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Title word cross-reference

+ [GSL+05]. = [GSL+05]. GF(2^n) [LBOX12].

0 [ZZL13].

1394 [HKP09].

2008 [Bak08]. **2009** [SW09]. **2012** [BF12]. **2014** [ST14]. **2015** [DH16, SZ15].

6 [ES14, LS12, PBV11, XXL+11].

Academic [CWY+15]. **Accelerating** [WCC15]. **Access** [CHA+11, DFP+15, HCL13, JDXD13, WCC15, MKLC06]. **Accesses** [WM16]. **accountability** [YC07]. **ACID** [WSSZ07]. **across** [GR09]. **Adaptive** [HWF+16, KKZ05, SPP11, WHE12]. **adaptively** [WSZ+10]. **Addressable** [WCC15]. **administrator** [DRK08]. **Against** [MTD+15, SDG10]. **Aggressive** [AWC09]. **Agility** [XCK+14]. **Algorithms** [XXL+11, BLN09, SZ05]. **allocation** [KR06, SZS+12]. **among** [LCMZ15]. **amplification** [THWD08]. **Analysis** [ASM12, MHL+15, BADAD+08]. **Analytic** [Des14]. **anticipatory** [SZS+12]. **appliances** [AEMWC+12]. **applications** [LBOX12, QJM+09]. **Approach** [XXL+11, XMRF+13, ZZL13, KR06, MT09, MMR+09, THTT08, ZSXZ07]. **Approaches** [KSDC14]. **arbitrary** [LS12]. **Architecture** [LBN14]. **architectures** [HWB+06].

Archival [GNB16, YPLG11, SGMV09]. **Archive** [CWY+15]. **archives** [HM05]. **archiving** [TPM+11]. **Array** [GNB16, LS12, MJW+12]. **Arrays** [AT13, ABLM07, TB09]. **assignment** [XS09]. **Associative** [KCC13]. **assumptions** [XS09]. **augmentations** [TCJ+11]. **Authentication** [MNT06]. **automatic** [YV05]. **availability** [SPADAD05, TCJ+11]. **Aware** [JCG+16, BLN09, BBK+09, WOQ+07].

B [Rod08, RBM13]. **B-Tree** [RBM13]. **B-trees** [Rod08]. **Backup** [HBP11, LXNL15, SHWH12, TCL12, VSV09]. **balancing** [QJM+09]. **Bandwidth** [HA13, GSL+05]. **Based** [HWF+16, HJW15, MJW+14, Tri15, WCXY15, ZJQ+15, BLN09, CLP09, DRK08, HWB+06, HBL+06, KH10, LSZ09, LZYK+06, MJW+12, MRH09, RDCS07, TCJ+11, VJG08, WKC06, WHE12]. **basis** [ST06]. **battery** [KH10]. **battery-powered** [KH10]. **Behavior** [ASM12]. **benchmarking** [AADAD09, TZJW08]. **BetrFS** [JYZ+15]. **Better** [WKRP06]. **Beyond** [ES14, IV15]. **bit** [ASS05]. **bit-rate** [ASS05]. **Block** [KMM+12, RHC15, AWC09, LCZ05]. **Block-Level** [KMM+12]. **Blurred** [LSS16]. **both** [DJC07, JDXD13]. **bounds** [EA08]. **Bridging** [GSL+05, SYK+11]. **BTRFS** [RBM13]. **BUD** [MQRY11]. **Buffer** [LBN14, DJC07, MQRY11, WHE12]. **buffers** [THTT08]. **Building** [RDCS07]. **Byte** [WCC15]. **Byte-Addressable** [WCC15].

CA [BBK+09]. **CA-NFS** [BBK+09]. **Cache** [HWF+16, LBN14, SS14, DJC07, GB07]. **caches** [MTH+08, VMF+06]. **Caching** [KSDC14, LB14, CHLK11, CHHH12, WSZ+10]. **caching-oriented** [CHHH12]. **Can** [WM16]. **case** [SZS+12]. **Causality** [MRH09]. **Causality-based** [MRH09]. **Challenges** [GS06]. **Change** [KSDC14]. **characteristic** [XS09]. **characteristics** [JHZK08]. **Characterization** [CHA+11]. **Characterizing** [MTD+15]. **Cheap** [HF05]. **Checker** [MDAD+14]. **Checking** [FQS+14, TPM+11]. **Chip** [KCC13]. **Chip-Level** [KCC13]. **Choosing** [ZXJ11]. **Class** [WQR13, JWK+10, STZ10]. **Classification** [WCXY15]. **Classifying** [JAM+16]. **clones** [Rod08]. **Closed** [ES14, IV15]. **Closed-Form** [ES14, IV15]. **Cloud** [BCQ+13, MJW+14, YHJ13, VSV09]. **Cloud-of-Clouds** [BCQ+13]. **Clouds** [BCQ+13]. **Clusters** [HZQX13, QJM+09, WB05]. **code** [LS12, LS12]. **Coded** [HZQX13]. **Codes** [HBP11, LL14, PB14, Tri15, XXL+11, LSZ09, PBV11, HCL13]. **coding** [TB09]. **collaborative** [VMF+06]. **Collecting** [DS16]. **common** [SZS+12]. **communication** [GSL+05]. **Complexity** [Tri15]. **compliance** [PB05]. **comprehensive** [JHZK08]. **Compression** [KMM+12, SHWH12]. **Computational** [CHA+11]. **computer** [HWB+06, HBL+06, MTH+08]. **congestion** [BBK+09]. **congestion-aware** [BBK+09]. **conquer** [Tos09]. **Conquest}** [WKRP06]. **conservation** [CK05]. **Conserve** [HZQX13]. **consistency** [FSM+12]. **Consistent** [HA13, YV05]. **Consolidated** [ZXJ11]. **Constructing** [VMF+06]. **Consumption** [CPW+15]. **content** [KR10]. **Context** [GHWK15, ZJQ+15]. **Context-Based** [ZJQ+15]. **Continuous** [CHA+11]. **Contributing** [CCB07]. **contributor** [JHZK08]. **control** [KKZ05, ZSW+06]. **cooperative** [TCL12]. **correlations** [LCZ05]. **corruption** [BADAD+08]. **crash** [WKC06]. **Cross** [WCR+06]. **Cross-layer** [WCR+06]. **Cumulus** [VSV09].

D [SPADAD05]. **D-GRAID** [SPADAD05].

D2D [HM05]. **Data** [ASM12, AT13, CWY+15, DFP+15, HCL13, JDXD13, JAM+16, MEK+14, SSWC14, WH15, YPLG11, ZB16, ASS05, ABLM07, BADAD+08, BFHR09, EM05, EA08, HKC06, LZYK+06, SZ05]. **Data-Intensive** [CWY+15]. **database** [DRK08, THTT08]. **databases** [MNT06]. **Datacenter** [SSVG13]. **datasets** [SHWH12, VMF+06]. **David** [AAADAD12]. **decentralized** [TCL12]. **Deduplication** [LXNL15, MJW+14, MB12, KR10]. **Deduplication-Based** [MJW+14]. **Deferred** [HZQX13]. **Defining** [EA08]. **degradation** [JB05]. **delta** [SHWH12]. **density** [PBV11]. **Dependable** [BCQ+13]. **DepSky** [BCQ+13]. **Design** [CPW+15, HWC12, SS14, ZZL13, CHHH12, GS06, WKRP06, WKC06]. **desktop** [VMF+06]. **development** [ZIJ+06]. **Device** [LL14, ZXJ11, HBL+06]. **Devices** [CSY+14, GHWK15, BLN09, CHLK11, GR09, KH10, LZYK+06]. **DFS** [JBLF10]. **Differential** [BKPM10]. **differentiation** [KKZ05]. **digital** [GSL+05]. **directed** [LLZA05]. **Disk** [ASD15, HWF+16, IHHE11, JDXD13, MTD+15, PB14, SSVG13, SYK+11, XXL+11, ABLM07, BFHR09, DEH+08, GW10, GS06, HM05, LS12, MJW+12, MTH+08, NQX06, SG07, SZ05, TB09, VJG08, WKRP06, WB05]. **disk/persistent** [WKRP06]. **disk/persistent-RAM** [WKRP06]. **Disks** [GNB16, JAM+16, JHZK08, LLZA05, MQRY11]. **DISP** [EM05]. **Distributed** [XCK+14, EM05, HDW+08, MMR+09]. **Divide** [Tos09, GSL+05]. **Divide-and-conquer** [Tos09]. **does** [SG07]. **dominant** [JHZK08]. **Drive** [LCMZ15, SSVG13, WCXY15, GS06]. **driver** [CHLK11]. **driver-layer** [CHLK11]. **drives** [BFHR09, CHHH12, GW10, HM05]. **duplicate** [BJD06]. **Dynamic** [ABLM07, NB13, QJM+09, ZB16, THTT08]. **Editorial** [BP11, Lon12, Raj05, BK10]. **Efficiency** [HA13, HCL13]. **Efficient** [CK05, CWY+15, DFP+15, HKC06, LXNL15, LZYK+06, LSS16, LBOX12, MRZ+09, MEK+14, SZ05, TCL12, XMRF+13, YPLG11, ZB16, EM05, LS12, MQRY11, WKC06, ZSXZ07]. **Elastic** [XCK+14]. **elimination** [BJD06]. **emulate** [CLHK10]. **Emulating** [AAADAD12]. **Endurance** [LCMZ15]. **Energy** [CWY+15, CPW+15, HZQX13, LCMZ15, EA08, LLZA05, MQRY11, STZ10]. **Energy-Efficient** [CWY+15, MQRY11]. **enhanced** [MJW+12]. **enhancement** [CHHH12]. **Enterprise** [KSDC14, NDR08]. **Equation** [ES14, IV15]. **Erasure** [HZQX13, LL14, PB14, LSZ09]. **Erasure-Coded** [HZQX13]. **errors** [DEH+08, SDG10]. **Evaluating** [KSDC14]. **Evaluation** [SSVG13, XXL+11, XMRF+13, ZZL13]. **Evolution** [LADADL14]. **Exact** [HBP11]. **Exascale** [SSWC14]. **Exedra** [ASS05]. **existence** [TPM+11]. **Exploiting** [HZQX13, JDXD13, JWK+10, DJC07, MKLC06]. **Ext3cow** [PB05]. **Extending** [WSSZ07]. **Extensions** [WQR13]. **Extract** [GW10].

Failed [XXL+11]. **Failure** [PB14, JHZK08, SG07]. **Failures** [LL14, MTD+15, SSVG13, JHZK08]. **Family** [LL14]. **FAST** [Bak08, BF12, SZ15, ST14, CSY+14, GHWK15, MDAD+14, TPM+11, ADAD07, SW09]. **FAST'10** [BK10]. **fault** [ASS05, EM05, LSZ09]. **fault-tolerant** [ASS05, EM05]. **Ffsck** [MDAD+14]. **Fidelity** [JCG+16]. **fields** [LBOX12]. **File** [AEMWC+12, GR09, JYZ+15, LADADL14, MDAD+14, WCC15, WQR13, ZJQ+15, ABDL07, AADAD09, AWC09, BBK+09, CCB07, FSM+12, JB05, JBLF10, JWK+10, MKLC06, PB05, STZ10, SSR+10, TPM+11, TZJW08, THWD08, VFNN10, WKRP06,

WSSZ07, WKC06, XS09, ZIJ+06].
File-System
[MDAD+14, ABDL07, AADAD09].
Filesystem [RBM13, VSV09]. **finite**
[LBOX12]. **five** [ABDL07]. **five-year**
[ABDL07]. **Flash** [HWC12, HWF+16,
JCG+16, KCC13, WCXY15, WH15, CK05,
CLHK10, CLP09, HKC06, JBLF10,
LZYK+06, SPP11, WKC06, WHE12].
Flash-Based
[HWF+16, LZYK+06, WHE12].
flash-memory [CK05]. **Flexible** [HCL13].
forgery [HSW09]. **Form** [ES14, IV15].
Framework [YPLG11, ZJQ+15, VJG08].
FRASH [JWK+10]. **Frog** [ZJQ+15]. **FTP**
[AWC09]. **Functionality** [LBN14].

Garbage [DS16]. **GCTrees** [DS16]. **gear**
[WOQ+07]. **gear-shifting** [WOQ+07].
General [LL14]. **Generalized**
[AT13, LS12]. **Generating** [AADAD09].
generation [DRK08]. **generic** [GSL+05].
geometry [GW10]. **goliath** [AAADAD12].
graceful [JB05]. **GRAID** [SPADAD05].
Graphs [MHL+15]. **GRID** [LSZ09]. **Group**
[WM16]. **grouping** [EA08]. **Groupings**
[WM16]. **Guest** [BP11, BK10].

Hard [SSVG13, GW10]. **hardness**
[THWD08]. **Heap** [HJW15]. **Heap-Based**
[HJW15]. **HEAPO** [HJW15].
heterogeneous [GR09]. **Hierarchical**
[HBP11, JWK+10]. **hierarchy** [MTH+08].
High [CSY+14, JCG+16, LB14, DEH+08,
GSL+05, LSZ09]. **high-bandwidth**
[GSL+05]. **High-Fidelity** [JCG+16].
High-Performance [CSY+14, LB14].
high-reliability [DEH+08]. **Higher** [TB09].
hints [DRK08]. **Historical** [ASM12].
History [JDXD13, HSW09]. **hot** [HKC06].
hours [SG07]. **HPDA** [MJW+12]. **Hybrid**
[KCC13, LXNL15, LCMZ15, XXL+11,
XMRF+13, JWK+10, MJW+12, SPP11,
WKRP06].

I/O [KR10, MQRY11, MKLC06, QJM+09,
YSEY10, ZXJ11]. **I/O-intensive** [QJM+09].
identification [HKC06]. **Identify** [WM16].
idleness [MRZ+09]. **IEEE** [HKP09].
IEEE-1394 [HKP09]. **ImmortalGraph**
[MHL+15]. **Impact** [SSVG13].
Implementation [HWC12, Tri15].
implementations [AEMWC+12, LBOX12].
Impressions} [AADAD09]. **improve**
[KR10, LCZ05]. **Improving**
[BJD06, CHA+11, HA13, HWF+16,
SYK+11, SPADAD05, NQX06].
incremental [ZIJ+06]. **independent**
[XS09]. **Index** [DFP+15]. **indexing**
[LZYK+06]. **infer** [GW10]. **informed**
[SHWH12]. **initialization** [WKC06]. **Inline**
[LXNL15]. **Integrity** [FQS+14, MNT06].
Intelligent [WCR+06]. **Intel(R)**
[MTH+08]. **Intensive**
[CWY+15, NQX06, QJM+09]. **inter**
[MKLC06]. **inter-file** [MKLC06]. **Interface**
[ZXJ11]. **Interleaving** [SYK+11]. **intra**
[DEH+08]. **intra-disk** [DEH+08]. **Intradisk**
[IHHE11]. **Introduction** [ADAD07, Bak08,
BF12, DH16, SZ15, ST14, SW09]. **IO**
[GHWK15, RHC15]. **Issue** [DH16, SZ15,
ST14, ADAD07, Bak08, BF12, SW09].
issues [GS06].

JFTL [CLP09]. **journal** [CLP09].
Journaling [LBN14].

Kernel [JYZ+15]. **key** [HF05]. **Kinesis**
[MMR+09].

Large [MEK+14, AWC09, CK05, HDW+08,
LBOX12, SZ05, VMF+06]. **Large-Scale**
[MEK+14, CK05, HDW+08]. **latency**
[EA08, ZSW+06]. **latent** [SDG10]. **Layer**
[KCC13, WCXY15, CHLK11, CLP09,
SPP11, WCR+06]. **Layout** [JDXD13]. **Lazy**
[HWF+16]. **Level** [KMM+12, KCC13].
Lightweight [SSWC14]. **Line** [LXNL15].
Linux [LADADL14, RBM13]. **Load**

[YHJ13, QJM+09, WB05]. **loading** [NDR08]. **local** [NQX06]. **localities** [DJC07]. **Location** [SSWC14]. **log** [WKC06]. **log-based** [WKC06]. **logging** [MT09]. **LoneStar** [GNB16]. **Long** [ASM12, SGMV09]. **Long-Term** [ASM12, JAM+16, SGMV09]. **Low** [Tri15]. **Low-Complexity** [Tri15].

main [LLZA05]. **mainstream** [MTH+08]. **Making** [SZS+12]. **Management** [YHJ13, CK05, CHHH12, DJC07, GR09, HBL+06, LLZA05, MRZ+09, NDR08, TCL12, WB05, WHE12]. **managing** [HF05]. **MAP** [WCXY15]. **Massive** [GNB16]. **mean** [SG07]. **Mechanism** [CWY+15]. **Mechanisms** [FQS+14]. **Media** [LB14, GSL+05, RDCS07, VJG08]. **Membrane** [SSR+10]. **Memory** [HWC12, JCG+16, KSDC14, KCC13, LBN14, LSS16, MTH+08, WCC15, WQR13, WH15, CK05, CLP09, HKC06, JWK+10, LLZA05, SZS+12, WKC06]. **MEMS** [BLN09, HWB+06, HBL+06, KH10, RDCS07]. **MEMS-based** [BLN09, HWB+06, HBL+06, KH10, RDCS07]. **merge** [SPP11]. **Metadata** [WCC15, ABDL07]. **MFTL** [HWC12]. **Microarchitecture** [JCG+16]. **Microarchitecture-Aware** [JCG+16]. **migration** [SZ05]. **Minimum** [PBV11]. **Mining** [LCZ05]. **misbehaviors** [YSEY10]. **Mixed** [PB14, VJG08]. **mixed-media** [VJG08]. **MLC** [HWC12]. **mobile** [KH10]. **Modeling** [NQX06, HBL+06]. **Models** [Des14]. **modern** [GW10]. **Modes** [PB14]. **Monitoring** [MTD+15]. **MOSFETs** [ST06]. **Movement** [JAM+16]. **MSST** [DH16]. **MTTDL** [IV15, ES14]. **MTTF** [SG07]. **Multicollective** [MKLC06]. **Multiresolution** [GGE+05]. **Multistream** [HA13, GB07].

namespace [WDG+06]. **NAND** [CLHK10, JCG+16]. **NANDFlashSim** [JCG+16]. **NCQ** [YSEY10]. **Network** [JB05, BBK+09, GSL+05, YC07]. **networks** [GGE+05]. **NFS** [BBK+09]. **nine** [TZJW08]. **Niobe** [MTJ+08]. **Nondeterministic** [SSWC14]. **Nonvolatile** [LBN14, MTH+08, WCC15]. **NOR** [CLHK10]. **note** [Lon12].

O [KR10, MQRY11, MKLC06, YSEY10, ZXJ11]. **O-intensive** [QJM+09]. **Object** [HJW15]. **Obtaining** [GW10]. **off** [NDR08]. **off-loading** [NDR08]. **Offline** [GNB16]. **Offs** [LCMZ15]. **Online** [KMM+12, TCJ+11]. **only** [SZS+12]. **Operating** [SSR+10]. **Operation** [ASD15, TB09]. **Optimal** [AT13, GB07, Tos09, WSZ+10]. **Optimization** [JYZ+15, KCC13, MJW+14, HDW+08, WCR+06]. **optimized** [SHWH12]. **Optimizing** [KH10, STZ10, SYK+11, DRK08]. **Organization** [TB09]. **oriented** [CHHH12]. **Out-of-Line** [LXNL15]. **Outsourced** [DFP+15, MNT06].

P [BLN09]. **P/PA** [BLN09]. **P/PA-SPTF** [BLN09]. **P2P** [HBP11]. **PARAID** [WOQ+07]. **Parallel** [KCC13, MQRY11]. **Parallelism** [BLN09]. **Parallelism-aware** [BLN09]. **parity** [MJW+12, TCJ+11]. **parity-based** [MJW+12, TCJ+11]. **patterns** [MKLC06]. **Asynchronous** [NB13]. **PA-SPTF** [BLN09]. **persistent-RAM** [WKRP06]. **Performance** [CSY+14, Des14, KKZ05, KCC13, LB14, LLZA05, LCMZ15, MJW+14, SYK+11, XXL+11, XCK+14, ZXJ11, CHHH12, JB05, KR10, LCZ05, MJW+12, STZ10, WKRP06, ZSW+06]. **Persistence** [LSS16]. **Persistent** [HJW15, LSS16]. **Perspective** [CPW+15]. **Phase** [KSDC14]. **Placement** [MEK+14, MMR+09]. **policy** [CHLK11, WSZ+10]. **Portable**

[AEMWC+12]. **Portably** [THWD08]. **Possession** [ZB16]. **possible** [GS06]. **postal** [GSL+05]. **POTSHARDS** [SGMV09]. **Power** [YHJ13, NDR08, WOQ+07]. **power-aware** [WOQ+07]. **powered** [KH10]. **Practical** [NDR08, MTJ+08, MB12, EM05]. **PRE** [MQRY11]. **PRE-BUD** [MQRY11]. **Predictive** [EA08, WM16]. **Prefetching** [JDXD13, GB07, MQRY11]. **presence** [DEH+08]. **PRESIDIO** [YPLG11]. **Preventing** [HSW09, YSEY10]. **Private** [DFP+15]. **Proactively** [MTD+15]. **processing** [HDW+08]. **protect** [SDG10]. **Protecting** [MTD+15]. **protocol** [MTJ+08]. **Prototype** [SS14]. **Provable** [ZB16]. **Provenance** [XMRF+13, HSW09]. **Pyramid** [HCL13].

QoS [HKP09]. **queries** [Tos09]. **quFiles** [VFNN10]. **quickly** [GW10].

races [THWD08]. **RAID** [IV15, BKPM10, DEH+08, ES14, GNB16, HM05, IHHE11, KZZ07, LS12, PBV11, PB14, Tri15, WOQ+07, XXL+11, ZZL13]. **RAID-0** [ZZL13]. **RAID-6** [IV15, LS12, PBV11, XXL+11]. **RAIDs** [TCJ+11]. **RAIDShield** [MTD+15]. **RAM** [WKRP06]. **Random** [MEK+14]. **randomization** [WB05]. **range** [Tos09]. **rate** [ASS05]. **rates** [SG07]. **Read** [MJW+14]. **Read-Performance** [MJW+14]. **real** [WCR+06]. **real-time** [WCR+06]. **realistic** [AADAD09]. **reallocation** [ABLM07]. **Rebuttal** [IV15]. **Recon** [FSM+12]. **recoverable** [SGMV09]. **Recovery** [XXL+11, HF05, WKC06]. **Reduce** [JAM+16]. **Reducing** [HBP11]. **reduction** [EA08]. **Redundancies** [HZQX13]. **Redundancy** [IHHE11, DEH+08]. **redundant** [TB09]. **Reed** [Tri15]. **Regenerating** [HBP11]. **regeneration** [YV05]. **regulatory** [PB05]. **Reliability** [ES14, HM05, IV15, BKPM10, DEH+08, MJW+12, TB09]. **Reliable** [CWY+15, HCL13]. **remapping** [CLP09]. **Remote** [ZB16]. **removable** [CHLK11]. **reordering** [AWC09]. **Repair** [HBP11]. **Replacement** [HWF+16, SZ05]. **replica** [MMR+09, YV05]. **Replicated** [AT13]. **Replication** [NB13, EA08, MTJ+08, SHWH12]. **Repositories** [ASM12]. **Request** [SYK+11, BLN09]. **resource** [CK05]. **Response** [AT13]. **restartable** [SSR+10]. **Rethinking** [AWC09, BKPM10]. **Retrieval** [AT13, Tos09]. **Revisiting** [KAU12]. **right** [VFNN10]. **robin** [ZSXZ07]. **round** [ZSXZ07]. **round-robin** [ZSXZ07]. **runtime** [FSM+12].

SAN [CSY+14]. **SATA** [HM05]. **Scalable** [ASS05, MEK+14, YHJ13]. **Scale** [MEK+14, SSVG13, CK05, HDW+08]. **Scaling** [ZZL13, ZSXZ07]. **scheduler** [YSEY10]. **scheduling** [BLN09, VJG08]. **Scheme** [JDXD13, DEH+08, DJC07, Tos09, WHE12]. **Schemes** [HCL13]. **Science** [CHA+11]. **Scientific** [ASM12, VMF+06]. **SCMFS** [WQR13]. **Scrubbing** [IHHE11]. **SD** [PB14]. **search** [GGE+05]. **Sector** [LL14, PB14, GW10, SDG10]. **Sector-Disk** [PB14]. **Secure** [BCQ+13, EM05, HSW09, LBOX12, MT09, SGMV09]. **security** [HM05, NQX06]. **Seek** [SYK+11]. **Seek-Optimizing** [SYK+11]. **Selecting** [WSZ+10]. **self** [HF05, THTT08]. **self-managing** [HF05]. **self-tuning** [THTT08]. **semantics** [WDG+06, WSSZ07]. **semi** [BFHR09]. **semi-structured** [BFHR09]. **sensor** [GGE+05, LZYK+06]. **sequential** [GB07]. **server** [ASS05, STZ10]. **server-class** [STZ10]. **Service** [SSWC14, ZXJ11]. **services** [VJG08]. **shadowing** [Rod08]. **shared** [GB07, VJG08, WB05]. **shared-disk** [WB05]. **shifting** [PB05, WOQ+07].

Shingled [ASD15, JAM+16]. **Shuffle** [DFP+15]. **similarity** [KR10]. **Simulation** [JCG+16]. **size** [LS12]. **Skylight** [ASD15]. **SLAS** [ZSXZ07]. **Slicing** [MEK+14]. **Small** [SYK+11]. **Smart** [GHWK15]. **SmartCon** [GHWK15]. **smartphones** [KAU12]. **Snapshots** [DS16]. **soft** [WCR+06]. **software** [LBOX12]. **Solid** [SS14, WCXY15, CHHH12]. **Solid-State** [SS14, WCXY15, CHHH12]. **Solomon** [Tri15]. **solutions** [GS06]. **solving** [THWD08]. **SOPA** [WSZ+10]. **Sorting** [WH15]. **Space** [HCL13]. **spatial** [DJC07]. **Special** [DH16, SZ15, ST14, ADAD07, Bak08, BF12, SW09]. **Spin** [ST06]. **spintronics** [ST06]. **SPTF** [BLN09]. **SSD** [BKPM10, Des14]. **SSDs** [CPW+15, SPP11, WHE12]. **stack** [BADAD+08]. **STAIR** [LL14]. **State** [SS14, WCXY15, CHHH12, HF05]. **Statistical** [WM16]. **Storage** [AT13, BCQ+13, CHA+11, CWY+15, CSY+14, GR09, GHWK15, HA13, HDW+08, HWC12, HZQX13, HCL13, IHHE11, KSDC14, KMM+12, LB14, LXNL15, MJW+14, MHL+15, MEK+14, SSWC14, WM16, WQR13, XMRF+13, XCK+14, YPLG11, YHJ13, ZSW+06, ZXJ11, AAADAD12, BLN09, BADAD+08, BJD06, CK05, CHLK11, CCB07, DEH+08, DRK08, EM05, GGE+05, GSL+05, HWB+06, HBL+06, HKC06, HKP09, HM05, JB05, JHZK08, JBLF10, JWK+10, KR06, KKZ05, KH10, KAU12, LCZ05, LSZ09, LBOX12, MMR+09, MTH+08, MRZ+09, NDR08, RDCS07, SPADAD05, SGMV09, TZJW08, VMF+06, WCR+06, YC07]. **Store** [HJW15]. **Storing** [BFHR09]. **Strategies** [LB14]. **strategy** [CLHK10, XS09]. **stream** [HDW+08, SHWH12]. **stream-informed** [SHWH12]. **stream-processing** [HDW+08]. **streaming** [ASS05, RDCS07]. **strictly** [Tos09]. **Strip** [LSZ09]. **Strip-based** [LSZ09]. **striped** [ZSXZ07]. **Strong** [YC07]. **structured** [BFHR09]. **structures** [LZYK+06]. **Study** [KSDC14, LADADL14, ABDL07, JHZK08, MB12, TZJW08]. **Subsumes** [LBN14]. **subsystem** [JHZK08]. **Subsystems** [SYK+11, HKP09, SZ05]. **supplementary** [TCJ+11]. **support** [ASS05, SSR+10]. **Switching** [GHWK15]. **Synchronous** [NB13, SYK+11]. **Synchronous/Asynchronous** [NB13]. **System** [JYZ+15, LADADL14, MDAD+14, MHL+15, WCC15, WM16, WQR13, AEMWC+12, ABDL07, AADAD09, BBK+09, CCB07, FSM+12, JBLF10, JWK+10, NQX06, PB05, STZ10, SPADAD05, SGMV09, SSR+10, TZJW08, WKRP06, WSSZ07, ZIJ+06, GR09]. **Systems** [CWY+15, GNB16, HWC12, HBP11, HCL13, IHHE11, KSDC14, MJW+14, MEK+14, PB14, SSWC14, YHJ13, ZJQ+15, AAADAD12, BJD06, CK05, DEH+08, HDW+08, HWB+06, HBL+06, HKC06, HM05, KR06, KKZ05, KH10, LSZ09, MMR+09, MQRY11, MTH+08, MRZ+09, RDCS07, SSR+10, TPM+11, WKC06].

technique [MKLC06]. **Techniques** [WM16]. **Temperature** [SSVG13]. **Temporal** [MHL+15, DJC07]. **Term** [ASM12, JAM+16, SGMV09]. **them** [SDG10]. **Thermal** [GS06]. **throughput** [ZSW+06]. **Tiering** [KSDC14]. **Time** [AT13, PB05, VFNN10, WCR+06]. **time-shifting** [PB05]. **tolerance** [LSZ09]. **tolerant** [ASS05, EM05]. **Tolerating** [LL14]. **Trade** [HCL13, LCMZ15]. **Trade-Offs** [LCMZ15]. **Tradeoffs** [CPW+15]. **Traffic** [HBP11]. **Transactional** [FQS+14]. **Transactions** [LSS16]. **transfers** [AWC09]. **Translation** [KCC13, WCXY15, CLP09, SPP11]. **Transparent** [KMM+12, CCB07]. **Tree** [RBM13]. **Trees** [ZB16, Rod08]. **Triage** [KKZ05]. **trust** [TCL12]. **Tunable** [WB05].

tuning [THTT08]. **Turbo** [MTH+08].

Umbrella [GR09]. **Understanding** [CHA+11, SG07, SDG10]. **unexpected** [YSEY10]. **unification** [WDG+06]. **Unified** [LBN14, VJG08]. **Unix** [WDG+06]. **unrecoverable** [DEH+08]. **Update** [ZB16]. **Updates** [SYK+11]. **upgrades** [TCJ+11]. **Ursa** [YHJ13]. **USENIX** [ADAD07, Bak08, BF12, SZ15, ST14]. **Using** [HWB+06, HBL+06, XXL+11, CCB07, HKP09, HM05, KKZ05, SHWH12]. **utility** [VJG08]. **utility-based** [VJG08]. **utilization** [DRK08]. **Utilizing** [KR10].

variable [ASS05]. **Verifying** [FSM+12]. **Versatile** [LCMZ15]. **Versatility** [WDG+06]. **versioning** [MRH09]. **Versus** [IHHE11]. **via** [LBN14, ZSW+06, ZB16]. **virtual** [AEMWC+12, KR06]. **virtualization** [ZSW+06]. **virtualized** [JBLF10]. **Visualizing** [RHC15]. **volumes** [ZSXZ07]. **vs** [YSEY10].

WAN [SHWH12]. **WAN-optimized** [SHWH12]. **Window** [ASD15]. **Workload** [ASM12, DRK08, WCXY15, WCR+06, XS09]. **Workload-based** [DRK08]. **Workloads** [RHC15, NQX06, STZ10]. **Write** [Des14, JYZ+15, JAM+16, NDR08, NQX06, WHE12]. **write-intensive** [NQX06]. **Write-Optimization** [JYZ+15]. **Writes** [HZQX13].

X [LS12]. **X-code** [LS12].

year [ABDL07, TZJW08]. **YouChoose** [ZXJ11].

Z [WCXY15]. **Z-MAP** [WCXY15]. **Zone** [WCXY15]. **Zone-Based** [WCXY15]. **Zoned** [KZZ07]. **Zoned-RAID** [KZZ07].

References

Agrawal:2012:EGS

[AAADAD12] Nitin Agrawal, Leo Arulraj, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Emulating goliath storage systems with David. *ACM Transactions on Storage*, 7(4):12:1–12:??, January 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Agrawal:2009:GRI

[AADAD09] Nitin Agrawal, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Generating realistic *Impressions* for file-system benchmarking. *ACM Transactions on Storage*, 5(4): 16:1–16:??, December 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Agrawal:2007:FYS

[ABDL07] Nitin Agrawal, William J. Bolosky, John R. Douceur, and Jacob R. Lorch. A five-year study of file-system metadata. *ACM Transactions on Storage*, 3(3):9:1–9:??, October 2007. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Arnan:2007:DDR

[ABLM07] Ron Arnan, Eitan Bachmat, Tao Kai Lam, and Ruben Michel. Dynamic data reallocation in disk arrays. *ACM Transactions on Storage*, 3(1): ??, March 2007. CODEN ????

ISSN 1553-3077 (print), 1553-3093 (electronic).

Arpaci-Dusseau:2007:ISI

[ADAD07] Andrea Arpaci-Dusseau and Remzi Arpaci-Dusseau. Introduction to special issue USENIX FAST 2007. *ACM Transactions on Storage*, 3(3): 7:1–7:??, October 2007. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Abd-El-Malek:2012:FSV

[AEMWC+12] Michael Abd-El-Malek, Matthew Wachs, James Cipar, Karan Sanghi, Gregory R. Ganger, Garth A. Gibson, and Michael K. Reiter. File system virtual appliances: Portable file system implementations. *ACM Transactions on Storage*, 8 (3):9:1–9:??, September 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Aghayev:2015:SWS

[ASD15] Abutalib Aghayev, Mansour Shafaei, and Peter Desnoyers. Skylight — a window on shingled disk operation. *ACM Transactions on Storage*, 11(4):16:1–16:??, November 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Adams:2012:AWB

[ASM12] Ian F. Adams, Mark W. Storer, and Ethan L. Miller. Analysis of workload behavior in scientific and historical long-term data repositories. *ACM Transactions on Storage*, 8(2):6:1–6:??, May 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Anastasiadis:2005:SFT

[ASS05] Stergios V. Anastasiadis, Kenneth C. Sevcik, and Michael Stumm. Scalable and fault-tolerant support for variable bit-rate data in the Exedra streaming server. *ACM Transactions on Storage*, 1(4):419–456, November 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Altiparmak:2013:GOR

[AT13] Nihat Altiparmak and Ali Saman Tosun. Generalized optimal response time retrieval of replicated data from storage arrays. *ACM Transactions on Storage*, 9(2):5:1–5:??, July 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Anastasiadis:2009:RFA

[AWC09] Stergios V. Anastasiadis, Rajiv G. Wickremesinghe, and Jeffrey S. Chase. Rethinking FTP: Aggressive block reordering for large file transfers. *ACM Transactions on Storage*, 4(4):13:1–13:??, January 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Bairavasundaram:2008:ADC

[BADAD+08] Lakshmi N. Bairavasundaram, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, Garth R. Goodson, and Bianca Schroeder. An analysis of data corruption in the storage stack. *ACM Transactions on Storage*, 4(3):8:1–8:??, November 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Baker:2008:ISI

[Bak08] Mary Baker. Introduction to special issue of USENIX FAST 2008. *ACM Transactions on Storage*, 4(3):6:1–6:??, November 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Batsakis:2009:CNC

[BBK+09] Alexandros Batsakis, Randal Burns, Arkady Kanevsky, James Lentini, and Thomas Talpey. CA-NFS: A congestion-aware network file system. *ACM Transactions on Storage*, 5(4):15:1–15:??, December 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Bessani:2013:DDS

[BCQ+13] Alysson Bessani, Miguel Correia, Bruno Quaresma, Fernando André, and Paulo Sousa. DepSky: Dependable and secure storage in a cloud-of-clouds. *ACM Transactions on Storage*, 9(4):12:1–12:??, November 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Bolosky:2012:ISI

[BF12] Bill Bolosky and Jason Flinn. Introduction to the special issue USENIX FAST 2012. *ACM Transactions on Storage*, 8(4):12:1–12:??, November 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Bhadkamkar:2009:SSS

[BFHR09] Medha Bhadkamkar, Fernando Farfan, Vagelis Hristidis, and Raju Rangaswami. Storing semi-structured data on disk drives. *ACM Transactions on Storage*, 5(2):6:1–6:??, June 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Bobbarjung:2006:IDE

[BJD06] Deepak R. Bobbarjung, Suresh Jagannathan, and Cezary Dubnicki. Improving duplicate elimination in storage systems. *ACM Transactions on Storage*, 2(4):424–448, November 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Burns:2010:GEF

[BK10] Randal Burns and Kimberly Keeton. Guest editorial: FAST'10. *ACM Transactions on Storage*, 6(3):8:1–8:??, September 2010. CODEN ???? ISSN 1553-

3077 (print), 1553-3093 (electronic).

Balakrishnan:2010:DRR

[BKPM10] Mahesh Balakrishnan, Asim Kadav, Vijayan Prabhakaran, and Dahlia Malkhi. Differential RAID: Rethinking RAID for SSD reliability. *ACM Transactions on Storage*, 6(2): 4:1–4:??, July 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Bahn:2009:PPS

[BLN09] Hyokyung Bahn, Soyoon Lee, and Sam H. Noh. P/PA-SPTF: Parallelism-aware request scheduling algorithms for MEMS-based storage devices. *ACM Transactions on Storage*, 5(1):1:1–1:??, March 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Brinkmann:2011:GE

[BP11] André Brinkmann and David Pease. Guest editorial. *ACM Transactions on Storage*, 7(3): 7:1–7:??, October 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Cipar:2007:CSU

[CCB07] James Cipar, Mark D. Corner, and Emery D. Berger. Contributing storage using the transparent file system. *ACM Transactions on Storage*, 3(3): 12:1–12:??, October 2007. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Carns:2011:UIC

[CHA+11] Philip Carns, Kevin Harms, William Allcock, Charles Bacon, Samuel Lang, Robert Latham, and Robert Ross. Understanding and improving computational science storage access through continuous characterization. *ACM Transactions on Storage*, 7(3):8:1–8:??, October 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Chang:2012:COM

[CHHH12] Yuan-Hao Chang, Cheng-Kang Hsieh, Po-Chun Huang, and Pi-Cheng Hsiu. A caching-oriented management design for the performance enhancement of solid-state drives. *ACM Transactions on Storage*, 8(1):3:1–3:??, February 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Chang:2011:DLC

[CHLK11] Yuan-Hao Chang, Ping-Yi Hsu, Yung-Feng Lu, and Tei-Wei Kuo. A driver-layer caching policy for removable storage devices. *ACM Transactions on Storage*, 7(1):1:1–1:??, June 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Chang:2005:EML

[CK05] Li-Pin Chang and Tei-Wei Kuo. Efficient management for large-scale flash-memory storage systems with resource conservation. *ACM Transactions on Storage*, 1(4):381–418, November 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Chang:2010:SEN

[CLHK10] Yuan-Hao Chang, Jian-Hong Lin, Jen-Wei Hsieh, and Tei-Wei Kuo. A strategy to emulate NOR flash with NAND flash. *ACM Transactions on Storage*, 6(2):5:1–5:??, July 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Choi:2009:JFT

[CLP09] Hyun Jin Choi, Seung-Ho Lim, and Kyu Ho Park. JFTL: A flash translation layer based on a journal remapping for flash memory. *ACM Transactions on Storage*, 4(4):14:1–14:??, January 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Cho:2015:DTS

[CPW+15] Seokhei Cho, Changhyun Park, Youjip Won, Sooyong Kang, Jaehyuk Cha, Sungroh Yoon, and Jongmoo Choi. Design tradeoffs of SSDs: From energy consumption's perspective. *ACM Transactions on Storage*, 11(2):8:1–8:??, March 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Choi:2014:THP

[CSY+14] Jae Woo Choi, Dong In Shin, Young Jin Yu, Hyeonsang Eom, and Heon Young Yeom. Towards high-performance SAN with fast storage devices. *ACM Transactions on Storage*, 10(2):5:1–5:??, March 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Chen:2015:EER

[CWY+15] Tseng-Yi Chen, Hsin-Wen Wei, Tsung-Tai Yeh, Tsan-Sheng Hsu, and Wei-Kuan Shih. An energy-efficient and reliable storage mechanism for data-intensive academic archive systems. *ACM Transactions on Storage*, 11 (2):10:1–10:??, March 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Dholakia:2008:NID

[DEH+08] Ajay Dholakia, Evangelos Eleftheriou, Xiao-Yu Hu, Ilias Iliadis, Jai Menon, and K. K. Rao. A new intra-disk redundancy scheme for high-reliability RAID storage systems in the presence of unrecoverable errors. *ACM Transactions on Storage*, 4(1):1:1–1:??, May 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Desnoyers:2014:AMS

[Des14] Peter Desnoyers. Analytic models of SSD write performance. *ACM Transactions on Storage*, 10(2):8:1–8:??, March 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

DeCapitaniDiVimercati:2015:SIE

[DFP+15] Sabrina De Capitani Di Vimercati, Sara Foresti, Stefano Paraboschi, Gerardo Pelosi, and Pierangela Samarati. Shuffle index: Efficient and private access to outsourced data. *ACM Transactions on Storage*, 11(4):19:1–19:??, November 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Desnoyers:2016:ISI

[DH16] Peter Desnoyers and James Hughes. Introduction to the special issue on MSST 2015. *ACM Transactions on Storage*, 12(1):1:1–1:??, February 2016. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Ding:2007:BCM

[DJC07] Xiaoning Ding, Song Jiang, and Feng Chen. A buffer cache management scheme exploiting both temporal and spatial localities. *ACM Transactions on Storage*, 3(2):5:1–5:??, June 2007. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Dutta:2008:WBG

[DRK08] Kaushik Dutta, Raju Rangaswami, and Sajib Kundu. Workload-based generation of administrator hints for optimizing database storage utilization. *ACM Transactions on Storage*, 3(4):3:1–3:??, February 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Dragga:2016:GGC

[DS16] Chris Dragga and Douglas J. Santry. GCTrees: Garbage collecting snapshots. *ACM Transactions on Storage*, 12 (1):4:1–4:??, February 2016. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Essary:2008:PDG

[EA08] David Essary and Ahmed Amer. Predictive data grouping: Defining the bounds of energy and latency reduction through predictive data grouping and replication. *ACM Transactions on Storage*, 4(1): 2:1–2:??, May 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Ellard:2005:DPE

[EM05] Daniel Ellard and James Megquier. DISP: Practical, efficient, secure and fault-tolerant distributed data storage. *ACM Transactions on Storage*, 1(1):71–94, February 2005. CODEN ???? ISSN

1553-3077 (print), 1553-3093 (electronic).

Elerath:2014:BMC

[ES14] Jon G. Elerath and Jiri Schindler. Beyond MTTDL: a closed-form RAID 6 reliability equation. *ACM Transactions on Storage*, 10(2):7:1–7:??, March 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic). See rebuttal [IV15].

Fryer:2014:CIT

[FQS+14] Daniel Fryer, Mike Qin, Jack Sun, Kah Wai Lee, Angela Demke Brown, and Ashvin Goel. Checking the integrity of transactional mechanisms. *ACM Transactions on Storage*, 10(4):17:1–17:??, October 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Fryer:2012:RVF

[FSM+12] Daniel Fryer, Kuei Sun, Rahat Mahmood, Tinghao Cheng, Shaun Benjamin, Ashvin Goel, and Angela Demke Brown. Recon: Verifying file system consistency at runtime. *ACM Transactions on Storage*, 8(4):15:1–15:??, November 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Gill:2007:OMS

[GB07] Binny S. Gill and Luis Angel D. Bathen. Optimal multistream sequential prefetching in a shared cache. *ACM Transactions on Storage*, 3(3):10:1–10:??, October 2007. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Ganesan:2005:MSS

[GGE+05] Deepak Ganesan, Ben Greenstein, Deborah Estrin, John Heidemann, and Ramesh Govindan. Multiresolution storage and search in sensor networks. *ACM Transactions on Storage*, 1(3):277–315, August 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Gim:2015:SSC

[GHWK15] Jongmin Gim, Taeho Hwang, Youjip Won, and Krishna Kant. SmartCon: Smart context switching for fast storage IO devices. *ACM Transactions on Storage*, 11(2):5:1–5:??, March 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Grawinkel:2016:LRM

[GNB16] Matthias Grawinkel, Lars Nagel, and André Brinkmann. LoneStar RAID: Massive array of offline disks for archival systems. *ACM Transactions on Storage*, 12(1):5:1–5:??, February 2016. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Garrison:2009:UFS

[GR09] John A. Garrison and A. L. Narasimha Reddy. Umbrella File System:

Storage management across heterogeneous devices. *ACM Transactions on Storage*, 5(1): 3:1–3:??, March 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Gurumurthi:2006:TID

[GS06] Sudhanva Gurumurthi and Anand Sivasubramaniam. Thermal issues in disk drive design: Challenges and possible solutions. *ACM Transactions on Storage*, 2(1):41–73, February 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Garg:2005:BDD

[GSL+05] Nitin Garg, Sumeet Sobti, Junwen Lai, Fengzhou Zheng, Kai Li, Randolph Y. Wang, and Arvind Krishnamurthy. Bridging the digital divide: storage media + postal network = generic high-bandwidth communication. *ACM Transactions on Storage*, 1(2):246–275, May 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Gim:2010:EIQ

[GW10] Jongmin Gim and Youjip Won. Extract and infer quickly: Obtaining sector geometry of modern hard disk drives. *ACM Transactions on Storage*, 6(2):6:1–6:??, July 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Hatzieleftheriou:2013:IBE

[HA13] Andromachi Hatzieleftheriou and Stergios V. Anastasiadis. Improving bandwidth efficiency for consistent multistream storage. *ACM Transactions on Storage*, 9(1):2:1–2:??, March 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Hong:2006:UMBb

[HBL+06] Bo Hong, Scott A. Brandt, Darrell D. E. Long, Ethan L. Miller, and Ying Lin. Using MEMS-based storage in computer systems—device modeling and management. *ACM Transactions on Storage*, 2(2): 139–160, May 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Huang:2011:RRT

[HBP11] Zhen Huang, Ernst Biersack, and Yuxing Peng. Reducing repair traffic in P2P backup systems: Exact regenerating codes on hierarchical codes. *ACM Transactions on Storage*, 7(3):10:1–10:??, October 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Huang:2013:PCF

[HCL13] Cheng Huang, Minghua Chen, and Jin Li. Pyramid Codes: Flexible schemes to trade space for access efficiency

in reliable data storage systems. *ACM Transactions on Storage*, 9(1):3:1–3:??, March 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Hildrum:2008:SOL

[HDW+08] Kirsten Hildrum, Fred Douglis, Joel L. Wolf, Philip S. Yu, Lisa Fleischer, and Akshay Katta. Storage optimization for large-scale distributed stream-processing systems. *ACM Transactions on Storage*, 3(4):5:1–5:??, February 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Huang:2005:CRK

[HF05] Andrew C. Huang and Armando Fox. Cheap recovery: a key to self-managing state. *ACM Transactions on Storage*, 1(1):38–70, February 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Hwang:2015:HHB

[HJW15] Taeho Hwang, Jaemin Jung, and Youjip Won. HEAPO: Heap-based persistent object store. *ACM Transactions on Storage*, 11(1):3:1–3:??, February 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Hsieh:2006:EIH

[HKC06] Jen-Wei Hsieh, Tei-Wei Kuo, and Li-Pin Chang. Efficient identification of hot data for flash memory storage systems. *ACM Transactions on Storage*, 2(1):22–40, February 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Huang:2009:QSS

[HKP09] Chih-Yuan Huang, Tei-Wei Kuo, and Ai-Chun Pang. QoS for storage subsystems using IEEE-1394. *ACM Transactions on Storage*, 4(4):12:1–12:??, January 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Hughes:2005:RSR

[HM05] Gordon F. Hughes and Joseph F. Murray. Reliability and security of RAID storage systems and D2D archives using SATA disk drives. *ACM Transactions on Storage*, 1(1):95–107, February 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Hasan:2009:PHF

[HSW09] Ragib Hasan, Radu Sion, and Marianne Winslett. Preventing history forgery with secure provenance. *ACM Transactions on Storage*, 5(4):12:1–12:??, December 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Hong:2006:UMBa

[HWB+06] Bo Hong, Feng Wang, Scott A. Brandt, Darrell D. E. Long,

Thomas J. E. Schwarz, and S. J. Using MEMS-based storage in computer systems—MEMS storage architectures. *ACM Transactions on Storage*, 2(1):1–21, February 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Hsieh:2012:MDI

[HWC12] Jen-Wei Hsieh, Chung-Hsien Wu, and Ge-Ming Chiu. MFTL: A design and implementation for MLC flash memory storage systems. *ACM Transactions on Storage*, 8(2):7:1–7:??, May 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Huang:2016:IFB

[HWF+16] Sai Huang, Qingsong Wei, Dan Feng, Jianxi Chen, and Cheng Chen. Improving flash-based disk cache with lazy adaptive replacement. *ACM Transactions on Storage*, 12 (2):8:1–8:??, February 2016. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Huang:2013:ERD

[HZQX13] Jianzhong Huang, Fenghao Zhang, Xiao Qin, and Changsheng Xie. Exploiting redundancies and deferred writes to conserve energy in erasure-coded storage clusters. *ACM Transactions on Storage*, 9(2): 4:1–4:??, July 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Iliadis:2011:DSV

[IHHE11] Ilias Iliadis, Robert Haas, Xiao-Yu Hu, and Evangelos Eleftheriou. Disk scrubbing versus intradisk redundancy for RAID storage systems. *ACM Transactions on Storage*, 7(2):5:1–5:??, July 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Iliadis:2015:RBM

[IV15] Ilias Iliadis and Vinodh Venkatesan. Rebuttal to "Beyond MTTDL: a Closed-Form RAID-6 Reliability Equation". *ACM Transactions on Storage*, 11(2):9:1–9:??, March 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic). See [ES14].

Jones:2016:CDR

[JAM+16] Stephanie N. Jones, Ahmed Amer, Ethan L. Miller, Darrell D. E. Long, Rekha Pitchumani, and Christina R. Strong. Classifying data to reduce long-term data movement in shingled write disks. *ACM Transactions on Storage*, 12(1):2:1–2:??, February 2016. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Jiang:2005:NFS

[JB05] Anxiao (Andrew) Jiang and Jehoshua Bruck. Network file

storage with graceful performance degradation. *ACM Transactions on Storage*, 1(2): 171–189, May 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Josephson:2010:DFS

[JBLF10] William K. Josephson, Lars A. Bongo, Kai Li, and David Flynn. DFS: A file system for virtualized flash storage. *ACM Transactions on Storage*, 6(3): 14:1–14:??, September 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Jung:2016:NHF

[JCG+16] Myoungsoo Jung, Wonil Choi, Shuwen Gao, Ellis Herbert Wilson III, David Donofrio, John Shalf, and Mahmut Taylan Kandemir. NANDFlashSim: High-fidelity, microarchitecture-aware NAND flash memory simulation. *ACM Transactions on Storage*, 12(2):6:1–6:??, February 2016. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Jiang:2013:PSE

[JDXD13] Song Jiang, Xiaoning Ding, Yuehai Xu, and Kei Davis. A prefetching scheme exploiting both data layout and access history on disk. *ACM Transactions on Storage*, 9(3):10:1–10:??, August 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Jiang:2008:DDC

[JHZK08] Weihang Jiang, Chongfeng Hu, Yuanyuan Zhou, and Arkady Kanevsky. Are disks the dominant contributor for storage failures?: A comprehensive study of storage subsystem failure characteristics. *ACM Transactions on Storage*, 4(3):7:1–7:??, November 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Jung:2010:FES

[JWK+10] Jaemin Jung, Youjip Won, Eunki Kim, Hyungjong Shin, and Byeonggil Jeon. FRASH: Exploiting storage class memory in hybrid file system for hierarchical storage. *ACM Transactions on Storage*, 6(1): 3:1–3:??, March 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Jannen:2015:BWO

[JYZ+15] William Jannen, Jun Yuan, Yang Zhan, Amogh Akshintala, John Esmet, Yizheng Jiao, Ankur Mittal, Prashant Pandey, Phaneendra Reddy, Leif Walsh, Michael A. Bender, Martin Farach-Colton, Rob Johnson, Bradley C. Kuszmaul, and Donald E. Porter. BetrFS: Write-optimization in a kernel file system. *ACM Transactions on Storage*, 11(4):18:1–18:??, November 2015. CODEN ????

ISSN 1553-3077 (print), 1553-3093 (electronic).

Kim:2012:RSS

[KAU12] Hyojun Kim, Nitin Agrawal, and Cristian Ungureanu. Revisiting storage for smartphones. *ACM Transactions on Storage*, 8(4):14:1–14:??, November 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Kwon:2013:HAF

[KCC13] Se Jin Kwon, Hyung-Ju Cho, and Tae-Sun Chung. Hybrid associative flash translation layer for the performance optimization of chip-level parallel flash memory. *ACM Transactions on Storage*, 9(4):13:1–13:??, November 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Khatib:2010:OMB

[KH10] Mohammed G. Khatib and Pieter H. Hartel. Optimizing MEMS-based storage devices for mobile battery-powered systems. *ACM Transactions on Storage*, 6(1):1:1–1:??, March 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Karlsson:2005:TPD

[KKZ05] Magnus Karlsson, Christos Karamanolis, and Xiaoyun Zhu. Triage: Performance differentiation for storage systems using adaptive control. *ACM Transactions on Storage*, 1(4):457–480, November 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Klonatos:2012:TOS

[KMM+12] Yannis Klonatos, Thanos Makatos, Manolis Marazakis, Michail D. Flouris, and Angelos Bilas. Transparent online storage compression at the block-level. *ACM Transactions on Storage*, 8(2):5:1–5:??, May 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Kang:2006:AVA

[KR06] Sukwoo Kang and A. L. Narasimha Reddy. An approach to virtual allocation in storage systems. *ACM Transactions on Storage*, 2(4):371–399, November 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Koller:2010:DUC

[KR10] Ricardo Koller and Raju Rangaswami. I/O Deduplication: Utilizing content similarity to improve I/O performance. *ACM Transactions on Storage*, 6(3):13:1–13:??, September 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Kim:2014:EPC

[KSDC14] Hyojun Kim, Sangeetha Seshadri, Clement L. Dickey, and Lawrence Chiu. Evaluating

phase change memory for enterprise storage systems: a study of caching and tiering approaches. *ACM Transactions on Storage*, 10(4):15:1–15:??, October 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Kim:2007:ZR

[KZZ07] Seon Ho Kim, Hong Zhu, and Roger Zimmermann. Zoned-RAID. *ACM Transactions on Storage*, 3(1):??, March 2007. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Lu:2014:SLF

[LADADL14] Lanyue Lu, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Shan Lu. A study of Linux file system evolution. *ACM Transactions on Storage*, 10(1):3:1–3:??, January 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Lee:2014:CSH

[LB14] Eunji Lee and Hyokyung Bahn. Caching strategies for high-performance storage media. *ACM Transactions on Storage*, 10(3):11:1–11:??, July 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Lee:2014:UBC

[LBN14] Eunji Lee, Hyokyung Bahn, and Sam H. Noh. A unified buffer cache architecture that subsumes journaling functionality via nonvolatile memory. *ACM Transactions on Storage*, 10(1):1:1–1:??, January 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Luo:2012:ESI

[LBOX12] Jianqiang Luo, Kevin D. Bowers, Alina Oprea, and Lihao Xu. Efficient software implementations of large finite fields GF(2^n) for secure storage applications. *ACM Transactions on Storage*, 8(1):2:1–2:??, February 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Li:2015:TOA

[LCMZ15] Zhichao Li, Ming Chen, Amanpreet Mukker, and Erez Zadok. On the trade-offs among performance, energy, and endurance in a versatile hybrid drive. *ACM Transactions on Storage*, 11(3):13:1–13:??, July 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Li:2005:MBC

[LCZ05] Zhenmin Li, Zhifeng Chen, and Yuanyuan Zhou. Mining block correlations to improve storage performance. *ACM Transactions on Storage*, 1(2): 213–245, May 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Li:2014:SCG

[LL14] Mingqiang Li and Patrick P. C. Lee. STAIR codes: a general family of erasure codes for tolerating device and sector failures. *ACM Transactions on Storage*, 10(4):14:1–14:??, October 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Li:2005:PDE

[LLZA05] Xiaodong Li, Zhenmin Li, Yuanyuan Zhou, and Sarita Adve. Performance directed energy management for main memory and disks. *ACM Transactions on Storage*, 1(3): 346–380, August 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Long:2012:EN

[Lon12] Darrell Long. Editorial note. *ACM Transactions on Storage*, 8(4):11:1–11:??, November 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Luo:2012:GXC

[LS12] Xianghong Luo and Jiwu Shu. Generalized X-code: an efficient RAID-6 code for arbitrary size of disk array. *ACM Transactions on Storage*, 8(3): 10:1–10:??, September 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Lu:2016:BPE

[LSS16] Youyou Lu, Jiwu Shu, and Long Sun. Blurred persistence: Efficient transactions in persistent memory. *ACM Transactions on Storage*, 12(1):3:1–3:??, February 2016. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Li:2009:GCS

[LSZ09] Mingqiang Li, Jiwu Shu, and Weimin Zheng. GRID codes: Strip-based erasure codes with high fault tolerance for storage systems. *ACM Transactions on Storage*, 4(4):15:1–15:??, January 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Li:2015:EHI

[LXNL15] Yan-Kit Li, Min Xu, Chun-Ho Ng, and Patrick P. C. Lee. Efficient hybrid inline and out-of-line deduplication for backup storage. *ACM Transactions on Storage*, 11(1):2:1–2:??, February 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Lin:2006:EID

[LZYK+06] Song Lin, Demetrios Zeinalipour-Yazti, Vana Kalogeraki, Dimitrios Gunopulos, and Walid A. Najjar. Efficient indexing data structures for flash-based sensor devices. *ACM Transactions on Storage*, 2(4):468–503, November 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Meyer:2012:SPD

[MB12] Dutch T. Meyer and William J. Bolosky. A study of practical deduplication. *ACM Transactions on Storage*, 7(4):14:1–14:??, January 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Ma:2014:FFF

[MDAD+14] Ao Ma, Chris Dragga, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Marshall Kirk McKusick. Ffsck: The fast file-system checker. *ACM Transactions on Storage*, 10(1):2:1–2:??, January 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Miranda:2014:RSE

[MEK+14] Alberto Miranda, Sascha Effert, Yangwook Kang, Ethan L. Miller, Ivan Popov, Andre Brinkmann, Tom Friedetzky, and Toni Cortes. Random slicing: Efficient and scalable data placement for large-scale storage systems. *ACM Transactions on Storage*, 10(3):9:1–9:??, July 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Miao:2015:ISS

[MHL+15] Youshan Miao, Wentao Han, Kaiwei Li, Ming Wu, Fan Yang, Lidong Zhou, Vijayan Prabhakaran, Enhong Chen, and Wenguang Chen. ImmortalGraph: a system for storage and analysis of temporal graphs. *ACM Transactions on Storage*, 11(3):14:1–14:??, July 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Mao:2012:HHP

[MJW+12] Bo Mao, Hong Jiang, Suzhen Wu, Lei Tian, Dan Feng, Jianxi Chen, and Lingfang Zeng. HPDA: a hybrid parity-based disk array for enhanced performance and reliability. *ACM Transactions on Storage*, 8(1):4:1–4:??, February 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Mao:2014:RPO

[MJW+14] Bo Mao, Hong Jiang, Suzhen Wu, Yinjin Fu, and Lei Tian. Read-performance optimization for deduplication-based storage systems in the cloud. *ACM Transactions on Storage*, 10(2):6:1–6:??, March 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Memik:2006:MTE

[MKLC06] Gokhan Memik, Mahmut T. Kandemir, Wei-Keng Liao, and Alok Choudhary. Multicollective I/O: A technique for exploiting inter-file access patterns. *ACM Transactions on Storage*, 2(3):349–369, August 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

MacCormick:2009:KNA

[MMR+09] John MacCormick, Nicholas Murphy, Venugopalan Ramasubramanian, Udi Wieder, Junfeng Yang, and Lidong Zhou. Kinesis: A new approach to replica placement in distributed storage systems. *ACM Transactions on Storage*, 4(4):11:1–11:??, January 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Mykletun:2006:AIO

[MNT06] Einar Mykletun, Maithili Narasimha, and Gene Tsudik. Authentication and integrity in outsourced databases. *ACM Transactions on Storage*, 2(2): 107–138, May 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Manzanares:2011:PBP

[MQRY11] Adam Manzanares, Xiao Qin, Xiaojun Ruan, and Shu Yin. PRE-BUD: Prefetching for energy-efficient parallel I/O systems with buffer disks. *ACM Transactions on Storage*, 7(1):3:1–3:??, June 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Muniswamy-Reddy:2009:CBV

[MRH09] Kiran-Kumar Muniswamy-Reddy and David A. Holland. Causality-based versioning. *ACM Transactions on Storage*, 5(4):13:1–13:??, December 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Mi:2009:EMI

[MRZ+09] Ningfang Mi, Alma Riska, Qi Zhang, Evgenia Smirni, and Erik Riedel. Efficient management of idleness in storage systems. *ACM Transactions on Storage*, 5(2):4:1–4:??, June 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Ma:2009:NAS

[MT09] Di Ma and Gene Tsudik. A new approach to secure logging. *ACM Transactions on Storage*, 5(1):2:1–2:??, March 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Ma:2015:RCM

[MTD+15] Ao Ma, Rachel Traylor, Fred Douglis, Mark Chamness, Guanlin Lu, Darren Sawyer, Surendar Chandra, and Windsor Hsu. RAIDShield: Characterizing, monitoring, and proactively protecting against disk failures. *ACM Transactions on Storage*, 11(4):17:1–17:??, November 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Matthews:2008:ITM

[MTH+08] Jeanna Matthews, Sanjeev Trika, Debra Hensgen, Rick Coulson, and Knut Grimsrud.

Intel(R) turbo memory: Nonvolatile disk caches in the storage hierarchy of mainstream computer systems. *ACM Transactions on Storage*, 4(2): 4:1–4:??, May 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Maccormick:2008:NPR

[MTJ+08] John Maccormick, Chandramohan A. Thekkath, Marcus Jager, Kristof Roomp, Lidong Zhou, and Ryan Peterson. Niobe: A practical replication protocol. *ACM Transactions on Storage*, 3(4):1:1–1:??, February 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Natanzon:2013:DSA

[NB13] Assaf Natanzon and Eitan Bachmat. Dynamic synchronous/asynchronous replication. *ACM Transactions on Storage*, 9(3):8:1–8:??, August 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Narayanan:2008:WLP

[NDR08] Dushyanth Narayanan, Austin Donnelly, and Antony Rowstron. Write off-loading: Practical power management for enterprise storage. *ACM Transactions on Storage*, 4(3): 10:1–10:??, November 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Nijim:2006:MIS

[NQX06] Mais Nijim, Xiao Qin, and Tao Xie. Modeling and improving security of a local disk system for write-intensive workloads. *ACM Transactions on Storage*, 2(4):400–423, November 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Peterson:2005:ETS

[PB05] Zachary Peterson and Randal Burns. Ext3cow: a time-shifting file system for regulatory compliance. *ACM Transactions on Storage*, 1(2): 190–212, May 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic). URL `http://hssl.cs.jhu.edu/~zachary/papers/peterson-tos05.pdf`.

Plank:2014:SDS

[PB14] James S. Plank and Mario Blaum. Sector-disk (SD) erasure codes for mixed failure modes in RAID systems. *ACM Transactions on Storage*, 10(1):4:1–4:??, January 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Plank:2011:MDR

[PBV11] James S. Plank, Adam L. Buchsbaum, and Bradley T. Vander Zanden. Minimum density RAID-6 codes. *ACM Transactions on Storage*, 6(4): 16:1–16:??, May 2011. CO-

DEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Qin:2009:DLB

[QJM+09] Xiao Qin, Hong Jiang, Adam Manzanares, Xiaojun Ruan, and Shu Yin. Dynamic load balancing for I/O-intensive applications on clusters. *ACM Transactions on Storage*, 5(3): 9:1–9:??, November 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Rajan:2005:E

[Raj05] Sreeranga P. Rajan. Editorial. *ACM Transactions on Storage*, 1(1):1–2, February 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Rodeh:2013:BLB

[RBM13] Ohad Rodeh, Josef Bacik, and Chris Mason. BTRFS: The Linux B-tree filesystem. *ACM Transactions on Storage*, 9(3): 9:1–9:32, August 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Rangaswami:2007:BMB

[RDCS07] Raju Rangaswami, Zoran Dimitrijević, Edward Chang, and Klaus Schauser. Building MEMS-based storage systems for streaming media. *ACM Transactions on Storage*, 3(2): 6:1–6:??, June 2007. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Rodeh:2015:VBI

[RHC15] Ohad Rodeh, Haim Helman, and David Chambliss. Visualizing block IO workloads. *ACM Transactions on Storage*, 11(2):6:1–6:??, March 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Rodeh:2008:BTS

[Rod08] Ohad Rodeh. B-trees, shadowing, and clones. *ACM Transactions on Storage*, 3(4):2:1–2:??, February 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Schroeder:2010:ULS

[SDG10] Bianca Schroeder, Sotirios Damouras, and Phillipa Gill. Understanding latent sector errors and how to protect against them. *ACM Transactions on Storage*, 6(3):9:1–9:??, September 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Schroeder:2007:UDF

[SG07] Bianca Schroeder and Garth A. Gibson. Understanding disk failure rates: What does an MTTF of 1,000,000 hours mean to you? *ACM Transactions on Storage*, 3(3):8:1–8:??, October 2007. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Storer:2009:PSR

[SGMV09] Mark W. Storer, Kevin M. Greenan, Ethan L. Miller, and Kaladhar Voruganti. POTSHARDS — a secure, recoverable, long-term archival storage system. *ACM Transactions on Storage*, 5(2):5:1–5:??, June 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Shilane:2012:WOR

[SHWH12] Philip Shilane, Mark Huang, Grant Wallace, and Windsor Hsu. WAN-optimized replication of backup datasets using stream-informed delta compression. *ACM Transactions on Storage*, 8(4):13:1–13:??, November 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Sivathanu:2005:ISS

[SPADAD05] Muthian Sivathanu, Vijayan Prabhakaran, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Improving storage system availability with D-GRAID. *ACM Transactions on Storage*, 1(2):133–170, May 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Shim:2011:HFT

[SPP11] Gyudong Shim, Youngwoo Park, and Kyu Ho Park. A hybrid flash translation layer with adaptive merge for SSDs. *ACM Transactions on Storage*, 6(4):15:1–15:??, May 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Saxena:2014:DPS

[SS14] Mohit Saxena and Michael M. Swift. Design and prototype of a solid-state cache. *ACM Transactions on Storage*, 10 (3):10:1–10:??, July 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Sundararaman:2010:MOS

[SSR+10] Swaminathan Sundararaman, Sriram Subramanian, Abhishek Rajimwale, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Michael M. Swift. Membrane: Operating system support for restartable file systems. *ACM Transactions on Storage*, 6(3):11:1–11:??, September 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Sankar:2013:DSE

[SSVG13] Sriram Sankar, Mark Shaw, Kushagra Vaid, and Sudhanva Gurumurthi. Datacenter scale evaluation of the impact of temperature on hard disk drive failures. *ACM Transactions on Storage*, 9(2):6:1–6:24, July 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Sun:2014:LDL

[SSWC14] Zhiwei Sun, Anthony Skjellum, Lee Ward, and Matthew L. Curry. A lightweight data location service for nondeterministic exascale storage systems. *ACM Transactions on Storage*, 10(3):12:1–12:??, July 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Sugahara:2006:SMB

[ST06] Satoshi Sugahara and Masaaki Tanaka. Spin MOSFETs as a basis for spintronics. *ACM Transactions on Storage*, 2(2): 197–219, May 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Schroeder:2014:ISI

[ST14] Bianca Schroeder and Eno Thereska. Introduction to the special issue on USENIX FAST 2014. *ACM Transactions on Storage*, 10(4):13:1–13:??, October 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Sehgal:2010:OEP

[STZ10] Priya Sehgal, Vasily Tarasov, and Erez Zadok. Optimizing energy and performance for server-class file system workloads. *ACM Transactions on Storage*, 6(3):10:1–10:??, September 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Seltzer:2009:ISI

[SW09] Margo Seltzer and Ric Wheeler. Introduction to special issue FAST 2009. *ACM Transactions on Storage*, 5(4):11:1–11:??, December 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Shin:2011:RBI

[SYK+11] Dong In Shin, Young Jin Yu, Hyeong S. Kim, Hyeonsang Eom, and Heon Young Yeom. Request bridging and interleaving: Improving the performance of small synchronous updates under seek-optimizing disk subsystems. *ACM Transactions on Storage*, 7(2):4:1–4:??, July 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Seo:2005:EDR

[SZ05] Beomjoo Seo and Roger Zimmermann. Efficient disk replacement and data migration algorithms for large disk subsystems. *ACM Transactions on Storage*, 1(3):316–345, August 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Schindler:2015:ISI

[SZ15] Jiri Schindler and Erez Zadok. Introduction to the special issue on USENIX FAST 2015. *ACM Transactions on Storage*, 11(4):15:1–15:??, November 2015. CODEN ???? ISSN

1553-3077 (print), 1553-3093 (electronic).

Sundararaman:2012:MCC

[SZS+12] Swaminathan Sundararaman, Yupu Zhang, Sriram Subramanian, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Making the common case the only case with anticipatory memory allocation. *ACM Transactions on Storage*, 7(4):13:1–13:??, January 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Thomasian:2009:HRR

[TB09] Alexander Thomasian and Mario Blaum. Higher reliability redundant disk arrays: Organization, operation, and coding. *ACM Transactions on Storage*, 5(3):7:1–7:??, November 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Tian:2011:OAU

[TCJ+11] Lei Tian, Qiang Cao, Hong Jiang, Dan Feng, Changsheng Xie, and Qin Xin. Online availability upgrades for parity-based RAIDs through supplementary parity augmentations. *ACM Transactions on Storage*, 6(4):17:1–17:??, May 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Tran:2012:ECB

[TCL12] Nguyen Tran, Frank Chiang, and Jinyang Li. Efficient cooperative backup with decentralized trust management. *ACM Transactions on Storage*, 8(3):8:1–8:??, September 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Tran:2008:NAD

[THTT08] Dinh Nguyen Tran, Phung Chinh Huynh, Y. C. Tay, and Anthony K. H. Tung. A new approach to dynamic self-tuning of database buffers. *ACM Transactions on Storage*, 4(1):3:1–3:??, May 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Tsafrir:2008:PSF

[THWD08] Dan Tsafrir, Tomer Hertz, David Wagner, and Dilma Da Silva. Portably solving file races with hardness amplification. *ACM Transactions on Storage*, 4(3):9:1–9:??, November 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Tosun:2009:DCS

[Tos09] Ali Şaman Tosun. Divide-and-conquer scheme for strictly optimal retrieval of range queries. *ACM Transactions on Storage*, 5(3):8:1–8:??, November 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Tomazic:2011:FFE

[TPM+11] Saso Tomazic, Vesna Pavlovic, Jasna Milovanovic, Jaka Sodnik, Anton Kos, Sara Stancin, and Veljko Milutinovic. Fast file existence checking in archiving systems. *ACM Transactions on Storage*, 7(1): 2:1–2:??, June 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Trifonov:2015:LCI

[Tri15] P. Trifonov. Low-complexity implementation of RAID based on Reed–Solomon codes. *ACM Transactions on Storage*, 11(1):1:1–1:??, February 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Traeger:2008:NYS

[TZJW08] Avishay Traeger, Erez Zadok, Nikolai Joukov, and Charles P. Wright. A nine year study of file system and storage benchmarking. *ACM Transactions on Storage*, 4(2):5:1–5:??, May 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Veeraraghavan:2010:QRF

[VFNN10] Kaushik Veeraraghavan, Jason Flinn, Edmund B. Nightingale, and Brian Noble. quFiles: The right file at the right time. *ACM Transactions on Storage*, 6(3):12:1–12:??, September 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Verma:2008:UBU

[VJG08] Akshat Verma, Rohit Jain, and Sugata Ghosal. A utility-based unified disk scheduling framework for shared mixed-media services. *ACM Transactions on Storage*, 3(4):4:1–4:??, February 2008. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Vazhkudai:2006:CCD

[VMF+06] Sudharshan S. Vazhkudai, Xiaosong Ma, Vincent W. Freeh, Jonathan W. Strickland, Nandan Tammineedi, Tyler Simon, and Stephen L. Scott. Constructing collaborative desktop storage caches for large scientific datasets. *ACM Transactions on Storage*, 2(3): 221–254, August 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Vrable:2009:CFB

[VSV09] Michael Vrable, Stefan Savage, and Geoffrey M. Voelker. Cumulus: Filesystem backup to the cloud. *ACM Transactions on Storage*, 5(4):14:1–14:??, December 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Wu:2005:TRL

[WB05] Changxun Wu and Randal Burns. Tunable randomization for load management in shared-disk clusters. *ACM*

Transactions on Storage, 1(1): 108–131, February 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Wei:2015:AFS

[WCC15] Qingsong Wei, Jianxi Chen, and Cheng Chen. Accelerating file system metadata access with byte-addressable nonvolatile memory. *ACM Transactions on Storage*, 11 (3):12:1–12:??, July 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Won:2006:ISC

[WCR+06] Youjip Won, Hyungkyu Chang, Jaemin Ryu, Yongdai Kim, and Junseok Shim. Intelligent storage: Cross-layer optimization for soft real-time workload. *ACM Transactions on Storage*, 2(3):255–282, August 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Wei:2015:ZMZ

[WCXY15] Qingsong Wei, Cheng Chen, Mingdi Xue, and Jun Yang. Z-MAP: a zone-based flash translation layer with workload classification for solid-state drive. *ACM Transactions on Storage*, 11(1):4:1–4:??, February 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Wright:2006:VUS

[WDG+06] Charles P. Wright, Jay Dave, Puja Gupta, Harikesavan Krishnan, David P. Quigley, Erez Zadok, and Mohammad Nayyer Zubair. Versatility and Unix semantics in namespace unification. *ACM Transactions on Storage*, 2(1): 74–105, February 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Wu:2015:DSF

[WH15] Chin-Hsien Wu and Kuo-Yi Huang. Data sorting in flash memory. *ACM Transactions on Storage*, 11(2):7:1–7:??, March 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Wu:2012:AWB

[WHE12] Guanying Wu, Xubin He, and Ben Eckart. An adaptive write buffer management scheme for flash-based SSDs. *ACM Transactions on Storage*, 8(1):1:1–1:??, February 2012. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Wu:2006:DEI

[WKC06] Chin-Hsien Wu, Tei-Wei Kuo, and Li-Pin Chang. The design of efficient initialization and crash recovery for log-based file systems over flash memory. *ACM Transactions on Storage*, 2(4):449–467, November 2006. CODEN ???? ISSN

1553-3077 (print), 1553-3093 (electronic).

Wang:2006:CFS

[WKRP06] An-I Andy Wang, Geoff Kuenning, Peter Reiher, and Gerald Popek. The *conquest* file system: Better performance through a disk/persistent-RAM hybrid design. *ACM Transactions on Storage*, 2(3): 309–348, August 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Wildani:2016:CWG

[WM16] Avani Wildani and Ethan L. Miller. Can we group storage? Statistical techniques to identify predictive groupings in storage system accesses. *ACM Transactions on Storage*, 12(2):7:1–7:??, February 2016. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Weddle:2007:PGS

[WOQ+07] Charles Weddle, Mathew Oldham, Jin Qian, An-I Andy Wang, Peter Reiher, and Geoff Kuenning. PARAID: A gear-shifting power-aware RAID. *ACM Transactions on Storage*, 3(3):13:1–13:??, October 2007. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Wu:2013:SFS

[WQR13] Xiaojian Wu, Sheng Qiu, and A. L. Narasimha Reddy. SCMFS: a file system for storage class memory and its extensions. *ACM Transactions on Storage*, 9(3):7:1–7:??, August 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Wright:2007:EAS

[WSSZ07] Charles P. Wright, Richard Spillane, Gopalan Sivathanu, and Erez Zadok. Extending ACID semantics to the file system. *ACM Transactions on Storage*, 3(2):4:1–4:??, June 2007. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Wang:2010:SSO

[WSZ+10] Yang Wang, Jiwu Shu, Guangyan Zhang, Wei Xue, and Weimin Zheng. SOPA: Selecting the optimal caching policy adaptively. *ACM Transactions on Storage*, 6(2): 7:1–7:??, July 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Xu:2014:APE

[XCK+14] Lianghong Xu, James Cipar, Elie Krevat, Alexey Tumanov, Nitin Gupta, Michael A. Kozuch, and Gregory R. Ganger. Agility and performance in elastic distributed storage. *ACM Transactions on Storage*, 10(4):16:1–16:??, October 2014. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Xie:2013:EHA

[XMRF+13] Yulai Xie, Kiran-Kumar Muniswamy-Reddy, Dan Feng, Yan Li, and Darrell D. E. Long. Evaluation of a hybrid approach for efficient provenance storage. *ACM Transactions on Storage*, 9(4):14:1–14:??, November 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Xie:2009:FAS

[XS09] Tao Xie and Yao Sun. A file assignment strategy independent of workload characteristic assumptions. *ACM Transactions on Storage*, 5(3):10:1–10:??, November 2009. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Xiang:2011:HAF

[XXL+11] Liping Xiang, Yinlong Xu, John C. S. Lui, Qian Chang, Yubiao Pan, and Runhui Li. A hybrid approach to failed disk recovery using RAID-6 codes: Algorithms and performance evaluation. *ACM Transactions on Storage*, 7(3):11:1–11:??, October 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Yumerefendi:2007:SAN

[YC07] Aydan R. Yumerefendi and Jeffrey S. Chase. Strong accountability for network storage. *ACM Transactions on Storage*, 3(3):11:1–11:??, October 2007. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

You:2013:USL

[YHJ13] Gae-Won You, Seung-Won Hwang, and Navendu Jain. Ursa: Scalable load and power management in cloud storage systems. *ACM Transactions on Storage*, 9(1):1:1–1:??, March 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

You:2011:PFE

[YPLG11] Lawrence L. You, Kristal T. Pollack, Darrell D. E. Long, and K. Gopinath. PRESIDIO: A framework for efficient archival data storage. *ACM Transactions on Storage*, 7(2):6:1–6:??, July 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Yu:2010:NVS

[YSEY10] Young Jin Yu, Dong In Shin, Hyeonsang Eom, and Heon Young Yeom. NCQ vs. I/O scheduler: Preventing unexpected misbehaviors. *ACM Transactions on Storage*, 6(1):2:1–2:??, March 2010. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Yu:2005:CAR

[YV05] Haifeng Yu and Amin Vahdat. Consistent and automatic

replica regeneration. *ACM Transactions on Storage*, 1(1): 3–37, February 2005. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Zhang:2016:EDP

[ZB16] Yihua Zhang and Marina Blanton. Efficient dynamic provable possession of remote data via update trees. *ACM Transactions on Storage*, 12 (2):9:1–9:??, February 2016. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Zadok:2006:IFS

[ZIJ+06] Erez Zadok, Rakesh Iyer, Nikolai Joukov, Gopalan Sivathanu, and Charles P. Wright. On incremental file system development. *ACM Transactions on Storage*, 2(2): 161–196, May 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Zhang:2015:FFC

[ZJQ+15] Ji Zhang, Xunfei Jiang, Xiao Qin, Wei-Shinn Ku, and Mohammed I. Alghamdi. Frog: a framework for context-based file systems. *ACM Transactions on Storage*, 11(3):11:1–11:??, July 2015. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Zhang:2006:SPV

[ZSW+06] Jianyong Zhang, Anand Sivasubramaniam, Qian Wang, Alma Riska, and Erik Riedel. Storage performance virtualization via throughput and latency control. *ACM Transactions on Storage*, 2(3):283–308, August 2006. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Zhang:2007:SEA

[ZSXZ07] Guangyan Zhang, Jiwu Shu, Wei Xue, and Weimin Zheng. SLAS: An efficient approach to scaling round-robin striped volumes. *ACM Transactions on Storage*, 3(1):??, March 2007. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Zhang:2011:YCY

[ZXJ11] Xuechen Zhang, Yuehai Xu, and Song Jiang. YouChoose: Choosing your storage device as a performance interface to consolidated I/O service. *ACM Transactions on Storage*, 7(3):9:1–9:??, October 2011. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).

Zhang:2013:DEN

[ZZL13] Guangyan Zhang, Weimin Zheng, and Keqin Li. Design and evaluation of a new approach to RAID-0 scaling. *ACM Transactions on Storage*, 9(4):11:1–11:??, November 2013. CODEN ???? ISSN 1553-3077 (print), 1553-3093 (electronic).