

Thomas E. Anderson

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- Personal** Born in Orlando, Florida, August 28, 1961.
- Work Address: Home Address:
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Department of Computer Science and Engineering Seattle, WA 98112
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tom@cs.washington.edu
- Research Interests** Operating systems, cloud computing, computer networks, computer security, local and wide area distributed systems, high performance computer and router architectures, and education software, with a focus on the construction of robust, secure, and efficient computer systems.
- Education** Ph.D. in Computer Science, 1991, University of Washington.
Dissertation Title: *Operating System Support for High Performance Multiprocessing*, supervised by Profs. E.D. Lazowska and H.M. Levy.

M.S. in Computer Science, 1989, University of Washington.

A.B. *cum laude* in Philosophy, 1983, Harvard University.
- Professional Experience** Department of Computer Science and Engineering, University of Washington.
Warren Francis and Wilma Kolm Bradley Chair of Computer Science and Engineering, 2009 – present.

Visiting Professor, Eidgenossische Technische Hochschule Zurich (ETHZ), 2009.

Department of Computer Science and Engineering, University of Washington.
Professor, 2001 – 2009.

Department of Computer Science and Engineering, University of Washington.
Associate Professor, 1997 – 2001.

Founder and Interim CEO/CTO, Asta Networks, 2000 - 2001 (on leave from UW).

Computer Science Division, University of California, Berkeley.
Associate Professor, 1996 – 1997.

Computer Science Division, University of California, Berkeley.
Assistant Professor, 1991 – 1996.

Digital Equipment Corporation Systems Research Center.
Research Intern, Fall, 1990.

Awards

USENIX Lifetime Achievement Award, 2014.

USENIX Software Tools User Group Award (for PlanetLab), 2014.

IEEE Koji Kobayashi Computers and Communications Award, 2012.

ACM Fellow, 2005.

ACM/SIGOPS Mark Weiser Award, 2005.

Diane S. McEntyre Award for Excellence in Teaching, 1995.

NSF Presidential Faculty Fellowship, 1994.

Alfred P. Sloan Research Fellowship, 1994.

NSF Young Investigator Award, 1992.

IBM Graduate Ph.D. Fellowship, 1989.

**Award
Papers**

2015 SIGOPS Hall of Fame, “Efficient Software-Based Fault Isolation”

2014 OSDI, “Arrakis: The Operating System is the Control Plane”

2013 NSDI, “F10: Fault Tolerant Engineered Networks”

2010 USENIX Symposium on Network Systems Design and Implementation, Best Paper, for “Reverse Traceroute”

2009 International Measurement Conference, Best Paper, for “Moving Beyond End-to-End Path Information to Optimize CDN Performance”

2008 USENIX Symposium on Network Systems Design and Implementation, Best Paper, for “Consensus Routing: The Internet as a Distributed System”

2007 USENIX Symposium on Network Systems Design and Implementation, Best Student Paper, for “Do Incentives Build Robustness in BitTorrent?”

2005 IEEE Communications Society William R. Bennett Prize, given for “Measuring ISP Topologies with Rocketfuel” as the best original paper published in IEEE/ACM Transactions on Networking in 2004.

2003 USENIX Symposium on Internet Technologies and Systems, Best Student Paper, for “Scriptroute: A Distributed Facility for Internet Measurement.”

1998 High Performance Distributed Computing, for “WeOS: Operating System Services for Wide Area Applications.” Selected as one of the best twenty papers in the last twenty years at HPDC.

1998 Hot Interconnects VI Conference, Award Paper, for “Detour: Informed Internet Routing and Transport.”

1997 ACM Symposium on Operating System Principles, Award Paper, for “Eraser: A Dynamic Data Race Detector for Multithreaded Programs.”

1996 Hot Chips VIII Conference, Award Paper, for “A Case for Intelligent RAM: IRAM.”

1995 ACM Symposium on Operating System Principles, Award Paper, for “Serverless Network File Systems.”

1994 Hot Interconnects II Conference, Award Paper, for “A Case for NOW (Networks of Workstations).”

1993 Summer USENIX Conference, Best Student Paper, for “Anonymous RPC: Low Latency Protection in a 64-Bit Address Space.”

1993 Winter USENIX Conference, Best Paper, for “The Nachos Instructional Operating System.”

1992 ACM Conference on Architectural Support for Programming Languages and Operating Systems, Award Paper, for “High Speed Switch Scheduling for Local Area Networks.”

1991 ACM Symposium on Operating Systems Principles, Award Paper, for “Scheduler Activations: Effective Kernel Support for the User-Level Management of Parallelism.”

1989 ACM Symposium on Operating Systems Principles, Award Paper, for “Lightweight Remote Procedure Call.”

1989 ACM SIGMETRICS and Performance '89 Conference on Measurement and Modeling of Computer Systems, Award Paper, for “The Performance Implications of Thread Management Alternatives for Shared-Memory Multiprocessors.”

Keynotes ACM Symposium on Cloud Computing, February 2012.

and

Distinguished Cornell University, February 2012.

Lectures

Purdue University, April 2011.

University of California, Santa Barbara, November 2009.

University of California, San Diego, January 2007.

State University of New York at Stony Brook, November 2005.

University of Illinois-Urbana Champaign, 2003.

Professional Chair, University of Washington College of Engineering Endowments Evaluation Committee, 2015 - pres.

Service

Co-Founder and Steering Committee Chair, PlanetLab Consortium, 2003 - pres.

Co-Founder and Steering Committee Co-Chair, ACM/USENIX Network Systems Design and Implementation Conference, 2002 - 2012.

Program Committee Chair, ACM Symposium on Operating Systems Principles, 2009.

Program Committee Co-Chair, ACM SIGCOMM'06 Conference on Applications, Technologies, Architectures and Protocols for Computer Communications, 2006.

Program Committee Co-Chair, Third Workshop on Hot Topics in Networks (HotNets-III), 2004.

Program Chair, USENIX Symposium on Internet Technologies and Systems, 2001.

Guest Editor, Special Issue of IEEE MICRO on Hot Interconnects, February 1996.

Program Committee Co-Chair, 1995 IEEE Hot Interconnects III Conference, August 1995.

Member, Planning Committee, NSF GENI Project, 2005 - 2007.

Associate Editor, ACM Transactions on Computer Systems, 1998 - 2001.

Program Committee Member, ACM SIGCOMM 2000, 2001, 2002, and 2004.

Program Committee Member, Third Symposium on Operating System Design and Implementation (OSDI), 1999.

Program Committee Member, Fourth High Performance Computer Architecture Conference (HPCA-4), 1998.

Program Committee Member, First USENIX NT Symposium, 1997.

Program Committee Member, Seventh ACM Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS-VII), October 1996.

Program Committee Member, 1994 and 1995 ACM SIGMETRICS Conferences on the Measurement and Modeling of Computer Systems.

Program Committee Member, Fourteenth ACM Symposium on Operating System Principles (SOSP), December 1993.

Industrial Service Legal Consultant, Apex v. Cybex, 1998 - 1999; Palm v. Kessel, 2000; VMWare v. Microsoft, 2005.

Courseware Nachos, a software project for teaching undergraduate operating systems.
<http://www.cs.washington.edu/homes/tom/nachos/>

Software Arrakis, an operating system for high-performance data center applications.
<https://github.com/UWNetworksLab/arrakis>

Freedom/UProxy, a Javascript plug-in enabling web browsers to reach censored web

pages. <https://github.com/UWNetworksLab/freedom>

OneSwarm, privacy-preserving peer-to-peer file sharing. <http://oneswarm.cs.washington.edu/>

BitTyrant, a high-performance, strategic BitTorrent client. <http://bittyrant.cs.washington.edu/>

iPlane Nano, real-time predictions of Internet performance embedded in peer-to-peer applications <http://iplane.cs.washington.edu/>

Scriptroute, a open programmable Internet monitoring system. <http://www.scriptroute.org/>

Services

Reverse Traceroute, real time diagnosis of the reverse Internet path from destination to source <http://revtr.cs.washington.edu/>

Hubble, a real-time monitor for Internet black holes. <http://hubble.cs.washington.edu/>

iPlane, real-time predictions of Internet routes and performance. <http://iplane.cs.washington.edu/>

Public Traces

Rocketfuel, ISP router topology, 2002-2003.

iPlane, Internet topology, router aliases, and path performance, 2006 - present.

Post-doctoral Students

Simon Peter (2012 - 2015), Current Employment: Assistant Professor, University of Texas Austin

Taesoo Kim (2014), Current Employment: Assistant Professor, Georgia Tech

David Choffnes (2010 - 2014), Current Employment: Assistant Professor, Northeastern

Justin Cappos (2008 - 2011), Current Employment: Assistant Professor, Polytechnic Institute of New York University

Nitin Garg (2006 - 2007), Current Employment: DataDomain

Arun Venkataramani (2004), Current Employment: Associate Professor, University of Massachusetts, Amherst

Xiaowei Yang (2004), Current Employment: Associate Professor, Duke University

Ph.D. Students

Daniel Halperin, Ph.D. University of Washington, 2012 (co-advised with David Wetherall). Dissertation Title: *Unifying the Configuration of Wireless Networks with Effective SNR*. Current employment: Google

Tomas Isdal, Ph.D. University of Washington, 2012 (co-advised with Arvind Krishnamurthy). Dissertation Title: *Privacy and Performance in Social Overlay Networks*. Current employment: Google.

Ethan Katz-Bassett, Ph.D. University of Washington, 2012 (co-advised with Arvind Krishnamurthy). Dissertation Title: *Systems for Improving Internet Availability and Performance*. Current employment: Assistant Professor, University of Southern California.

Colin Dixon, Ph.D. University of Washington, 2011 (co-advised with Arvind Krishnamurthy). Dissertation Title: *The Network as a Platform*. Current employment: IBM Research.

John P. John, Ph.D. University of Washington, 2011 (co-advised with Arvind Krishnamurthy). Dissertation Title: *Understanding Malware on the Internet*. Current employment: Google.

Michael Piatek, Ph.D. University of Washington, 2011 (co-advised with Arvind Krishnamurthy). Dissertation Title: *Scalable Data Sharing Without Centralized Trust*. Current employment: Google.

Harsha Madhyastha, Ph.D. University of Washington, 2008 (co-advised with Arvind Krishnamurthy and Arun Venkataramani). Dissertation Title: *An Information Plane for Internet Applications*. Current employment: Assistant Professor, University of Michigan.

Ratul Mahajan, Ph.D. University of Washington, 2005 (co-advised with David Wetherall). Dissertation Title: *Practical and Efficient Internet Routing with Competing Interests*. Current employment: Microsoft Research.

Neil Spring, Ph.D. University of Washington, 2004 (co-advised with David Wetherall). Dissertation Title: *Efficient Discovery of Network Topology and Routing Policy in the Internet*. Current employment: Associate Professor, Department of Computer Science, University of Maryland.

Stefan Savage, Ph.D. University of Washington, 2002 (co-advised with Brian Bershad). Dissertation Title: *Network Services in an Uncooperative Environment*. Current employment: Professor, Department of Computer Science, University of California at San Diego.

Drew Roselli, Ph.D. UC Berkeley, 2001. Dissertation Title: *Long Term File System Characterization*. Current employment: Microsoft.

Jeanna Neefe Matthews, Ph.D. UC Berkeley 1999. Dissertation Title: *Improving File System Performance Using Adaptive Methods*. Current employment: Associate Professor, Department of Computer Science, Clarkson University.

Randolph Wang, Ph.D. UC Berkeley 1999. Dissertation Title: *Optimizing the Performance of Cluster File Systems*. Current employment: Digital Study Hall Foundation.

Amin Vahdat, Ph.D. UC Berkeley 1998. Dissertation Title: *Operating System Support for Wide Area Applications*. Current employment: SAIC Professor, Department of Computer Science, University of California at San Diego.

Douglas Ghormley, Ph.D. UC Berkeley 1998. Dissertation Title: *Efficient, Secure Extension of Commercial Operating Systems*. Current employment: Sandia National Laboratories.

Michael Dahlin, Ph.D. UC Berkeley, 1995 (co-advised with David Patterson). Dissertation Title: *Serverless Network File Systems*. Current employment: Professor,

Department of Computer Science, University of Texas-Austin.

Margaret Martonosi, Ph.D. Stanford, 1993 (co-advised with Anoop Gupta). Dissertation Title: *Analyzing and Tuning Memory Performance in Sequential and Parallel Programs*. Current employment: Professor, Department of Electrical Engineering, Princeton University.

**Masters
Students**

Gang Zhao, M.S. University of Washington, 2004. Project: *Inferring Internet Failures from Endpoints*. Current employment: Amazon

Janet Davis, M.S. University of Washington, 2001. Project: *REP: A Communication Mechanism for Pervasive Computing*.

Eric Lemar, M.S. University of Washington, 2001. Project: *The Design and Evaluation of a Storage System for Pervasive Computing*

Quingyue (Shirley) Wang, M.S. University of Washington, 2000. Project: *Access: A Communication and Computation Environment for Wide Area Systems Research*. Current employment: Appliant, WA.

Vivek Sahasranaman, M.S. University of Washington, 2000. Project: *A Comparison of Techniques for Two Dimensional Flow Classification in Software*.

Neal Cardwell, M.S. University of Washington, 2000. Project: *A Model of TCP Latency*. Current employment: Google, CA.

Amit Aggarwal, M.S. University of Washington, 1999. Project: *An Evaluation of TCP Pacing*. Current employment: Fast Forward Networks, CA.

M. Andrew Collins, M.S. University of Washington, 1998. Project: *A Detour Routing Layer*.

Eshwar Belani, M.S. UC Berkeley, 1998. Thesis: *A New Model for Wide Area Security*. Current employment: Oracle, Redwood City, CA.

Steve Rodrigues, M.S. UC Berkeley, 1997. Thesis: *High-Performance Local Area Communication with Fast Sockets*. Current employment: Network Appliance, CA.

Clifford Mather, M.S. UC Berkeley, 1995. Thesis: *Improving LFS Write Performance*. Current employment: Hewlett-Packard, Cupertino, CA.

Keith Krueger, M.S. UC Berkeley, 1994. Thesis: *Tools and Strategies for the Development of Application-Specific Virtual Memory Managers*. Current employment: Sybase, Emeryville, CA.

Kester Li, M.S. UC Berkeley, 1994. Thesis: *Towards A Low Power File System*. Current employment: Lotus, Cambridge, MA.

**Current
Graduate
Students**

Raymond Cheng, Seungyeop Han, Yuchen Jin, Antoine Kaufmann, Vincent Liu, Ellis Michael, Will Scott, Doug Woos, Qiao Zhang, Danyang Zhuo

Undergraduate Research Students

Celeste Brown (1997-1998), Boris Bak (1998-1999), Ben Chobot (1999), Hienthuc Phan (1999), Maksim Noy (1999-2001), Jeremy Lingmann (2004-2005), Matthew Gable (2007-2008), Brian Smith (2008), Justine Sherry (2009-2010), Peter Van Wesepe (2009), Robert (Colin) Scott (2009-2011), Peter Lipay (2009-2010), Dane Brandon (2009-2010), Hardeep Uppal (2009-2010), Steven Rutherford (2010), Andrew Reusch (2010), Daniel Gerdesmeier (2010), Maria Pimenova (2010-2011), Maxwell Forbes (2010-2011), Patrick Williams (2010), Allison Obourn (2010-2011), Finn Parnell (2011), Henry Baba-Weiss (2011), Nick Martindell (2012-2014), Zhiting Zhu (2013), Tariq Yusuf (2013), Caylan Lee (2013), Liusha Huang (2013), Xin Xu (2013), Edward Sampson (2013), Paul Ellenbogen (2013), Dalton Black (2014), Renhao Xie (2014), Shiny Yang (2014), Sunjay Cauligi (2014), Sherwood Zheng (2014), Omar Sandoval (2014), Jesus Larios (2015).

Justine Sherry (2011), Colin Scott (2012), and Nick Martindell (2014) won the UW CSE department undergraduate thesis award.

Textbook

T. Anderson and M. Dahlin. *Operating Systems: Principles and Practice, second edition*. Recursive Books, 2014. In use at Berkeley, CMU, Cornell, ETH, Maryland, Michigan, NYU, Ohio, Penn State, Princeton, Stanford, Stony Brook, Texas, Texas A&M, UBC, UCF, UCR, UCSB, USC, and over thirty other institutions. See: <http://ospp.cs.washington.edu/> for instructor materials.

Electronic versions of the following publications are available at: <http://www.cs.washington.edu/homes/tom/>

Invited Publications

S. Peter and T. Anderson. “Arrakis: The Operating System as Control Plane.” *USENIX ;login*, August 2013.

T. Anderson. “Conference Reviewing Considered Harmful.” *ACM SIGOPS Operating Systems Review*, volume 43, issue 2, April 2009.

C. Dixon, T. Anderson, and A. Krishnamurthy. “Withstanding Multimillion-node Botnets.” *;login*, August 2008.

M. Piatek, T. Isdal, T. Anderson, A. Krishnamurthy, and A. Venkataramani. “Building BitTyrant, a (More) Strategic BitTorrent Client.” *;login*, August 2007.

T. Anderson and M. Reiter. “GENI Facility Security.” GENI Design Document 06-23, September 2006.

T. Anderson and A. Vahdat (Ed). “GENI Distributed Services.” GENI Design Document 06-24, September 2006.

T. Anderson, D. Blumenthal, D. Casey, D. Clark, D. Estrin, L. Peterson, D. Raychaudhry, J. Rexford, J. Wroclawski. “GENI: Global Environment for Network Innovations. Conceptual Design, Project Execution Plan.” NSF Major Research Equipment Facility Construction Proposal, January 2006.

H. Abelson, T. Anderson, A. Appel, S. Bellovin, D. Boneh, D. Clark, D. Farber, J. Feigenbaum, E. Felten, R. Harper, M. F. Kaashoek, B. Kernighan, J. Rexford, J. Reynolds, A. Rubin, E. Spafford, and D. Touretzky. “Amici Curiae, Metro-Goldwyn-Mayer Studios v. Grokster, Ltd.” Submitted to the Supreme Court of the United

States, February, 2005.

T. Anderson, L. Peterson, S. Shenker, J. Turner, editors. “Overcoming Barriers to Disruptive Innovation in Networking.” Report of NSF Workshop, January 2005.

T. Anderson, B. Bershad, E. Lazowska, and H. Levy. “Thread Management for Shared-Memory Multiprocessors.” *Handbook for Computer Science*, Allen Tucker, ed., CRC Press, 1997.

T. Anderson. “The Nachos System.” Appeared as an appendix in, *Operating Systems Concepts, 4th Ed.*, A. Silberschatz and P. Galvin. Addison-Wesley, November 1993.

Refereed Publications

A. Kaufmann, N. Kr. Sharma, S. Peter, A. Krishnamurthy, and T. Anderson. “High Performance Packet Processing with FlexNIC.” *Proc. of the ACM Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS)*, April 2016.

S. Han, H. Shen, T. Kim, A. Krishnamurthy, T. Anderson, and D. Wetherall. “Meta-Sync: File Synchronization Across Multiple Untrusted Storage Services.” *Proc. of the USENIX Annual Technical Conference (ATC)*, July 2015.

J. Wilcox, D. Woos, P. Panchekha, Z. Tatlock, X. Wang, M. Ernst, and T. Anderson. “Verdi: A Framework for Implementing and Formally Verifying Distributed Systems.” *Proc. of the ACM Symposium on Programming Language Design and Implementation (PLDI)*, June 2015.

A. Kaufmann, S. Peter, T. Anderson, and A. Krishnamurthy. “FlexNIC: Rethinking Network DMA.” *Proc. of the 15th USENIX Workshop on Hot Topics in Operating Systems (HotOS)*, May 2015.

S. Peter, J. Li, I. Zhang, D. Ports, D. Woos, A. Krishnamurthy, T. Anderson, and T. Roscoe. “Arrakis: The Operating System is the Control Plane.” Selected as **Best Paper** in *Proc. of the 11th USENIX Symposium on Operating Systems Design and Implementation (OSDI)*, October 2014.

S. Peter, U. Javed, Q. Zhang, D. Woos, A. Krishnamurthy, and T. Anderson. “One Tunnel is (Often) Enough.” *Proc. of the ACM SIGCOMM 2014 Conference on Applications, Technologies, Architectures, and Protocols for Computer Communication*, August 2014.

D. Zhuo, Q. Zhang, D. Ports, A. Krishnamurthy and T. Anderson. “Machine Fault Tolerance for Reliable Datacenter Systems.” *Proc. of the 5th Asia-Pacific Workshop on Systems (APSys 2014)*, June 2014.

S. Peter, I. Zhang, D. Ports, J. Li, D. Woos, T. Anderson, A. Krishnamurthy, and M. Zbikowski. “Towards High-Performance Application-Level Storage Management.” *Proc. of the 6th USENIX Workshop on Hot Topics in Storage and File Systems (HotStorage)*, June 2014.

- S. Han, V. Liu, Q. Pu, S. Peter, T. Anderson, A. Krishnamurthy, and D. Wetherall. “Expressive Privacy Control with Pseudonyms.” *Proc. of the ACM SIGCOMM 2013 Conference on Applications, Technologies, Architectures and Protocols for Computer Communication*, August 2013.
- S. Peter and T. Anderson. “Arrakis: A Case for the End of the Empire.” *Proc. 14th USENIX Workshop on Hot Topics in Operating Systems (HotOS)*, May 2013.
- V. Liu, D. Halperin, A. Krishnamurthy, and T. Anderson. “F10: Fault Tolerant Engineered Networks.” *Proc. Tenth Symposium on Networked Systems Design and Implementation (NSDI)*, April 2013.
- R. Cheng, W. Scott, A. Krishnamurthy, and T. Anderson. “FreeDOM: a New Baseline for the Web.” *Proc. Eleventh ACM Workshop on Hot Topics in Networks (HotNets XI)*, October 2012.
- E. Katz-Bassett, C. Scott, D. Choffnes, I. Cunha, V. Valancius, N. Feamster, H. Madhyastha, T. Anderson, and A. Krishnamurthy. “LIFEGUARD: Practical Repair of Persistent Route Failures.” *Proc. of the ACM SIGCOMM 2012 Conference on Applications, Technologies, Architectures and Protocols for Computer Communication*, August 2012.
- I. Beschastnikh, Y. Brun, M. Ernst, A. Krishnamurthy, and T. Anderson. “Mining Temporal Invariants From Partially Ordered Logs.” *Proceedings of the SIGOPS Workshop on Managing Large-scale Systems via the Analysis of System Logs and the Application of Machine Learning Techniques (SLAML)*, October 2011.
- V. Liu, S. Han, A. Krishnamurthy, and T. Anderson. “Tor Instead of IP.” *Proc. Tenth ACM Workshop on Hot Topics in Networks (HotNets X)*, October 2011.
- L. Glendenning, I. Beschastnikh, A. Krishnamurthy, and T. Anderson. “Scalable Consistency in Scatter.” *Proc. Twenty-Third ACM Symposium on Operating Systems Principles (SOSP)*, October 2011.
- C. Dixon, H. Uppal, V. Brajkovic, D. Brandon, T. Anderson, and A. Krishnamurthy. “ETTM: A Scalable Fault Tolerant Network Manager.” *Proc. Eighth Symposium on Networked Systems Design and Implementation (NSDI)*, April 2011.
- J. Cappos, A. Dadgar, J. Rasley, J. Samuel, I. Beschastnikh, C. Barsan, A. Krishnamurthy, and T. Anderson. “Retaining Sandbox Containment Despite Bugs in Privileged Memory-safe Code.” *Proc. Seventeenth ACM Computer and Communications Security Conference*, November, 2010.
- J. Sherry, E. Katz-Bassett, M. Pimenova, H. Madhyastha, A. Krishnamurthy, And T. Anderson. “Resolving IP Aliases with Prespecified Timestamps.” *Proc. International Measurement Conference (IMC)*, November 2010.
- T. Isdal, M. Piatek, A. Krishnamurthy, and T. Anderson. “Privacy-preserving P2P Data Sharing with OneSwarm.” *Proc. of the ACM SIGCOMM 2010 Conference on Applications, Technologies, Architectures and Protocols for Computer Communication*, August 2010.

- E. Katz-Bassett, H. Madhyastha, V. Adhikari, C. Scott, J. Sherry, P. van Wesep, T. Anderson and A. Krishnamurthy. “Reverse Traceroute.” Selected as the **Best Paper** in *Proc. Seventh Symposium on Networked Systems Design and Implementation (NSDI)*, April 2010.
- R. Krishnan, H. Madhyastha, S. Srinivasan, S. Jain, A. Krishnamurthy, T. Anderson, and J. Gao. “Moving Beyond End-to-End Path Information to Optimize CDN Performance.” Selected as **Best Paper** in *Proc. International Measurement Conference (IMC)*, November 2009.
- M. Piatek, H. Madhyastha, J. John, A. Krishnamurthy, and T. Anderson. “Pitfalls for ISP-friendly P2P Design.” *Proc. Eighth Workshop on Hot Topics in Networks (HotNets-VIII)*, October 2009.
- C. Dixon, T. Anderson and A. Krishnamurthy. “End to the Middle.” *Proc. Twelfth Workshop on Hot Topics in Operating Systems (HotOS)*, May 2009.
- H. Madhyastha, E. Katz-Bassett, T. Anderson, A. Krishnamurthy, and A. Venkataramani. “iPlane Nano: Path Prediction for Peer-to-Peer Applications.” *Proc. Sixth Symposium on Networked Systems Design and Implementation (NSDI)*, April 2009.
- J. Cappos, I. Beschastnikh, A. Krishnamurthy, and T. Anderson. “Seattle: A Platform for Educational Cloud Computing.” *Proc. 40th Technical Symposium on Computer Science Education (SIGCSE)*, March 2009.
- X. Yang, D. Wetherall, and T. Anderson. “TVA: A DoS-Limiting Network Architecture.” *IEEE/ACM Transactions on Networking*, vol. 16, no. 6, December 2008.
- D. Halperin, T. Anderson, and D. Wetherall. “Taking the Sting out of Carrier Sense: Interference Cancellation for Wireless LANs.” *Proc. Mobicom 2008*, September 2008.
- J. John, E. Katz-Bassett, A. Krishnamurthy, T. Anderson, and A. Venkataramani. “Consensus Routing: The Internet as a Distributed System.” Selected as the **Best Paper** in *Proc. Fifth Symposium on Networked Systems Design and Implementation (NSDI)*, April 2008.
- C. Dixon, T. Anderson, and A. Krishnamurthy. “Phalanx: Withstanding Multimillion-Node Botnets.” *Proc. Fifth Symposium on Networked Systems Design and Implementation (NSDI)*, April 2008.
- E. Katz-Bassett, H. Madhyastha, J. John, A. Krishnamurthy, D. Wetherall, and T. Anderson. “Studying Blackholes in the Internet with Hubble.” *Proc. Fifth Symposium on Networked Systems Design and Implementation (NSDI)*, April 2008.
- M. Piatek, T. Isdal, A. Krishnamurthy, and T. Anderson. “One Hop Reputations for Peer to Peer File Sharing Workloads.” *Proc. Fifth Symposium on Networked Systems Design and Implementation (NSDI)*, April 2008.
- D. Halperin, T. Anderson, and D. Wetherall. “Interference Cancellation: Better Receivers for a New Wireless MAC.” *Proc. Sixth Workshop on Hot Topics in Networks*, November 2007.

- J. Falkner, M. Piatek, J. John, A. Krishnamurthy, and T. Anderson. “Profiling a Million User DHT.” *Proc. Internet Measurement Conference (IMC)*, October 2007.
- K. Lakshminarayanan, M. Caesar, M. Rangan, T. Anderson, S. Shenker, and I. Stoica. “Achieving Convergence-Free Routing Using Failure-Carrying Packets.” *Proc. of the ACM SIGCOMM 2007 Conference on Applications, Technologies, Architectures and Protocols for Computer Communication*, August 2007.
- M. Piatek, T. Anderson, and A. Krishnamurthy. “A Case for Holistic Incentive Design.” *Third Workshop on Future Directions in Distributed Computing (FuDiCo III)*, June 2007.
- M. Piatek, T. Isdal, T. Anderson, A. Krishnamurthy, and A. Venkataramani. “Do Incentives Build Robustness in BitTorrent?” Selected as the **Best Student Paper** in *Proc. Fourth Symposium on Networked Systems Design and Implementation (NSDI)*, April 2007.
- R. Mahajan, D. Wetherall, and T. Anderson. “Mutually Controlled Routing with Independent ISPs.” *Proc. Fourth Symposium on Networked Systems Design and Implementation (NSDI)*, April 2007.
- T. Isdal, M. Piatek, A. Krishnamurthy, T. Anderson. “Leveraging BitTorrent for End Host Measurements.” *Proc. 2007 Passive and Active Measurement Conference (PAM ’07)*, April 2007.
- T. Anderson and T. Roscoe. “Lessons from PlanetLab.” *Proc. Third USENIX Workshop on Real, Large Distributed Systems (WORLDS 06)*, November 2006.
- H. Madhyastha, T. Isdal, M. Piatek, C. Dixon, T. Anderson, A. Krishnamurthy, and A. Venkataramani. “iPlane: An Information Plane for Distributed Services.” *Proc. Seventh USENIX Symposium on Operating Systems Design and Implementation (OSDI 06)*, November 2006.
- E. Katz-Bassett, J. John, A. Krishnamurthy, D. Wetherall, T. Anderson. “Towards IP Geolocation using Delay and Topology Measurements.” *Proc. Internet Measurement Conference (IMC) 2006*, October 2006.
- H. Madhyastha, T. Anderson, A. Krishnamurthy, N. Spring, and A. Venkataramani. “A Structural Approach to Latency Prediction.” *Proc. Internet Measurement Conference (IMC) 2006*, October 2006.
- X. Liu, X. Yang, D. Wetherall, and T. Anderson. “Efficient and Secure Source Authentication with Packet Passports.” *Proc. Second Workshop on Steps to Reducing Unwanted Traffic on the Internet (SRUTI)*, July 2006.
- T. Anderson, A. Collins, A. Krishnamurthy, and J. Zahorjan. “PCP: Efficient Endpoint Congestion Control.” *Proc. Third Symposium on Networked Systems Design and Implementation (NSDI)*, May 2006.
- H. Madhyastha, A. Venkataramani, A. Krishnamurthy, and T. Anderson. “Oasis: An Overlay-Aware Network Stack.” *Operating Systems Review (OSR)*, vol. 40, no. 1,

January 2006.

X. Yang, D. Wetherall, and T. Anderson. “A DoS-Limiting Network Architecture.” *Proc. of the ACM SIGCOMM 2005 Conference on Applications, Technologies, Architectures and Protocols for Computer Communication*, August 2005.

R. Mahajan, D. Wetherall, and T. Anderson. “Negotiation-Based Routing Between Neighboring ISPs.” *Proc. Second Symposium on Networked Systems Design and Implementation (NSDI)*, May 2005.

L. Peterson, T. Anderson, S. Shenker and J. Turner. “Overcoming the Internet Impasse through Virtualization.” *IEEE Computer*, April 2005, pp. 62–69.

R. Grimm, J. Davis, E. Lemar, A. MacBeth, S. Swanson, T. Anderson, B. Bershad, G. Borriello, S. Gribble, and D. Wetherall. “System Support for Pervasive Applications.” *ACM Transactions on Computer Systems*, 22(4):421–486, November 2004.

R. Mahajan, D. Wetherall, and T. Anderson. “Towards Coordinated Interdomain Traffic Engineering.” *Proc. Third Workshop on Hot Topics in Networks (HotNets-III)*, November 2004.

N. Spring, R. Mahajan, D. Wetherall, and T. Anderson. “Measuring ISP Topologies with Rocketfuel.” *IEEE/ACM Transactions on Networking*, 12(1):2–16, February 2004. Awarded the **2005 IEEE Communications Society William R. Bennett Prize**, “given to the best original paper published in *IEEE/ACM Transactions on Networking* in the past year.”

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