

FSL Publications

Books:

#	Title (click for html version)	Formats	Published In	Date	Comments
1	Linux NFS and Automounter Administration	BibTeX	Sybex	May 2001	See Book home page

Conference and Workshop Papers:

#	Title (click for html version)	Formats	Published In	Date	Comments
1	A Machine Learning Framework to Improve Storage System Performance	PDF BibTeX	13th ACM Workshop on Hot Topics in Storage (HotStorage '21)	Jul 2021	
2	Model Checking Support for File System Development	PDF BibTeX	13th ACM Workshop on Hot Topics in Storage (HotStorage '21)	Jul 2021	
3	CNSBench: A Cloud Native Storage Benchmark Native Storage	PDF BibTeX	19th USENIX Conference on File and Storage Technologies (FAST 2021)	Feb 2021	
4	Desperately Seeking ... Optimal Multi-Tier Cache Configurations	PDF BibTeX	12th USENIX Workshop on Hot Topics in Storage (HotStorage '20)	Jul 2020	
5	The Case for Benchmarking Control Operations in Cloud Native Storage	PDF BibTeX	12th USENIX Workshop on Hot Topics in Storage (HotStorage '20)	Jul 2020	
6	Re-Animator: Versatile High-Fidelity Storage System Tracing and Replaying	PDF BibTeX	13th ACM International Systems and Storage Conference (SYSTOR '20)	Jun 2020	
7	Supporting Transactions for Bulk NFSv4 Compounds	PDF BibTeX	13th ACM International Systems and Storage Conference (SYSTOR '20)	Jun 2020	
8	Smart Aging: Utilizing Low-Cost, Non-wearable and Secure Sensing Technologies to Support the Health and Wellbeing of Community Dwelling Older Adults	BibTeX	Proceedings of the HIMSS 20 Preconference Session on Aging and Tech Forum: Addressing the Silver Tsunami	Mar 2020	
9	KMLib: Towards Machine Learning for Operating Systems	PDF BibTeX	On-Device Intelligence Workshop , co-located with the MLSys Conference	Mar 2020	Refereed abstract+poster
10	Carver: Finding Important Parameters for Storage System Tuning	PDF BibTeX	18th USENIX Conference on File and Storage Technologies (FAST 2020)	Feb 2020	
11	Distribution Fitting and Performance Modeling for Storage Traces	PDF BibTeX	27th IEEE International Symposium on the Modeling, Analysis, and Simulation of Computer and	Oct 2019	Won best paper award

			Telecommunication Systems (MASCOTS 2019)		
12	ICE: Interactive Configuration Explorer for High Dimensional Categorical Parameter Spaces	PDF BibTeX	IEEE Conference on Visual Analytics Science and Technology (VAST 2019)	Oct 2019	
13	Graphs Are Not Enough: Using Interactive Visual Analytics in Storage Research	PDF BibTeX	11th USENIX Workshop on Hot Topics in Storage (HotStorage '19)	Jul 2019	
14	Kurma: Secure Geo-Distributed Multi-Cloud Storage Gateways	PDF BibTeX	12th ACM International Systems and Storage Conference (SYSTOR '19)	Jun 2019	
15	<u>Towards Better Understanding of Black-box Auto-Tuning: A Comparative Analysis for Storage Systems</u>	PDF BibTeX	2018 USENIX Annual Technical Conference (ATC 2018)	Jul 2018	Data Set released as part of this paper.
16	Multi-Tier Caching	PDF BibTeX	U.S. Patent 9,959,279	May 2018	issued patent
17	POSIX is Dead! Long Live... errr... What Exactly?	PDF BibTeX	9th USENIX Workshop on Hot Topics in Storage (HotStorage '17)	Jul 2017	WACI track.
18	On the Performance Variation in Modern Storage Stacks	PDF BibTeX	15th USENIX Conference on File and Storage Technologies (FAST 2017)	Feb 2017	
19	To FUSE or Not to FUSE: Performance of User-Space File Systems	PDF BibTeX	15th USENIX Conference on File and Storage Technologies (FAST 2017)	Feb 2017	See sources related to paper
20	vNFS: Maximizing NFS Performance with Compounds and Vectorized I/O	PDF BibTeX	15th USENIX Conference on File and Storage Technologies (FAST 2017)	Feb 2017	Nominated for best paper award
21	SeMiNAS: A Secure Middleware for Wide-Area Network-Attached Storage	PDF BibTeX	ACM International Systems and Storage Conference (SYSTOR '16)	Jun 2016	
22	Multi-Tier Caching	PDF BibTeX	U.S. Patent 9,355,109	May 2016	issued patent
23	A Long-Term User-Centric Analysis of Deduplication Patterns	PDF BibTeX	32nd IEEE Conference on Mass Storage Systems and Technologies (MSST 2016)	May 2016	
24	Using Hints to Improve Inline Block-Layer Deduplication	PDF BibTeX	14th USENIX Conference on File and Storage Technologies (FAST 2016)	Feb 2016	
25	Parametric Optimization of Storage Systems	PDF BibTeX	7th USENIX Workshop in Hot Topics in Storage and File Systems (HotStorage 2015)	Jul 2015	
26	Terra Incognita: On the Practicality of User-Space File Systems	PDF BibTeX	7th USENIX Workshop in Hot Topics in Storage and File Systems (HotStorage 2015)	Jul 2015	
27	Newer Is Sometimes Better: An Evaluation of NFSv4.1	PDF BibTeX	International Conference on Measurement and Modeling of Computer Systems (SIGMETRICS 2015)	Jun 2015	

28	Linux NFSv4.1 Performance Under a Microscope	PDF BibTeX	LISA 2014	Nov 2014	Extended Abstract
29	Dmddup: Device-mapper Deduplication Target	PDF BibTeX	2014 Ottawa Linux Symposium	Jul 2014	
30	On the Importance of Evaluating Storage Systems' \$Costs	PDF BibTeX	6th USENIX Workshop in Hot Topics in Storage and File Systems (HotStorage 2014)	Jun 2014	
31	Improving I/O Performance using Virtual Disk Introspection	PDF BibTeX	5th USENIX Workshop in Hot Topics in Storage and File Systems (HotStorage 2013)	Jun 2013	
32	Building Workload-Independent Storage with VT-Trees	PDF BibTeX	11th USENIX Conference on File and Storage Technologies (FAST 2013)	Feb 2013	
33	Virtual Machine Workloads: The Case for New Benchmarks for NAS	PDF BibTeX	11th USENIX Conference on File and Storage Technologies (FAST 2013)	Feb 2013	
34	The Economics of Long-Term Digital Storage	PDF BibTeX	The Memory of the World in the Digital age: Digitization and Preservation , United Nations Educational, Scientific and Cultural Organization (UNESCO)	Sep 2012	
35	vATM: vSphere Adaptive Task Management	PDF BibTeX	7th International Workshop on Feedback Computing (FC'12)	Sep 2012	
36	Adaptive Runtime Verification	PDF BibTeX	3rd International Conference on Runtime Verification (RV 2012)	Sep 2012	
37	Don't Thrash: How to Cache Your Hash on Flash	PDF BibTeX	38th International Conference on Very Large Data Bases (VLDB '12)	Aug 2012	
38	Efficient I/O Scheduling with Accurately Estimated Disk Drive Latencies	PS PDF BibTeX	8th Annual Workshop on Operating Systems Platforms for Embedded Real-Time Applications (OSPRT 2012)	Jul 2012	
39	Generating Realistic Datasets for Deduplication Analysis	PS PDF BibTeX	2012 USENIX Annual Technical Conference (ATC 2012)	Jun 2012	
40	Multi-Tier Caching	PDF BibTeX	US Patent Application 13/159,039	Mar 2012	US Patent Application 13/159,039 publication
41	Extracting Flexible, Replayable Models from Large Block Traces	PS PDF BibTeX	Tenth USENIX Conference on File and Storage Technologies (FAST 2012)	Feb 2012	
42	Power Consumption in Enterprise-Scale Backup Storage Systems	PDF BibTeX	Tenth USENIX Conference on File and Storage Technologies (FAST 2012)	Feb 2012	
43	An Efficient Multi-Tier Tablet Server Storage Architecture	PS PDF BibTeX	2nd ACM Symposium on Cloud Computing (SOCC'11)	Oct 2011	
44	Redflag: A framework for analysis of kernel-level	PS PDF BibTeX	11th International Conference on Algorithms and Architectures for	Oct 2011	

	concurrency		Parallel Processing (ICA3PP'11)		
45	Runtime verification with state estimation	PS PDF BibTeX	2nd International Conference on Runtime Verification (RV 2011)	Sep 2011	Won Best Paper Award
46	Systems and methods for detection of new malicious executables	PDF BibTeX	U.S. Patent 7,979,907B2	Jul 2011	issued patent
47	Model Discovery for Energy-Aware Computing Systems: An Experimental Evaluation	PS PDF BibTeX	1st Workshop on Energy Consumption and Reliability of Storage Systems (ERSS'11)	Jul 2011	
48	Don't Thrash: How to Cache your Hash on Flash	PS PDF BibTeX	3rd USENIX Workshop in Hot Topics in Storage and File Systems (HotStorage 2011)	Jun 2011	
49	Benchmarking File System Benchmarking: It *IS* Rocket Science	PS PDF BibTeX	13th USENIX Workshop in Hot Topics in Operating Systems (HotOS XIII)	May 2011	
50	On the Energy Consumption and Performance of Systems Software	PS PDF BibTeX	The 4th Israeli Experimental Systems Conference (ACM SYSTOR 2011)	May 2011	
51	Aspect-Oriented Instrumentation with GCC	PS PDF BibTeX	1st International Conference on Runtime Verification (RV 2010)	Nov 2010	Released as open source.
52	Exporting Kernel Page Caching for Efficient User-Level I/O	PS PDF BibTeX	26th IEEE Conference on Mass Storage Systems and Technologies (MSST 2010)	May 2010	
53	Towards a Secure and Efficient System for End-to-End Provenance	PS PDF BibTeX	2nd Workshop on the Theory and Practice of Provenance (TAPP 2010)	Feb 2010	
54	Evaluating Performance and Energy in File System Server Workloads	PS PDF BibTeX	Eighth USENIX Conference on File and Storage Technologies (FAST 2010)	Feb 2010	
55	The Visual Development of GCC Plug-ins	PS PDF BibTeX	Proceedings of the 2009 GCC Developers' Summit	Jun 2009	
56	DHIS: Discriminating Hierarchical Storage	PS PDF BibTeX	The 2nd Israeli Experimental Systems Conference (ACM SYSTOR 2009)	May 2009	
57	Energy and Performance Evaluation of Lossless File Data Compression on Server Systems	PS PDF BibTeX	The 2nd Israeli Experimental Systems Conference (ACM SYSTOR 2009)	May 2009	
58	Story Book: An Efficient Extensible Provenance Framework	PS PDF BibTeX	1st Workshop on the Theory and Practice of Provenance (TAPP 2009)	Feb 2009	
59	Enabling Transactional File Access via Lightweight Kernel Extensions	PS PDF BibTeX	Seventh USENIX Conference on File and Storage Technologies (FAST 2009)	Feb 2009	
60	System and methods for detection of new malicious executables	PDF BibTeX	U.S. Patent 7,487,544B2	Feb 2009	issued patent
61	Selective Versioning in a	PS PDF	17th USENIX Security Symposium (USENIX Security	Jul	

	Secure Disk System	BibTeX	'08)	2008	
62	DARC: Dynamic Analysis of Root Causes of Latency Distributions	PS PDF BibTeX	International Conference on Measurement and Modeling of Computer Systems (SIGMETRICS 2008)	Jun 2008	Source code and benchmark information.
63	GreenFS: Making Enterprise Computers Greener by Protecting Them Better	PS PDF BibTeX	Proceedings of the 3rd ACM SIGOPS/EuroSys European Conference on Computer Systems 2008 (EuroSys 2008)	Apr 2008	Won Best Paper Award
64	Software Monitoring with Bounded Overhead	BibTeX	NSF Next Generation Software Workshop (NSF NGS 2008) held in conjunction with the 22st IEEE International Parallel and Distributed Processing Symposium (IPDPS 2008)	Apr 2008	
65	PLEASE: Policy Language for the Easy Administration of SELinux	BibTeX	The Second Annual Computer Security Conference (CSC 2008)	Apr 2008	
66	The layers are coming, the layers are coming	BibTeX	First Linux Storage and Filesystem Workshop , held in conjunction with the sixth USENIX Conference on File and Storage Technologies (FAST 2008)	Feb 2008	
67	Exploiting Type-Awareness in a Self-Recovering Disk	PS PDF BibTeX	Third ACM International Workshop on Storage Security and Survivability (StorageSS 2007) held in conjunction with the 14th ACM CCS .	Oct 2007	
68	Round-Trip Privacy with NFSv4	PS PDF BibTeX	Third ACM International Workshop on Storage Security and Survivability (StorageSS 2007) held in conjunction with the 14th ACM CCS .	Oct 2007	Source code and benchmark information.
69	RAIF: Redundant Array of Independent Filesystems	PS PDF BibTeX	IEEE Conference on Mass Storage Systems and Technologies (MSST 2007)	Sep 2007	
70	Extending GCC with Modular GIMPLE Optimizations	PS PDF BibTeX	Proceedings of the 2007 GCC Developers' Summit	Jul 2007	
71	Rapid File System Development Using ptrace	PS PDF BibTeX	Proceedings of the Workshop on Experimental Computer Science (EXPCS 2007) , in conjunction with ACM FCRC	Jun 2007	
72	Kernel Support for Stackable File Systems	PS PDF BibTeX	2007 Ottawa Linux Symposium	Jun 2007	
73	AutoFS - An Automounting File System for FreeBSD 6.x	PS PDF BibTeX	Proceedings of the 2007 BSDCan Technical BSD Conference	May 2007	
74	Model Predictive Control for Memory Profiling	PS PDF BibTeX	NSF Next Generation Software Workshop (NSF NGS 2007) held in conjunction with the 21st IEEE International Parallel and	Mar 2007	

			Distributed Processing Symposium (IPDPS 2007)		
75	Making Linux Stacking-Friendly	BibTeX	First Linux Storage and Filesystem Workshop , held in conjunction with the fifth USENIX Conference on File and Storage Technologies (FAST 2007)	Feb 2007	
76	Operating System Profiling via Latency Analysis	PS PDF BibTeX	Seventh USENIX Symposium on Operating Systems Design and Implementation (OSDI 2006)	Nov 2006	
77	Type-Safe Disks	PS PDF BibTeX	Seventh USENIX Symposium on Operating Systems Design and Implementation (OSDI 2006)	Nov 2006	
78	Secure Deletion Myths, Issues, and Solutions	PS PDF BibTeX	Second ACM International Workshop on Storage Security and Survivability (StorageSS 2006) held in conjunction with the 13th ACM CCS .	Oct 2006	
79	Using Free Web Storage for Data Backup	PS PDF BibTeX	Second ACM International Workshop on Storage Security and Survivability (StorageSS 2006) held in conjunction with the 13th ACM CCS .	Oct 2006	
80	UnionFS: User- and Community-oriented Development of a Unification Filesystem	PS PDF BibTeX	2006 Ottawa Linux Symposium	Jul 2006	
81	Compiler-Assisted Software Verification Using Plug-Ins	PS PDF BibTeX	NSF Next Generation Software Workshop (NSF NGS 2006) held in conjunction with the 20th IEEE International Parallel and Distributed Processing Symposium (IPDPS 2006)	Apr 2006	
82	Runtime Verification for High-Confidence Systems: A Monte Carlo Approach	PS PDF BibTeX	Second Workshop on Model Based Testing (MBT 2006) held in conjunction with ETAPS 2006	Mar 2006	
83	Accurate and Efficient Replaying of File System Traces	PS PDF BibTeX	Fourth USENIX Conference on File and Storage Technologies (FAST 2005)	Dec 2005	
84	Adding Secure Deletion to Your Favorite File System	PS PDF BibTeX	Third IEEE Security In Storage Workshop (SISW 2005)	Dec 2005	
85	Stackable File Systems and Methods Thereof	PDF BibTeX	US Patent Application 10/862,212	Dec 2005	US Patent Application 10/862,212 publication
86	Ensuring Data Integrity in Storage: Techniques and Applications	PS PDF BibTeX	First ACM International Workshop on Storage Security and Survivability (StorageSS 2005) held in conjunction with the 12th ACM CCS .	Nov 2005	

87	Kefence: An Electric Fence for Kernel Buffers	PS PDF BibTeX	First ACM International Workshop on Storage Security and Survivability (StorageSS 2005) held in conjunction with the 12th ACM CCS .	Nov 2005	Won Best Short Paper Award.
88	Increasing Distributed Storage Survivability with a Stackable RAID-like File System	PS PDF BibTeX	First IEEE/ACM Workshop on Cluster Security , in conjunction with the Fifth IEEE/ACM International Symposium on Cluster Computing and the Grid (CCGrid 2005)	May 2005	Won Best Paper Award
89	Auto-pilot: A Platform for System Software Benchmarking	PS PDF BibTeX	Usenix Technical Conference, FREENIX Track	Apr 2005	
90	Efficient and Safe Execution of User-Level Code in the Kernel	PS PDF BibTeX	NSF Next Generation Software Workshop , in conjunction with IPDPS 2005	Apr 2005	
91	I3FS: An In-Kernel Integrity Checker and Intrusion Detection File System	PS PDF BibTeX	Usenix Large Installation Systems Administration Conference (LISA 18)	Nov 2004	
92	Avfs: An On-Access Anti-Virus File System	PS PDF BibTeX	13th USENIX Security Symposium (Security 2004)	Aug 2004	
93	A Versatile and User-Oriented Versioning File System	PS PDF BibTeX	Third USENIX Conference on File and Storage Technologies (FAST 2004)	Apr 2004	
94	Tracefs: A File System to Trace Them All	PS PDF BibTeX	Third USENIX Conference on File and Storage Technologies (FAST 2004)	Apr 2004	
95	Reducing Storage Management Costs via Informed User-Based Policies	PS PDF BibTeX	NASA/IEEE Conference on Mass Storage Systems and Technologies (MSST 2004)	Apr 2004	
96	Cryptographic File Systems Performance: What You Don't Know Can Hurt You	PS PDF BibTeX	2003 IEEE Security In Storage Workshop (SISW 2003)	Oct 2003	
97	NCryptfs: A Secure and Convenient Cryptographic File System	PS PDF BibTeX Slides	Usenix Technical Conference, General Track	Jun 2003	
98	Cosy: Develop in User-Land, Run in Kernel-Mode	PS PDF BibTeX	9th Workshop in Hot Topics in Operating Systems (HotOS IX)	May 2003	
99	High-Confidence Operating Systems	PS PDF BibTeX	Tenth ACM SIGOPS European Workshop	Sep 2002	
100	Enhancing NFS Cross-Administrative Domain Access	PS PDF BibTeX	Usenix Technical Conference, FREENIX Track	Jun 2002	
101	Overhauling Amd for the '00s: A Case Study of GNU Autotools	PS PDF BibTeX	Usenix Technical Conference, FREENIX Track	Jun 2002	
102	MEF, Malicious Email Filter--A UNIX Mail Filter That Detects Malicious Windows Executables	PS PDF BibTeX	Usenix Technical Conference, FREENIX Track	Jun 2001	Won Best Student Paper Award
103	Fast Indexing: Support for Size-Changing Algorithms in	PS PDF BibTeX	Usenix Technical Conference	Jun 2001	

	Stackable File System				
104	Data Mining Methods for Detection of New Malicious Executables	PS PDF BibTeX	IEEE Symposium on Security and Privacy	May 2001	
105	Toward Cost-Sensitive Modeling for Intrusion Detection and Response	PS PDF BibTeX	Workshop on Intrusion Detection and Prevention , held as part of ACM CCS 2000	Nov 2000	
106	FiST: A Language for Stackable File Systems	PS PDF BibTeX	Unix Technical Conference	Jun 2000	
107	Extending File Systems Using Stackable Templates	PS PDF BibTeX	Unix Technical Conference	Jun 1999	
108	A Stackable File System Interface For Linux	PS PDF BibTeX	LinuxExpo 99	May 1999	
109	HLFSD: Delivering Email to your \$HOME	PS PDF BibTeX	Unix Systems Administration (LISA VII) Conference	Nov 1993	
110	Discovery and Hot Replacement of Replicated Read-Only File Systems, with Application to Mobile Computing	PS PDF BibTeX	Unix Summer Conference	Jun 1992	

Journal and Magazine Articles:

#	Title (click for html version)	Formats	Published In	Date	Comments
1	Running Virtual PC (cPC) Meetings	PDF BibTeX	login: The USENIX Magazine (Summer 2020)	Jul 2020	
2	Analyzing the distribution fit for storage workload and Internet traffic traces	PDF BibTeX	Elsevier -- Performance Evaluation (PEVA)	Jun 2020	
3	Selected Results of the Workshop on Data Storage Research 2025	PDF BibTeX	login: The USENIX Magazine (Winter 2019)	Dec 2019	
4	Performance and resource utilization of fuse user-space file systems	PDF BibTeX	ACM Transactions on Storage (TOS)	May 2019	FUSE Article Online Appendices
5	Cluster and Single-Node Analysis of Long-Term Deduplication Patterns	PDF BibTeX	ACM Transactions on Storage (TOS)	May 2018	
6	vNFS: Maximizing NFS Performance with Compounds and Vectorized I/O	PDF BibTeX	ACM Transactions on Storage (TOS)	Sep 2017	
7	Filebench: A Flexible Framework for File System Benchmarking	BibTeX	login: The USENIX Magazine	Mar 2016	
8	On the Trade-Offs among Performance, Energy, and Endurance in a Versatile Hybrid Drive	PDF BibTeX	ACM Transactions on Storage (TOS)	Jul 2015	
9	Is NFSv4.1 Ready for Prime Time?	PDF BibTeX	login: The USENIX Magazine	Jun 2015	
10	Visual Correlation Analysis of Numerical and Categorical Data on the Correlation Map	PDF BibTeX	IEEE Transactions on Visualization and Computer Graphics (TVCG)	Feb 2015	
	InterAspect: Aspect-Oriented	PDF	Internation Journal on Formal	Sep	

11	Instrumentation with GCC	BibTeX	Methods in System Design	2012	
12	Don't Thrash: How to Cache Your Hash on Flash	PDF BibTeX	The Proceedings of the VLDB Endowment (PVLDB)	Aug 2012	
13	Software Monitoring with Controllable Overhead	PS PDF BibTeX	International Journal on Software Tools for Technology Transfer (STTT)	Dec 2010	
14	Optimizing Energy and Performance for Server-Class File System Workloads	BibTeX	ACM Transactions on Storage (TOS)	Sep 2010	
15	The Case for Specialized File Systems, or, Fighting File System Obesity	PDF BibTeX	login: The USENIX Magazine	Feb 2010	
16	Unifying Biological Image Formats with HDF5	BibTeX	Communications of the ACM	Oct 2009	
17	Notes on a Nine Year Study of File System and Storage Benchmarking	BibTeX	Byte and Switch	Jul 2009	
18	Findings from the First Annual Storage and File Systems Benchmarking Workshop	PDF BibTeX	login: The USENIX Magazine	Oct 2008	
19	A Nine Year Study of File System and Storage Benchmarking	PS PDF BibTeX	ACM Transactions on Storage (TOS)	May 2008	Online data appendix
20	Extending ACID Semantics to the File System	PS PDF BibTeX	ACM Transactions on Storage (TOS)	Jun 2007	
21	On Incremental File System Development	PS PDF BibTeX	ACM Transactions on Storage (TOS)	May 2006	
22	Versatility and Unix Semantics in Namespace Unification	PS PDF BibTeX	ACM Transactions on Storage (TOS)	Feb 2006	
23	Unionfs: Bringing File Systems Together	BibTeX	Linux Journal	Dec 2004	
24	Using the Amd Automounter	BibTeX	Linux Journal	Oct 2003	
25	Writing Stackable Filesystems	BibTeX	Linux Journal	May 2003	Software described in article
26	Toward Cost-Sensitive Modeling for Intrusion Detection and Response	PS PDF BibTeX	Journal of Computer Security	Jan 2002	Expanded version of CCS 2000 paper

Manuals:

#	Title (click for html version)	Formats	Published In	Date	Comments
1	The Auto-pilot Benchmarking Suite User Manual	PS PDF BibTeX		Jul 2005	See an all-in-one version.
2	Am-utils 6.1 (4.4 BSD Automounter Utilities) User Manual	PS PDF BibTeX		Aug 2003	See a frames version and an all-in-one version.

Technical Reports:

#	Title (click for html version)	Formats	Published In	Date	Comments
1	SpecNFS: A Challenge Dataset Towards Extracting Formal Models from Natural Language Specifications	BibTeX	Non-archival poster presentation in the Workshop on Natural Language Processing for Programming in the ACL 2021 conference"	Aug 2021	SpecNFS dataset
2	Accelerating Multi-Tier Cache Evaluations with Intelligent MRC Point Selection	PDF BibTeX	Stony Brook U. CS TechReport FSL-21-01	Jan 2021	Ph.D. Research Proficiency Exam (RPE)
3	Supporting Transactions for Bulk NFSv4 Compounds	PDF BibTeX	Stony Brook U. CS TechReport FSL-20-02	Dec 2020	Ph.D. Research Proficiency Exam (RPE)
4	CNSBench: A Cloud Native Storage Benchmark	PDF BibTeX	Stony Brook U. CS TechReport FSL-20-01	Dec 2020	Ph.D. Research Proficiency Exam (RPE)
5	Re-Animator: Versatile High-Fidelity System-Call Tracing and Replaying	PDF BibTeX	Stony Brook U. CS TechReport FSL-19-02	May 2019	Ph.D. Research Proficiency Exam (RPE)
6	Data Storage Research Vision 2025: Report on NSF Visioning Workshop	PDF BibTeX	ACM Digital Library	Feb 2019	Workshop report, held on May 30 to June 1, 2018.
7	A Practical Auto-Tuning Framework for Storage Systems	PDF BibTeX	Stony Brook U. CS TechReport FSL-19-01	Jan 2019	Ph.D. Dissertation Defense
8	A Practical, Real-Time Auto-Tuning Framework for Storage Systems	PDF BibTeX	Stony Brook U. CS TechReport FSL-18-01	Apr 2018	Ph.D. Dissertation Proposal
9	Kurma: Efficient and Secure Multi-Cloud Storage Gateways for Network-Attached Storage	PDF BibTeX	Stony Brook U. CS TechReport FSL-17-01	Apr 2017	Ph.D. Dissertation
10	To FUSE or not to FUSE? Analysis and Performance Characterization of User-Space File Systems	PDF BibTeX	Stony Brook U. CS TechReport FSL-16-02	Dec 2016	M.S. Thesis
11	Parametric Optimization of Storage Systems	PDF BibTeX	Stony Brook U. CS TechReport FSL-16-01	Jan 2016	Ph.D. Research Proficiency Exam (RPE)
12	Design and Implementation of an Open-Source Deduplication Platform for Research	PDF BibTeX	Stony Brook U. CS TechReport FSL-15-03	Dec 2015	Ph.D. Research Proficiency Exam (RPE)

13	KURMA: Geo-Distributed Secure Middlewares for Cloud-Backed Network Attached Storage	PDF BibTeX	Stony Brook U. CS TechReport FSL-15-02	Nov 2015	Ph.D. Dissertation Proposal
14	Finding the Right Balance: Security vs. Performance with Network Storage Systems	PDF BibTeX	Stony Brook U. CS TechReport FSL-15-01	May 2015	M.S. Thesis
15	Evaluation of Nilfs2 for Shingled Magnetic Recording (SMR) Disks	PDF BibTeX	Stony Brook U. CS TechReport FSL-14-03	Sep 2014	
16	Linux NFSv4.1 Performance Under a Microscope	PDF BibTeX	Stony Brook U. CS TechReport FSL-14-02	Aug 2014	
17	GreenDM: A Versatile Tiering Hybrid Drive for the Trade-Off Evaluation of Performance, Energy, and Endurance	PDF BibTeX	Stony Brook U. CS TechReport FSL-14-01	May 2014	Ph.D. Dissertation
18	Cpuidle from user space	PDF BibTeX	Stony Brook U. CS TechReport FSL-13-05	Dec 2013	
19	Multi-dimensional Workload Analysis and Synthesis for Modern Storage Systems	PDF BibTeX	Stony Brook U. CS TechReport FSL-13-04	Dec 2013	Ph.D. Dissertation
20	System-Aware Resource Scheduling for Performance, Energy, and Reliability in Tiered Storage Systems	BibTeX	Stony Brook U. CS TechReport FSL-13-03	May 2013	Ph.D. Dissertation Proposal
21	Multi-dimensional Workload Analysis and Synthesis for Modern Storage Systems	PDF BibTeX	Stony Brook U. CS TechReport FSL-13-02	Apr 2013	Ph.D. Dissertation Proposal
22	GreenDM: A Versatile Hybrid Drive for Energy and Performance	BibTeX	Stony Brook U. CS TechReport FSL-13-01	Apr 2013	Ph.D. Research Proficiency Exam (RPE)
23	Runtime Verification of Kernel-Level Concurrency Using Compiler-Based Instrumentation	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-12-05	Dec 2012	Ph.D. Dissertation
24	Unifying File Systems and Databases Efficiently	BibTeX	Stony Brook U. CS TechReport FSL-12-06	Sep 2012	
25	A Context Aware Block Layer: The Case for Block Layer Deduplication	PDF BibTeX	Stony Brook U. CS TechReport FSL-12-04	May 2012	M.S. Thesis
	From Tuples to Files: a				

26	Fast Transactional System Store and File System	PDF BibTeX	Stony Brook U. CS TechReport FSL-12-03	May 2012	M.S. Thesis
27	Efficient, Scalable, and Versatile Application and System Transaction Management for Direct Storage Layers	PDF BibTeX	Stony Brook U. CS TechReport FSL-12-02	Jan 2012	Ph.D. Dissertation
28	Runtime Verification of Kernel-Level Concurrency Using Compiler-Based Instrumentation	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-12-01	Jan 2012	Ph.D. Dissertation Proposal
29	Stopping Data Races Using Redflag	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-10-02	May 2010	M.S. Thesis
30	Optimizing Energy and Performance for Server-Class File System Workloads	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-10-01	May 2010	M.S. Thesis
31	Flexible Debugging with Controllable Overhead	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-09-01	Aug 2009	Ph.D. Thesis
32	SAMT Performace Proof	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-09-03	Jun 2009	
33	The Visual Development of GCC Plug-ins with GDE,	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-09-04	Apr 2009	M.S. Thesis
34	Energy and Performance Evaluation of Lossless File Data Compression on Computer Systems	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-09-02	Apr 2009	M.S. Thesis
35	Protecting Control Files With File System Transactions	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-08-05	Aug 2008	
36	Analyzing Root Causes of Latency Distributions	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-08-04	Jul 2008	Ph.D. Thesis Source code and benchmark information
37	Techniques for Visualizing Software Execution	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-08-03	Mar 2008	Ph.D. Research Proficiency Exam (RPE)
38	Remote Debugging with Controllable Overhead	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-08-02	Mar 2008	Ph.D. Thesis Proposal
39	End-to-End Abstractions for Application-Aware Storage	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-08-01	Mar 2008	Ph.D. Thesis
40	PLEASE: Policy Language for Easy Administration of SELinux	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-07-02	May 2007	M.S. Thesis
41	A Nine Year Study of File System and Storage Benchmarking	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-07-01	May 2007	Online data appendix

42	Versatile, Portable, and Efficient File System Profiling	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-06-05	Dec 2006	Ph.D. Thesis: an expanded version of our OSDI 2006 paper .
43	Extending ACID Semantics to the File System via ptrace	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-06-04	May 2006	Ph.D. Thesis
44	Latency as a Viable Metric for OS Profiling	BibTeX	Stony Brook U. CS TechReport FSL-06-03	Apr 2006	
45	Rapid File System Development Using ptrace	BibTeX	Stony Brook U. CS TechReport FSL-06-02	Jan 2006	
46	Extending ACID Semantics to the File System	BibTeX	Stony Brook U. CS TechReport FSL-06-01	Jan 2006	
47	A Versatile Persistent Caching Framework for File Systems	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-05-05	Dec 2005	
48	Benchmarking File System Benchmarks	BibTeX	Stony Brook U. CS TechReport FSL-05-04	Dec 2005	Kernel Config and Slowfs Source Code used in this paper. Presented as a FAST 2005 BOF session (where you can find PDFs of slide presentations).
49	Storage Virtualization with a Stackable File System	PDF BibTeX	Stony Brook U. CS TechReport FSL-05-03	Dec 2005	M.S. Thesis
50	Runtime Verification for High-Confidence OS Kernels: A Monte Carlo Approach	BibTeX	Stony Brook U. CS TechReport FSL-05-02	Nov 2005	
51	On the Role of Static Analysis in Operating System Checking and Runtime Verification	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-05-01	May 2005	Ph.D. Research Proficiency Exam (RPE)
52	File System Extensibility and Reliability Using an in-Kernel Database	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-04-06	Dec 2004	M.S. Thesis
53	Versatility and Unix Semantics in a Fan-Out Unification File System	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-04-01b	Oct 2004	
54	Versatile File System Tracing with Tracefs	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-04-05	Aug 2004	M.S. Thesis
55	Enhancing File System Integrity Through Checksums	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-04-04	May 2004	
56	NFS File Handle Security	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-04-03	May 2004	
57	Operating System Support for Extensible	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-04-02	May 2004	Ph.D. Research Proficiency Exam (RPE)

	Secure File Systems				
58	Versionfs: A Versatile and User-Oriented Versioning File System	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-03-03	Dec 2003	M.S. Thesis
59	Cryptographic File Systems Performance: What You Don't Know Can Hurt You	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-03-02	Aug 2003	Slightly expanded version of SISW'03 paper with same title.
60	A System for Improving Application Performance Through System Call Composition	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-03-03	Jun 2003	M.S. Thesis
61	Reducing Storage Management Costs via Informed User-Based Policies	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-03-01	Mar 2003	
62	Improving Application Performance Through System Call Composition	PS PDF BibTeX	Stony Brook U. CS TechReport FSL-02-01	Jun 2002	
63	The Design and Implementation of Elastic Quotas: A System for Flexible File System Management	PS PDF BibTeX	Columbia U. CS TechReport CUCS-014-02	Jun 2002	
64	FiST: A System for Stackable File System Code Generation	PS PDF BibTeX	Columbia University	May 2001	Ph.D. Dissertation
65	Performance of Size-Changing Algorithms in Stackable File Systems	PDF BibTeX	Columbia U. CS TechReport CUCS-023-00	Dec 2000	
66	Toward cost-sensitive modeling for intrusion detection	PDF BibTeX	Columbia U. CS TechReport CUCS-002-00	Feb 2000	
67	Stackable File Systems As a Security Tool	PS PDF BibTeX	Columbia U. CS TechReport CUCS-036-99	Dec 1999	
68	Usenetfs: A Stackable File System for Large Article Directories	PS PDF BibTeX	Columbia U. CS TechReport CUCS-022-98	Jul 1998	
69	Cryptfs: A Stackable Vnode Level Encryption File System	PS PDF BibTeX	Columbia U. CS TechReport CUCS-021-98	Jun 1998	This tech-report had been cited more than 15 times before the new version of the work was published -- NCryptfs .
70	Discovery and Hot Replacement of Replicated Read-Only File Systems, with Application to Mobile Computing	PS PDF BibTeX	Columbia University	Oct 1997	M.S. Thesis
	FiST: A File System	PS PDF		Apr	

71	Component Compiler	BibTeX	Columbia University	1997	Ph.D. Thesis Proposal
72	PGMAKE: A Portable Distributed Make System	PS PDF BibTeX	Columbia U. CS TechReport CUCS-035-94	Jul 1994	See PGmake home page

Works In Progress:

#	Title (click for html version)	Formats	Published In	Date	Comments
1	Fast Indexing: Support for Size-Changing Algorithms in Stackable File System	PS PDF BibTeX		Oct 2001	Expanded version of Usenix 2001 paper
