

# REMZI H. ARPACI-DUSSEAU

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## Research Interests

Storage and File Systems, Operating Systems, Parallel and Distributed Systems, Databases, Computer Architecture

## Education

Computer Science Division, University of California, Berkeley 1993–1999  
Ph.D., December 1999. *Performance Availability for Networks of Workstations*  
M.S., May 1996. *Communication Behavior of a Distributed Operating System*  
Advisor: David A. Patterson

Department of Electrical Engineering and Computer Science, University of Michigan, Ann Arbor 1989–1993  
B.S. in Computer Engineering, *Summa cum laude*

## Academic Experience

Professor, University of Wisconsin, Madison 2009–present  
Visiting Professor, EPFL, Lausanne Summer 2010  
Associate Professor, University of Wisconsin, Madison 2006–2009  
Assistant Professor, University of Wisconsin, Madison 2000–2006

## Memberships

IEEE, ACM, USENIX, Tau Beta Pi, Eta Kappa Nu

## Honors and Awards

SOSP '11 Best Paper Award 2011  
Carolyn Rosner Excellent Educator Award 2011  
SACM Student's Choice Professor of the Year 2011  
NetApp Faculty Fellowship 2011  
Division of University Housing "Honored Instructor" Award 2011  
FAST '11 Best Paper Award 2011  
SACM Student's Choice Professor of the Year 2010  
FAST '10 Best Paper Award 2010  
NetApp Faculty Fellowship 2009  
USENIX ATC '09 Best Paper Award 2009  
SACM Student's Choice Professor of the Year 2009  
FAST '09 Best Paper Award 2009  
FAST '08 Best Student Paper Award 2008  
DSN '05 "Fast Tracked" Paper 2005  
FAST '04 Best Student Paper Award 2004  
IBM Faculty Partner Award 2003  
Runner-up: SACM Student's Choice Professor of the Year 2003  
IBM Faculty Partner Award 2002  
Two papers chosen by IEEE Distributed Systems Online as "must-read storage papers" 2002

Runner-up: SACM Student's Choice Professor of the Year	2002
Runner-up: SACM Student's Choice Professor of the Year	2001
SACM Student's Choice Professor of the Year	2000
MinuteSort World Record	1997, 1998
Datamation World Record	1997, 1998, 2001-present
Intel Graduate Fellowship	1997

## Professional Activities

PC Member for OSDI '12	'12
PC Member for DSN '12	'12
PC Member for HotStorage '11	'11
PC Member for NSDI '11	'11
Program Chair for OSDI '10 (with Brad Chen)	'10
Steering Committee for FAST	'08, '09, '10, '11
NSF Workshop on Future Directions in Systems Research	'10
NSF Committee of Visitors (CISE CNS)	'09
PC member for USENIX '09	'09
PC member for FAST '09	'08
PC member for OSDI '08	'08
PC member for SPEED '08	'07
Program Chair for the Conference on File and Storage Technology (FAST '07) (with A. Arpaci-Dusseau)	'07
PC member for High Performance Distributed Computing (HPDC)	'06
NSF CSR Panel Member	'06
NSF Career Panel Member	'05
PC member for the ACM StorageSS Workshop	'05
PC member for the 6th IEEE/ACM International Workshop on Grid Computing	'05
PC member for High Performance Distributed Computing (HPDC)	'05
Thrust leader for the DS2 workshop on the future of Data Storage Devices and Disks	'04
Program Chair for the USENIX Annual Technical Conference (with A. Arpaci-Dusseau)	'04
Panel reviews for NSF CAREER awards (in storage systems)	'04
PC member for High Performance Distributed Computing (HPDC)	'04
PC member for poster submissions to the Symposium on Operating Systems Principles (SOSP)	'04
PC member for Very Large Databases (VLDB)	'04
Session Chair at the USENIX Annual Technical Conference	'03
PC member for the Eighth International Web Content Caching and Distribution Workshop (WCW)	'03
Chair of the USENIX FAST '03 Works-In-Progress Session (WIPS)	'03
PC member for High Performance Distributed Computing (HPDC)	'03
PC member for USENIX File and Storage Technologies (FAST)	'03
PC member for Next Generation Information Technologies and Systems (NGITS)	'02
PC member for Very Large Databases (VLDB)	'01

## Refereed Conference Publications

- [1] Tyler Harter, Chris Dragga, Michael Vaughn, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. A File is Not a File: Understanding the I/O Behavior of Apple Desktop Applications. In *Proceedings of the 23rd ACM Symposium on Operating Systems Principles (SOSP '11)*, Cascais, Portugal, October 2011.
- [2] Abhishek Rajimwale, Vijay Chidambaram, Deepak Ramamurthi, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Coerced Cache Eviction and Discreet-Mode Journaling: Dealing with Misbehaving Disks. In *Proceedings of the International Conference on Dependable Systems and Networks (DSN '11)*, Hong Kong, China, June 2011.
- [3] Swaminathan Sundararaman, Laxman Visampalli, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Refuse to Crash with Re-FUSE. In *Proceedings of the EuroSys Conference (EuroSys '11)*, Salzburg, Austria, April 2011.
- [4] 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. In *Proceedings of the 9th USENIX Symposium on File and Storage Technologies (FAST '11)*, San Jose, California, February 2011.
- [5] Nitin Agrawal, Leo Arulraj, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Emulating Goliath Storage Systems with David. In *Proceedings of the 9th USENIX Symposium on File and Storage Technologies (FAST '11)*, San Jose, California, February 2011.
- [6] Haryadi S. Gunawi, Thanh Do, Pallavi Joshi, Peter Alvaro, Joseph M. Hellerstein, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, Koushik Sen, and Dhruva Borthakur. FATE and DESTINI: A Framework for Cloud Recovery Testing. In *Proceedings of the 8th Symposium on Networked Systems Design and Implementation (NSDI '11)*, Boston, Massachusetts, April 2011.
- [7] 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. In *Proceedings of the 8th USENIX Symposium on File and Storage Technologies (FAST '10)*, San Jose, California, February 2010.
- [8] Yupu Zhang, Abhishek Rajimwale, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau. End-to-end Data Integrity for File Systems: A ZFS Case Study. In *Proceedings of the 8th USENIX Symposium on File and Storage Technologies (FAST '10)*, San Jose, California, February 2010.
- [9] John Bent, Remzi Arpaci-Dusseau, Andrea Arpaci-Dusseau, Miron Livny, and Timothy Denehy. Data-Driven Batch Scheduling. In *The Second International Workshop on Data-Aware Distributed Computing*, Munich, Germany, June 2009.
- [10] Lakshmi N. Bairavasundaram, Swaminathan Sundararaman, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Tolerating File-System Mistakes with EnvyFS. In *Proceedings of the USENIX Annual Technical Conference (USENIX '09)*, San Diego, California, June 2009.
- [11] Cindy Rubio-Gonzalez, Haryadi S. Gunawi, Ben Liblit, Remzi H. Arpaci-Dusseau, and Andrea C. Arpaci-Dusseau. Error Propagation Analysis for File Systems. In *Proceedings of the ACM SIGPLAN 2009 Conference on Programming Language Design and Implementation (PLDI '09)*, Dublin, Ireland, June 2009.
- [12] Nitin Agrawal, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Generating Realistic Impressions for File-System Benchmarking. In *Proceedings of the 7th USENIX Symposium on File and Storage Technologies (FAST '09)*, San Francisco, California, February 2009.
- [13] Ashok Anand, Sayandeep Sen, Andrew Krioukov, Florentina Popovici, Aditya Akella, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Suman Banerjee. Avoiding File System Micromanagement with Range Writes. In *Proceedings of the 8th Symposium on Operating Systems Design and Implementation (OSDI '08)*, San Diego, California, December 2008.

- [14] Haryadi S. Gunawi, Abhishek Rajimwale, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. SQCK: A Declarative File System Checker. In *Proceedings of the 8th Symposium on Operating Systems Design and Implementation (OSDI '08)*, San Diego, California, December 2008.
- [15] Andrew Krioukov, Lakshmi N. Bairavasundaram, Garth R. Goodson, Kiran Srinivasan, Randy Thelen, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Parity Lost and Parity Regained. In *Proceedings of the 6th USENIX Symposium on File and Storage Technologies (FAST '08)*, pages 127–141, San Jose, California, February 2008.
- [16] Lakshmi N. Bairavasundaram, Garth R. Goodson, Bianca Schroeder, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. An Analysis of Data Corruption in the Storage Stack. In *Proceedings of the 6th USENIX Symposium on File and Storage Technologies (FAST '08)*, pages 223–238, San Jose, California, February 2008.
- [17] Haryadi S. Gunawi, Cindy Rubio-Gonzalez, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Ben Liblit. EIO: Error Handling is Occasionally Correct. In *Proceedings of the 6th USENIX Symposium on File and Storage Technologies (FAST '08)*, pages 207–222, San Jose, California, February 2008.
- [18] Stephen T. Jones, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. VMM-based Hidden Process Detection and Identification using Lycosid. In *ACM International Conference on Virtual Execution Environments (VEE 2008)*, Seattle, Washington, March 2008.
- [19] Lakshmi N. Bairavasundaram, Meenali Rungta, Nitin Agrawal, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Michael M. Swift. Systematically Benchmarking the Effects of Disk Pointer Corruption. In *Proceedings of the International Conference on Dependable Systems and Networks (DSN '08)*, Anchorage, Alaska, June 2008.
- [20] Remzi H. Arpaci-Dusseau. Making Beautiful Graphs with Zplot. In *Proceedings of the 14th Annual Tcl/Tk Conference*, New Orleans, Louisiana, September 2007.
- [21] Haryadi S. Gunawi, Vijayan Prabhakaran, Swetha Krishnan, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Improving File System Reliability with I/O Shepherding. In *Proceedings of the 21st ACM Symposium on Operating Systems Principles (SOSP '07)*, pages 283–296, Stevenson, Washington, October 2007.
- [22] Stephen T. Jones, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Geiger: Monitoring the Buffer Cache in a Virtual Machine Environment. In *Proceedings of the 12th International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS XII)*, San Jose, California, October 2006.
- [23] Lakshmi N. Bairavasundaram, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Dependability Analysis of Virtual Memory Systems. In *Proceedings of the International Conference on Dependable Systems and Networks (DSN '06)*, Philadelphia, Pennsylvania, June 2006.
- [24] Stephen T. Jones, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Antfarm: Tracking Processes in a Virtual Machine Environment. In *Proceedings of the USENIX Annual Technical Conference (USENIX '06)*, Boston, Massachusetts, June 2006.
- [25] Muthian Sivathanu, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Somesh Jha. A Logic of File Systems. In *Proceedings of the 4th USENIX Symposium on File and Storage Technologies (FAST '05)*, pages 1–15, San Francisco, California, December 2005.
- [26] Muthian Sivathanu, Lakshmi N. Bairavasundaram, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Database-Aware Semantically-Smart Storage. In *Proceedings of the 4th USENIX Symposium on File and Storage Technologies (FAST '05)*, pages 239–252, San Francisco, California, December 2005.
- [27] Timothy E. Denehy, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Journal-guided Resynchronization for Software RAID. In *Proceedings of the 4th USENIX Symposium on File and Storage Technologies (FAST '05)*, pages 87–100, San Francisco, California, December 2005.
- [28] Vijayan Prabhakaran, Lakshmi N. Bairavasundaram, Nitin Agrawal, Haryadi S. Gunawi, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. IRON File Systems. In *Proceedings of the 20th ACM Symposium on Operating Systems Principles (SOSP '05)*, pages 206–220, Brighton, United Kingdom, October 2005.

- [29] Vijayan Prabhakaran, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Model-Based Failure Analysis of Journaling File Systems. In *Proceedings of the International Conference on Dependable Systems and Networks (DSN '05)*, pages 802–811, Yokohama, Japan, June 2005.
- [30] Haryadi S. Gunawi, Nitin Agrawal, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Jiri Schindler. Deconstructing Commodity Storage Clusters. In *Proceedings of the 32nd Annual International Symposium on Computer Architecture (ISCA '05)*, pages 60–73, Madison, Wisconsin, June 2005.
- [31] Vijayan Prabhakaran, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Analysis and Evolution of Journaling File Systems. In *Proceedings of the USENIX Annual Technical Conference (USENIX '05)*, pages 105–120, Anaheim, California, April 2005.
- [32] Muthian Sivathanu, Lakshmi N. Bairavasundaram, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Life or Death at Block Level. In *Proceedings of the 6th Symposium on Operating Systems Design and Implementation (OSDI '04)*, pages 379–394, San Francisco, California, December 2004.
- [33] Haryadi S. Gunawi, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Deploying Safe User-Level Network Services with icTCP. In *Proceedings of the 6th Symposium on Operating Systems Design and Implementation (OSDI '04)*, pages 317–332, San Francisco, California, December 2004.
- [34] Timothy E. Denehy, John Bent, Florentina I. Popovici, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Deconstructing Storage Arrays. In *Proceedings of the 11th International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS XI)*, pages 59–71, Boston, Massachusetts, October 2004.
- [35] Lakshmi N. Bairavasundaram, Muthian Sivathanu, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. X-RAY: A Non-Invasive Exclusive Caching Mechanism for RAIDs. In *Proceedings of the 31st Annual International Symposium on Computer Architecture (ISCA '04)*, pages 176–187, Munich, Germany, June 2004.
- [36] Muthian Sivathanu, Vijayan Prabhakaran, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Improving Storage System Availability with D-GRAID. In *Proceedings of the 3rd USENIX Symposium on File and Storage Technologies (FAST '04)*, pages 15–30, San Francisco, California, April 2004.
- [37] John Bent, Doug Thain, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Miron Livny. Explicit Control in a Batch-Aware Distributed File System. In *Proceedings of the 1st Symposium on Networked Systems Design and Implementation (NSDI '04)*, pages 365–378, San Francisco, California, March 2004.
- [38] Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, Nathan C. Burnett, Timothy E. Denehy, Thomas J. Engle, Haryadi S. Gunawi, James Nugent, and Florentina I. Popovici. Transforming Policies into Mechanisms with Infokernel. In *Proceedings of the 19th ACM Symposium on Operating Systems Principles (SOSP '03)*, pages 90–105, Bolton Landing, New York, October 2003.
- [39] Doug Thain, John Bent, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Miron Livny. Pipeline and Batch Sharing in Grid Workloads. In *Proceedings of the 12th IEEE International Symposium on High Performance Distributed Computing (HPDC 12)*, pages 152–161, Seattle, Washington, June 2003.
- [40] Florentina I. Popovici, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Robust, Portable I/O Scheduling with the Disk Mimic. In *Proceedings of the USENIX Annual Technical Conference (USENIX '03)*, pages 297–310, San Antonio, Texas, June 2003.
- [41] James Nugent, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Controlling your PLACE in the File System with Gray-box Techniques. In *Proceedings of the USENIX Annual Technical Conference (USENIX '03)*, pages 311–324, San Antonio, Texas, June 2003.
- [42] Muthian Sivathanu, Vijayan Prabhakaran, Florentina I. Popovici, Timothy E. Denehy, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Semantically-Smart Disk Systems. In *Proceedings of the 2nd USENIX Symposium on File and Storage Technologies (FAST '03)*, pages 73–88, San Francisco, California, April 2003.

- [43] Muthian Sivathanu, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Evolving RPC for Active Storage. In *Proceedings of the 10th International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS X)*, pages 264–276, San Jose, California, October 2002.
- [44] John Bent, Venkateshwaran Venkataramani, Nick Leroy, Alain Roy, Joseph Stanley, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Miron Livny. Flexibility, Manageability, and Performance in a Grid Storage Appliance. In *Proceedings of the 11th IEEE International Symposium on High Performance Distributed Computing (HPDC 11)*, pages 3–12, Edinburgh, Scotland, July 2002.
- [45] Timothy E. Denehy, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Bridging the Information Gap in Storage Protocol Stacks. In *Proceedings of the USENIX Annual Technical Conference (USENIX '02)*, pages 177–190, Monterey, California, June 2002.
- [46] Nathan C. Burnett, John Bent, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Exploiting Gray-Box Knowledge of Buffer-Cache Contents. In *Proceedings of the USENIX Annual Technical Conference (USENIX '02)*, pages 29–44, Monterey, California, June 2002.
- [47] Brian Forney, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Storage-Aware Caching: Revisiting Caching For Heterogeneous Storage Systems. In *Proceedings of the 1st USENIX Symposium on File and Storage Technologies (FAST '02)*, pages 61–74, Monterey, California, January 2002.
- [48] Muthian Sivathanu, Venkateshwaran Venkataramani, and Remzi H. Arpaci-Dusseau. Block Asynchronous I/O: A Flexible Infrastructure For User-Level Filesystems. In *The International Conference on High-Performance Computing (HiPC '01)*, pages 249–261, India, December 2001.
- [49] Doug Thain, John Bent, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Miron Livny. Gathering at the Well: Creating Communities for Grid I/O. In *SC 2001*, pages 1–10, Denver, Colorado, November 2001.
- [50] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. Information and Control in Gray-Box Systems. In *Proceedings of the 18th ACM Symposium on Operating Systems Principles (SOSP '01)*, pages 43–56, Banff, Canada, October 2001.
- [51] Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, John Bent, Brian Forney, Sambavi Muthukrishnan, Florentina I. Popovici, and Omer Zaki. Manageable Storage via Adaptation in WiND. In *International Symposium on Cluster Computing and the Grid (CCGrid '01)*, pages 1–9, Brisbane, Australia, May 2001.
- [52] Frederick Wong, Richard Martin, Remzi H. Arpaci-Dusseau, David Wu, and David E. Culler. Architectural Requirements and Scalability of the NAS Parallel Benchmarks. In *Supercomputing '99*, Portland, Oregon, November 1999.
- [53] Remzi H. Arpaci-Dusseau, Eric Anderson, Noah Treuhaft, David E. Culler, Joseph M. Hellerstein, Dave Patterson, and Kathy Yelick. Cluster I/O with River: Making the Fast Case Common. In *The 1999 Workshop on Input/Output in Parallel and Distributed Systems (IOPADS '99)*, Atlanta, Georgia, May 1999.
- [54] Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, David E. Culler, Joseph M. Hellerstein, and Dave Patterson. Searching for the Sorting Record: Experiences in Tuning NOW-Sort. In *The 1998 Symposium on Parallel and Distributed Tools (SPDT '98)*, Welches, Oregon, August 1998.
- [55] Remzi H. Arpaci-Dusseau, Andrea C. Arpaci-Dusseau, David E. Culler, Joseph M. Hellerstein, and Dave Patterson. The Architectural Costs of Streaming I/O: A Comparison of Workstations, Clusters, and SMPs. In *Proceedings of the 4th International Symposium on High Performance Computer Architecture (HPCA-4)*, Las Vegas, Nevada, February 1998.
- [56] David E. Culler, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, Brent Chun, Steven Lumetta, Alan Mainwaring, Richard Martin, Chad Yoshikawa, and Frederick Wong. Parallel Computing on the Berkeley NOW. In *The 9th Joint Symposium on Parallel Processing (JSPP '97)*, Kobe, Japan, June 1997.
- [57] Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, David E. Culler, Joseph M. Hellerstein, and Dave Patterson. High-Performance Sorting on Networks of Workstations. In *Proceedings of the 1997 ACM SIGMOD International Conference on Management of Data (SIGMOD '97)*, Tucson, Arizona, May 1997.

- [58] Andrea C. Dusseau, Remzi H. Arpaci, and David E. Culler. Effective Distributed Scheduling of Parallel Workloads. In *Proceedings of the 1996 ACM SIGMETRICS Conference on Measurement and Modeling of Computer Systems (SIGMETRICS '96)*, pages 25–36, Philadelphia, Pennsylvania, May 1996.
- [59] Remzi H. Arpaci, David E. Culler, Arvind Krishnamurthy, Steve Steinberg, and Kathy Yelick. Empirical Evaluation of the CRAY-T3D: A Compiler Perspective. In *Proceedings of the 22nd Annual International Symposium on Computer Architecture (ISCA '95)*, pages 320–331, Santa Margherita Ligure, Italy, June 1995.
- [60] Remzi H. Arpaci, Andrea C. Dusseau, Amin Vahdat, Lok T. Liu, Tom Anderson, and Dave Patterson. The Interaction of Parallel and Sequential Workloads on a Network of Workstations. In *Proceedings of the 1995 ACM SIGMETRICS Conference on Measurement and Modeling of Computer Systems (SIGMETRICS '95)*, pages 267–278, Ottawa, Canada, May 1995.
- [61] Alexander Ramos and Remzi H. Arpaci. GOALS: A Real-Time Obstacle Avoidance Method for Mobile Robots. In *Argonne Symposium for Undergraduates in Science, Engineering, and Mathematics*, November 1992.
- [62] Charles J. Cohen, Lynn Conway, Remzi H. Arpaci, and Alexander Ramos. Teleoperated Mobile Robotics Instructional Laboratory. In *Mobile Robots VII*, pages 202–210, Boston, Massachusetts, November 1992.
- [63] Yuval Roth, Annie S. Wu, Remzi H. Arpaci, Terry Weymouth, and Ramesh Jain. Model-driven pose correction. In *Proceedings of the IEEE International Conference on Robotics and Automation*, pages 2625–2630, Nice, France, May 1992.

## Refereed Journal Publications and Book Chapters

- [1] Nitin Agrawal, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Generating Realistic Impressions for File-System Benchmarking. *ACM Transactions on Storage*, 5(4), December 2009.
- [2] John L. Hennessy and David A. Patterson. *Computer Architecture: A Quantitative Approach (4th Edition)*. Morgan Kaufmann, 2006. With contributions by Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, Krste Asanovic, Robert P. Colwell, Thomas M. Conte, Jose Duato, Diana Franklin, David Goldberg, Wen-mei W. Hwu, Norman P. Jouppi, Timothy M. Pinkston, John W. Sas, David A. Wood.
- [3] Muthian Sivathanu, Vijayan Prabhakaran, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Improving Storage System Availability with D-GRAID. *ACM Transactions on Storage (TOS)*, 1(2):133–170, May 2005.
- [4] John Bent, Venkateshwaran Venkataramani, Nick Leroy, Alain Roy, Joseph Stanley, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Miron Livny. NeST - A Grid Enabled Storage Appliance. In Jan Weglarz, Jarek Nabrzyski, Jennifer Schopf, and Maciej Stroinski, editors, *Grid Resource Management*, chapter 22, pages 341–358. Kluwer Academic Publishers, June 2003.
- [5] Remzi H. Arpaci-Dusseau. Run-Time Adaptation in River. *ACM Transactions on Computer Systems (TOCS)*, 21(1):36–86, February 2003.

## Refereed Workshop Publications

- [1] Thanumalayan Sankaranarayanan Pillai, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Quarantine: Fault Tolerance for Concurrent Servers with Data-Driven Selective Isolation. In *3rd USENIX Workshop on Hot Topics in Parallelism (HotPar '11)*, Berkeley, California, May 2011.
- [2] Swaminathan Sundararaman, Sriram Subramanian, Abhishek Rajimwale, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, Michael M. Swift. Why panic()? Improving Reliability with Restartable File Systems. In *Workshop on Hot Topics in Storage and File Systems (HotStorage '09)*, Big Sky, Montana, October 2009.
- [3] Nitin Agrawal, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Towards Realistic File-System Benchmarks with CodeMRI. In *First Workshop on Hot Topics in Measurement and Modeling of Computer Systems (ACM HotMetrics '08)*, Annapolis, MD, June 2008.

- [4] Swetha Krishnan, Giridhar Ravipati, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Barton P. Miller. The Effects of Metadata Corruption on NFS. In *Proceedings of the 3rd International Workshop on Storage Security and Survivability (StorageSS'07)*, Alexandria, Virginia, October 2007.
- [5] Meenali Rungta, Lakshmi N. Bairavasundaram, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Limiting Trust in the Storage Stack. In *The International Workshop on Storage Security and Survivability (StorageSS '06)*, Alexandria, Virginia, November 2006.
- [6] Pradheep Elango, Saisuresh Krishnakumaran, and Remzi H. Arpaci-Dusseau. Design Choices For Utilizing The Disk Idleness In A Virtual Machine Environment. In *Workshop on the Interaction between Operating Systems and Computer Architecture (WIOSCA '06)*, Boston, Massachusetts, June 2006.
- [7] Remzi H. Arpaci-Dusseau and Andrea C. Arpaci-Dusseau. Fail-Stutter Fault Tolerance. In *The Eighth Workshop on Hot Topics in Operating Systems (HotOS VIII)*, pages 33–38, Schloss Elmau, Germany, May 2001.
- [8] Kimberly K. Keeton, Remzi H. Arpaci-Dusseau, and Dave Patterson. IRAM and SmartSIMM: Overcoming the I/O Bus Bottleneck. In *The Workshop on Mixing Logic and DRAM at ISCA '97*, Denver, Colorado, June 1997.

## Technical Reports, Invited Papers, Theses

- [1] Lakshmi N. Bairavasundaram, Garth R. Goodson, Bianca Schroeder, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Data Corruption in the Storage Stack: A Closer Look. ;*login: The USENIX Magazine*, 33(3), June 2008.
- [2] Nitin Agrawal, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Towards Realistic File-System Benchmarks with CodeMRI. *SIGMETRICS Perform. Eval. Rev.*, 36(2):52–57, 2008.
- [3] Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, Lakshmi N. Bairavasundaram, Timothy E. Denehy, Florentina I. Popovici, Vijayan Prabhakaran, and Muthian Sivathanu. Semantically-Smart Disk Systems: Past, Present, and Future. *Sigmetrics Performance Evaluation Review (PER)*, 33(4):29–35, March 2006.
- [4] Muthian Sivathanu, Vijayan Prabhakaran, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Improving Storage System Availability with D-GRAID. Technical Report CS 1473, University of Wisconsin, Madison, 2003.
- [5] Doug Thain, John Bent, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Miron Livny. The Architectural Implications of Pipeline and Batch Sharing in Scientific Workloads. Technical Report CS 1463, University of Wisconsin, Madison, 2003.
- [6] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. Stop All File Systems Research. Technical Report CS 1466, University of Wisconsin, Madison, 2003.
- [7] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. Infokernel: An evolutionary approach to operating system design. Technical Report CS 1465, University of Wisconsin, Madison, 2003.
- [8] John Bent, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, and Miron Livny. Migratory File Services for Scientific Applications. Technical Report CS 1460, University of Wisconsin, Madison, 2002.
- [9] Nisha Talagala, Remzi H. Arpaci-Dusseau, and Dave Patterson. Microbenchmark-based Extraction of Local and Global Disk Characteristics. Technical Report CSD-99-1063, University of California, Berkeley, 1999.
- [10] Remzi H. Arpaci-Dusseau. *Performance Availability for Networks of Workstations*. PhD thesis, University of California, Berkeley, 1999.
- [11] Remzi H. Arpaci. The Communication Behavior of a Distributed Operating System. Master's thesis, University of California, Berkeley, 1996.

## Patents

- [1] Muthian Sivathanu, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. Computer storage device providing implicit detection of block liveness. U.S. Patent No. 7536521, May 2007. Granted July, 2009.

## Invited Lectures

- [1] Five Years of Reliability Research. *Invited Talk at U.C. Berkeley*, December 2010.
- [2] Five Years of Reliability Research. *Distinguished Lecture at Illinois*, October 2010.
- [3] Five Years of Reliability Research. *Invited Talk at EPFL*, June 2010.
- [4] Five Years of Reliability Research. *Invited Talk at Google (Seattle)*, September 2010.
- [5] The Next Great Systems Language. *Keynote at NSF Workshop on Future Directions in Computer Systems Research*, March 2010.
- [6] Five Years of Reliability Research. *Invited Talk @ facebook*, February 2010.
- [7] Five Years of Reliability Research. *Invited Talk at Columbia*, April 2010.
- [8] Five Years of Reliability Research. *Invited Talk at Purdue*, February 2010.
- [9] Five Years of Reliability Research. *Invited Talk at Northwestern*, March 2010.
- [10] Systems Research: Past and Future. *Google (Madison)*, August 2009.
- [11] Wisconsin HaRD. *NSF HECURA Meeting*, August 2009.
- [12] File Systems Are Broken. *Microsoft Invited Seminar*, June 2009.
- [13] An Overview of Storage Research at Wisconsin. *IBM Almaden Tech Talk*, February 2009.
- [14] On Reliability. *NSF HECURA Meeting*, August 2008.
- [15] An Overview of Storage Research at Wisconsin. *Symantec Tech Talk*, October 2008.
- [16] Declarative File System Checking. *Network Appliance Tech Talk*, September 2008.
- [17] File Systems Are Broken. *Invited Talk: Waterloo Database Seminar*, November 2007.
- [18] The Wisconsin PASS Project. *NSF HECURA Meeting*, August 2007.
- [19] Beyond IRON File Systems. *Invited Talk: SUNY-Stonybrook Systems Seminar*, May 2007.
- [20] Beyond IRON File Systems. *Invited Talk: Cornell Systems Seminar*, April 2007.
- [21] IRON File Systems. *Network Appliance Technical Talk*, November 2006.
- [22] IRON File Systems. *Carnegie Mellon University (Systems Seminar)*, February 2006.
- [23] Living in a Layered World. *Invited Lecture at Network Appliance*, August 2005.
- [24] Predictable Computing Systems. *NSF Grand Challenge Workshop*, September 2005.
- [25] Improving Availability with D-GRAID. *Invited Lecture at SNIA CIFS Conference*, August 2005.
- [26] IRON File Systems. *Distinguished Lecture at Florida International University*, April 2005.
- [27] An Overview of Autonomic Computing. *Workshop on Storage Devices and Systems*, April 2004.
- [28] Autonomic Computing: Research Directions. *Workshop on Storage Devices and Systems*, April 2004.
- [29] Semantically-smart Disk Systems. *Carnegie Mellon University*, May 2003.
- [30] Knowledge is Power. *HP Research Labs*, April 2003.
- [31] Knowledge is Power. *IBM Almaden Research Lab (Off-site Retreat)*, April 2003.

- [32] Semantically-Smart Disk Systems. *University of Michigan Systems Seminar*, November 2002.
- [33] Semantically-Smart Disk Systems. *Joint Duke/North Carolina Systems Seminar*, October 2002.
- [34] Informed File Systems. *IBM Almaden Research Lab*, June 2002.
- [35] Storage Research at Wisconsin. *IBM Almaden Research Lab*, April 2001.
- [36] Performance Issues in Component-Based Systems. *National Storage Industries Council*, May 1999.
- [37] Consistent versus Peak Performance: Challenges in Cluster I/O. *Hewlett-Packard Laboratories*, February 1998.

## Conference Presentations

- [1] Removing the Costs of Flash Indirection with Nameless Writes. *HotStorage '10*, June 2010.
- [2] Making Beautiful Graphs with Zplot. 14th Annual Tcl Workshop, September 2007.
- [3] Semantically-smart Disk Systems. *Second Annual Conference on File And Storage Technologies (FAST '03)*, March 2003.
- [4] Fail-Stutter Fault Tolerance. *Workshop on Hot Topics in Operating Systems (HotOS 8)*, May 2001.
- [5] Manageable Storage via Adaptation in WiND. *International Symposium on Cluster Computing and the Grid (CCGrid'2001)*, April 2001.
- [6] Cluster I/O with River: Making the Fast Case Common. *IOPADS '99*, May 1999.
- [7] Searching for the Sorting Record: Experiences in Tuning NOW-Sort. *SPDT '98*, August 1998.
- [8] The Architectural Costs of Streaming I/O: A Comparison of Workstations, Clusters, and SMPs. *HPCA '98*, February 1998.
- [9] High-Performance Sorting on Networks of Workstations. *SIGMOD '97, IBM Almaden Research Center*, May 1997.
- [10] Empirical Evaluation of the CRAY-T3D: A Compiler Perspective. *ISCA-22*, June 1995.

## Other Presentations

- [1] File Systems Are Broken. *Systems Seminar*, November 2007.
- [2] Semantically-Smart Disk Systems. *Wisconsin Operating Systems Seminar*, September 2003.
- [3] Great Ideas in Computer Systems. *University of Wisconsin CS 200 Seminar*, November 2002.
- [4] Semantically-Smart Disk Systems. *Wisconsin Operating Systems Seminar*, September 2002.
- [5] Flexibility, Manageability, and Performance in a Grid Storage Appliance. *GriPhyN All-Hands Meeting (Argonne)*, April 2002.
- [6] Storage Research at Wisconsin. *Wisconsin Operating Systems Seminar*, November 2001.
- [7] Storage Appliances for the Grid. *GriPhyN All-Hands Meeting (Los Angeles)*, July 2001.
- [8] Manageable Storage via Adaptation. *Database Affiliates Meeting*, October 2000.
- [9] Operating Systems and Databases. *Wisconsin Database Seminar*, September 2000.
- [10] Adaptation versus Instrumentation: Experiences with Parallel Systems. *Condor/ParadyN Week*, March 2000.

- [11] Why You Should Be A Systems Person At Wisconsin. *Wisconsin CS Department Visit Day*, January 2000.
- [12] Performance Assumptions Considered Harmful. *Introduction to the Wisconsin CS Department*, January 2000.
- [13] Performance Availability for Networks of Workstations. *Dissertation Defense*, December 2000.
- [14] Robust I/O Performance With River. *NOW Retreat*, June 1998.
- [15] A Balanced-Systems Approach To Parallel I/O. *NOW Retreat*, January 1998.
- [16] The Architectural Costs of Data Movement. *NOW Retreat*, July 1997.
- [17] Communication Behavior of a Distributed Operating System. *NOW Retreat*, July 1996.
- [18] Resource Allocation in NOW: On the Increasing Irrelevance of the CPU. *NOW Retreat*, January 1996.
- [19] A Summer with Solaris MC. *Sun Laboratories*, August 1996.

## Research Funding and Equipment Grants

- [1] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. Wisconsin Next Generation Benchmarks (WiNG). NSF CSR Research Grant, 2010. *\$499,440.00.*
- [2] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. HDFS Security Analysis. Sandia National Laboratories Research Grant, 2010. *\$50,000.*
- [3] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. Wisconsin HaRD. Network Appliance Faculty Fellowship, 2009. *\$40,000. Cash Donation.*
- [4] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. Wisconsin HaRD: Hierarchically-Decoupled, Redundant Storage. Google Research Gift, 2009. *\$50,000. Cash Donation.*
- [5] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. Wisconsin HaRD: Hierarchically-Decoupled, Redundant Storage. NSF HECURA Grant, 2009. *\$680,000.*
- [6] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. Declarative File System Checking. Network Appliance Research Gift, 2009. *\$45,000. Cash Donation.*
- [7] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. Wisconsin Arrays in Software Project (WASP). NSF Grant, 2008. *\$420,000.*
- [8] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. Wisconsin Lie Detection (LID). NSF Grant, 2008. *\$350,000.*
- [9] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. The RAW Project. Network Appliance Research Gift, 2007. *\$100,000. Cash donation.*
- [10] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. Robust Storage Systems. Network Appliance Research Gift, 2006. *\$100,000.*
- [11] Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, Ben Liblit, Miron Livny, and Michael Swift. HEC: Formal Failure Analysis for Storage Systems. NSF HECURA, 2006-2009. *\$951,044.*
- [12] Remzi H. Arpaci-Dusseau, Mark Hill, and David Wood. Sun Machine Donation: Cluster of Machines. Sun Hardware Gift, 2006. *Cluster of machines valued at \$100,000.*
- [13] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. *EMC Centera Storage Research.* EMC Gift, 2005. *\$25,000.*
- [14] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. *EMC Centera Storage Research.* EMC Hardware Donation, 2005. *One Centera machine valued at \$100,000.*
- [15] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. Improving Failure-Handling and Performance of Modern File Systems with Virtual Machine Technology. Network Appliance Research Gift, 2005. *\$25,000.*
- [16] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. CSR-PDOS: Semantic Failure Analysis and Management. NSF CNS Computer Systems, 2005-2008. *\$700,000.*
- [17] Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, Paul Barford, Jeffrey Naughton, and David Dewitt. *EMC Centera Storage Research.* EMC Gift, 2004. *\$100,000.*
- [18] Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau, Paul Barford, Jeffrey Naughton, and David Dewitt. *EMC Centera Storage Research.* EMC Hardware Donation, 2004. *Two Centera machines valued at \$300,000.*
- [19] Remzi Arpaci-Dusseau. *Achieving High Availability Through Semantically-Smart Disk Systems.* IBM Faculty Partner Award, 2003. *\$30,000.*
- [20] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. ITR: NSF-02-168 Wisconsin Semantic Disks (WiSe). NSF ITR Medium Group Grants, 2003-2006. *\$600,000.*

- [21] Juan J. De Pablo, David C. Schwartz, Paul Barford, Miron Livny, Remzi H. Arpaci-Dusseau, Paul M. DeLuca Jr., Robert Jeraj, Sridhara R. Dasu, Francis Halzen, Albrecht Karle, Don Reeder, and Wesley Smith. Acquisition of the GLOW Distributed Computing System at the University of Wisconsin - Madison. NSF MRI, 2003-2006. \$1,186,405.
- [22] Remzi H. Arpaci-Dusseau and Paul Barford. *Storage Research in the WAIL Environment: Equipment*. EMC Systems Donation, 2002. \$700,000 (est.).
- [23] Remzi H. Arpaci-Dusseau and Paul Barford. *Storage Research in the WAIL Environment: Cash Gift*. EMC Cash Donation, 2002. \$30,000.
- [24] Remzi Arpaci-Dusseau. *Self-Managing Storage through Informed Systems*. IBM Faculty Partner Award, 2002. \$30,000.
- [25] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. *Building Operating System Services with Gray-Box Techniques*. HP/Intel Itanium-Based System Grant, 2001. \$129,177.
- [26] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. *Networking Support for Data-Intensive Clusters*. Intel, 2000. \$128,000.
- [27] Remzi H. Arpaci-Dusseau. *The Linux Profiling Infrastructure*. Usenix Undergraduate Research Funding, 2001. \$3,000.
- [28] Ian Foster and Paul Avery. *GriPhyN: Towards Petascale Virtual Datagrids*. NSF ITR/ACS, 2001-2006. \$1,995,546.
- [29] Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau. *Manageable Network-Attached Storage Via Adaptation*. NSF OS CCR-0098274, 2001-2004. \$310,000.
- [30] Remzi H. Arpaci-Dusseau. *Robust Adaptive Cluster Programming Environments*. NSF Career CCR-0092840, 2001-2006. \$250,000.

## Classes Taught

Undergraduate Operating Systems (CS 537)	Spring 2011 (4.94)
Graduate Operating Systems (CS 736)	Fall 2010 (5.00)
Undergraduate Operating Systems (CS 537)	Spring 2010 (4.96)
Undergraduate Operating Systems (CS 537)	Fall 2009 (4.88)
Undergraduate Operating Systems (CS 537)	Spring 2009 (4.94)
Undergraduate Operating Systems (CS 537)	Fall 2008 (4.92)
Graduate Operating Systems (CS 736)	Spring 2008 (4.95)
Graduate Operating Systems (CS 736)	Fall 2007 (4.95)
Building a Brain (CS 838)	Fall 2007
Graduate Storage Systems (CS 838)	Spring 2006 (4.50)
Graduate Operating Systems (CS 736)	Spring 2005 (4.80)
Undergraduate Operating Systems (CS 537)	Fall 2004 (4.63)
Graduate Distributed Systems (CS 739)	Spring 2004 (4.93)
Graduate Operating Systems (CS 736)	Fall 2003 (4.85)
Graduate Distributed Systems (CS 739)	Spring 2003 (4.29)
Graduate Operating Systems (CS 736)	Fall 2002 (4.56)
Undergraduate Operating Systems (CS 537)	Spring 2002 (4.79)
Integrating Networks and Storage (CS 838)	Fall 2001 (4.86)
Undergraduate Operating Systems (CS 537)	Spring 2001 (4.44)
Graduate Operating Systems (CS 736)	Fall 2000 (4.59)
Graduate Operating Systems (CS 736)	Spring 2000 (4.76)

## Ph.D. Student Matriculation

Swami Sundararaman* – <i>Recovery Techniques to Improve File System Reliability</i>	Spring '11 (Fusion-IO)
Joe Meehan <sup>+</sup> , Ph.D., <i>Towards Transparent CPU Scheduling</i> ,	Spring '11 (Professor at Lynchburg)
Haryadi Gunawi*, Ph.D., <i>Towards Reliable Storage Systems</i> ,	Fall '09 (Postdoc @ Berkeley)
Nitin Agarwal*, Ph.D., <i>Enabling Realistic and Practical File-System Benchmarking</i>	Fall '09 (NEC Labs)
Lakshmi Bairavasundaram*, Ph.D., <i>Characteristics, Impact, and Tolerance of Partial Disk Failures</i>	Spring '08 (NetApp)
Florentina Popovici*, Ph.D., <i>Data-Driven Models in Storage System Design</i>	Spring '07 (Google)
Todd Jones*, Ph.D., <i>Implicit Operating System Awareness in a VMM</i>	Spring '07 (Sandia National Labs)
Tim Denehy*, Ph.D., <i>Information and Collaboration in the Storage Stack</i>	Spring '06 (Google)
Nathan Burnett*, Ph.D., <i>Information and Control in File System Buffer Management</i>	Spring '06 (VmWare)
Vijayan Prabhakaran*, Ph.D., <i>IRON File Systems</i>	Spring '06 (Microsoft Silicon Valley)
John Bent <sup>+</sup> , Ph.D., <i>Data-driven Batch Scheduling</i>	Spring '05 (Los Alamos National Labs)
Muthian Sivathanu*, Ph.D., <i>Semantically-smart Disk Systems</i>	Spring '05 (Google)

## Masters Student Matriculation

Leo Arulraj*, M.S. –	Spring '11 (Amazon)
Deepak Ramamurthi*, M.S. –	Spring '11 (Google)
Laxman Visampalli*, M.S. –	Spring '10 (QualComm)
Abhishek Rajimwale*, M.S. – <i>Disks That Lie</i>	Fall '09 (Data Domain)
Shweta Krishnan*, M.S., <i>NFS Corruption</i>	Spring '07 (Cisco)
Meenali Rungta*, M.S., <i>Corrupting NTFS</i>	Spring '06 (Google)
James Nugent*, M.S., <i>Finding your PLACE in the File System</i>	Summer '05
Camille Fournier*, M.S., <i>Gray-box Cache Footprint Inference</i>	Spring '05 (Goldman Sachs)
Brian Forney*, M.S., <i>Storage-Aware Caching</i>	Spring 2003 (Cassatt)
Venkateshwaran Venkataramani (with M. Livny), M.S., <i>Grid Resource Management</i>	Spring 2002 (Oracle)
Stirling Martin*, M.S., <i>A Gray-box NT Webserver</i>	Spring 2002 (Epic)
Omer Zaki, M.S., <i>Using Simulation For Early Fault Detection</i>	Spring 2001 (IBM Almaden)
Matt McCormick, M.S., <i>Heterogeneous RAID</i>	Spring 2001 (Microsoft)
Jonathan Ledlie, M.S., <i>A Specialized Object Store for Web Caches</i>	Spring 2001 (Harvard for Ph.D.)
Sambavi Muthukrishnan*, M.S., <i>A NASD Prototype</i>	Fall 2000 (Oracle)

## Graduate Student Researchers

Sriram Subramanian* – Arrived: Fall '07	Advised since Fall '08
Yupu Zhang* – Arrived: Fall '07	Advised since Spring '09
Yiyang Zhang* – Arrived: Fall '07, Qual Fall '08	Advised since Summer '09
Vijay Chidambaram* – Arrived: Fall '09	
Thanu Sankaranarayana* – Arrived: Fall '09	
Ao Ma* – Arrived: Fall '09	
Tyler Harter* – Arrived: Fall '10	
Chris Dragga* – Arrived: Fall '10	
Lanyue Lu* – Arrived: Fall '10	
Suli Yang* – Arrived: Fall '10, Qual Fall '11	
Ishani Ahuja* – Arrived: Fall '10	
Zev Weiss* – Arrived: Fall '10	

Key: \* (co-advised with A. Arpaci-Dusseau), + (co-advised with A. Arpaci-Dusseau and Miron Livny)

## Undergraduate Researchers

Yenni Rueslin, <i>Performance of the Ext2fs File System</i>	Fall 2000
Julio Lauritz, <i>Performance of the Ext2fs File System</i>	Fall 2000
Aaron Darling, <i>Secure, Fast Remote Execution</i>	Fall 2000
James Olson, <i>Gigabit Ethernet Performance</i>	Fall 2000
Jason Knaster, <i>Visualizing a Disk Scheduler</i>	Summer 2001
Siddarth Sawkar, <i>Disk Fingerprints</i>	Summer 2001 through Fall 2001
Haryadi Gunawi, <i>Quantifying the Overhead of TCP/IP</i>	Spring 2000 through Spring 2002
Henri Tandradinata, <i>The Costs of Encrypted Communication</i>	Spring 2002
Michael Christie, <i>Software-based AutoRAID</i>	Summer 2002
Venu Bolisetty, <i>Virtualizing NFS</i>	Summer 2003
Tjahjono Tjandra, <i>Tracing AFS</i>	Summer 2004 through Spring 2005
Yahya Cahyadi, <i>Congestion-controlled UDP</i>	Fall 2004 through Spring 2005
Andrew Krioukov, <i>Iron File Systems</i>	Fall 2005
William Umboh, <i>Apple File System Study</i>	Fall 2005
Andrew Konwinski, <i>iLife Fault Injection</i>	Fall 2006
Andrew Krioukov, <i>Parity Lost and Regained</i>	Summer 2007
Michael Vaughn, <i>iBench</i>	Summer 2009
Tyler Harter, <i>iBench</i>	Summer 2009
Alex Tessmer, <i>Memcache Scaling</i>	Summer 2010
David Capel, <i>Memcache Scaling</i>	Summer 2010
Rustam Lalkaka, <i>Memcache Scaling</i>	Summer 2010

## Departmental Service

Recht Mid-Tenure Review (Chair)	2011-2012
Budget Committee	2011-2012
Merit Committee	2011-2012
Curriculum Committee (Chair)	2011-2012
Curriculum Committee (Chair)	2010-2011
Swift Mid-Tenure Review	2009-2010
Curriculum Committee (Chair)	2009-2010
Akella Mid-Tenure Review (Chair)	2008-2009
Graduate Admissions Committee (Chair)	2008-2009
Merit Committee	2009
Graduate Admissions Committee (Co-Chair)	2007-2008
Merit Committee	2008
Graduate Advising Committee	2005-2006
Departmental Distinguished Lecture Series (with A. Arpaci-Dusseau)	2004-05
Curriculum Committee	2004-05
Curriculum Committee (Chair)	2003-04
Curriculum Committee (Chair)	2002-03
Curriculum Committee (Chair)	2001-02
Student Admissions	1999-2000
Rosser Lecture (Henry Fuchs)	2000-01

## Dissertation Committees

Dissertation Reader for Donko Donjerkovic	August 2000
Prelim Committee for Jianjun Chen	September 2000
Prelim Committee for Jussara Almeida	January 2001
Prelim Committee for Chun Zhang	January 2001

Dissertation Reader for Jim Basney	April 2001
Dissertation Committee for Johan Larson	July 2001
Dissertation Reader for Karthik Ramsasy	July 2001
Dissertation Committee for Su-Hui Chiang	August 2001
Prelim Committee for Philip Roth	December 2001
Dissertation Reader for Jianjun Chen	January 2002
Dissertation Reader for Ashraf Aboulnaga	January 2002
Dissertation Reader for Qiong Luo	January 2002
Prelim Committee for Doug Thain	March 2002
Prelim Committee for Ravishankar Ramamurthy	March 2002
Dissertation Reader for Jussara Almeida	January 2003
Dissertation Reader for Neoklis Polyzakis	July 2003
Prelim Committee for John Linwood Griffin (Carnegie Mellon)	July 2003
Prelim Committee for John Bent	January 2004
Prelim Committee for Muthian Sivathanu	April 2004
Prelim Committee for Ina Popovici	May 2004
Prelim Committee for Tevfik Kosar	May 2004
Prelim Committee for Min Xsu	May 2004
Prelim Committee for Vinod Yegneswaran	May 2004
Dissertation Reader for Douglas Thain	June 2004
Dissertation Reader for Ravishankar Ramamurthy	August 2004
Dissertation Defense for John Linwood Griffin (at Carnegie Mellon)	October 2004
Dissertation Defense for Harold Cain	November 2004
Prelim Committee for Tim Denehy	November 2004
Prelim Committee for Alex Mirgorodskiy	November 2004
Dissertation Defense for Philip Roth	April 2005
Prelim Committee for Vijayan Prabhakaran	May 2005
Dissertation Defense for Muthian Sivathanu	May 2005
Dissertation Defense for John Bent	May 2005
Dissertation Defense for Tevfik Kosar	July 2005
Prelim Committee for George Kola	July 2005
Prelim Committee for Mike Marty	January 2006
Dissertation Defense for Min Xsu	April 2006
Prelim Committee for Ameet Kini	May 2006
Dissertation Defense for Alan Halverson	July 2006
Dissertation Defense for Vinod Yegneswaran	November 2006
Prelim Committee for Lakshmi Bairavasundaram	February 2007
Prelim Committee for Gopalan Sivathanu (SUNY Stonybrook)	May 2007
Dissertation Defense for Todd Jones	April 2007
Dissertation Defense for Florentina Popovici	May 2007
Prelim Committee for Haryadi Gunawi	June 2007
Prelim Committee for Nitin Agarwal	September 2007
Dissertation Defense for Mike Marty	December 2007
Dissertation Defense for Gopalan Sivathanu (SUNY Stonybrook)	Feb 2008
Dissertation Defense for Jiansheng Huang	Jul 2008
Dissertation Defense for Koushik Chakraborty	Jul 2008
Dissertation Defense for Phillip Wells	Jul 2008
Dissertation Defense for Eric Robinson	Aug 2008
Dissertation Defense for Srinath Shankar	Aug 2008
Qualifying Exam for Jarrod Lewis-Peacock (Department of Psychology)	Aug 2008
Dissertation Defense for Lakshmi Bairavasundaram	Aug 2008
Dissertation Defense for Michail Flouris (U. Toronto)	Feb 2009
Prelim Exam for Jacob Adriaens (ECE)	Aug 2009
Dissertation Defense for Nitin Agarwal	September 2009

Dissertation Defense for Haryadi Gunawi	December 2009
Dissertation Defense for Ian Alderman	April 2010
Dissertation Defense for Jarrod Lewis-Peacock (Department of Psychology)	May 2010
Dissertation Defense for Anthony Cozzie (U. Illinois)	Oct 2010
Dissertation Defense for Joe Meehean	July 2011
Dissertation Defense for Swami Sundararaman	July 2011