, YFLS11]. **multimedia** [NL03, YN06]. **Multiphase** [CGL85]. **Multiple** [AMMSB98, LSPM15, RS92]. **Multiple-Ring** [AMMSB98]. **Multiplication** [DC85]. **Multiplier** [CS83]. **multiprocessing** [MG01]. **Multiprocessor** [AB86, GS93, MCB84, PL85, SHG95, GO05, GVO07]. **Multiprocessors** [BALL91, BDGR97, HLRW93, Kot97, LE91, LA93, MVZ93, MCS91, Mow98, TE95, Epe98, GTHR00, HJK07, KSH<sup>+</sup>05]. **Multiprogrammed** [MVZ93]. **Multiprogramming** [AHH88, Kam86]. **multisets** [NTW09]. **Multisignature** [Oka88]. **Multithreaded** [SBN<sup>+</sup>97, SMS<sup>+</sup>03]. **Multithreading** [LEL<sup>+</sup>97]. **multivariate** [GO05, GVO07]. **Multiversion** [CM86]. **Multiweight** [GS93]. **Music** [AK90]. **Mutual** [AE91, BGMS89, Lam87, Mae85, Ray89, San87, SK85]. **MVA** [BKLC84]. **Naming** [CM89, Pet88]. **near** [ASS<sup>+</sup>05]. **near-optimal** [ASS<sup>+</sup>05]. **nest** [MT99]. **Net** [CG86]. **Nets** [MCB84]. **Network** [ADN<sup>+</sup>96, HO95, HY92, Mog92, NWO88, OP92, Ste97, ADMER10, ACV02, AD00, BJS01, HS03, SJS<sup>+</sup>00]. **Networking** [SKH<sup>+</sup>16, GEK<sup>+</sup>02]. **Networks** [AJ93, AOST93, BYFK08, CZL<sup>+</sup>15, ES83,



Kir87, KG83, PL85, RJ90, Rom84, Sau83a, Sau83b, SLI11, TS85, TL93, Zha91, FKA10, JMB05, KSH<sup>+05</sup>, SJS<sup>+00</sup>. **Neural** [CZL<sup>+15</sup>, JL02, Jim05]. **Next** [AGK<sup>+15</sup>]. **Nonblocking** [HLMM05]. **nonoperational** [GS00]. **normality** [BHSR02]. **Normalization** [LP93]. **notification** [CRW01]. **novel** [BMNW04]. **NTree** [San88]. **NUMA** [LE91, LP93].

**O** [BMK01, CP94, Che87, HDV<sup>+12</sup>, Kot97, PDZ00, YSS<sup>+14</sup>, dBBB11]. **obfuscation** [RS10]. **Object** [BBH<sup>+98</sup>, GWS96, AFG99]. **Object-Oriented** [GWS96]. **Objects** [ARJ97, GS93, Ng89, SB90b, Sta84, ADK<sup>+07</sup>]. **offense** [WVB<sup>+10</sup>]. **Offloading** [GKXK13]. **Once** [LSW91]. **online** [ZSV02]. **only** [FKM02]. **Operating** [ACM88, AHH88, AISS98, BPP<sup>+17a</sup>, BPP<sup>+17b</sup>, BDGR97, CLFL94, CEC<sup>+96</sup>, Jon88, LWZ15, PLZ<sup>+16</sup>, SBWT87, WABL94, KWDB06, SBL05, VEK<sup>+07</sup>]. **Operation** [KS92, BM00]. **Operations** [HMMS98]. **Optimal** [KG83, ASS<sup>+05</sup>, GLPQ10]. **Optimality** [Kam84]. **Optimally** [MLS97]. **Optimistic** [SY85, Rin99]. **optimization** [MWP<sup>+01</sup>]. **Optimized** [Kir87]. **Optimizing** [SGH<sup>+13</sup>, YSS<sup>+14</sup>, ZR17]. **Orca** [BBH<sup>+98</sup>]. **Order** [San88, EEKS09, GLPQ10]. **Ordered** [GMS91]. **Ordering** [AMMSB98, AMMS<sup>+95</sup>, Rom84]. **Oriented** [BWD<sup>+15</sup>, GWS96, KS97, SMS08]. **Original** [BDR<sup>+12</sup>]. **out-of-core** [BMK01]. **out-of-order** [EEKS09]. **overhead** [DR99, ZMAB09]. **Overlap** [BW84].

**Packet** [Slo83, Zha91, HVP99]. **packet-striping** [HVP99]. **Packet-Switched** [Zha91]. **packets** [SJS<sup>+00</sup>]. **packing** [BM00]. **PACS** [HKS<sup>+83</sup>]. **Page** [KH92]. **Paged** [Sta84]. **paradigm** [AMS<sup>+09</sup>]. **Paradigms** [PPA<sup>+15</sup>]. **Paragon** [DK13]. **Parallel** [AV04, BAA90, CLVW94, CF96, EJ93, GLM91, GWS96, HKS<sup>+83</sup>, JW98, LAB<sup>+13</sup>, WY13, RR99, VBR<sup>+04</sup>]. **parallel-programming** [VBR<sup>+04</sup>]. **Parallelism** [ABLL92, LEL<sup>+97</sup>, ALHH08]. **parallelized** [DR99, Rin99]. **Parallelizing** [VLW<sup>+12</sup>, CASM08]. **Parameters** [GvB90]. **Parametric** [JEJ13]. **Parity** [SHCG94]. **Parliament** [Lam98]. **Part** [Lam98]. **Part-Time** [Lam98]. **Partial** [BWD<sup>+15</sup>, San88]. **partitionable** [FLS01]. **Partitioning** [WPB<sup>+14</sup>, ZZNM02]. **Path** [PL85]. **Peak** [CDY<sup>+17</sup>]. **peer** [JVG<sup>+07</sup>, MRG<sup>+05</sup>, QBD<sup>+08</sup>]. **peer-to-peer** [MRG<sup>+05</sup>, QBD<sup>+08</sup>]. **780** [Cla83, CE85]. **Execute** [Smi84b]. **replay** [RD99]. **Restoring** [HL91]. **SIGOPS** [ACM88]. **Subscribe** [CJ10, JEJ13]. **SW** [KMG16]. **Video** [And97]. **Perfect** [MT99]. **Performance** [AHH88, AK90, BBH<sup>+98</sup>, BMVS15, CFKL96, CM86, CP94, CEC<sup>+96</sup>, CM89, Cla83, CE85, CDW06, CGJ88, DTM95, ES83, ELMP12, HMMS98, HKM<sup>+88</sup>, KS97, LZCZ86, MCB84, PL85, PS16, SS96a, SFKP12, SLJ<sup>+14</sup>, SB90a, SBWT87, SGH<sup>+13</sup>, Sta84, TR84, TS85, WB91, AV04, BM00, COM<sup>+09</sup>, EEKS09, HS03, HBSBA03, LN06, NYN03, QBD<sup>+08</sup>, SBL00]. **Performance-Oriented** [KS97]. **persistent** [AFG99]. **Personal** [AISS98, CEC<sup>+96</sup>, HLZ<sup>+16</sup>]. **perturbation** [AKS11]. **perturbation-resilient** [AKS11]. **pervasive** [GDL<sup>+04</sup>]. **Petri** [MCB84]. **Pfair** [HA06]. **Pipelined** [CS83]. **Pipes** [GG88]. **Placement** [KH92]. **Planar** [AJ93]. **Plane** [PLZ<sup>+16</sup>]. **Platform** [CKC12, LLL<sup>+16</sup>]. **Policies** [Kam86, LE91]. **Policy** [Kam84, MVZ93, GB01]. **Porcupine** [SBL00]. **Portable** [GWS96, LDT<sup>+16</sup>]. **Power** [BCZY16, BMVS15, CDY<sup>+17</sup>, EBS<sup>+12</sup>, EG85, GM98, GWSU13, ZTQ<sup>+17</sup>, BM00]. **Power-Efficient** [BCZY16]. **PowerNap**

[MGW11]. **Practical** [CL02, ZMAB09, RD99]. **Practice** [LABW92]. **pre** [KY04]. **pre-execution** [KY04]. **Predicted** [CP94]. **Predicting** [YKKK10]. **Prediction** [GM98, PS16, SS96a, TS85, AV04, JL02, Jim05]. **Preface** [Jon83b, Jon84, Jon88, Sch83, Smi84a]. **prefetch** [CKP<sup>+</sup>04]. **Prefetching** [CFKL96, Mow98, TE95, APD03, BMK01, CKP<sup>+</sup>04, LM01]. **prefix** [SV99, WVTP01]. **Presence** [BJ87]. **preservation** [MRG<sup>+</sup>05]. **Preserving** [PBS89]. **preventing** [YKKK10]. **Primitive** [LCWB<sup>+</sup>11]. **Primitives** [SBWT87, Rin99]. **Principles** [Jon88, Smi86, ACM88]. **Priority** [BKLC84]. **Privacy** [EGH<sup>+</sup>14]. **Proactive** [RS10, CL02]. **Probabilistic** [DRG17, FKA10, EGH<sup>+</sup>03]. **Problem** [AT83, Tic84, GMSP00]. **Procedure** [BALL90, BN84, Bir85]. **Procedures** [GG88]. **Process** [CZ85, HBD97, Ske85]. **Processes** [Mog92, VEK<sup>+</sup>07]. **Processing** [CCW<sup>+</sup>17, GWS96, Kam84, Kam86, AD00]. **Processor** [CCLP83, GHPR88, Kam84, MVZ93, MF90, BM00, CY09]. **Processors** [CDY<sup>+</sup>17, CKZ<sup>+</sup>15, FAK<sup>+</sup>12, GJT<sup>+</sup>12, SS83, Sch84, EEKS09, RLCV11, SMS<sup>+</sup>03]. **Profile** [Pet88]. **Profiling** [ABD<sup>+</sup>97]. **Program** [Atk88, AV04, ZZNM02]. **Programmability** [LAB<sup>+</sup>13]. **Programmable** [Fal87, BI13]. **Programming** [CM88, FH07, RR99, VBR<sup>+</sup>04]. **Programs** [DTM95, GY90, SBN<sup>+</sup>97, SKH<sup>+</sup>16, WY13, DR99, Rin99]. **Proof** [GM87]. **Protected** [BPP<sup>+</sup>17a, BPP<sup>+</sup>17b]. **Protection** [BAA90, CLFL94, HP87, San88]. **Protocol** [AMMSB98, AMMS<sup>+</sup>95, BBF83, GKXK13, GvB90, KvRvST93, Kir87, SL83]. **Protocols** [AB86, AGK<sup>+</sup>15, CM84, CGL85, KP91, SL83, Sha89, AKS11, HVP99, RR99, SMS08, VBR<sup>+</sup>04]. **Providing** [LLSG92]. **Provisioning** [GWSU13, ABG<sup>+</sup>01]. **Pseudorandom** [Sha83]. **Public** [HP87, Oka88]. **Public-Key** [Oka88]. **Publication** [Bir97]. **Publish** [CJ10, JEJ13, SLI11]. **Publish/Subscribe** [CJ10, JEJ13]. **Purpose** [ZR17, BJS01].

**QoS** [DK13]. **QoS-Aware** [DK13]. **Quantifying** [FAK<sup>+</sup>12, MT99]. **Quantitative** [JW98]. **Queueing** [ES83, KG83, Sau83a]. **Queuing** [Sau83b, TS85]. **Quick** [HZL<sup>+</sup>17]. **Quickly** [ASS<sup>+</sup>05]. **QuickSilver** [HMSC88]. **Quorum** [Her86, FKA10]. **Quorum-Consensus** [Her86].

**R** [LHM<sup>+</sup>84b, PMJPKA05]. **Race** [SBN<sup>+</sup>97]. **RAID** [CLVW94]. **RAMCloud** [OGG<sup>+</sup>15]. **Random** [BYFK08]. **Range** [WPB<sup>+</sup>14]. **rate** [GO05]. **rates** [GVO07]. **Ratio** [Smi85, Smi87]. **RaWMS** [BYFK08]. **RDMA** [CCW<sup>+</sup>17]. **read** [FKM02]. **read-only** [FKM02]. **Reading** [Lam90]. **Real** [ARJ97, BS91, GS93, KH92, MMM95, SBWT87, KPHV11, XMM07]. **Real-Indexed** [KH92]. **Real-Time** [BS91, GS93, MMM95, SBWT87, ARJ97, KPHV11, XMM07]. **Realtime** [EGH<sup>+</sup>14]. **Rearrangement** [AS95]. **Reasoning** [GMP92]. **Reassignment** [BGMS89]. **Receive** [MR97]. **Reconfiguration** [DD98]. **record** [RD99]. **record/replay** [RD99]. **Recoverable** [SMK<sup>+</sup>94]. **Recovering** [SABL06]. **Recovery** [DKM96, HMSC88, MC11, SY85, CL02]. **RecPlay** [RD99]. **Recursive** [DC85]. **Reduce** [PS16]. **Reduced** [HL91]. **Reducing** [CBZ95, HKM02]. **Redundant** [PL85]. **Redundant-Path** [PL85]. **REEF** [CCC<sup>+</sup>17]. **Register** [GJT<sup>+</sup>12, HL91]. **Reining** [HZL<sup>+</sup>17]. **Related** [CBZ95]. **Relational** [Sno88]. **Relevance** [BMVS15]. **Reliability** [Bab87, IRH86, ZTQ<sup>+</sup>17, SBL05]. **Reliable** [BJ87, CM84, GMS91, KS91, KP91, PGM89]. **Remark** [Smi87]. **Remote**

[BALL90, BN84, Bir85, GG88]. **Replay** [VLW<sup>+</sup>12]. **Replicated** [Her87, JB86, YV02, YV06]. **Replication** [Her86, LLSG92, PMJPKA05, VACG09]. **request** [ACV02]. **Requests** [Kin90, LLL<sup>+</sup>16]. **Requirements** [CDY<sup>+</sup>17, JT88]. **Research** [HE16]. **Reservation** [And97]. **resilient** [AKS11]. **Resource** [HS96, Kem83, LCG<sup>+</sup>16, ABG<sup>+</sup>01, CY09, GTHR00]. **Response** [Har87, ONA04]. **Responsibility** [GKXK13]. **Responsive** [Smi86]. **Restructuring** [LP93]. **Retainable** [CCC<sup>+</sup>17]. **Rethink** [NVCFO8]. **Reuse** [BCZY16, WY13, ZY17]. **Ring** [AMMSB98, AMMS<sup>+</sup>95]. **RISC** [BMVS15]. **River** [AD03]. **Robotics** [SBWT87]. **Robust** [GHRK12, VBV03]. **Rollback** [GF93]. **Round** [KP91]. **Round-Trip** [KP91]. **router** [KMC<sup>+</sup>00]. **Routing** [DC90, KG83, MLS97, ACV02]. **RPC** [SB90a]. **Rule** [CKZ<sup>+</sup>15, GFN89]. **Rule-Based** [GFN89]. **Run** [AD03, EJ93, GWS96, HYC<sup>+</sup>03]. **Run-Time** [EJ93, GWS96, AD03, HYC<sup>+</sup>03]. **Running** [BDGR97]. **Runtime** [CT01]. **Rx** [QTZS07].

**S** [CG86]. **S/Net** [CG86]. **S2E** [CKC12]. **safe** [HYC<sup>+</sup>03, QTZS07]. **sampling** [BMK07, JVG<sup>+</sup>07]. **Saving** [HL91]. **Saving/Restoring** [HL91]. **Scalable** [BDGR97, CKZ<sup>+</sup>15, HLS95, HLRW93, JVVJ15, MCS91, WVTP01, AMS<sup>+</sup>09, ACV02, SBL00, VBV03, KCR11, NTW09]. **Scale** [CZL<sup>+</sup>15, FAK<sup>+</sup>12, GVM<sup>+</sup>11, HLZ<sup>+</sup>16, HKM<sup>+</sup>88, HZL<sup>+</sup>17, LA93, LCG<sup>+</sup>16, Mog92, RPC<sup>+</sup>13, ABG<sup>+</sup>01, KSV<sup>+</sup>08]. **Scale-Out** [FAK<sup>+</sup>12]. **Scaling** [CP94, SLJ<sup>+</sup>14, WY13, XMM07]. **Scheduler** [ABLL92, GJT<sup>+</sup>12, KWS97, NL03]. **Scheduler-Conscious** [KWS97]. **Scheduling** [AOST93, BZF10, CFKL96, DRG17, GD87, KPHV11, Kam84, MCB<sup>+</sup>93, PS16, PGM89, SFKP12, AD01, CKP<sup>+</sup>04, DK13, Epe98, HBSBA03, HA06, HL07, QBD<sup>+</sup>08, YN06]. **Scheme** [HKB95, Oka88, RJ90]. **Scientific** [HKS<sup>+</sup>83]. **seance** [MG01]. **search** [RLCV11]. **SEATTLE** [KCR11]. **Second** [LLL<sup>+</sup>16]. **Secret** [Blu83]. **Sector** [TS89]. **Secure** [Bir85, GM87, JVVJ15, ZZNM02, FKM02, ZSV02]. **Securing** [SLI11]. **Security** [BAA90, GMP92, JT88, LHM84a, RBvR94, Sat89]. **Seer** [DRG17]. **Selective** [VACG09]. **Self** [CP94, SLJ<sup>+</sup>14]. **Self-Scaling** [CP94]. **Self-Tuning** [SLJ<sup>+</sup>14]. **Sensors** [Mar90]. **Sentinel** [MCB<sup>+</sup>93]. **Separating** [GB01]. **Separation** [WLMD16]. **Sequences** [Sha83]. **Sequential** [AW94, VLW<sup>+</sup>12]. **Serialization** [AB83]. **serious** [YTEM06]. **Server** [AB83, LLL<sup>+</sup>16, MGW11, AFG99, ONA04, QBD<sup>+</sup>08]. **server-side** [QBD<sup>+</sup>08]. **Serverless** [ADN<sup>+</sup>96]. **servers** [CDW06, ZMAB09]. **Service** [CM89, GvB90, JVVJ15, Pet88, CRW01, FLS01, KSMD02, KWDB06, MSB<sup>+</sup>06, SBL00, BYFK08]. **Services** [WM87, BHSC98, YV02, YV06]. **Set** [SA95]. **Set-Associative** [SA95]. **Sets** [JT88]. **Shared** [ARJ97, BBH<sup>+</sup>98, BALL91, CBZ95, EJ93, HLRW93, Kem83, KSH<sup>+</sup>05, LH89, MVZ93, MCS91, SS84, BMD<sup>+</sup>13, BJS01, GTHR00, Kel00, YKA00]. **Shared-Memory** [CBZ95, EJ93, MVZ93, MCS91, GTHR00]. **Shared-Object** [BBH<sup>+</sup>98]. **Sharing** [CLFL94, HYC<sup>+</sup>03]. **Shielding** [BPH15]. **side** [QBD<sup>+</sup>08]. **Silicon** [EBS<sup>+</sup>12]. **Simple** [HKB95]. **Simulation** [AB86, CE85, SA95, VVP<sup>+</sup>06, WB91]. **Simulations** [GLM91]. **Simultaneous** [LEL<sup>+</sup>97, SMS<sup>+</sup>03]. **Sinfonia** [AMS<sup>+</sup>09]. **Single** [AMMS<sup>+</sup>95, CLFL94, HL91, LSPM15, LLL<sup>+</sup>16]. **Single-Address-Space** [CLFL94]. **Single-Ring** [AMMS<sup>+</sup>95]. **Single-Window** [HL91]. **Sirius** [HLZ<sup>+</sup>16].

**Size** [HBSBA03]. **Size-based** [HBSBA03]. **sized** [HLMM05]. **sketches** [NTW09]. **SKMD** [LSPM15]. **slow** [NYN03]. **slow-motion** [NYN03]. **Small** [CZL<sup>+</sup>15, Sta84]. **Small-Footprint** [CZL<sup>+</sup>15]. **Smart** [SJS<sup>+</sup>00, NL03]. **Smartphone** [DAH<sup>+</sup>12]. **Smartphones** [EGH<sup>+</sup>14]. **SMesh** [ADMER10]. **SMMP** [ADK<sup>+</sup>07]. **SMT** [CY09]. **Snapshots** [CL85]. **SnowFlock** [LCWB<sup>+</sup>11]. **Soft** [AD00, GMSP00, VACG09]. **Software** [BS91, CKZ<sup>+</sup>15, HP87, HLRW93, Smi86, UNS<sup>+</sup>94, WPB<sup>+</sup>14, YZP<sup>+</sup>12, AD00, CBG<sup>+</sup>08, MWP<sup>+</sup>01, QTZS07]. **Software-Managed** [UNS<sup>+</sup>94]. **Solid** [SNSC14]. **Solid-State** [SNSC14]. **Solution** [AE91, AT83, GMSP00]. **Sorting** [RPC<sup>+</sup>13]. **Source** [ELMP12, KY04]. **source-level** [KY04]. **Space** [CLFL94]. **Spanner** [CDE<sup>+</sup>13]. **Spatial** [PPA<sup>+</sup>15]. **SPEC'95** [MT99]. **Special** [Jon83b, Jon84, Jon88, Mow12, Sch83, Smi84a]. **Specialization** [MWP<sup>+</sup>01, SFKP12]. **Specific** [CDY<sup>+</sup>17]. **Specification** [GM87, SL83]. **Specifications** [GvB90, MMM95]. **Specifying** [FLS01, HJK07]. **speculation** [CASM08, SCZM05]. **Speculative** [GM98, KMG16, MCB<sup>+</sup>93, NCF06, SMS<sup>+</sup>03, KAD<sup>+</sup>09]. **Speed** [Ste97, TL93, AOST93, GFN89, WVTP01]. **Spot** [HY92]. **Sprinting** [ZFF<sup>+</sup>17]. **Sprite** [NWO88]. **SR** [Atk88]. **SSDs** [ZTQ<sup>+</sup>17]. **Stack** [LLL<sup>+</sup>16, TS89]. **Stackable** [HP94]. **STAMPede** [SCZM05]. **standards** [BI13]. **State** [SNSC14, Sau83a, Sau83b]. **State-Dependent** [Sau83a, Sau83b]. **Stateful** [RS04]. **stateless** [SMS08]. **States** [CL85]. **Static** [KMG16, PS16, Sta84]. **Stating** [JT88]. **stealing** [ALHH08]. **Stochastic** [MCB84]. **stock** [MS01]. **Stop** [SS83, Sch84]. **Storage** [CM88, JLL<sup>+</sup>16, Kem83, MSL<sup>+</sup>11, OGG<sup>+</sup>15, SNSC14, SGH<sup>+</sup>13, WGSS96, YSS<sup>+</sup>14, ABG<sup>+</sup>01, ACV02, ASS<sup>+</sup>05, CDG<sup>+</sup>08, HSY05]. **Store** [LLL<sup>+</sup>16, AFG99]. **Stored** [TS88]. **Strategies** [TR84, ZFF<sup>+</sup>17, BM00]. **Stream** [Kam84, Kam86]. **Streamline** [dBBB11]. **Streams** [HKB95]. **String** [Tic84]. **String-to-String** [Tic84]. **Striped** [HO95]. **striping** [HVP99]. **Strong** [PW97, Sha83]. **Structure** [San87]. **Structured** [Har87, HBAK86, RO92, CDG<sup>+</sup>08]. **Structures** [Atk88, CKP<sup>+</sup>04, HLMM05]. **Study** [GF93, SS96b, ZY17, KWDB06, KY04]. **Subscribe** [SLI11]. **Subscribers** [Rom84]. **Substrate** [ELMP12]. **Subsystem** [YSS<sup>+</sup>14]. **Supercloud** [SJS<sup>+</sup>17]. **superscalar** [EEKS09]. **Support** [ABLL92, EJ93, GS93, GWS96, HL91, AD00, BJS01, GDL<sup>+</sup>04, HS03, HLMM05, HYC<sup>+</sup>03, LM01]. **Supporting** [KvRvST93]. **Supports** [HKB95]. **survive** [QTZS07]. **Switch** [AOST93]. **Switched** [MLS97, Zha91]. **symmetric** [KSH<sup>+</sup>05]. **Symposium** [ACM88]. **sync** [NVCF08]. **Synchronization** [HY92, KWS97, LA93, MCS91, DR99, Rin99]. **Synchronized** [LSW91]. **Synchronizing** [SS84]. **System** [AHH88, AISS98, AK90, AOG92, BBH<sup>+</sup>98, BPP<sup>+</sup>17a, BPP<sup>+</sup>17b, BKT85, CLFL94, Che87, CF96, DKM96, DTM95, EGH<sup>+</sup>14, GM87, GDL<sup>+</sup>04, HO95, HKM<sup>+</sup>88, IRH86, JLHB88, Koc87, KS97, KLS86, LHM84a, LWZ15, MJLF84, NWO88, NCPM17, OGG<sup>+</sup>15, PLZ<sup>+</sup>16, PGM89, RPC<sup>+</sup>13, RO92, SRC84, Sat89, SBN84, SBWT87, SS96b, SLI11, TS88, WGSS96, WABL94, BHSC98, BHSR02, CDG<sup>+</sup>08, FKM02, HP94, KWDB06, KSH<sup>+</sup>05, MRG<sup>+</sup>05, MS01, MWP<sup>+</sup>01, NCF06, PDZ00, RD99, SFKW14, VVP<sup>+</sup>06, VBV03, VEK<sup>+</sup>07, YTEM06, KS92]. **systematic** [MWP<sup>+</sup>01]. **Systems** [ACM88, AB83, ADN<sup>+</sup>96, And97, Bab87, Bat95, BAA90, BZF10, BDGR97, CBZ95, CL85, CEC<sup>+</sup>96, Che87, CJ10, CDD96, ELMP12, Fal87, GFN89, GVM<sup>+</sup>11, Har87,

Jon88, JB86, JLSU87, KvRvST93, Kam86, LABW92, LH89, Mae85, MMM95, MCB84, PL85, PW97, RBvR94, SFKP12, SS83, SBWT87, Smi86, Sno88, Ste97, SY85, WLMD16, AMS<sup>+</sup>09, ABG<sup>+</sup>01, AD01, CBG<sup>+</sup>08, FKA10, GMSP00, GEK<sup>+</sup>02, GB01, HSY05, KSV<sup>+</sup>08, MG01, SBL05, VBR<sup>+</sup>04, XMM07, YKKK10].

**Tailored** [dBBB11]. **Tails** [HZZL<sup>+</sup>17]. **TaintDroid** [EGH<sup>+</sup>14]. **Taos** [WABL94]. **task** [AV04]. **TCP** [GKXK13, ZMAB09]. **TCP-based** [ZMAB09]. **Technique** [BW84, VACG09]. **Techniques** [CBZ95, MWP<sup>+</sup>01]. **technology** [VBV03]. **Test** [MMM95]. **Testing** [GVM<sup>+</sup>11, MC11]. **Their** [HMMS98]. **Theory** [LABW92]. **thin** [LN06, NYN03]. **thin-client** [LN06, NYN03]. **Thread** [GJT<sup>+</sup>12, LEL<sup>+</sup>97, CASM08, SCZM05]. **Thread-Level** [LEL<sup>+</sup>97, CASM08, SCZM05]. **Throttling** [ELMP12]. **Throughput** [BPP<sup>+</sup>17a, BPP<sup>+</sup>17b, GKXK13, GJT<sup>+</sup>12, GLPQ10, LLL<sup>+</sup>16]. **TickerTAIP** [CLVW94]. **Tier** [GHBK12]. **Time** [BS91, EJ93, GS93, GWS96, KP91, Lam98, MMM95, RS92, SBWT87, ARJ97, AD03, HYC<sup>+</sup>03, KPHV11, ONA04, XMM07]. **Time-Critical** [RS92]. **timer** [AD00]. **timers** [AD00]. **Times** [Har87]. **Timestamp** [AJ93]. **Timing** [Kem83]. **TLBs** [UNS<sup>+</sup>94]. **TLS** [CDW06]. **TMR** [PGM89]. **TOCS** [Bir97]. **Tolerable** [JT88]. **Tolerance** [BEG<sup>+</sup>89, BS96, CM89, DD98, PW97, CL02, CRL03, CDD96, KAD<sup>+</sup>09]. **Tolerant** [AE91, Bab87, JB86, RBvR94, SS83]. **Tolerating** [Mar90, Mow98]. **tool** [ABG<sup>+</sup>01]. **toolkit** [BMNW04]. **tools** [MWP<sup>+</sup>01]. **Topologies** [SB90b]. **Topology** [AMMSB98]. **total** [GLPQ10]. **Totem** [AMMSB98, AMMS<sup>+</sup>95]. **Trace** [BMK07, WB91]. **Trace-Driven** [WB91].

**Tracing** [EPP<sup>+</sup>12]. **Tracking** [EGH<sup>+</sup>14]. **Tradeoffs** [LAB<sup>+</sup>13, UNS<sup>+</sup>94]. **Traffic** [CDD96, MF90, Zha91, EV03]. **Transaction** [BW84, CCW<sup>+</sup>17]. **Transactional** [DRG17]. **transactions** [AKS11, CASM08]. **Transfer** [Sha89]. **Transient** [Str83]. **Translation** [CE85]. **Transparent** [LSPM15]. **Transport** [KP91, WM87]. **Treating** [QTZS07]. **Tree** [HBAK86, Ray89]. **Tree-Based** [Ray89]. **Tree-Structured** [HBAK86]. **Trees** [SZ96, SA95]. **Trip** [KP91]. **TritonSort** [RPC<sup>+</sup>13]. **Trust** [MSL<sup>+</sup>11]. **Tuning** [SLJ<sup>+</sup>14]. **Two** [San88]. **Types** [AC92, Her86, SS84].

**Ufo** [AISS98]. **UIO** [Che87]. **Ultra** [CDY<sup>+</sup>17]. **Ultra-Low-Power** [CDY<sup>+</sup>17]. **Unboundedly** [GLM91]. **Undefined** [WZKSL15]. **Understanding** [BMVS15, HDV<sup>+</sup>12]. **unified** [PDZ00]. **Uniform** [Che87]. **uniprocessors** [KPHV11]. **UNIX** [BBG<sup>+</sup>89, MJLF84]. **Untrusted** [BPH15]. **Upcall** [Atk88]. **update** [GMSP00]. **updates** [GMSP00]. **usage** [Epe98]. **User** [AISS98, ABLL92, BALL91]. **User-Level** [AISS98, ABLL92, BALL91]. **Using** [AB86, Bat95, BBF83, BW84, Bir85, CCW<sup>+</sup>17, DD98, GM98, HZZL<sup>+</sup>17, LLSG92, MC11, Ng89, ONA04, PBS89, SL83, SA95, YTEM06, ZY17, AV04, DR99, FLS01, GO05, GF93, GTHR00, MT99, NYN03, Oka88, RS92, Rin99, SV99, CRL03].

**V** [CZ85]. **Value** [BM00, GM98, HBAK86, LLL<sup>+</sup>16, PS16]. **Value-based** [BM00]. **Valued** [Mar90]. **Variable** [Sha89]. **VAX** [Cla83, CE85]. **VAX-11** [Cla83, CE85]. **VAX-11/780** [Cla83, CE85]. **VAXclusters** [KLS86]. **Vectorization** [KMG16]. **Vectorizer** [KMG16]. **Verification** [GF93, KAE<sup>+</sup>14]. **Verifications** [SL83]. **Verified** [Sha89]. **Versus** [Her87, AW94]. **Vesta** [CF96]. **via**

[BCZY16, BJS01, ELMP12, HKM02, LEL<sup>+</sup>97, SFKP12, SLJ<sup>+</sup>14, YZP<sup>+</sup>12].

**Vigilante** [CCC<sup>+</sup>08]. **Virtual** [BWD<sup>+</sup>15, DAH<sup>+</sup>12, FR86, LCWB<sup>+</sup>11, LH89, SMK<sup>+</sup>94, Sta84, BJS01, GTHR00].

**VirtualClock** [Zha91]. **Virtualization** [BDR<sup>+</sup>12]. **Virtualized**

[GKXK13, WLMD16]. **Vision** [HLZ<sup>+</sup>16].

**VLSI** [CS83]. **VM** [SGH<sup>+</sup>13]. **VM-Based** [SGH<sup>+</sup>13]. **VMware** [BDR<sup>+</sup>12]. **Voice**

[HLZ<sup>+</sup>16, TS88]. **Voltage**

[HZZ<sup>+</sup>17, XMM07]. **Vote**

[BGM86, BGMS89]. **Voting** [AAC91].

**Vulnerability** [BGM86, NEC<sup>+</sup>15].

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**Warehouse-Scale** [HLZ<sup>+</sup>16, HZZ<sup>+</sup>17].

**Wars** [BMVS15]. **WaveScalar** [SSM<sup>+</sup>07].

**web** [RLCV11, CDW06, HBSBA03, ONA04, ZR17]. **Where** [ABD<sup>+</sup>97]. **Wide**

[SS96b, CRW01, LN06]. **Wide-Area**

[SS96b, CRW01, LN06]. **Window** [HL91].

**Wireless** [BYFK08, ADMER10, FKA10].

**without** [FH07]. **work** [ALHH08].

**work-stealing** [ALHH08]. **Workloads**

[AHH88]. **Workstation** [BDR<sup>+</sup>12].

**Workstations** [LZCZ86]. **worm** [CCC<sup>+</sup>08].

**Write** [MBH<sup>+</sup>94, TS89, HJK07].

**Write-Back** [TS89]. **Write-Behind**

[MBH<sup>+</sup>94]. **Writing** [Lam90].

**x86** [BDR<sup>+</sup>12].

**Years** [HE16].

**Zebra** [HO95]. **Zyzyva** [KAD<sup>+</sup>09].

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