

David Kotz

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Education

Ph.D	Computer Science	Duke University	1991
M.S.	Computer Science	Duke University	1989
B.A.	Computer Science and Physics	Dartmouth College	1986

Employment

Dartmouth College, Administration

2017–2018 Interim Provost
2009–2015 Associate Dean of the Faculty for the Sciences

Dartmouth College, Research leadership

2016– Core Director (Emerging Technologies and Data Analytics), Center for Technology and Behavioral Health
2008– Principal Investigator, Institute for Security, Technology, and Society
2004–2007 Executive Director, Institute for Security Technology Studies
2003–2004 Director of Research and Development, Institute for Security Technology Studies

Dartmouth College, Department of Computer Science

2010– Champion International Professor
2003– Professor
1997–2003 Associate Professor
1991–1997 Assistant Professor

Sabbaticals:

Fall 2008 – Spring 2009: Indian Institute of Science, Bangalore, India
Winter 1995: Syracuse University, Department of Electrical and Computer Engineering
Fall 1994: University of Virginia, Department of Computer Science

Consultant:

Expert witness for patent and intellectual-property cases (see page 37)

Brief biography

David Kotz is serving as the Interim Provost at Dartmouth College through June 2018. He is also the Champion International Professor in the Department of Computer Science. He previously served as Associate Dean of the Faculty for the Sciences, as the Executive Director of the Institute for Security Technology Studies, and on the US Healthcare IT Policy Committee. His research interests include security and privacy, pervasive computing for healthcare, and wireless networks. He has published over 130 refereed journal and conference papers and obtained over \$65m in grant funding. He is an IEEE Fellow, a Senior Member of the ACM, a 2008 Fulbright Fellow to India, and an elected member of Phi Beta Kappa. After receiving his A.B. in Computer Science and Physics from Dartmouth in 1986, he completed his Ph.D in Computer Science from Duke University in 1991 and returned to Dartmouth to join the faculty. For more information see <http://www.cs.dartmouth.edu/~dfk/>.

Honors and Awards

While on the faculty at Dartmouth College:

- ACM SIGMOBILE Test-of-Time Paper Award, March 2017; for our paper [RC72](#). Award Citation: “This paper was the first to systematically demonstrate how to measure and understand a production-scale wireless network, which was previously considered an impenetrable black box. This led to an incredible amount of follow-on work, with the measurement methods and analysis mechanisms proposed in this paper still being used. This paper was also the spark for the creation of the CRAWDAD data repository, which has been of immense value to the wireless research community.”
- Graduate Faculty Mentoring Award, Dartmouth College, April 2015.
- Champion International Professorship (endowed chair), July 2010–date.
- Phi Beta Kappa, initiated by Dartmouth College, Alpha chapter of New Hampshire, June 2010.
- IEEE Fellow status (“for contributions to parallel and distributed systems and wireless networks”) awarded November 2008 by the Institute of Electrical and Electronic Engineers.
- Fulbright Research Scholar to India, August 2008 – April 2009.
- Senior Faculty Fellowship (extra sabbatical term, chosen competitively), Spring 2009.
- Honorary degree: Master of Arts, Dartmouth College, 2004.
- Friedman Family Fellow (an award for newly promoted faculty), 2003–2004.
- J. Kenneth Huntington Memorial Award for Newly Promoted Faculty, 2003.
- Elizabeth R. and Robert A. Jeffe 1972 Fellow (an award for newly tenured faculty), 1997–1998.
- Class of 1962 Junior Faculty Fellowship (extra sabbatical term, chosen competitively), Winter 1995.

While a graduate student at Duke University:

- DARPA/NASA Research Assistantships in Parallel Processing 1989–1990, 1990–1991.
- Microelectronics Center of North Carolina Graduate Fellow 1986–1987.
- NSF Graduate Fellow Honorable Mention 1986, 1987.

While an undergraduate student at Dartmouth College:

- Magna cum Laude B.A., 1986.

Funding

AWARDED – CURRENT (in approximate reverse-chronological order)

- NIH/NIDA** via **Dartmouth Center for Technology and Behavioral Health**, \$20,887 for 2018. PI
Development of an open-source state-of-receptivity MobileCoach module for mHealth field studies. With Varun Mishra.
- Albree Trust**, \$8,500 for 2017–18. PI
Amulet: a custom wrist-worn computing platform for mobile-health research. With Ryan Halter.
- Dartmouth SYNERGY**, \$49,970 for 2017–18. Co-PI
A pilot study of an eHealth-delivered health coaching intervention. With John Batsis (PI).
- NIH/NIDA P30**, \$6,207,898 for 2016–2021 Core Director
Technology-based Treatments for Substance Use Disorders. With Lisa Marsch (PI), Alan Budney, Sarah Lord, and others.
- NSF CNS**, \$1,473,622 for 2016–2019 (Dartmouth share \$1,098,976) PI
Smart earpiece for supporting healthy eating behaviors. With colleagues at Dartmouth (Ryan Halter, Kofi Odame, Xing-Dong Yang) and Clemson (Jacob Sorber, Kelly Caine). Learn more at auracle-project.org.
- NSF SaTC**, \$10,000,000 (Dartmouth share \$4,000,000) for 2013–2018 PI
Enabling trustworthy cybersystems for health and wellness. With Kevin Fu (U.Michigan), Carl Gunter (UIUC), and Avi Rubin (JHU). Learn more at thaw.org.
- NSF CNS**, \$2,712,286 for 2013–2018 (Dartmouth share \$1,815,866) PI
Computational Jewelry for Mobile Health. With Ryan Halter, Andrés Molina-Markham, Sarah Lord (Dartmouth); Jacob Sorber and Kelly Caine (Clemson). Learn more at amulet-project.org.
- Association for Computing Machinery**, \$190,000 for 2009–2018 PI
CRAWDAD: Community Resource for Archiving Wireless Data At Dartmouth.
 With Tristan Henderson.

AWARDED – PAST (in approximate reverse-chronological order)

- NIDRR**, \$44,900 (for me) for 2012–2017 Team member
Development Center to Enhance Evidence-Based Supported Employment Through a Technology-Based Management System. With Sarah Lord (PI), Dartmouth Center for Technology and Behavioral Health.
- NSF (CISE)**, \$336,178 for 2011–15 (Dartmouth portion \$156,178) PI
Collaborative Research: Foundation for Trusted and Scalable Mobile Healthcare
 With Ashutosh Sabharwal (Rice); collaboration with Kolin Paul, Sanjiva Prasad, Manish Sharma (IIT Delhi).
- Intel Corporation**, \$109,020 for 2009–2015 PI
mHealth Privacy Roadmap.
- NSF IIS/HCC**, \$499,670 for 2010–14 (Dartmouth portion \$98,221) Co-PI
HCC: Small: Contextualized and Automated Usability Testing for Mobile Applications.
 With Guanling Chen (PI).
- HHS/ONC (SHARP)**, \$15 million for 2010–14 (Dartmouth portion \$1,513,725) Co-PI
Strategic Healthcare IT Advanced Research Projects on Security (SHARPS).
 With Carl Gunter (PI), Mark Frisse, John Mitchell, Avi Rubin.
- NSF (Trustworthy Computing)**, \$3 million for 2009–2013 PI
Trustworthy Information Systems for Healthcare (TISH).
 With Denise Anthony, Andrew Gettinger, Eric Johnson, and Sean Smith.

<i>David Kotz (Funding)</i>	4
NSF (CISE) supplement, \$34,795 for 2012–13 <i>Workshop: Securing Information Technology for Healthcare.</i> With Denise Anthony.	PI
Dartmouth Conference Award , \$35,000 for 2012–13 <i>Securing Information Technology in Healthcare: Part II (SITH2)</i> With Denise Anthony and Tom Candon.	PI
NSF (Cyber Trust) , \$300,000, plus \$16,000 REU supplement, plus \$27,088 supplement, for 2009–11. <i>CT-ISG: Dartmouth Trace Sanitization Framework.</i>	PI
Fulbright Fellowship (India) \$42,693 for 2008–09. <i>Measuring and modeling wireless networks.</i>	PI
Senior Faculty Grant , Dartmouth College. Approximately \$80,000 for Spring 2009 <i>Measuring and modeling wireless networks.</i>	PI
DHS-NCSD (Institute for Security Technology Studies) , \$2,314,597 for 2006–11. <i>Dartmouth Internet Security Testbed.</i> With George Cybenko and Guanling Chen.	PI
Intel Corporation , \$25,000 for 2007–08. <i>A Community Resource for Archiving Wireless Data At Dartmouth: CRAWDAD.</i>	PI
Intel University Research Council , \$142,089 for 2007–09. <i>Data Assurance in Medical Sensor Applications.</i>	PI
DHS-NCSD (Institute for Security Technology Studies) , \$622,625 for 2007–08. <i>Metrosense: scalable secure sensor systems.</i> With Andrew Campbell (PI) and George Cybenko.	Co-PI
NIST (Institute for Security Technology Studies) , \$1,112,800 for 2006–07. <i>Scalable Secure Sensor Systems.</i> With Andrew Campbell (PI) and George Cybenko.	Co-PI
DHS-HSARPA Cybersecurity program, \$1,598,545 for 2005–07. <i>M.A.P. (Measure, Analyze, Protect): security through measurement for wireless LANs.</i> With Andrew Campbell, Guanling Chen, Tristan Henderson.	PI
Department of Justice – BJA (Institute for Security Technology Studies) , \$650,932 for 2005–06. <i>Digital Living: Sensors, Privacy, and Trust.</i> With Denise Anthony, Andrew Campbell, and Tristan Henderson.	PI
Department of Justice – BJA (Institute for Security Technology Studies) , \$598,015 for 2005–06. <i>Communications, Networking and Application Development.</i> With Susan McGrath (PI), Daniela Rus.	Co-PI
NSF Computing Research Infrastructure program, \$500,000 for 2005–08, plus REU supplement \$12,405. <i>CRI: A Community Resource for Archiving Wireless Data At Dartmouth: CRAWDAD.</i> With Tristan Henderson.	PI
McKinsey&Company , \$24,882 for 2004. <i>Study of Behavior on the Wireless Network.</i> With Denise Anthony.	PI
Intel University Research Council , \$225,327 for 2004–2008. <i>Modeling High-Throughput Wireless Networks Using Real-World Data.</i> With Tristan Henderson and Sergey Bratus.	PI
DHS Science & Technology (Institute for Security Technology Studies) , \$1,013,507 for 2003–2006. <i>The Kerf toolkit for intrusion analysis.</i> With Jay Aslam and Daniela Rus.	PI

- DHS Science & Technology (Institute for Security Technology Studies)**, \$2,961,580 for 2003–2006. Co-PI
An Integrated Approach to Communication, Automated Information Management, and Sensing for Emergency and Disaster Response.
 With Sue McGrath (PI) and Daniela Rus.
- Cisco Systems**, \$89,500 for 2003-04. PI
The impact of VoIP on a campus-scale wireless network.
 With Brad Noblet.
- DoCoMo Labs USA**, \$120,228 for 2003–2006. Solo PI
Evaluation of location-prediction algorithms.
- Cisco Systems**, \$13,139 for 2002. Solo PI
A detailed analysis of usage patterns in the campus-wide wireless network.
- Department of Justice (Institute for Security Technology Studies)**, \$491,876 for 2001–2002. PI
Infrastructure for Distributed Collaboration in Detecting Network Attacks.
 With Jay Aslam and Daniela Rus.
- USENIX Association**, \$16,000 for 2001–2002. Advisor
 With student Guanling Chen. *USENIX Student Scholar*
- Cisco Systems**, \$65,529 for 2000–2001. Solo PI
Wireless networks and context-sensitive computing.
- Department of Justice (Institute for Security Technology Studies)**, \$153,379 for 2000–2001. PI
Assessing and Mining of Data from Network Sensors.
 With Jay Aslam and Daniela Rus.
- DoD DURIP**, \$435,000 for 2000–01. Co-PI
Instrumentation for Wireless Agent Networks and Sensor Webs.
 With George Cybenko (PI), Robert Gray, and Daniela Rus.
- Honda Motor Company Research Initiation Award**, \$30,000 for 1999–2001. Co-PI
Wireless Support Services for Honda Cars.
 With George Cybenko, Robert Gray, and Daniela Rus (PI).
- NSF Institutional Infrastructure**, \$1,360,031 for 1998–2003. Co-PI
Systems Science for Physical Geometric Algorithms.
 With David Nicol (PI), Bruce Donald, and Dan Rockmore.
- Dartmouth College**, \$1,000 for 1998. Associate Fellow
 Humanities Institute *Tangled Web: Ethical Dilemmas of the Internet*
- DARPA CoABS**, \$2,105,884 for 1998–2002, \$306,074 plus \$399,999 for 2001–02, PI
Resource Control in Large-Scale Mobile-Agent Systems.
 With George Cybenko, Robert Gray, and Daniela Rus.
- Air Force Rome Labs**, \$40,000 for 1998, \$79,000 for 1999. Co-PI
Mobile Information Agents.
 With Daniela Rus.
- USENIX Association**, \$22,691 for 1997–98, \$14,967 for 1998–99, \$7,704 for 1999–2000. Advisor
Snowflake: Application-specific Distributed Virtual Computers.
 With student Jon Howell.
- DoD MURI**, \$5,200,000 for 1997–2002. Investigator
Transportable Agents for Reconfigurable Wireless Networks: The ActComm Project.
 With G. Cybenko (PI), D. Rus, P. R. Kumar, T. Başar, G. Agha, H. T. Kung, E. Entin, G. Hjalmtysson.

NASA GSRP , \$22,000 for 1996–97. <i>The Galley Parallel File System.</i> With student Nils Nieuwejaar. <i>We turned down the funding due to Nils' impending graduation.</i>	Advisor
DOE ASCI program (Sandia National Lab), \$841,133 for 1996–2003. <i>An Extensible File System for High-Performance Parallel Computing.</i>	Solo PI
ONR , \$99,863 for 1995, \$38,846 for 1996, \$60,000 for 1996–97, \$95,124 for 1997–98, \$100,000 for 1998–99. Co-PI <i>Autonomous Information Agents: Intelligent, Extensible, and Adaptable Tactical Picture Agents.</i> With Daniela Rus (PI) and George Cybenko.	
NASA Ames , \$99,990 + IBM/Dartmouth matching funds \$55,230, for 1994–95. <i>SCORPIO: A Testbed for Tomorrow's Multiprocessor File Systems</i>	Solo PI
NSF CISE , \$98,997 + \$19,286 equipment supplement + \$5,000 REU supplement, for 1994–97. <i>High-performance File Systems for Scientific Multiprocessing.</i>	Solo PI
Digital Equipment Corporation , \$52,037 for 1994–97. <i>Large-Address-Space Operating Systems, Parallel I/O, and Algorithms on a Digital 2100 Server.</i> With Thomas H. Cormen and Clifford Stein.	PI
NASA Ames , \$149,622 for 1993–96. <i>Characterizing the Workload of Multiprocessor File Systems.</i>	Solo PI
NASA GSRP , \$66,000 for 1993–96 (renewed twice). <i>High Performance through a Unified Memory Hierarchy.</i> With student Preston Crow.	Advisor
Digital Equipment Corporation , workstation approx. \$20,000 for 1993. <i>A Unified Memory Hierarchy for Distributed Computing.</i>	Solo PI
NSF , \$29,689 for 1993. <i>Issues and Obstacles in the Implementation of Parallel Algorithms and the Use of Parallel Machines: a Proposal to fund a School on Parallel Programming.</i> With Fillia Makedon (PI) and Donald B. Johnson.	Senior Investigator
NSF ILLI-LLD , \$100,000 for 1993–95. <i>It's Never Too Early: Teaching Parallel Computing to Freshmen.</i> With Fillia Makedon (PI) and Donald B. Johnson.	Co-PI
Dartmouth College Burke Award , \$15,000 for 1991–94.	Solo PI
DARPA/UMIACS Research Assistantship , \$28,185 for 1989–90, \$29,379 for 1990–91. <i>High Performance File System Design for MIMD Parallel Processors.</i>	Student
MCNC Graduate Fellowship , \$19,308 for 1986–87.	Student

Total grants awarded \$65,149,634

PENDING (in approximate reverse-chronological order)

NSF SaTC, \$10,111,997 (Dartmouth share \$4,366,290) for 2018–2023. PI
Securing the Lifecycle of IoT in Consumer Environments (SLICE). With colleagues at Dartmouth (Denise Anthony, Sean Smith), Hopkins (Avi Rubin, Lanier Watkins), Illinois (Adam Bates, Carl Gunter), Maryland (Michelle Mazurek), Morgan State (Kevin Kornegay, Michel Reece, and Willie Thompson), and Goodman Research Group (Colleen Manning).

GRANT MANAGEMENT (in approximate reverse-chronological order)

I was the PI on block funding at the Institute for Security Technology Studies (now the Institute for Security, Technology, and Society) at Dartmouth. I was responsible for setting the overall research direction, overseeing the selection and review of projects, budgeting funds, and ensuring technical quality of the overall program. I list above only those portions of these grants where I was project lead or co-lead, actually conducting the research. I list below the total amount of block funding I managed as PI.

NCSA (Department of Homeland Security), \$6.5 million for 2006–11. Co-PI

NIST (Department of Commerce), \$3 million for 2006–08. PI

BJA (Department of Justice), \$5 million for 2005–07. PI

HSARPA (Department of Homeland Security), \$51 million for 2000–06. 2004–06 PI

Total \$65.5 million.

Publications

Readers of this vita in electronic PDF format can click the icons below. Others may find those papers at URL <http://www.cs.dartmouth.edu/~dfk/papers/>.

SUBMITTED JOURNAL ARTICLES (in approximate reverse-chronological order)

- SJ1. Xiaohui Liang, Ronald Peterson, and David Kotz. *Securely connecting wearables to ambient displays with user intent*. Submitted to *IEEE Transactions on Dependable and Secure Computing*, October 2017.

REFEREED JOURNAL ARTICLES (in approximate reverse-chronological order)

- RJ1. Reza Rawassizadeh, Timothy Pierson, Ronald Peterson, and David Kotz. *NoCloud: Experimenting with network disconnection by design*. *IEEE Pervasive Computing*, 17(1):64–74, Jan.-Mar. 2018, DOI [10.1109/MPRV.2018.011591063](https://doi.org/10.1109/MPRV.2018.011591063).  PDF
- RJ2. Emily Greene, Patrick Proctor, and David Kotz. *Secure sharing of mHealth data streams through cryptographically-enforced access control*. *Journal of Smart Health*, 2018. Accepted for publication.  PDF
- RJ3. Reza Rawassizadeh and David Kotz. *Datasets for mobile, wearable and IOT research*. *GetMobile: Mobile Computing and Communications*, 20(4):5–7, April 2017, DOI [10.1145/3081016.3081018](https://doi.org/10.1145/3081016.3081018).  PDF
- RJ4. David Kotz, Carl A. Gunter, Santosh Kumar, and Jonathan P. Weiner. *Privacy and security in mobile health – a research agenda*. *IEEE Computer*, 49(6):22–30, June 2016, DOI [10.1109/MC.2016.185](https://doi.org/10.1109/MC.2016.185).  PDF
- RJ5. Minh Shin, Cory Cornelius, Apu Kapadia, Nikos Triandopoulos, and David Kotz. *Location privacy for mobile crowd sensing through population mapping*. *Sensors*, June 2015, DOI [10.3390/s150715285](https://doi.org/10.3390/s150715285). Revision of [RC41](#).  PDF
- RJ6. Tristan Henderson and David Kotz. *Data citation practices in the CRAWDAD wireless network data archive*. *D-Lib Magazine*, 21(1/2), Jan/Feb 2015, DOI [10.1045/january2015-henderson](https://doi.org/10.1045/january2015-henderson).  PDF
- RJ7. Shirang Mare, Jacob Sorber, Minh Shin, Cory Cornelius, and David Kotz. *Hide-n-Sense: preserving privacy efficiently in wireless mHealth*. *Mobile Networks and Applications (MONET)*, 19(3):331–344, June 2014, DOI [10.1007/s11036-013-0447-x](https://doi.org/10.1007/s11036-013-0447-x). Special issue on Wireless Technology for Pervasive Healthcare. Revision of [RC30](#).  PDF
- RJ8. Keren Tan, Chris McDonald, Bennet Vance, Chrisil Arackaparambil, Sergey Bratus, and David Kotz. *From MAP to DIST: the evolution of a large-scale WLAN monitoring system*. *IEEE Transactions on Mobile Computing*, 13(1):216–229, January 2014, DOI [10.1109/TMC.2012.237](https://doi.org/10.1109/TMC.2012.237).  PDF
- RJ9. Denise Anthony, Andrew Campbell, Thomas Candon, Andrew Gettinger, Carl A. Gunter, M. Eric Johnson, David Kotz, Lisa Marsch, Andrés Molina-Markham, Karen Page, and Sean Smith. *Securing information technology in healthcare*. *IEEE Security & Privacy*, 11(6):25–33, Nov/Dec 2013, DOI [10.1109/MSP.2013.104](https://doi.org/10.1109/MSP.2013.104). Invited paper.  PDF
- RJ10. Sasikanth Avancha, Amit Baxi, and David Kotz. *Privacy in mobile technology for personal healthcare*. *ACM Computing Surveys*, 45(1), November 2012, DOI [10.1145/2379776.2379779](https://doi.org/10.1145/2379776.2379779).  PDF
- RJ11. Cory Cornelius and David Kotz. *Recognizing whether sensors are on the same body*. *Journal of Pervasive and Mobile Computing*, 8(6):822–836, December 2012, DOI [10.1016/j.pmcj.2012.06.005](https://doi.org/10.1016/j.pmcj.2012.06.005). Revision of [RC27](#).  PDF
- RJ12. Minkyong Kim and David Kotz. *Identifying unusual days*. *Journal of Computing Science and Engineering (JCSE)*, 5(1):71–84, 2011, DOI [10.5626/JCSE.2011.5.1.071](https://doi.org/10.5626/JCSE.2011.5.1.071).  PDF
- RJ13. Minh Shin, Cory Cornelius, Dan Peebles, Apu Kapadia, David Kotz, and Nikos Triandopoulos. *AnonySense: A system for anonymous opportunistic sensing*. *Journal of Pervasive and Mobile Computing*, 7(1):16–30, February 2011, DOI [10.1016/j.pmcj.2010.04.001](https://doi.org/10.1016/j.pmcj.2010.04.001). Revision of [RC43](#).  PDF

- RJ14. Ming Li and David Kotz. *Towards collaborative data reduction in stream-processing systems*. *International Journal of Communication Networks and Distributed Systems (IJCNDS)*, 2(4):375–400, 2009, DOI [10.1504/IJCNDS.2009.026555](https://doi.org/10.1504/IJCNDS.2009.026555). Invited paper. Revision of [RC42](#). [PDF](#)
- RJ15. Tristan Henderson, David Kotz, and Ilya Abyzov. *The changing usage of a mature campus-wide wireless network*. *Computer Networks*, 52(14):2690–2712, October 2008, DOI [10.1016/j.comnet.2008.05.003](https://doi.org/10.1016/j.comnet.2008.05.003). Revision of [RC65](#). Later revised as [SW1](#). [PDF](#)
- RJ16. Guanling Chen, Ming Li, and David Kotz. *Data-centric middleware for context-aware pervasive computing*. *Pervasive and Mobile Computing*, 4(2):216–253, April 2008, DOI [10.1016/j.pmcj.2007.10.001](https://doi.org/10.1016/j.pmcj.2007.10.001). [PDF](#)
- RJ17. Ming Li and David Kotz. *Group-aware stream filtering for bandwidth-efficient data dissemination*. *International Journal of Parallel, Emergent and Distributed Systems (IJPEDS)*, 23(6):429–446, December 2008, DOI [10.1080/17445760801930955](https://doi.org/10.1080/17445760801930955). [PDF](#)
- RJ18. Soumendra Nanda and David Kotz. *Mesh-Mon: A multi-radio mesh monitoring and management system*. *Computer Communications*, 31(8):1588–1601, May 2008, DOI [10.1016/j.comcom.2008.01.046](https://doi.org/10.1016/j.comcom.2008.01.046). Acceptance rate 30%. [PDF](#)
- RJ19. Yong Sheng, Guanling Chen, Hongda Yin, Keren Tan, Udayan Deshpande, Bennet Vance, David Kotz, Andrew Campbell, Chris McDonald, Tristan Henderson, and Joshua Wright. *MAP: A scalable monitoring system for dependable 802.11 wireless networks*. *IEEE Wireless Communications*, 15(5):10–18, October 2008, DOI [10.1109/MWC.2008.4653127](https://doi.org/10.1109/MWC.2008.4653127). [PDF](#)
- RJ20. Calvin Newport, David Kotz, Yougu Yuan, Robert S. Gray, Jason Liu, and Chip Elliott. *Experimental evaluation of wireless simulation assumptions*. *SIMULATION: Transactions of The Society for Modeling and Simulation International*, 83(9):643–661, September 2007, DOI [10.1177/0037549707085632](https://doi.org/10.1177/0037549707085632). Revision of [RC61](#). [PDF](#)
- RJ21. Minkyong Kim and David Kotz. *Periodic properties of user mobility and access-point popularity*. *Journal of Personal and Ubiquitous Computing*, 11(6):465–479, August 2007, DOI [10.1007/s00779-006-0093-4](https://doi.org/10.1007/s00779-006-0093-4). Invited paper; special issue of papers from LoCA 2005. Revision of [TR15](#). [PDF](#)
- RJ22. Denise Anthony, Tristan Henderson, and David Kotz. *Privacy in location aware computing environments*. *IEEE Pervasive*, 6(4):64–72, Oct–Dec 2007, DOI [10.1109/MPRV.2007.83](https://doi.org/10.1109/MPRV.2007.83). [PDF](#)
- RJ23. Ron Oldfield and David Kotz. *Improving data access for computational grid applications*. *Cluster Computing*, 9(1):79–99, January 2006, DOI [10.1007/s10586-006-4899-7](https://doi.org/10.1007/s10586-006-4899-7). [PDF](#)
- RJ24. Libo Song, David Kotz, Ravi Jain, and Xiaoning He. *Evaluating next cell predictors with extensive Wi-Fi mobility data*. *IEEE Transactions on Mobile Computing*, 5(12):1633–1649, December 2006, DOI [10.1109/TMC.2006.185](https://doi.org/10.1109/TMC.2006.185). Revision of [TR22](#). [PDF](#)
- RJ25. David Kotz and Kobby Essien. *Analysis of a campus-wide wireless network*. *Wireless Networks*, 11(1–2):115–133, January 2005, DOI [10.1007/s11276-004-4750-0](https://doi.org/10.1007/s11276-004-4750-0). Revision of [TR38](#). [PDF](#)
- RJ26. Jason Liu, Yougu Yuan, David M. Nicol, Robert S. Gray, Calvin C. Newport, David Kotz, and Luiz Felipe Perrone. *Empirical validation of wireless models in simulations of ad hoc routing protocols*. *Simulation: Transactions of The Society for Modeling and Simulation International*, 81(4):307–323, April 2005, DOI [10.1177/0037549705055017](https://doi.org/10.1177/0037549705055017). “Best of PADS 2004” special issue. Revision of [RC63](#). [PDF](#)
- RJ27. Kazuhiro Minami and David Kotz. *Secure context-sensitive authorization*. *Journal of Pervasive and Mobile Computing*, 1(1):123–156, March 2005, DOI [10.1016/j.pmcj.2005.01.004](https://doi.org/10.1016/j.pmcj.2005.01.004). Revision of [TR28](#). [PDF](#)
- RJ28. Javed Aslam, Sergey Bratus, David Kotz, Ron Peterson, Daniela Rus, and Brett Tofel. *The Kerf toolkit for intrusion analysis*. *IEEE Security and Privacy*, 2(6):42–52, November/December 2004, DOI [10.1109/MSP.2004.113](https://doi.org/10.1109/MSP.2004.113). Revision of [RP25](#). Later revised as [TR19](#). [PDF](#)
- RJ29. Jonathan Bredin, Rajiv T. Maheswaran, Çağrı Imer, Tamer Başar, David Kotz, and Daniela Rus. *Computational markets to regulate mobile-agent systems*. *Autonomous Agents and Multi-Agent Systems*, 6(3):235–263, May 2003, DOI [10.1023/A:1022923422570](https://doi.org/10.1023/A:1022923422570). Revision of [RC76](#). [PDF](#)

- RJ30. David Kotz, George Cybenko, Robert S. Gray, Guofei Jiang, Ronald A. Peterson, Martin O. Hofmann, Daria A. Chacón, Kenneth R. Whitebread, and James Hendler. *Performance analysis of mobile agents for filtering data streams on wireless networks*. *Mobile Networks and Applications (MONET)*, 7(2):163–174, April 2002, DOI [10.1145/506882.506889](https://doi.org/10.1145/506882.506889). Invited paper. Revision of [TR46](#). [PDF](#)
- RJ31. Robert S. Gray, George Cybenko, David Kotz, Ronald A. Peterson, and Daniela Rus. *D’Agents: Applications and performance of a mobile-agent system*. *Software—Practice and Experience*, 32(6):543–573, May 2002, DOI [10.1002/spe.449](https://doi.org/10.1002/spe.449). Invited paper. [PDF](#)
- RJ32. Ron Oldfield and David Kotz. *Armada: a parallel I/O framework for computational grids*. *Future Generation Computing Systems (FGCS)*, 18(4):501–523, March 2002, DOI [10.1016/S0167-739X\(01\)00076-0](https://doi.org/10.1016/S0167-739X(01)00076-0). [PDF](#)
- RJ33. David Kotz, Robert Gray, and Daniela Rus. *Future directions for mobile-agent research*. *IEEE Distributed Systems Online*, 3(8), August 2002. Based on a conversation with Jeff Bradshaw, Colin Harrison, Guenter Karjoth, Amy Murphy, Gian Pietro Picco, M. Ranganathan, Niranjan Suri, and Christian Tschudin. Revision of [TR34](#). [PDF](#)
- RJ34. David Kotz. *Disk-directed I/O for MIMD multiprocessors*. *ACM Transactions on Computer Systems*, 15(1):41–74, February 1997, DOI [10.1145/244764.244766](https://doi.org/10.1145/244764.244766). Identical to [IB9](#). Revision of [TR71](#). [PDF](#)
- RJ35. Nils Nieuwejaar and David Kotz. *The Galley parallel file system*. *Parallel Computing*, 23(4):447–476, June 1997, DOI [10.1016/S0167-8191\(97\)00009-4](https://doi.org/10.1016/S0167-8191(97)00009-4). Revision of [TR58](#). [PDF](#)
- RJ36. Daniela Rus, Robert Gray, and David Kotz. *Transportable information agents*. *Journal of Intelligent Information Systems*, 9:215–238, 1997, DOI [10.1023/A:1008622002816](https://doi.org/10.1023/A:1008622002816). Identical to [IB16](#). Revision of [RC83](#). [PDF](#)
- RJ37. David Kotz, Robert Gray, Saurab Nog, Daniela Rus, Sumit Chawla, and George Cybenko. *Agent Tcl: Targeting the needs of mobile computers*. *IEEE Internet Computing*, 1(4):58–67, July/August 1997, DOI [10.1109/4236.612217](https://doi.org/10.1109/4236.612217). Identical to [IB12](#). Revision of [U16](#). [PDF](#)
- RJ38. David Kotz and Preston Crow. *The expected lifetime of single-address-space operating systems*. *Computing Systems*, 9(3):155–178, Summer 1996. Revision of [RC94](#). [PDF](#)
- RJ39. David Kotz. *A data-parallel programming library for education (DAPPLE)*. *Computer Science Education*, 6(2):141–159, 1996, DOI [10.1080/0899340950060203](https://doi.org/10.1080/0899340950060203). Revision of [RC88](#). [PDF](#)
- RJ40. Nils Nieuwejaar, David Kotz, Apratim Purakayastha, Carla Schlatter Ellis, and Michael Best. *File-access characteristics of parallel scientific workloads*. *IEEE Transactions on Parallel and Distributed Systems*, 7(10):1075–1089, October 1996, DOI [10.1109/71.539739](https://doi.org/10.1109/71.539739). Revision of [TR66](#). [PDF](#)
- RJ41. David Kotz and Nils Nieuwejaar. *File-system workload on a scientific multiprocessor*. *IEEE Parallel and Distributed Technology*, 3(1):51–60, Spring 1995, DOI [10.1109/88.384584](https://doi.org/10.1109/88.384584). Revision of [RC95](#). Later revised as [TR66](#). [PDF](#)
- RJ42. David Kotz and Carla Schlatter Ellis. *Caching and writeback policies in parallel file systems*. *Journal of Parallel and Distributed Computing*, 17(1–2):140–145, January and February 1993, DOI [10.1006/jpdc.1993.1012](https://doi.org/10.1006/jpdc.1993.1012). Revision of [RC100](#). [PDF](#)
- RJ43. David Kotz and Carla Schlatter Ellis. *Practical prefetching techniques for multiprocessor file systems*. *Journal of Distributed and Parallel Databases*, 1(1):33–51, January 1993, DOI [10.1007/BF01277519](https://doi.org/10.1007/BF01277519). Identical to [IB8](#). Revision of [RC101](#). [PDF](#)
- RJ44. David F. Kotz and Carla Schlatter Ellis. *Prefetching in file systems for MIMD multiprocessors*. *IEEE Transactions on Parallel and Distributed Systems*, 1(2):218–230, April 1990, DOI [10.1109/71.80133](https://doi.org/10.1109/71.80133). Revision of [RC103](#). Later revised as [DI](#). [PDF](#)

REFEREED CONFERENCE PAPERS (in approximate reverse-chronological order)

- RC1. George Boateng, John A. Batsis, Patrick Proctor, Ryan Halter, and David Kotz. *GeriActive: Wearable app for monitoring and encouraging physical activity among older adults*. In *Proceedings of the IEEE Conference on Body Sensor Networks (BSN)*, pages 46–49. IEEE, March 2018, DOI [10.1109/BSN.2018.8329655](https://doi.org/10.1109/BSN.2018.8329655). Acceptance rate 43%. [PDF](#)

- RC2. Gunnar C. Pope, Varun Mishra, Stephanie Lewia, Byron Lowens, David Kotz, Sarah Lord, and Ryan Halter. *An ultra-low resource wearable EDA sensor using wavelet compression*. In *Proceedings of the IEEE Conference on Body Sensor Networks (BSN)*, pages 193–196. IEEE, March 2018, DOI [10.1109/BSN.2018.8329691](https://doi.org/10.1109/BSN.2018.8329691). Acceptance rate 43%. [PDF](#)
- RC3. Xiaohui Liang, Tianlong Yun, Ronald Peterson, and David Kotz. *LightTouch: Securely connecting wearables to ambient displays with user intent*. In *Proceedings of the IEEE International Conference on Computer Communications (INFOCOM)*, pages 1–9, May 2017, DOI [10.1109/INFOCOM.2017.8057210](https://doi.org/10.1109/INFOCOM.2017.8057210). Acceptance rate 21%. [PDF](#)
- RC4. George Boateng, Ryan Halter, John A. Batsis, and David Kotz. *ActivityAware: An app for real-time daily activity level monitoring on the Amulet wrist-worn device*. In *Proceedings of the IEEE PerCom Workshop on Pervasive Health Technologies (PerHealth)*, pages 431–435. IEEE, March 2017, DOI [10.1109/PERCOMW.2017.7917601](https://doi.org/10.1109/PERCOMW.2017.7917601). Acceptance rate 69%. [PDF](#)
- RC5. George Boateng and David Kotz. *StressAware: An app for real-time stress monitoring on the Amulet wearable platform*. In *Proceedings of the IEEE MIT Undergraduate Research Technology Conference (URTC)*. IEEE, January 2017, DOI [10.1109/URTC.2016.8284068](https://doi.org/10.1109/URTC.2016.8284068). Acceptance rate 71%. [PDF](#)
- RC6. Shengjie Bi, Tao Wang, Ellen Davenport, Ronald Peterson, Ryan Halter, Jacob Sorber, and David Kotz. *Toward a wearable sensor for eating detection*. In *Proceedings of the ACM Workshop on Wearable Systems and Applications (WearSys)*, pages 17–22. ACM Press, June 2017, DOI [10.1145/3089351.3089355](https://doi.org/10.1145/3089351.3089355). Acceptance rate 80%. [PDF](#)
- RC7. Rui Liu, Reza Rawassizadeh, and David Kotz. *Toward accurate and efficient feature selection for speaker recognition on wearables*. In *Proceedings of the ACM Workshop on Wearable Systems and Applications (WearSys)*, pages 41–46. ACM Press, June 2017, DOI [10.1145/3089351.3089352](https://doi.org/10.1145/3089351.3089352). Acceptance rate 80%. [PDF](#)
- RC8. Xiaohui Liang and David Kotz. *AuthoRing: Wearable user-presence authentication*. In *Proceedings of the ACM Workshop on Wearable Systems and Applications (WearSys)*, pages 5–10. ACM Press, June 2017, DOI [10.1145/3089351.3089357](https://doi.org/10.1145/3089351.3089357). Acceptance rate 80%. [PDF](#)
- RC9. Aarathi Prasad and David Kotz. *ENACT: Encounter-based architecture for contact tracing*. In *Proceedings of the ACM Workshop on Physical Analytics (WPA)*, pages 37–42. ACM Press, June 2017, DOI [10.1145/3092305.3092310](https://doi.org/10.1145/3092305.3092310). Acceptance rate 70%. [PDF](#)
- RC10. Varun Mishra, Byron Lowens, Sarah Lord, Kelly Caine, and David Kotz. *Investigating contextual cues as indicators for EMA delivery*. In *Proceedings of the International Workshop on Smart & Ambient Notification and Attention Management (UbiTention)*, pages 935–940. ACM, September 2017, DOI [10.1145/3123024.3124571](https://doi.org/10.1145/3123024.3124571). Acceptance rate 68%. [PDF](#)
- RC11. Aarathi Prasad, Xiaohui Liang, and David Kotz. *SPICE: Secure Proximity-based Infrastructure for Close Encounters*. In *Proceedings of the ACM Workshop on Mobile Crowdsensing Systems and Applications (CrowdSense)*, pages 56–61. ACM, November 2017, DOI [10.1145/3139243.3139245](https://doi.org/10.1145/3139243.3139245). Acceptance rate 75%. [PDF](#)
- RC12. Timothy J. Pierson, Xiaohui Liang, Ronald Peterson, and David Kotz. *Wanda: securely introducing mobile devices*. In *Proceedings of the IEEE International Conference on Computer Communications (INFOCOM)*, pages 1–9, April 2016, DOI [10.1109/INFOCOM.2016.7524366](https://doi.org/10.1109/INFOCOM.2016.7524366). Revision of [TR2](#). Acceptance rate 18%. [PDF](#)
- RC13. Josiah Hester, Travis Peters, Tianlong Yun, Ronald Peterson, Joseph Skinner, Bhargav Golla, Kevin Storer, Steven Hearndon, Kevin Freeman, Sarah Lord, Ryan Halter, David Kotz, and Jacob Sorber. *Amulet: An energy-efficient, multi-application wearable platform*. In *Proceedings of the ACM Conference on Embedded Networked Sensor Systems (SenSys)*, pages 216–229. ACM Press, November 2016, DOI [10.1145/2994551.2994554](https://doi.org/10.1145/2994551.2994554). Acceptance rate 18%. [PDF](#)
- RC14. Shrirang Mare, Andrés Molina-Markham, Cory Cornelius, Ronald Peterson, and David Kotz. *ZEBRA: Zero-effort bilateral recurring authentication*. In *IEEE Symposium on Security & Privacy*, pages 705–720, May 2014, DOI [10.1109/SP.2014.51](https://doi.org/10.1109/SP.2014.51). This project has been renamed CSAW. Acceptance rate 14%. [PDF](#)

- RC15. Rima Murthy and David Kotz. *Assessing blood-pressure measurement in tablet-based mHealth apps*. In *Workshop on Networked Healthcare Technology (NetHealth)*, pages 1–5. IEEE Press, January 2014, DOI [10.1109/COMSNETS.2014.6734920](https://doi.org/10.1109/COMSNETS.2014.6734920). Acceptance rate 75%. [PDF](#)
- RC16. Cory Cornelius, Ronald Peterson, Joseph Skinner, Ryan Halter, and David Kotz. *A wearable system that knows who wears it*. In *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 55–67, June 2014, DOI [10.1145/2594368.2594369](https://doi.org/10.1145/2594368.2594369). Acceptance rate 14%. [PDF](#)
- RC17. Andrés Molina-Markham, Ronald Peterson, Joseph Skinner, Tianlong Yun, Bhargav Golla, Kevin Freeman, Travis Peters, Jacob Sorber, Ryan Halter, and David Kotz. *Amulet: enabling computational jewelry for mHealth applications*. In *Proceedings of the Workshop on Mobile Medical Applications – Design and Development (WMMADD)*, pages 16–21, November 2014, DOI [10.1145/2676431.2676432](https://doi.org/10.1145/2676431.2676432). Acceptance rate 57%. [PDF](#)
- RC18. Aarathi Prasad, Ronald Peterson, Shrirang Mare, Jacob Sorber, Kolin Paul, and David Kotz. *Provenance framework for mHealth*. In *Workshop on Networked Healthcare Technology (NetHealth)*, pages 1–6. IEEE Computer Society Press, January 2013, DOI [10.1109/COMSNETS.2013.6465599](https://doi.org/10.1109/COMSNETS.2013.6465599). Acceptance rate 100%. [PDF](#)
- RC19. Phillip A. Fazio, Keren Tan, and David Kotz. *Effects of network trace sampling methods on privacy and utility metrics*. In *Proceedings of the Annual Workshop on Wireless Systems: Advanced Research and Development (WISARD)*, pages 1–8, January 2012, DOI [10.1109/COMSNETS.2012.6151387](https://doi.org/10.1109/COMSNETS.2012.6151387). Acceptance rate 50%. [PDF](#)
- RC20. Jacob Sorber, Minh Shin, Ronald Peterson, Cory Cornelius, Shrirang Mare, Aarathi Prasad, Zachary Marois, Emma Smithayer, and David Kotz. *An Amulet for trustworthy wearable mHealth*. In *Workshop on Mobile Computing Systems and Applications (HotMobile)*, pages 7:1–7:6, February 2012, DOI [10.1145/2162081.2162092](https://doi.org/10.1145/2162081.2162092). Acceptance rate 21%. [PDF](#)
- RC21. Jacob Sorber, Minh Shin, Ron Peterson, and David Kotz. *Plug-n-Trust: Practical trusted sensing for mHealth*. In *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 309–322, June 2012, DOI [10.1145/2307636.2307665](https://doi.org/10.1145/2307636.2307665). Acceptance rate 18%. [PDF](#)
- RC22. Aarathi Prasad, Jacob Sorber, Timothy Stablein, Denise Anthony, and David Kotz. *Understanding sharing preferences and behavior for mHealth devices*. In *Workshop on Privacy in the Electronic Society (WPES)*, pages 117–128. ACM Press, October 2012, DOI [10.1145/2381966.2381983](https://doi.org/10.1145/2381966.2381983). Revision of **T7**. Later revised as **IB1**. Acceptance rate 28%. [PDF](#)
- RC23. Cory Cornelius, Jacob Sorber, Ronald Peterson, Joe Skinner, Ryan Halter, and David Kotz. *Who wears me? bioimpedance as a passive biometric*. In *Proceedings of the USENIX Workshop on Health Security and Privacy*, August 2012. Acceptance rate 52%. [PDF](#)
- RC24. Soumendra Nanda and David Kotz. *Social Network Analysis Plugin (SNAP) for mesh networks*. In *Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC)*, pages 725–730. IEEE Computer Society Press, March 2011, DOI [10.1109/WCNC.2011.5779252](https://doi.org/10.1109/WCNC.2011.5779252). Acceptance rate 48%. [PDF](#)
- RC25. Keren Tan, Guanhua Yan, Jihwang Yeo, and David Kotz. *Privacy analysis of user association logs in a large-scale wireless LAN*. In *Proceedings of the 30th Annual Joint Conference of the IEEE Computer and Communications Societies (INFOCOM) mini-conference*, pages 31–35. IEEE Computer Society Press, April 2011, DOI [10.1109/INFCOM.2011.5935168](https://doi.org/10.1109/INFCOM.2011.5935168). Revision of **RP15**. Later revised as **TR5**. Acceptance rate 23%. [PDF](#)
- RC26. David Kotz. *A threat taxonomy for mHealth privacy*. In *Proceedings of the Workshop on Networked Healthcare Technology (NetHealth)*. IEEE Computer Society Press, January 2011, DOI [10.1109/COMSNETS.2011.5716518](https://doi.org/10.1109/COMSNETS.2011.5716518). Acceptance rate 36%. [PDF](#)
- RC27. Cory Cornelius and David Kotz. *Recognizing whether sensors are on the same body*. In *Proceedings of the International Conference on Pervasive Computing*, volume 6696 of *Lecture Notes in Computer Science*, pages 332–349. Springer-Verlag, June 2011, DOI [10.1007/978-3-642-21726-5_21](https://doi.org/10.1007/978-3-642-21726-5_21). Acceptance rate 23%. [PDF](#)

- RC28. Phil Fazio, Keren Tan, Jihwang Yeo, and David Kotz. *Short paper: The NetSANI framework for analysis and fine-tuning of network trace sanitization*. In *Proceedings of the ACM Conference on Wireless Network Security (WiSec)*, pages 5–10. ACM Press, June 2011, DOI [10.1145/1998412.1998416](https://doi.org/10.1145/1998412.1998416). Acceptance rate 22%. [PDF](#)
- RC29. Shirang Mare, Jacob Sorber, Minh Shin, Cory Cornelius, and David Kotz. *Adaptive security and privacy for mHealth sensing*. In *USENIX Workshop on Health Security (HealthSec)*, August 2011. Short paper. Acceptance rate 34%. [PDF](#)
- RC30. Shirang Mare, Jacob Sorber, Minh Shin, Cory Cornelius, and David Kotz. *Adapt-lite: Privacy-aware, secure, and efficient mHealth sensing*. In *Proceedings of the Workshop on Privacy in the Electronic Society (WPES)*, pages 137–142, October 2011, DOI [10.1145/2046556.2046574](https://doi.org/10.1145/2046556.2046574). Revision of [TR6](#). Acceptance rate 28%. [PDF](#)
- RC31. Chrisil Arackaparambil, Sergey Bratus, Anna Shubina, and David Kotz. *On the reliability of wireless fingerprinting using clock skews*. In *Proceedings of the ACM Conference on Wireless Network Security (WiSec)*, March 2010, DOI [10.1145/1741866.1741894](https://doi.org/10.1145/1741866.1741894). Later revised as [TR7](#). Acceptance rate 21%. [PDF](#)
- RC32. Shirang Mare, David Kotz, and Anurag Kumar. *Experimental validation of analytical performance models for IEEE 802.11 networks*. In *Proceedings of the Workshop on Wireless Systems: Advanced Research and Development (WISARD)*, pages 1–8. IEEE Computer Society Press, January 2010, DOI [10.1109/COMSNETS.2010.5431957](https://doi.org/10.1109/COMSNETS.2010.5431957). Acceptance rate 36%. [PDF](#)
- RC33. Keren Tan and David Kotz. *Saluki: a high-performance Wi-Fi sniffing program*. In *Proceedings of the International Workshop on Wireless Network Measurements (WiNMee)*, pages 591–596. IEEE Computer Society Press, May 2010. Invited paper. [PDF](#)
- RC34. Minh Shin, Patrick Tsang, David Kotz, and Cory Cornelius. *DEAMON: Energy-efficient sensor monitoring*. In *Proceedings of the IEEE Communications Society Conference on Sensor, Mesh, and Ad Hoc Communications and Networks (SECON)*, pages 1–9. IEEE Computer Society Press, June 2009, DOI [10.1109/SAHCN.2009.5168925](https://doi.org/10.1109/SAHCN.2009.5168925). Acceptance rate 19%. [PDF](#)
- RC35. Guanling Chen, Bo Yan, Minh Shin, David Kotz, and Ethan Berke. *MPCS: Mobile-based patient compliance system for chronic illness care*. In *Proceedings of the International Workshop on Ubiquitous Mobile Healthcare Applications (MobiCare)*, pages 1–7. IEEE Computer Society Press, July 2009, DOI [10.4108/ICST.MOBIQUITOUS2009.6829](https://doi.org/10.4108/ICST.MOBIQUITOUS2009.6829). [PDF](#)
- RC36. Sergey Bratus, David Kotz, Keren Tan, William Taylor, Anna Shubina, Bennet Vance, and Michael E. Lo-casto. *Dartmouth Internet Security Testbed (DIST): building a campus-wide wireless testbed*. In *Proceedings of the Workshop on Cyber Security Experimentation and Test (CSET)*. USENIX Association, August 2009. Acceptance rate 33%. [PDF](#)
- RC37. David Kotz, Sasikanth Avancha, and Amit Baxi. *A privacy framework for mobile health and home-care systems*. In *Workshop on Security and Privacy in Medical and Home-Care Systems (SPIMACS)*, pages 1–12. ACM Press, November 2009, DOI [10.1145/1655084.1655086](https://doi.org/10.1145/1655084.1655086). Acceptance rate 26%. [PDF](#)
- RC38. Yong Sheng, Keren Tan, Guanling Chen, David Kotz, and Andrew Campbell. *Detecting 802.11 MAC layer spoofing using received signal strength*. In *Proceedings of the 27th Annual Joint Conference of the IEEE Computer and Communications Societies (INFOCOM)*, pages 1768–1776. IEEE Computer Society Press, April 2008, DOI [10.1109/INFOCOM.2007.239](https://doi.org/10.1109/INFOCOM.2007.239). Acceptance rate 21%. [PDF](#)
- RC39. Udayan Deshpande, Chris McDonald, and David Kotz. *Refocusing in 802.11 wireless measurement*. In *Proceedings of the Passive and Active Measurement Conference (PAM 2008)*, volume 4979 of *Lecture Notes in Computer Science*, pages 142–151. Springer-Verlag, April 2008, DOI [10.1007/978-3-540-79232-1_15](https://doi.org/10.1007/978-3-540-79232-1_15). Acceptance rate 32%. [PDF](#)
- RC40. Sergey Bratus, Cory Cornelius, David Kotz, and Dan Peebles. *Active behavioral fingerprinting of wireless devices*. In *Proceedings of the First ACM Conference on Wireless Network Security (WiSec)*, pages 56–61. ACM Press, March 2008, DOI [10.1145/1352533.1352543](https://doi.org/10.1145/1352533.1352543). Later revised as [TR12](#). Acceptance rate 27%. [PDF](#)

- RC41. Apu Kapadia, Nikos Triandopoulos, Cory Cornelius, Dan Peebles, and David Kotz. *AnonySense: Opportunistic and privacy-preserving context collection*. In *Proceedings of the Sixth International Conference on Pervasive Computing (Pervasive)*, volume 5013 of *Lecture Notes in Computer Science*, pages 280–297. Springer-Verlag, May 2008, DOI [10.1007/978-3-540-79576-6_17](https://doi.org/10.1007/978-3-540-79576-6_17). Later revised as [RJ5](#). Acceptance rate 15%. [PDF](#)
- RC42. Ming Li and David Kotz. *Quality-managed group-aware stream filtering*. In *Proceedings of the Second International Conference on Distributed Event-Based Systems (DEBS)*, pages 59–70. ACM Press, July 2008, DOI [10.1145/1385989.1385998](https://doi.org/10.1145/1385989.1385998). Later revised as [RJ14](#). Acceptance rate 25%. [PDF](#)
- RC43. Cory Cornelius, Apu Kapadia, David Kotz, Dan Peebles, Minh Shin, and Nikos Triandopoulos. *AnonySense: Privacy-aware people-centric sensing*. In *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 211–224. ACM Press, June 2008, DOI [10.1145/1378600.1378624](https://doi.org/10.1145/1378600.1378624). Later revised as [RJ13](#). Acceptance rate 18%. [PDF](#)
- RC44. Soumendra Nanda and David Kotz. *Localized bridging centrality for distributed network analysis*. In *Proceedings of the 17th International Conference on Computer Communications and Networks (ICCCN)*, pages 1–6. IEEE Computer Society Press, August 2008, DOI [10.1109/ICCCN.2008.ECP.31](https://doi.org/10.1109/ICCCN.2008.ECP.31). Revision of [TR11](#). Acceptance rate 26%. [PDF](#)
- RC45. Apu Kapadia, Tristan Henderson, Jeffrey Fielding, and David Kotz. *Virtual Walls: Protecting digital privacy in pervasive environments*. In *Proceedings of the Fifth International Conference on Pervasive Computing (Pervasive)*, volume 4480 of *Lecture Notes in Computer Science*, pages 162–179. Springer-Verlag, May 2007, DOI [10.1007/978-3-540-72037-9_10](https://doi.org/10.1007/978-3-540-72037-9_10). Honorable Mention for Best Paper. Acceptance rate 16%. [PDF](#)
- RC46. Ming Li and David Kotz. *Group-aware stream filtering*. In *Proceedings of the Fourth Workshop on Wireless Ad hoc and Sensor Networks (WWASN)*, Toronto, June 2007. IEEE Computer Society Press, DOI [10.1109/ICDCSW.2007.38](https://doi.org/10.1109/ICDCSW.2007.38). Acceptance rate 42%. [PDF](#)
- RC47. Libo Song and David Kotz. *Evaluating opportunistic routing protocols with large realistic contact traces*. In *ACM MobiCom workshop on Challenged Networks (CHANTS 2007)*, pages 35–42. ACM Press, September 2007, DOI [10.1145/1287791.1287799](https://doi.org/10.1145/1287791.1287799). Acceptance rate 33%. [PDF](#)
- RC48. Udayan Deshpande, Chris McDonald, and David Kotz. *Coordinated sampling to improve the efficiency of wireless network monitoring*. In *Proceedings of the Fifteenth IEEE International Conference on Networks (ICON)*, pages 353–358. IEEE Computer Society Press, November 2007, DOI [10.1109/ICON.2007.4444112](https://doi.org/10.1109/ICON.2007.4444112). Acceptance rate 60%. [PDF](#)
- RC49. Libo Song, Udayan Deshpande, Ulaş C. Kozat, David Kotz, and Ravi Jain. *Predictability of WLAN mobility and its effects on bandwidth provisioning*. In *Proceedings of the 25th Annual Joint Conference of the IEEE Computer and Communications Societies (INFOCOM)*, Barcelona, Spain, April 2006. IEEE Computer Society Press, DOI [10.1109/INFOCOM.2006.171](https://doi.org/10.1109/INFOCOM.2006.171). Acceptance rate 18%. [PDF](#)
- RC50. Rajnish Kumar, Arnab Paul, Umakishore Ramachandran, and David Kotz. *On improving wireless broadcast reliability of sensor networks using erasure codes*. In *Proceedings of the International Conference on Mobile Ad-hoc and Sensor Networks (MSN)*, volume 4325 of *Lecture Notes in Computer Science*, pages 155–170. Springer-Verlag, 2006, DOI [10.1007/11943952_14](https://doi.org/10.1007/11943952_14). Acceptance rate 29%. [PDF](#)
- RC51. Minkyong Kim, David Kotz, and Songkuk Kim. *Extracting a mobility model from real user traces*. In *Proceedings of the 25th Annual Joint Conference of the IEEE Computer and Communications Societies (INFOCOM)*, Barcelona, Spain, April 2006. IEEE Computer Society Press, DOI [10.1109/INFOCOM.2006.173](https://doi.org/10.1109/INFOCOM.2006.173). Acceptance rate 18%. [PDF](#)
- RC52. Kazuhiro Minami and David Kotz. *Scalability in a secure distributed proof system*. In *Proceedings of the Fourth International Conference on Pervasive Computing (Pervasive)*, volume 3968 of *Lecture Notes in Computer Science*, pages 220–237, Dublin, Ireland, May 2006. Springer-Verlag, DOI [10.1007/11748625_14](https://doi.org/10.1007/11748625_14). Acceptance rate 13%. [PDF](#)
- RC53. Minkyong Kim, Jeffrey J. Fielding, and David Kotz. *Risks of using AP locations discovered through war driving*. In *Proceedings of the Fourth International Conference on Pervasive Computing (Pervasive)*, volume 3968 of *Lecture Notes in Computer Science*, pages 67–82, Dublin, Ireland, May 2006. Springer-Verlag, DOI [10.1007/11748625_5](https://doi.org/10.1007/11748625_5). Acceptance rate 13%. [PDF](#)

- RC54. Udayan Deshpande, Tristan Henderson, and David Kotz. *Channel sampling strategies for monitoring wireless networks*. In *Proceedings of the Second International Workshop on Wireless Network Measurement (WiN-Mee)*. IEEE Computer Society Press, April 2006, DOI [10.1109/WIOPT.2006.1666486](https://doi.org/10.1109/WIOPT.2006.1666486). Acceptance rate 48%. [PDF](#)
- RC55. Guanling Chen and David Kotz. *Policy-driven data dissemination for context-aware applications*. In *Proceedings of the Third IEEE International Conference on Pervasive Computing and Communications (PerCom)*, pages 283–289, Kauai, Hawaii, March 2005. DOI [10.1109/PERCOM.2005.32](https://doi.org/10.1109/PERCOM.2005.32). Short paper. Revision of [TR23](#). Acceptance rate 17%. [PDF](#)
- RC56. Kazuhiro Minami and David Kotz. *Secure context-sensitive authorization*. In *Proceedings of the Third IEEE International Conference on Pervasive Computing and Communications (PerCom)*, pages 257–268, Kauai, Hawaii, March 2005. DOI [10.1109/PERCOM.2005.37](https://doi.org/10.1109/PERCOM.2005.37). Later revised as [TR28](#). Acceptance rate 13%. [PDF](#)
- RC57. Tristan Henderson, Denise Anthony, and David Kotz. *Measuring wireless network usage with the experience sampling method*. In *Proceedings of the First Workshop on Wireless Network Measurements (WiN-Mee)*. International Communications Sciences and Technology Association (ICST), April 2005. Acceptance rate 41%. [PDF](#)
- RC58. Minkyong Kim and David Kotz. *Classifying the mobility of users and the popularity of access points*. In Thomas Strang and Claudia Linnhoff-Popien, editors, *Proceedings of the International Workshop on Location and Context-Awareness (LoCA)*, volume 3479 of *Lecture Notes in Computer Science*, pages 198–209, Germany, May 2005. Springer-Verlag, DOI [10.1007/11426646_19](https://doi.org/10.1007/11426646_19). Later revised as [TR15](#). Acceptance rate 34%. [PDF](#)
- RC59. Minkyong Kim and David Kotz. *Modeling users' mobility among WiFi access points*. In *Proceedings of the International Workshop on Wireless Traffic Measurements and Modeling (WiTMeMo '05)*, pages 19–24. USENIX Association, June 2005. Acceptance rate 46%. [PDF](#)
- RC60. David P. Blinn, Tristan Henderson, and David Kotz. *Analysis of a Wi-Fi hotspot network*. In *Proceedings of the International Workshop on Wireless Traffic Measurements and Modeling (WiTMeMo '05)*, pages 1–6. USENIX Association, June 2005. Acceptance rate 46%. [PDF](#)
- RC61. David Kotz, Calvin Newport, Robert S. Gray, Jason Liu, Yougu Yuan, and Chip Elliott. *Experimental evaluation of wireless simulation assumptions*. In *Proceedings of the ACM/IEEE International Symposium on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, pages 78–82. ACM Press, October 2004, DOI [10.1145/1023663.1023679](https://doi.org/10.1145/1023663.1023679). Revision of [TR21](#). Later revised as [RJ20](#). Acceptance rate 37%. [PDF](#)
- RC62. Libo Song, David Kotz, Ravi Jain, and Xiaoning He. *Evaluating location predictors with extensive Wi-Fi mobility data*. In *Proceedings of the 23rd Annual Joint Conference of the IEEE Computer and Communications Societies (INFOCOM)*, volume 2, pages 1414–1424, March 2004, DOI [10.1145/965732.965747](https://doi.org/10.1145/965732.965747). Later revised as [TR22](#). Acceptance rate 18%. [PDF](#)
- RC63. Jason Liu, Yougu Yuan, David M. Nicol, Robert S. Gray, Calvin C. Newport, David Kotz, and Luiz Felipe Perrone. *Simulation validation using direct execution of wireless ad-hoc routing protocols*. In *Proceedings of the Workshop on Parallel and Distributed Simulation (PADS)*, pages 7–16. ACM Press, May 2004, DOI [10.1109/PADS.2004.1301280](https://doi.org/10.1109/PADS.2004.1301280). Nominated for Best Paper award. Later revised as [RJ26](#). Acceptance rate 54%. [PDF](#)
- RC64. Guanling Chen, Ming Li, and David Kotz. *Design and implementation of a large-scale context fusion network*. In *First Annual International Conference on Mobile and Ubiquitous Systems: Networking and Services (MobiQuitous)*, pages 246–255, August 2004, DOI [10.1109/MOBIQ.2004.1331731](https://doi.org/10.1109/MOBIQ.2004.1331731). Acceptance rate 38%. [PDF](#)
- RC65. Tristan Henderson, David Kotz, and Ilya Abyzov. *The changing usage of a mature campus-wide wireless network*. In *Proceedings of the Tenth Annual International Conference on Mobile Computing and Networking (MobiCom)*, pages 187–201. ACM Press, September 2004, DOI [10.1145/1023720.1023739](https://doi.org/10.1145/1023720.1023739). Revision of [TR26](#). Later revised as [RJ15](#). Acceptance rate 8%. [PDF](#)

- RC66. Robert S. Gray, David Kotz, Calvin Newport, Nikita Dubrovsky, Aaron Fiske, Jason Liu, Christopher Masone, Susan McGrath, and Yougu Yuan. *Outdoor experimental comparison of four ad hoc routing algorithms*. In *Proceedings of the ACM/IEEE International Symposium on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, pages 220–229. ACM Press, October 2004, DOI [10.1145/1023663.1023703](https://doi.org/10.1145/1023663.1023703). Finalist for Best Paper award. Revision of [TR27](#). Acceptance rate 27%. [PDF](#)
- RC67. Guanling Chen and David Kotz. *Context-sensitive resource discovery*. In *Proceedings of the First IEEE International Conference on Pervasive Computing and Communications (PerCom)*, pages 243–252. IEEE Computer Society Press, March 2003, DOI [10.1109/PERCOM.2003.1192747](https://doi.org/10.1109/PERCOM.2003.1192747). Acceptance rate 32%. [PDF](#)
- RC68. Arne Grimstrup, Robert Gray, David Kotz, Maggie Breedy, Marco Carvalho, Thomas Cowin, Daria Chacón, Joyce Barton, Chris Garrett, and Martin Hofmann. *Toward dynamic interoperability of mobile agent systems*. In *Proceedings of the Sixth IEEE International Conference on Mobile Agents*, volume 2535 of *Lecture Notes in Computer Science*, pages 106–120, October 2002, DOI [10.1007/3-540-36112-X.8](https://doi.org/10.1007/3-540-36112-X.8). Acceptance rate 28%. [PDF](#)
- RC69. G. Ayorkor Mills-Tettey and David Kotz. *Mobile voice over IP (MVOIP): An application-level protocol for call hand-off in real time applications*. In *Proceedings of the Twenty-first IEEE International Performance, Computing, and Communications Conference (IPCCC)*, pages 271–279. IEEE Computer Society Press, April 2002, DOI [10.1109/IPCCC.2002.995160](https://doi.org/10.1109/IPCCC.2002.995160). Received award for “Best Student Paper”. Acceptance rate 33%. [PDF](#)
- RC70. Guanling Chen and David Kotz. *Context aggregation and dissemination in ubiquitous computing systems*. In *Proceedings of the Fourth IEEE Workshop on Mobile Computing Systems and Applications (WMCSA)*, pages 105–114. IEEE Computer Society Press, June 2002, DOI [10.1109/MCSA.2002.1017490](https://doi.org/10.1109/MCSA.2002.1017490). Revision of [TR33](#). Acceptance rate 35%. [PDF](#)
- RC71. Guanling Chen and David Kotz. *Solar: An open platform for context-aware mobile applications*. In *Proceedings of the First International Conference on Pervasive Computing (Short paper)*, pages 41–47, June 2002. In an informal companion volume of short papers. Revision of [TR35](#). Acceptance rate 29%. [PDF](#)
- RC72. David Kotz and Kobby Essien. *Analysis of a campus-wide wireless network*. In *Proceedings of the Eighth Annual International Conference on Mobile Computing and Networking (MobiCom)*, pages 107–118, September 2002, DOI [10.1145/570645.570659](https://doi.org/10.1145/570645.570659). Revised and corrected as Dartmouth CS Technical Report TR2002-432. Winner of ACM SIGMOBILE Test-of-Time award, 2017. Revision of [TR37](#). Later revised as [TR38](#). Acceptance rate 7%. [PDF](#)
- RC73. Ron Oldfield and David Kotz. *Armada: A parallel file system for computational grids*. In *Proceedings of the First IEEE/ACM International Symposium on Cluster Computing and the Grid (ccGrid)*, pages 194–201, Brisbane, Australia, May 2001. IEEE Computer Society Press, DOI [10.1109/CCGRID.2001.923193](https://doi.org/10.1109/CCGRID.2001.923193). Acceptance rate 38%. [PDF](#)
- RC74. Robert S. Gray, David Kotz, Ronald A. Peterson, Jr., Joyce Barton, Daria Chacón, Peter Gerken, Martin Hofmann, Jeffrey Bradshaw, Maggie Breedy, Renia Jeffers, and Niranjan Suri. *Mobile-agent versus client/server performance: Scalability in an information-retrieval task*. In *Proceedings of the Fifth IEEE International Conference on Mobile Agents*, volume 2240 of *Lecture Notes in Computer Science*, pages 229–243, Atlanta, Georgia, December 2001. Springer-Verlag, DOI [10.1007/3-540-45647-3.16](https://doi.org/10.1007/3-540-45647-3.16). A corrected version of this paper is available on the Dartmouth web site. Revision of [TR40](#). Acceptance rate 24%. [PDF](#)
- RC75. Jon Howell and David Kotz. *A formal semantics for SPKI*. In *Proceedings of the Sixth European Symposium on Research in Computer Security (ESORICS 2000)*, volume 1895 of *Lecture Notes in Computer Science*, pages 140–158. Springer-Verlag, October 2000, DOI [10.1007/10722599_9](https://doi.org/10.1007/10722599_9). Revision of [TR44](#). Later revised as [U10](#). Acceptance rate 25%. [PDF](#)
- RC76. Jonathan Bredin, Rajiv T. Maheswaran, Çağrı Imer, Tamer Başar, David Kotz, and Daniela Rus. *A game-theoretic formulation of multi-agent resource allocation*. In *Proceedings of the Fourth International Conference on Autonomous Agents*, pages 349–356. ACM Press, June 2000, DOI [10.1145/336595.337525](https://doi.org/10.1145/336595.337525). Revision of [TR49](#). Acceptance rate 24%. [PDF](#)

- RC77. David Kotz, Guofei Jiang, Robert Gray, George Cybenko, and Ronald A. Peterson. *Performance analysis of mobile agents for filtering data streams on wireless networks*. In *Proceedings of the Workshop on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, pages 85–94. ACM Press, August 2000, DOI [10.1145/346855.346868](https://doi.org/10.1145/346855.346868). Honorable mention as “Best Paper”. Revision of [TR45](#). Later revised as [TR46](#). Acceptance rate 30%. [PDF](#)
- RC78. Jonathan Bredin, David Kotz, and Daniela Rus. *Trading risk in mobile-agent computational markets*. In *The Sixth International Conference on Computing in Economics and Finance*, Barcelona, Spain, July 2000. No proceedings available. [PDF](#)
- RC79. Jon Howell and David Kotz. *End-to-end authorization*. In *Proceedings of the 2000 Symposium on Operating Systems Design and Implementation (OSDI)*, pages 151–164. USENIX Association, October 2000. Acceptance rate 22%. [PDF](#)
- RC80. David Kotz and Robert S. Gray. *Mobile code: The future of the Internet*. In *Proceedings of the Workshop “Mobile Agents in the Context of Competition and Cooperation (MAC3)” at Autonomous Agents ’99*, pages 6–12, May 1999. Later revised as [U13](#). Acceptance rate 62%. [PDF](#)
- RC81. Jonathan Bredin, David Kotz, and Daniela Rus. *Economic markets as a means of open mobile-agent systems*. In *Proceedings of the Workshop “Mobile Agents in the Context of Competition and Cooperation (MAC3)” at Autonomous Agents ’99*, pages 43–49, May 1999. Acceptance rate 62%. [PDF](#)
- RC82. Jonathan Bredin, David Kotz, and Daniela Rus. *Market-based resource control for mobile agents*. In *Proceedings of the Second International Conference on Autonomous Agents*, pages 197–204. ACM Press, May 1998, DOI [10.1145/280765.280801](https://doi.org/10.1145/280765.280801). Revision of [TR57](#). Acceptance rate 34%. [PDF](#)
- RC83. Daniela Rus, Robert Gray, and David Kotz. *Transportable information agents*. In *Proceedings of the First International Conference on Autonomous Agents*, pages 228–236. ACM Press, February 1997, DOI [10.1145/267658.267721](https://doi.org/10.1145/267658.267721). Revision of [U18](#). Later revised as [RJ36](#). Acceptance rate 38%. [PDF](#)
- RC84. Apratim Purakayastha, Carla Schlatter Ellis, and David Kotz. *ENWRICH: a compute-processor write caching scheme for parallel file systems*. In *Proceedings of the Fourth Workshop on Input/Output in Parallel and Distributed Systems (IOPADS)*, pages 55–68, Philadelphia, May 1996. ACM Press, DOI [10.1145/236017.236034](https://doi.org/10.1145/236017.236034). Revision of [TR68](#). Acceptance rate 37%. [PDF](#)
- RC85. Nils Nieuwejaar and David Kotz. *Performance of the Galley parallel file system*. In *Proceedings of the Fourth Workshop on Input/Output in Parallel and Distributed Systems (IOPADS)*, pages 83–94, Philadelphia, May 1996. ACM Press, DOI [10.1145/236017.236038](https://doi.org/10.1145/236017.236038). Later revised as [TR58](#). Acceptance rate 37%. [PDF](#)
- RC86. Nils Nieuwejaar and David Kotz. *The Galley parallel file system*. In *Proceedings of the 10th ACM International Conference on Supercomputing (ICS)*, pages 374–381, Philadelphia, May 1996. ACM Press, DOI [10.1145/237578.237639](https://doi.org/10.1145/237578.237639). Later revised as [TR58](#). Acceptance rate 52%. [PDF](#)
- RC87. David Kotz, Robert Gray, and Daniela Rus. *Transportable agents support worldwide applications*. In *Proceedings of the Seventh ACM SIGOPS European Workshop*, pages 41–48. ACM Press, September 1996, DOI [10.1145/504450.504458](https://doi.org/10.1145/504450.504458). Acceptance rate 28%. [PDF](#)
- RC88. David Kotz. *A data-parallel programming library for education (DAPPLE)*. In *Proceedings of the Twenty-sixth SIGCSE Technical Symposium on Computer Science Education*, pages 76–81. ACM Press, March 1995, DOI [10.1145/199688.199730](https://doi.org/10.1145/199688.199730). Revision of [TR73](#). Later revised as [RJ39](#). Acceptance rate 35%. [PDF](#)
- RC89. Apratim Purakayastha, Carla Schlatter Ellis, David Kotz, Nils Nieuwejaar, and Michael Best. *Characterizing parallel file-access patterns on a large-scale multiprocessor*. In *Proceedings of the Ninth International Parallel Processing Symposium (IPPS)*, pages 165–172. IEEE Computer Society Press, April 1995, DOI [10.1109/IPPS.1995.395928](https://doi.org/10.1109/IPPS.1995.395928). Revision of [TR74](#). Later revised as [TR66](#). Acceptance rate 40%. [PDF](#)
- RC90. Nils Nieuwejaar and David Kotz. *Low-level interfaces for high-level parallel I/O*. In *Proceedings of the IPPS ’95 Workshop on Input/Output in Parallel and Distributed Systems (IOPADS)*, pages 47–62, April 1995. Identical to [TR63](#). Later revised as [IB18](#). Acceptance rate 33%.

- RC91. David Kotz and Ting Cai. *Exploring the use of I/O nodes for computation in a MIMD multiprocessor*. In *Proceedings of the IPPS '95 Workshop on Input/Output in Parallel and Distributed Systems (IOPADS)*, pages 78–89, April 1995. Revision of [TR76](#). Acceptance rate 33%. [PDF](#)
- RC92. David Kotz. *Disk-directed I/O for an out-of-core computation*. In *Proceedings of the Fourth IEEE International Symposium on High Performance Distributed Computing (HPDC)*, pages 159–166. IEEE Computer Society Press, August 1995, DOI [10.1109/HPDC.1995.518706](#). Revision of [TR64](#). Acceptance rate 43%. [PDF](#)
- RC93. David Kotz. *Expanding the potential for disk-directed I/O*. In *Proceedings of the 1995 IEEE Symposium on Parallel and Distributed Processing (SPDP)*, pages 490–495, San Antonio, TX, October 1995. IEEE Computer Society Press, DOI [10.1109/SPDP.1995.530723](#). Revision of [TR65](#). Acceptance rate 40%. [PDF](#)
- RC94. David Kotz and Preston Crow. *The expected lifetime of “single-address-space” operating systems*. In *Proceedings of the 1994 ACM SIGMETRICS Conference on Measurement and Modeling of Computer Systems*, pages 161–170. ACM Press, May 1994, DOI [10.1145/183019.183036](#). Revision of [TR79](#). Later revised as [RJ38](#). Acceptance rate 23%. [PDF](#)
- RC95. David Kotz and Nils Nieuwejaar. *Dynamic file-access characteristics of a production parallel scientific workload*. In *Proceedings of Supercomputing '94*, pages 640–649, Washington, DC, November 1994. IEEE Computer Society Press, DOI [10.1109/SUPERC.1994.344328](#). Revision of [TR70](#). Later revised as [RJ41](#). Acceptance rate 28%. [PDF](#)
- RC96. David Kotz. *Disk-directed I/O for MIMD multiprocessors*. In *Proceedings of the 1994 Symposium on Operating Systems Design and Implementation (OSDI)*, pages 61–74. USENIX Association, November 1994. Updated as Dartmouth TR PCS-TR94-226 on November 8, 1994. Honorable mention as “Best Paper”. Later revised as [TR71](#). Acceptance rate 18%. [PDF](#)
- RC97. Owen Astrachan, Vivek Khera, and David Kotz. *The Internet programming contest: A report and philosophy*. In *Proceedings of the Twenty-fourth SIGCSE Technical Symposium on Computer Science Education*, pages 48–52. ACM Press, February 1993, DOI [10.1145/169070.169105](#). Revision of [TR82](#). Acceptance rate 29%. [PDF](#)
- RC98. David Kotz. *Multiprocessor file system interfaces*. In *Proceedings of the Second International Conference on Parallel and Distributed Information Systems (PDIS)*, pages 194–201. IEEE Computer Society Press, 1993, DOI [10.1109/PDIS.1993.253093](#). Revision of [TR81](#). Acceptance rate 18%. [PDF](#)
- RC99. Thomas H. Cormen and David Kotz. *Integrating theory and practice in parallel file systems*. In *Proceedings of the 1993 DAGS/PC Symposium*, pages 64–74, Hanover, NH, June 1993. Dartmouth Institute for Advanced Graduate Studies. Revised as Dartmouth PCS-TR93-188 on 9/20/94. Later revised as [TR77](#). Acceptance rate 64%. [PDF](#)
- RC100. David Kotz and Carla Schlatter Ellis. *Caching and writeback policies in parallel file systems*. In *Proceedings of the 1991 IEEE Symposium on Parallel and Distributed Processing (SPDP)*, pages 60–67. IEEE Computer Society Press, December 1991, DOI [10.1109/SPDP.1991.218296](#). Revision of [D1](#). Later revised as [RJ42](#). Acceptance rate 33%. [PDF](#)
- RC101. David Kotz and Carla Schlatter Ellis. *Practical prefetching techniques for parallel file systems*. In *Proceedings of the First International Conference on Parallel and Distributed Information Systems (PDIS)*, pages 182–189. IEEE Computer Society Press, December 1991, DOI [10.1109/PDIS.1991.183101](#). Revision of [D1](#). Later revised as [RJ43](#). Acceptance rate 16%. [PDF](#)
- RC102. David Kotz and Carla Ellis. *Evaluation of concurrent pools*. In *Proceedings of the Ninth International Conference on Distributed Computer Systems (ICDCS)*, pages 378–385. IEEE Computer Society Press, 1989, DOI [10.1109/ICDCS.1989.37968](#). Revision of [TR86](#). Acceptance rate 33%. [PDF](#)
- RC103. Carla Schlatter Ellis and David Kotz. *Prefetching in file systems for MIMD multiprocessors*. In *Proceedings of the 1989 International Conference on Parallel Processing (ICPP)*, pages I:306–314, St. Charles, IL, August 1989. Pennsylvania State University Press. Revision of [TR84](#). Later revised as [RJ44](#). Acceptance rate 25%.

REFEREED CONFERENCE POSTERS AND POSITION PAPERS (in approximate reverse-chronological order)

These are short papers, poster abstracts, or position papers, nonetheless peer-reviewed.

- RP1. Taylor Hardin, Josiah Hester, Patrick Proctor, Jacob Sorber, and David Kotz. *Poster: Memory protection in ultra-low-power multi-application wearables*. In *Proceedings of the ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, page 170. ACM Press, June 2017, DOI [10.1145/3081333.3089314](https://doi.org/10.1145/3081333.3089314). [PDF](#)
- RP2. Rui Liu, Cory Cornelius, Reza Rawassizadeh, Ron Peterson, and David Kotz. *Poster: Vocal resonance as a passive biometric*. In *Proceedings of the ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, page 160. ACM Press, June 2017, DOI [10.1145/3081333.3089304](https://doi.org/10.1145/3081333.3089304). [PDF](#)
- RP3. Shengjie Bi, Ellen Davenport, Jun Gong, Ronald Peterson, Kevin Storer, Tao Wang, Kelly Caine, Ryan Halter, David Kotz, Kofi Odame, Jacob Sorber, and Xing-Dong Yang. *Poster: Auracle — a wearable device for detecting and monitoring eating behavior*. In *Proceedings of the ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, page 176. ACM Press, June 2017, DOI [10.1145/3081333.3089320](https://doi.org/10.1145/3081333.3089320). [PDF](#)
- RP4. Timothy J. Pierson, Ronald Peterson, and David Kotz. *Secure information transfer between nearby wireless devices*. In *Proceedings of the Mobicom S3 workshop*, pages 11–13. ACM Press, October 2017, DOI [10.1145/3131348.3131355](https://doi.org/10.1145/3131348.3131355). Acceptance rate 100%. [PDF](#)
- RP5. David Kotz and Travis Peters. *Challenges to ensuring human safety throughout the life-cycle of smart environments*. In *Proceedings of the ACM Workshop on the Internet of Safe Things (SafeThings)*, pages 1–7. ACM, November 2017, DOI [10.1145/3137003.3137012](https://doi.org/10.1145/3137003.3137012). Acceptance rate 54%. [PDF](#)
- RP6. Timothy J. Pierson, Xiaohui Liang, Ronald Peterson, and David Kotz. *Demo: Wanda, securely introducing mobile devices*. In *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, page 113. ACM Press, June 2016, DOI [10.1145/2938559.2938581](https://doi.org/10.1145/2938559.2938581). [PDF](#)
- RP7. Josiah Hester, Travis Peters, Tianlong Yun, Ronald Peterson, Joseph Skinner, Bhargav Golla, Kevin Storer, Steven Hearndon, Sarah Lord, Ryan Halter, David Kotz, and Jacob Sorber. *The Amulet wearable platform: Demo abstract*. In *Proceedings of the ACM Conference on Embedded Networked Sensor Systems (SenSys)*, pages 290–291. ACM Press, November 2016, DOI [10.1145/2994551.2996527](https://doi.org/10.1145/2994551.2996527). [PDF](#)
- RP8. Andrés Molina-Markham, Ronald A. Peterson, Joseph Skinner, Ryan J. Halter, Jacob Sorber, and David Kotz. *Poster: Enabling computational jewelry for mHealth applications*. In *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 374–375. ACM Press, June 2014, DOI [10.1145/2594368.2601454](https://doi.org/10.1145/2594368.2601454). [PDF](#)
- RP9. Aarathi Prasad, Xiaohui Liang, and David Kotz. *Poster: Balancing disclosure and utility of personal information*. In *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 380–381. ACM Press, June 2014, DOI [10.1145/2594368.2601448](https://doi.org/10.1145/2594368.2601448). [PDF](#)
- RP10. Xiaohui Liang and David Kotz. *Securely connecting wearable health devices to external displays*. In *USENIX Summit on Health Information Technologies*. USENIX, August 2014. No paper – workshop presentation only. [PDF](#)
- RP11. Cory Cornelius, Zachary Marois, Jacob Sorber, Ron Peterson, Shrirang Mare, and David Kotz. *Passive biometrics for pervasive wearable devices (poster paper)*. In *Workshop on Mobile Computing Systems and Applications (HotMobile)*. ACM Press, February 2012. [PDF](#)
- RP12. Aarathi Prasad, Ronald Peterson, Jacob Sorber, and David Kotz. *A provenance framework for mHealth*. In *Proceedings of the Workshop for Mobile Systems, Applications, and Services for Healthcare (mHealthSys) Poster Track*, pages 9:1–9:2. ACM Press, November 2012, DOI [10.1145/2396276.2396287](https://doi.org/10.1145/2396276.2396287). [PDF](#)
- RP13. Jacob Sorber, Minh Shin, Ron Peterson, and David Kotz. *Poster: Practical trusted computing for mHealth sensing*. In *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*. ACM Press, June 2011, DOI [10.1145/1999995.2000058](https://doi.org/10.1145/1999995.2000058). [PDF](#)

- RP14. Aarathi Prasad, Jacob Sorber, Timothy Stablein, Denise Anthony, and David Kotz. *Exposing privacy concerns in mHealth*. In *USENIX Workshop on Health Security (HealthSec)*, August 2011. Position paper. Acceptance rate 34%. [PDF](#)
- RP15. Keren Tan, Guanhua Yan, Jihwang Yeo, and David Kotz. *A correlation attack against user mobility privacy in a large-scale WLAN network*. In *Proceedings of the ACM MobiCom'10 S3 workshop*, pages 33–35. ACM Press, September 2010, DOI [10.1145/1860039.1860050](https://doi.org/10.1145/1860039.1860050). Later revised as [RC25](#). [PDF](#)
- RP16. Aarathi Prasad and David Kotz. *Can I access your data? Privacy management in mHealth*. In *USENIX Workshop on Health Security (HealthSec)*, August 2010. Position paper. Acceptance rate 49%. [PDF](#)
- RP17. Shrirang Mare and David Kotz. *Is Bluetooth the right technology for mHealth?*. In *USENIX Workshop on Health Security (HealthSec)*, August 2010. Position paper. Acceptance rate 49%. [PDF](#)
- RP18. Cory Cornelius and David Kotz. *On usable authentication for wireless body area networks*. In *USENIX Workshop on Health Security (HealthSec)*, August 2010. Position paper. Acceptance rate 49%. [PDF](#)
- RP19. Janani Sriram, Minh Shin, Tanzeem Choudhury, and David Kotz. *Activity-aware ECG-based patient authentication for remote health monitoring*. In *Proceedings of the International Conference on Multimodal Interfaces and Workshop on Machine Learning for Multi-modal Interaction (ICMI-MLMI)*, pages 297–304. ACM Press, November 2009, DOI [10.1145/1647314.1647378](https://doi.org/10.1145/1647314.1647378). Acceptance rate 36%. [PDF](#)
- RP20. Cory Cornelius, Apu Kapadia, David Kotz, Dan Peebles, Minh Shin, and Patrick Tsang. *Poster abstract: Reliable people-centric sensing with unreliable voluntary carriers*. In *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*. ACM Press, June 2008. [PDF](#)
- RP21. Sergey Bratus, Joshua Brody, David Kotz, and Anna Shubina. *Streaming estimation of information-theoretic metrics for anomaly detection (extended abstract)*. In *Proceedings of the 11th International Symposium on Recent Advances in Intrusion Detection—Posters*, volume 5230 of *Lecture Notes in Computer Science*, pages 412–414, Cambridge, MA, September 2008. Springer-Verlag, DOI [10.1007/978-3-540-87403-4_32](https://doi.org/10.1007/978-3-540-87403-4_32). Acceptance rate 41%. [PDF](#)
- RP22. Libo Song, Udayan Deshpande, Ulaş C. Kozat, David Kotz, and Ravi Jain. *Mobicom poster abstract: Bandwidth reservation using WLAN handoff prediction*. *ACM SIGMOBILE Mobile Computing and Communication Review*, 10(4):22–23, October 2006, DOI [10.1145/1215976.1215987](https://doi.org/10.1145/1215976.1215987). Poster presented at Mobicom 2005. [PDF](#)
- RP23. Guanling Chen and David Kotz. *Dependency management in distributed settings (poster abstract)*. In *International Conference on Autonomic Computing (ICAC)*, May 2004, DOI [10.1109/ICAC.2004.1301375](https://doi.org/10.1109/ICAC.2004.1301375). Revision of [TR24](#). Acceptance rate 48%. [PDF](#)
- RP24. Jue Wang, Guanling Chen, and David Kotz. *A sensor-fusion approach for meeting detection*. In *MobiSys 2004 Workshop on Context Awareness*, June 2004. Revision of [TR25](#). Acceptance rate 71%. [PDF](#)
- RP25. Javed Aslam, Sergey Bratus, David Kotz, Ron Peterson, Daniela Rus, and Brett Tofel. *The Kerf toolkit for intrusion analysis (Poster abstract)*. In *Proceedings of the 2003 IEEE Workshop on Information Assurance*, pages 301–303, West Point, NY, June 2003. IEEE Computer Society Press. Later revised as [RJ28](#). [PDF](#)
- RP26. Libo Song, David Kotz, Ravi Jain, and Xiaoning He. *Mobicom poster: Evaluating location predictors with extensive Wi-Fi mobility data*. *ACM SIGMOBILE Mobile Computing and Communication Review*, 7(4):64–65, October 2003, DOI [10.1145/965732.965747](https://doi.org/10.1145/965732.965747). Revision of [TR31](#). Later revised as [RC62](#). Acceptance rate 23%. [PDF](#)
- RP27. Guanling Chen and David Kotz. *SOLAR: Towards a flexible and scalable data-fusion infrastructure for ubiquitous computing*. In *UbiTools workshop at UbiComp 2001*, October 2001. Acceptance rate 84%. [PDF](#)
- RP28. Jon Howell and David Kotz. *Restricted delegation: seamlessly spanning administrative boundaries*. *ACM Operating Systems Review*, 34(2):38–39, April 2000, DOI [10.1145/346152.346268](https://doi.org/10.1145/346152.346268). [PDF](#)

INVITED BOOK CHAPTERS (in approximate reverse-chronological order)

Most, but not all, of these papers were peer-reviewed.

- IB1. Aarathi Prasad, Jacob Sorber, Timothy Stablein, Denise Anthony, and David Kotz. *Understanding user privacy preferences for mhealth data sharing*. In Sasan Adibi, editor, *mHealth: Multidisciplinary Verticals*, chapter 30, pages 545–570. Taylor & Francis (CRC Press), November 2014, DOI [10.1201/b17724-17](https://doi.org/10.1201/b17724-17). Revision of [RC22](#). [PDF](#)
- IB2. Keren Tan, Jihwang Yeo, Michael E. Locasto, and David Kotz. *Catch, clean, and release: A survey of obstacles and opportunities for network trace sanitization*. In Francesco Bonchi and Elena Ferrari, editors, *Privacy-Aware Knowledge Discovery: Novel Applications and New Techniques*, chapter 5, pages 111–141. Chapman and Hall/CRC Press, January 2011. [PDF](#)
- IB3. Kazuhiro Minami and David Kotz. *Distributed proof systems for cross-domain authorization*. In *Information Assurance, Security and Privacy Services*, volume 4 of *Handbooks in Information Systems*, chapter 1. Emerald Group Publishing Limited, 2009. [PDF](#)
- IB4. Janani Sriram, Minh Shin, David Kotz, Anand Rajan, Manoj Sastry, and Mark Yarvis. *Challenges in data quality assurance in pervasive health monitoring systems*. In David Gawrock, Helmut Reimer, Ahmad-Reza Sadeghi, and Claire Vishik, editors, *Future of Trust in Computing*, pages 129–142. Vieweg+Teubner Verlag, July 2009, DOI [10.1007/978-3-8348-9324-6_14](https://doi.org/10.1007/978-3-8348-9324-6_14). [PDF](#)
- IB5. Tristan Henderson and David Kotz. *Measuring wireless LANs*. In Rajeev Shorey et al., editor, *Mobile, Wireless and Sensor Networks: Technology, Applications and Future Directions*, chapter 1, pages 5–27. John Wiley & Sons, New York, NY, 2006, DOI [10.1002/0471755591.ch1](https://doi.org/10.1002/0471755591.ch1). [PDF](#)
- IB6. Guanling Chen, Kazuhiro Minami, and David Kotz. *Naming and discovery in mobile systems*. In Paolo Bellavista and Antonio Corradi, editors, *The Handbook of Mobile Middleware*, chapter 16, pages 387–407. John Wiley & Sons, 2006.
- IB7. Robert S. Gray, George Cybenko, David Kotz, and Daniela Rus. *Mobile agents: Motivations and state of the art*. In Jeffrey Bradshaw, editor, *Handbook of Agent Technology*. AAAI/MIT Press, 2002. Accepted for publication. Draft available as Technical Report TR2000-365, Department of Computer Science, Dartmouth College. Revision of [TR43](#). [PDF](#)
- IB8. David Kotz and Carla Schlatter Ellis. *Practical prefetching techniques for multiprocessor file systems*. In Hai Jin, Toni Cortes, and Rajkumar Buyya, editors, *High Performance Mass Storage and Parallel I/O: Technologies and Applications*, chapter 17, pages 245–258. IEEE Computer Society Press and John Wiley & Sons, New York, NY, 2001. Identical to [RJ43](#).
- IB9. David Kotz. *Disk-directed I/O for MIMD multiprocessors*. In Hai Jin, Toni Cortes, and Rajkumar Buyya, editors, *High Performance Mass Storage and Parallel I/O: Technologies and Applications*, chapter 35, pages 513–535. IEEE Computer Society Press and John Wiley & Sons, 2001. Identical to [RJ34](#).
- IB10. Ron Oldfield and David Kotz. *Scientific applications using parallel I/O*. In Hai Jin, Toni Cortes, and Rajkumar Buyya, editors, *High Performance Mass Storage and Parallel I/O: Technologies and Applications*, chapter 45, pages 655–666. IEEE Computer Society Press and John Wiley & Sons, 2001. Revision of [TR53](#).
- IB11. Jonathan Bredin, David Kotz, Daniela Rus, Rajiv T. Maheswaran, Çağrı Imer, and Tamer Başar. *A market-based model for resource allocation in agent systems*. In Franco Zambonelli, editor, *Coordination of Internet Agents Models, Technologies, and Applications*, chapter 17, pages 426–441. Springer-Verlag, 2001. [PDF](#)
- IB12. David Kotz, Robert Gray, Saurab Nog, Daniela Rus, Sumit Chawla, and George Cybenko. *Mobile agents for mobile computing*. In Dejan S. Milošević, Frederick Douglass, and Richard G. Wheeler, editors, *Mobility: Processes, Computers, and Agents*, chapter 14.3, pages 513–523. Addison Wesley and ACM Press, April 1999. Identical to [RJ37](#).
- IB13. David Kotz and Ravi Jain. *I/O in parallel and distributed systems*. In Allen Kent and James G. Williams, editors, *Encyclopedia of Computer Science and Technology*, volume 40, pages 141–154. Marcel Dekker, Inc., 1999. Supplement 25. [PDF](#)
- IB14. Brian Brewington, Robert Gray, Kazuhiro Moizumi, David Kotz, George Cybenko, and Daniela Rus. *Mobile agents for distributed information retrieval*. In Matthias Klusch, editor, *Intelligent Information Agents*, chapter 15, pages 355–395. Springer-Verlag, 1999. [PDF](#)

- IB15. Robert S. Gray, David Kotz, George Cybenko, and Daniela Rus. *D'Agents: Security in a multiple-language, mobile-agent system*. In Giovanni Vigna, editor, *Mobile Agents and Security*, volume 1419 of *Lecture Notes in Computer Science*, pages 154–187. Springer-Verlag, 1998, DOI [10.1007/3-540-68671-1](https://doi.org/10.1007/3-540-68671-1). [PDF](#)
- IB16. Daniela Rus, Robert Gray, and David Kotz. *Transportable information agents*. In Michael Huhns and Munindar Singh, editors, *Readings in Agents*, chapter 3.3, pages 283–291. Morgan Kaufmann Publishers, San Francisco, October 1997. Identical to [RJ36](#).
- IB17. Robert Gray, David Kotz, George Cybenko, and Daniela Rus. *Agent Tcl*. In William Cockayne and Michael Zyda, editors, *Mobile Agents: Explanations and Examples*, chapter 4, pages 58–95. Manning Publishing, 1997. Imprints by Manning Publishing and Prentice Hall. [PDF](#)
- IB18. Nils Nieuwejaar and David Kotz. *Low-level interfaces for high-level parallel I/O*. In Ravi Jain, John Werth, and James C. Browne, editors, *Input/Output in Parallel and Distributed Computer Systems*, volume 362 of *The Kluwer International Series in Engineering and Computer Science*, chapter 9, pages 205–223. Kluwer Academic Publishers, 1996. Revision of [RC90](#).
- IB19. David Kotz. *Introduction to multiprocessor I/O architecture*. In Ravi Jain, John Werth, and James C. Browne, editors, *Input/Output in Parallel and Distributed Computer Systems*, volume 362 of *The Kluwer International Series in Engineering and Computer Science*, chapter 4, pages 97–123. Kluwer Academic Publishers, 1996. [PDF](#)

PH.D DISSERTATION – MY OWN (in approximate reverse-chronological order)

- D1. David Kotz. *Prefetching and Caching Techniques in File Systems for MIMD Multiprocessors*. PhD thesis, Duke University, April 1991. Available as technical report CS-1991-016. [PDF](#)

DISSERTATIONS AND THESES – MY STUDENTS (in approximate reverse-chronological order)

Although my student's theses are not my publications, I list them as a representation of my role as advisor.

- T1. David B. Harmon. *Cryptographic transfer of sensor data from the Amulet to a smartphone*. Technical Report TR2017-826, Dartmouth College, Computer Science, Hanover, NH, May 2017. [PDF](#)
- T2. George G. Boateng. *ActivityAware: Wearable system for real-time physical activity monitoring among the elderly*. Master's thesis, Dartmouth Computer Science, May 2017. Available as Dartmouth Computer Science Technical Report TR2017-824. [PDF](#)
- T3. Aarathi Prasad. *Privacy-preserving controls for sharing mHealth data*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, May 2016. Available as Dartmouth Computer Science Technical Report TR2016-794. [PDF](#)
- T4. Shirang Mare. *Seamless Authentication for Ubiquitous Devices*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, May 2016. Available as Dartmouth Computer Science Technical Report TR2016-793. [PDF](#)
- T5. Rima Narayana Murthy. *mCollector: Sensor-enabled health-data collection system for rural areas in the developing world*. Master's thesis, Dartmouth College Computer Science, Hanover, NH, August 2014. Available as Dartmouth Technical Report TR2015-788. [PDF](#)
- T6. Cory T. Cornelius. *Usable Security for Wireless Body-Area Networks*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, September 2013. Available as Dartmouth Computer Science Technical Report TR2013-741. [PDF](#)
- T7. Aarathi Prasad. *Exposing privacy concerns in mHealth data sharing*. Master's thesis, Dartmouth College Computer Science, Hanover, NH, February 2012. Available as Technical Report TR2012-711. Later revised as [RC22](#). [PDF](#)
- T8. Keren Tan. *Large-scale Wireless Local-area Network Measurement and Privacy Analysis*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, August 2011. Available as Dartmouth Computer Science Technical Report TR2011-703. [PDF](#)

- T9. Libo Song. *Evaluating Mobility Predictors in Wireless Networks for Improving Handoff and Opportunistic Routing*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, January 2008. Available as Dartmouth Computer Science Technical Report TR2008-611. [PDF](#)
- T10. Soumendra Nanda. *Mesh-Mon: a Monitoring and Management System for Wireless Mesh Networks*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, May 2008. Available as Dartmouth Computer Science Technical Report TR2008-619. [PDF](#)
- T11. Ming Li. *Group-Aware Stream Filtering*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, May 2008. Available as Dartmouth Computer Science Technical Report TR2008-621. [PDF](#)
- T12. Udayan Deshpande. *A Dynamically Refocusable Sampling Infrastructure for 802.11 Networks*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, May 2008. Available as Dartmouth Computer Science Technical Report TR2008-620. [PDF](#)
- T13. Kazuhiro Minami. *Secure Context-sensitive Authorization*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, February 2006. Available as Dartmouth Computer Science Technical Report TR2006-571. [PDF](#)
- T14. Zhenhui Jiang. *A combined routing method for ad hoc wireless networks*. Master's thesis, Dartmouth College Computer Science, Hanover, NH, December 2005. Available as Dartmouth Computer Science Technical Report TR2005-566. [PDF](#)
- T15. Jue Wang. *Performance evaluation of a resource discovery service*. Master's thesis, Dartmouth College Computer Science, Hanover, NH, October 2004. Available as Dartmouth Computer Science Technical Report TR2004-513. [PDF](#)
- T16. Guanling Chen. *Solar: Building A Context Fusion Network for Pervasive Computing*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, August 2004. Available as Dartmouth Computer Science Technical Report TR2004-514. [PDF](#)
- T17. Ron Oldfield. *Efficient I/O for Computational Grid Applications*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, May 2003. Available as Dartmouth Computer Science Technical Report TR2003-459. [PDF](#)
- T18. Jonathan L. Bredin. *Market-based Control of Mobile-agent Systems*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, June 2001. Available as Dartmouth Computer Science Technical Report TR2001-408. [PDF](#)
- T19. Jonathan R. Howell. *Naming and sharing resources across administrative boundaries*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, June 2000. Available as Dartmouth Computer Science Technical Reports TR2000-378, 379, and 380. [PDF](#)
- T20. Nils A. Nieuwejaar. *Galley: A New Parallel File System for Parallel Applications*. PhD thesis, Dartmouth College Computer Science, Hanover, NH, November 1996. Available as Dartmouth Computer Science Technical Report PCS-TR96-300. [PDF](#)

UNREFEREED PAPERS (in approximate reverse-chronological order)

Articles published but not peer-reviewed, or unpublished.

- U1. David Kotz, Kevin Fu, Carl Gunter, and Avi Rubin. *Security for mobile and cloud frontiers in healthcare*. *Communications of the ACM*, 58(8):21–23, August 2015, DOI [10.1145/2790830](#). [PDF](#)
- U2. Apu Kapadia, David Kotz, and Nikos Triandopoulos. *Opportunistic sensing: Security challenges for the new paradigm*. In *Proceedings of the International Conference on COMMunication Systems and NETWORKS (COMSNETS)*, January 2009, DOI [10.1109/COMSNETS.2009.4808850](#). Invited paper. Revision of [TR14](#). [PDF](#)
- U3. Jihwang Yeo, David Kotz, and Tristan Henderson. *Workshop report — CRAWDAD workshop 2007*. *ACM SIGCOMM Computer Communication Review*, 38(3):79–82, July 2008, DOI [10.1145/1384609.1384619](#). [PDF](#)

- U4. Jihwang Yeo, Tristan Henderson, and David Kotz. *Workshop report — CRAWDAD workshop 2006*. *ACM SIGMOBILE Mobile Computing and Communication Review*, 11(1):67–69, January 2007. [PDF](#)
- U5. Jihwang Yeo, David Kotz, and Tristan Henderson. *CRAWDAD: A Community Resource for Archiving Wireless Data at Dartmouth*. *ACM SIGCOMM Computer Communication Review*, 36(2):21–22, April 2006, DOI [10.1145/1129582.1129588](#). Project overview. [PDF](#)
- U6. Javed Aslam, Sergey Bratus, David Kotz, Ronald Peterson, and Daniela Rus. *The Kerf toolkit for intrusion analysis*. *IANewsletter*, 8(2):12–16, Summer 2005. Revision of [RJ28](#). [PDF](#)
- U7. David Kotz and Tristan Henderson. *CRAWDAD: A Community Resource for Archiving Wireless Data at Dartmouth*. *IEEE Pervasive Computing*, 4(4):12–14, Oct–Dec 2005, DOI [10.1109/MPRV.2005.75](#). [PDF](#)
- U8. David Kotz. *The Institute for Security Technology Studies (ISTS): overview*. In *SPIE Defense and Security Symposium*, pages 9–17, Orlando, FL, April 2004. SPIE, DOI [10.1117/12.555797](#). Invited paper. [PDF](#)
- U9. David Kotz. *Parallel input/output*. Unpublished manuscript (encyclopedia chapter). 2002. [PDF](#)
- U10. Jon Howell and David Kotz. *A formal semantics for SPKI*. Unpublished manuscript. November 2001. Revision of [RC75](#).
- U11. Jay Aslam, Marco Cremonini, David Kotz, and Daniela Rus. *Using mobile agents for analyzing intrusion in computer networks*. In *Proceedings of the Workshop on Mobile Object Systems at ECOOP 2001*, July 2001. [PDF](#)
- U12. Jonathan Bredin, David Kotz, and Daniela Rus. *The role of information in computational-resource allocation, for the TASK electronic commerce REF*. Invited paper at the DARPA TASK PI meeting, May 2001. [PDF](#)
- U13. David Kotz and Robert S. Gray. *Mobile agents and the future of the Internet*. *ACM Operating Systems Review*, 33(3):7–13, August 1999, DOI [10.1145/311124.311130](#). Revision of [RC80](#). [PDF](#)
- U14. Jonathan Bredin, David Kotz, and Daniela Rus. *Mobile-agent planning in a market-oriented environment*. Accepted at, and withdrawn from, ASA/MA '99. August 1999. Revision of [TR48](#).
- U15. Jonathan Bredin, David Kotz, and Daniela Rus. *Utility driven mobile-agent scheduling*. Unpublished. October 1998. Revision of [TR52](#). [PDF](#)
- U16. Robert Gray, David Kotz, Saurab Nog, Daniela Rus, and George Cybenko. *Mobile agents: The next generation in distributed computing*. In *Proceedings of the Second Aizu International Symposium on Parallel Algorithms and Architectures Synthesis (pAs '97)*, pages 8–24, Fukushima, Japan, March 1997. IEEE Computer Society Press, DOI [10.1109/AISPAS.1997.581620](#). Invited paper. Identical to [TR60](#). Later revised as [RJ37](#). [PDF](#)
- U17. Jon Howell and David Kotz. *Snowflake: A worldwide virtual computer for every user*. Unpublished manuscript. January 1997. Later revised as [TR54](#).
- U18. Daniela Rus, Robert Gray, and David Kotz. *Autonomous and adaptive agents that gather information*. In *AAAI '96 International Workshop on Intelligent Adaptive Agents*, pages 107–116. AAAI Press, August 1996. Proceedings available as AAAI Technical Report WS-96-04. Later revised as [RC83](#). [PDF](#)
- U19. David Kotz and Nils Nieuwejaar. *Flexibility and performance of parallel file systems*. *ACM Operating Systems Review*, 30(2):63–73, April 1996, DOI [10.1145/232302.232314](#). Later revised as [U20](#). [PDF](#)
- U20. David Kotz and Nils Nieuwejaar. *Flexibility and performance of parallel file systems*. In *Proceedings of the Third International Conference of the Austrian Center for Parallel Computation (ACPC)*, volume 1127 of *Lecture Notes in Computer Science*, pages 1–11. Springer-Verlag, September 1996, DOI [10.1007/3-540-61695-0_1](#). Invited paper. Revision of [U19](#). [PDF](#)
- U21. David Kotz. *Parallel file systems*. A multimedia lecture included in the CD-ROM *Introductory Lectures on Data-Parallel Computing*, published by AK Peters, Ltd., March 1996.
- U22. Alok Choudhary and David Kotz. *Large-scale file systems with the flexibility of databases*. *ACM Computing Surveys*, 28A(4), December 1996, DOI [10.1145/242224.242488](#). Position paper for the Working Group on Storage I/O for Large-Scale Computing, ACM Workshop on Strategic Directions in Computing Research. Available on-line only, at DOI [10.1145/242224.242488](#). [PDF](#)

- U23. David Kotz. *Review of Introduction to Parallel Programming*, by Steven Brawer. *Scientific Programming*, 4:115–118, 1995. Reviewed June 1993.
- U24. Daniel A. Reed, Charles Catlett, Alok Choudhary, David Kotz, and Marc Snir. *Parallel I/O: Getting ready for prime time*. *IEEE Parallel and Distributed Technology*, pages 64–71, Summer 1995. Edited transcript of panel discussion at the 1994 International Conference on Parallel Processing. [PDF](#)
- U25. Donald Johnson, David Kotz, and Fillia Makedon. *Teaching parallel computing to freshmen*. In Chris Nevison, editor, *Conference on Parallel Computing for Undergraduates*. Colgate University, June 1994. [PDF](#)
- U26. David Kotz. *Disk-directed I/O for MIMD multiprocessors*. *Bulletin of the IEEE Technical Committee on Operating Systems and Application Environments*, pages 29–42, Autumn 1994. Later revised as [TR71](#). [PDF](#)
- U27. Keith D. Kotay and David Kotz. *Transportable agents*. In *Proceedings of the CIKM Workshop on Intelligent Information Agents, Third International Conference on Information and Knowledge Management*, Gaithersburg, Maryland, December 1994. [PDF](#)
- U28. David Kotz. *Multiprocessor file system interfaces*. In *Proceedings of the USENIX File Systems Workshop*, pages 149–150. USENIX Association, May 1992. Later revised as [RC98](#). [PDF](#)
- U29. C. Ellis, M. Holliday, R. LaRowe, D. Kotz, V. Khera, S. Owen, and C. Connelly. *NUMA_{Tic} Project and the DUnX OS*. *IEEE Technical Committee on Operating Systems and Application Environments (Newsletter)*, 5(4):12–14, Winter 1991.
- U30. David Kotz. *High-performance file system design for MIMD parallel processors*. A talk presented at the DARPA Workshop on Parallel Processing at UMIACS, August 1989. Audiovisual presentation. [PDF](#)

UNREFEREED TECHNICAL REPORTS (in approximate reverse-chronological order)

- TR1. Joseph Carrigan, David Kotz, and Aviel Rubin. *STEM outreach activity with Fitbit wearable devices*. Technical Report TR2018-839, Dartmouth College and Johns Hopkins University, February 2018. [PDF](#)
- TR2. Timothy J. Pierson, Xiaohui Liang, Ronald Peterson, and David Kotz. *Wanda: securely introducing mobile devices – extended version*. Technical Report TR2016-789, Dartmouth Computer Science, February 2016. Expanded version of the INFOCOM 2016 paper by the same title. Later revised as [RC12](#). [PDF](#)
- TR3. Cory Cornelius, Zachary Marois, Jacob Sorber, Ron Peterson, Shrirang Mare, and David Kotz. *Vocal resonance as a biometric for pervasive wearable devices*. Technical Report TR2014-747, Dartmouth Computer Science, February 2014. [PDF](#)
- TR4. Shrirang Mare, Andrés Molina-Markham, Cory Cornelius, Ronald Peterson, and David Kotz. *ZEBRA: Zero-effort bilateral recurring authentication (companion report)*. Technical Report TR2014-748, Dartmouth Computer Science, May 2014. This project has been renamed CSAW. [PDF](#)
- TR5. Keren Tan, Guanhua Yan, Jihwang Yeo, and David Kotz. *Privacy analysis of user association logs in a large-scale wireless LAN*. Technical Report TR2011-679, Dartmouth Computer Science, January 2011. Revision of [RC25](#). [PDF](#)
- TR6. Shrirang Mare, Jacob Sorber, Minh Shin, Cory Cornelius, and David Kotz. *Hide-n-Sense: Privacy-aware secure mhealth sensing*. Technical Report TR2011-702, Dartmouth Computer Science, September 2011. Revision of [RC29](#). Later revised as [RC30](#). [PDF](#)
- TR7. Chrisil Arackaparambil, Sergey Bratus, Anna Shubina, and David Kotz. *On the reliability of wireless fingerprinting using clock skews*. Technical Report TR2010-661, Dartmouth Computer Science, Hanover, NH, January 2010. Revision of [RC31](#). [PDF](#)
- TR8. Dan Peebles, Cory Cornelius, Apu Kapadia, David Kotz, Minh Shin, and Nikos Triandopoulos. *AnonyTL specification*. Technical Report TR2010-660, Dartmouth Computer Science, January 2010. [PDF](#)
- TR9. Soumendra Nanda, Zhenhui Jiang, and David Kotz. *A combined routing method for ad hoc wireless networks*. Technical Report TR2009-641, Dartmouth Computer Science, February 2009. Revision of [TR13](#). [PDF](#)

- TR10. Jihwang Yeo, Keren Tan, and David Kotz. *User survey regarding the needs of network researchers in trace-anonymization tools*. Technical Report TR2009-658, Dartmouth Computer Science, Hanover, NH, November 2009. [PDF](#)
- TR11. Soumendra Nanda and David Kotz. *Localized bridging centrality for distributed network analysis*. Technical Report TR2008-612, Dartmouth Computer Science, January 2008. Later revised as [RC44](#). [PDF](#)
- TR12. Sergey Bratus, Cory Cornelius, Daniel Peebles, and David Kotz. *Active behavioral fingerprinting of wireless devices*. Technical Report TR2008-610, Dartmouth Computer Science, Hanover, NH, March 2008. Revision of [RC40](#). [PDF](#)
- TR13. Soumendra Nanda, Zhenhui Jiang, and David Kotz. *A combined routing method for ad hoc wireless networks*. Technical Report TR2007-588, Dartmouth Computer Science, June 2007. Later revised as [TR9](#). [PDF](#)
- TR14. Peter Johnson, Apu Kapadia, David Kotz, and Nikos Triandopoulos. *People-centric urban sensing: Security challenges for the new paradigm*. Technical Report TR2007-586, Dartmouth Computer Science, February 2007. Later revised as [U2](#). [PDF](#)
- TR15. Minkyong Kim and David Kotz. *Classifying the mobility of users and the popularity of access points*. Technical Report TR2005-540, Dartmouth Computer Science, May 2005. Revision of [RC58](#). Later revised as [RJ21](#). [PDF](#)
- TR16. Guanling Chen and David Kotz. *Structural analysis of social networks with wireless users*. Technical Report TR2005-549, Dartmouth Computer Science, July 2005. [PDF](#)
- TR17. Darren Erik Vengroff and David Kotz. *A wholesome file system*. Technical Report TR2004-497, Dartmouth Computer Science, May 2004. Originally written in July 1995; released May 2004. [PDF](#)
- TR18. David Kotz. *Technological implications for privacy*. Technical Report TR2004-505, Dartmouth Computer Science, June 2004. Originally written during Summer 1998 Ethics Institute at Dartmouth College. [PDF](#)
- TR19. Javed Aslam, Sergey Bratus, David Kotz, Ron Peterson, Daniela Rus, and Brett Tofel. *The Kerf toolkit for intrusion analysis*. Technical Report TR2004-493, Dartmouth Computer Science, March 2004. Revision of [RJ28](#). [PDF](#)
- TR20. Guanling Chen and David Kotz. *A case study of four location traces*. Technical Report TR2004-490, Dartmouth Computer Science, February 2004. [PDF](#)
- TR21. David Kotz, Calvin Newport, Robert S. Gray, Jason Liu, Yougu Yuan, and Chip Elliott. *Experimental evaluation of wireless simulation assumptions*. Technical Report TR2004-507, Dartmouth Computer Science, June 2004. Revision of [TR30](#). Later revised as [RC61](#). [PDF](#)
- TR22. Libo Song, David Kotz, Ravi Jain, and Xiaoning He. *Evaluating location predictors with extensive Wi-Fi mobility data*. Technical Report TR2004-491, Dartmouth Computer Science, February 2004. Revision of [RC62](#). Later revised as [RJ24](#).
- TR23. Guanling Chen and David Kotz. *Application-controlled loss-tolerant data dissemination*. Technical Report TR2004-488, Dartmouth Computer Science, February 2004. Later revised as [RC55](#). [PDF](#)
- TR24. Guanling Chen and David Kotz. *Dependency management in distributed settings*. Technical Report TR2004-495, Dartmouth Computer Science, March 2004. Later revised as [RP23](#). [PDF](#)
- TR25. Jue Wang, Guanling Chen, and David Kotz. *A meeting detector and its applications*. Technical Report TR2004-486, Dartmouth Computer Science, March 2004. Later revised as [RP24](#). [PDF](#)
- TR26. Tristan Henderson, David Kotz, and Ilya Abyzov. *The changing usage of a mature campus-wide wireless network*. Technical Report TR2004-496, Dartmouth Computer Science, March 2004. Later revised as [RC65](#). [PDF](#)
- TR27. Robert S. Gray, David Kotz, Calvin Newport, Nikita Dubrovsky, Aaron Fiske, Jason Liu, Christopher Masone, Susan McGrath, and Yougu Yuan. *Outdoor experimental comparison of four ad hoc routing algorithms*. Technical Report TR2004-511, Dartmouth Computer Science, 2004. Later revised as [RC66](#). [PDF](#)
- TR28. Kazuhiro Minami and David Kotz. *Secure context-sensitive authorization*. Technical Report TR2004-529, Dartmouth Computer Science, December 2004. Revision of [RC56](#). Later revised as [RJ27](#). [PDF](#)

- TR29. Kwang-Hyun Baek, Sean W. Smith, and David Kotz. *A survey of WPA and 802.11i RSN authentication protocols*. Technical Report TR2004-524, Dartmouth Computer Science, Hanover, NH, November 2004. [PDF](#)
- TR30. David Kotz, Calvin Newport, and Chip Elliott. *The mistaken axioms of wireless-network research*. Technical Report TR2003-467, Dartmouth Computer Science, July 2003. Later revised as [TR21](#). [PDF](#)
- TR31. Libo Song, David Kotz, Ravi Jain, and Xiaoning He. *Evaluating location predictors with extensive Wi-Fi mobility data*. Technical Report TR2003-472, Dartmouth Computer Science, Hanover, NH, September 2003. Later revised as [RP26](#).
- TR32. Tristan Henderson and David Kotz. *Problems with the Dartmouth wireless SNMP data collection*. Technical Report TR2003-480, Dartmouth Computer Science, December 2003. Revision of [RJ25](#). [PDF](#)
- TR33. Guanling Chen and David Kotz. *Context aggregation and dissemination in ubiquitous computing systems*. Technical Report TR2002-420, Dartmouth Computer Science, February 2002. Later revised as [RC70](#). [PDF](#)
- TR34. David Kotz, Robert Gray, and Daniela Rus. *Future directions for mobile-agent research*. Technical Report TR2002-415, Dartmouth Computer Science, January 2002. Based on a conversation with Jeff Bradshaw, Colin Harrison, Guenter Karjoth, Amy Murphy, Gian Pietro Picco, M. Ranganathan, Niranjani Suri, and Christian Tschudin. Later revised as [RJ33](#). [PDF](#)
- TR35. Guanling Chen and David Kotz. *Solar: A pervasive-computing infrastructure for context-aware mobile applications*. Technical Report TR2002-421, Dartmouth Computer Science, February 2002. Later revised as [RC71](#). [PDF](#)
- TR36. Kazuhiro Minami and David Kotz. *Controlling access to pervasive information in the “Solar” system*. Technical Report TR2002-422, Dartmouth Computer Science, February 2002. [PDF](#)
- TR37. David Kotz and Kobby Essien. *Characterizing usage of a campus-wide wireless network*. Technical Report TR2002-423, Dartmouth Computer Science, March 2002. Later revised as [RC72](#). [PDF](#)
- TR38. David Kotz and Kobby Essien. *Analysis of a campus-wide wireless network*. Technical Report TR2002-432, Dartmouth Computer Science, September 2002. Revision of [RC72](#). Later revised as [RJ25](#). [PDF](#)
- TR39. Ron Oldfield and David Kotz. *Using the Emulab network testbed to evaluate the Armada I/O framework for computational grids*. Technical Report TR2002-433, Dartmouth Computer Science, Hanover, NH, September 2002. [PDF](#)
- TR40. Robert S. Gray, David Kotz, Ronald A. Peterson, Jr., Peter Gerken, Martin Hofmann, Daria Chacón, Greg Hill, and Niranjani Suri. *Mobile-agent versus client/server performance: Scalability in an information-retrieval task*. Technical Report TR2001-386, Dartmouth Computer Science, January 2001. Later revised as [RC74](#). [PDF](#)
- TR41. Guanling Chen and David Kotz. *Supporting adaptive ubiquitous applications with the SOLAR system*. Technical Report TR2001-397, Dartmouth Computer Science, May 2001. [PDF](#)
- TR42. Arne Grimstrup, Robert Gray, David Kotz, Thomas Cowin, Greg Hill, Niranjani Suri, Daria Chacón, and Martin Hofmann. *Write once, move anywhere: Toward dynamic interoperability of mobile agent systems*. Technical Report TR2001-411, Dartmouth Computer Science, July 2001. [PDF](#)
- TR43. Robert S. Gray, George Cybenko, David Kotz, and Daniela Rus. *Mobile agents: Motivations and state of the art*. Technical Report TR2000-365, Dartmouth Computer Science, 2000. Later revised as [IB7](#). [PDF](#)
- TR44. Jon Howell and David Kotz. *A formal semantics for SPKI*. Technical Report TR2000-363, Dartmouth Computer Science, March 2000. Revision of [TR50](#). Later revised as [RC75](#). [PDF](#)
- TR45. David Kotz, Guofei Jiang, Robert Gray, George Cybenko, and Ronald A. Peterson. *Performance analysis of mobile agents for filtering data streams on wireless networks*. Technical Report TR2000-366, Dartmouth Computer Science, May 2000. Later revised as [RC77](#). [PDF](#)
- TR46. David Kotz, George Cybenko, Robert S. Gray, Guofei Jiang, Ronald A. Peterson, Martin O. Hofmann, Daria A. Chacon, Kenneth R. Whitebread, and James Hendler. *Performance analysis of mobile agents for filtering data streams on wireless networks*. Technical Report TR2000-377, Dartmouth Computer Science, October 2000. Revision of [RC77](#). Later revised as [RJ30](#). [PDF](#)

- TR47. Guanling Chen and David Kotz. *A survey of context-aware mobile computing research*. Technical Report TR2000-381, Dartmouth Computer Science, November 2000. [PDF](#)
- TR48. Jonathan Bredin, David Kotz, and Daniela Rus. *Mobile-agent planning in a market-oriented environment*. Technical Report PCS-TR99-345, Dartmouth Computer Science, May 1999. Revision 1 of May 20, 1999. Later revised as [U14](#). [PDF](#)
- TR49. Jonathan Bredin, Rajiv T. Maheswaran, Çagri Imer, Tamer Başar, David Kotz, and Daniela Rus. *A game-theoretic formulation of multi-agent resource allocation*. Technical Report PCS-TR99-360, Dartmouth Computer Science, October 1999. Later revised as [RC76](#). [PDF](#)
- TR50. Jon Howell and David Kotz. *An access-control calculus for spanning administrative domains*. Technical Report PCS-TR99-361, Dartmouth Computer Science, November 1999. Later revised as [TR44](#). [PDF](#)
- TR51. Matthew P. Carter and David Kotz. *An implementation of the Vesta parallel file system API on the Galley parallel file system*. Technical Report PCS-TR98-329, Dartmouth Computer Science, April 1998. [PDF](#)
- TR52. Jonathan Bredin, David Kotz, and Daniela Rus. *Utility driven mobile-agent scheduling*. Technical Report PCS-TR98-331, Dartmouth Computer Science, May 1998. Revised October 3, 1998. Later revised as [U15](#). [PDF](#)
- TR53. Ron Oldfield and David Kotz. *Applications of parallel I/O*. Technical Report PCS-TR98-337, Dartmouth Computer Science, August 1998. Supplement to PCS-TR96-297. Revision of [TR62](#). Later revised as [IB10](#). [PDF](#)
- TR54. Jon Howell and David Kotz. *Snowflake: Spanning administrative domains*. Technical Report PCS-TR98-343, Dartmouth Computer Science, December 1998. [PDF](#)
- TR55. Melissa Hirschl and David Kotz. *AGDB: A debugger for Agent Tcl*. Technical Report PCS-TR97-306, Dartmouth Computer Science, Hanover, NH, February 1997. [PDF](#)
- TR56. Sanjay Khanna and David Kotz. *A split-phase interface for parallel file systems*. Technical Report PCS-TR97-312, Dartmouth Computer Science, March 1997. [PDF](#)
- TR57. Jonathan Bredin, David Kotz, and Daniela Rus. *Market-based resource control for mobile agents*. Technical Report PCS-TR97-326, Dartmouth Computer Science, December 1997. Later revised as [RC82](#). [PDF](#)
- TR58. Nils Nieuwejaar and David Kotz. *The Galley parallel file system*. Technical Report PCS-TR96-286, Dartmouth Computer Science, May 1996. Revision of [RC86](#). Later revised as [RJ35](#). [PDF](#)
- TR59. Saurab Nog, Sumit Chawla, and David Kotz. *An RPC mechanism for transportable agents*. Technical Report PCS-TR96-280, Dartmouth Computer Science, March 1996. [PDF](#)
- TR60. Robert Gray, David Kotz, Saurab Nog, Daniela Rus, and George Cybenko. *Mobile agents for mobile computing*. Technical Report PCS-TR96-285, Dartmouth Computer Science, May 1996. Identical to [U16](#). [PDF](#)
- TR61. David Kotz. *Tuning STARFISH*. Technical Report PCS-TR96-296, Dartmouth Computer Science, October 1996. [PDF](#)
- TR62. David Kotz. *Applications of parallel I/O*. Technical Report PCS-TR96-297, Dartmouth Computer Science, October 1996. Release 1. Later revised as [TR53](#). [PDF](#)
- TR63. Nils Nieuwejaar and David Kotz. *Low-level interfaces for high-level parallel I/O*. Technical Report PCS-TR95-253, Dartmouth Computer Science, March 1995. Revised 4/18/95 and appeared in IOPADS workshop at IPPS '95. Identical to [RC90](#). Revision of [TR75](#). [PDF](#)
- TR64. David Kotz. *Disk-directed I/O for an out-of-core computation*. Technical Report PCS-TR95-251, Dartmouth Computer Science, January 1995. Later revised as [RC92](#). [PDF](#)
- TR65. David Kotz. *Expanding the potential for disk-directed I/O*. Technical Report PCS-TR95-254, Dartmouth Computer Science, March 1995. Later revised as [RC93](#). [PDF](#)
- TR66. Nils Nieuwejaar, David Kotz, Apratim Purakayastha, Carla Schlatter Ellis, and Michael Best. *File-access characteristics of parallel scientific workloads*. Technical Report PCS-TR95-263, Dartmouth Computer Science, August 1995. Revision of [RC95](#). Later revised as [RJ40](#). [PDF](#)

- TR67. David Kotz. *Interfaces for disk-directed I/O*. Technical Report PCS-TR95-270, Dartmouth Computer Science, September 1995. [PDF](#)
- TR68. Apratim Purakayastha, Carla Schlatter Ellis, and David Kotz. *ENWRICH: a compute-processor write caching scheme for parallel file systems*. Technical Report CS-1995-22, Dept. of Computer Science, Duke University, October 1995. Later revised as [RC84](#). [PDF](#)
- TR69. Saurab Nog and David Kotz. *A performance comparison of TCP/IP and MPI on FDDI, fast Ethernet, and Ethernet*. Technical Report PCS-TR95-273, Dartmouth Computer Science, November 1995. Revised January 8, 1996. [PDF](#)
- TR70. David Kotz and Nils Nieuwejaar. *Dynamic file-access characteristics of a production parallel scientific workload*. Technical Report PCS-TR94-211, Dept. of Math and Computer Science, Dartmouth College, April 1994. Revised May 11, 1994. Later revised as [RC95](#). [PDF](#)
- TR71. David Kotz. *Disk-directed I/O for MIMD multiprocessors*. Technical Report PCS-TR94-226, Dartmouth Computer Science, July 1994. Revised November 8, 1994. Revision of [RC96](#). Later revised as [RJ34](#). [PDF](#)
- TR72. David Kotz, Song Bac Toh, and Sriram Radhakrishnan. *A detailed simulation model of the HP 97560 disk drive*. Technical Report PCS-TR94-220, Dartmouth Computer Science, July 1994. [PDF](#)
- TR73. David Kotz. *A data-parallel programming library for education (DAPPLE)*. Technical Report PCS-TR94-235, Dartmouth Computer Science, November 1994. Later revised as [RC88](#). [PDF](#)
- TR74. Apratim Purakayastha, Carla Schlatter Ellis, David Kotz, Nils Nieuwejaar, and Michael Best. *Characterizing parallel file-access patterns on a large-scale multiprocessor*. Technical Report CS-1994-33, Dept. of Computer Science, Duke University, October 1994. Later revised as [RC89](#). [PDF](#)
- TR75. Nils Nieuwejaar and David Kotz. *A multiprocessor extension to the conventional file system interface*. Technical Report PCS-TR94-230, Dartmouth Computer Science, September 1994. Later revised as [TR63](#). [PDF](#)
- TR76. David Kotz and Ting Cai. *Exploring the use of I/O nodes for computation in a MIMD multiprocessor*. Technical Report PCS-TR94-232, Dartmouth Computer Science, October 1994. Revised 2/20/95. Later revised as [RC91](#). [PDF](#)
- TR77. Thomas H. Cormen and David Kotz. *Integrating theory and practice in parallel file systems*. Technical Report PCS-TR93-188, Dept. of Math and Computer Science, Dartmouth College, March 1993. Revised 9/20/94. Revision of [RC99](#). [PDF](#)
- TR78. David Kotz. *Throughput of existing multiprocessor file systems*. Technical Report PCS-TR93-190, Dept. of Math and Computer Science, Dartmouth College, May 1993. [PDF](#)
- TR79. David Kotz and Preston Crow. *The expected lifetime of "single-address-space" operating systems*. Technical Report PCS-TR93-198, Dept. of Math and Computer Science, Dartmouth College, October 1993. Revised version appeared in SIGMETRICS '94, and revised again on March 15, 1996. Later revised as [RC94](#). [PDF](#)
- TR80. David Kotz, Fillia Makedon, Matt Bishop, Scot Drysdale, Donald Johnson, and Takis Metaxis. *Parallel computer needs at Dartmouth College*. Technical Report PCS-TR92-176, Dartmouth Computer Science, Hanover, NH 03775, January 1992. [PDF](#)
- TR81. David Kotz. *Multiprocessor file system interfaces*. Technical Report PCS-TR92-179, Dept. of Math and Computer Science, Dartmouth College, March 1992. Revised version appeared in PDIS'93. Later revised as [RC98](#). [PDF](#)
- TR82. Owen Astrachan, Vivek Khera, and David Kotz. *The Duke Internet programming contest*. Technical Report CS-1990-21, Dept. of Computer Science, Duke University, December 1990. Later revised as [RC97](#). [PDF](#)
- TR83. David Kotz. *The architecture of the Butterfly Plus parallel processor*. Technical Report CS-1988-6, Dept. of Computer Science, Duke University, January 1988. [PDF](#)
- TR84. Carla Schlatter Ellis and David Kotz. *Prefetching in file systems for MIMD multiprocessors*. Technical Report CS-1988-23, Dept. of Computer Science, Duke University, November 1988. Later revised as [RC103](#). [PDF](#)

- TR85. Neil Sullivan, Jonathan B. Rosenberg, Mark T. Jones, David Kotz, R. James Nusbaum, James W. O’Neil, and Herve Tardif. *Prism: A distributed VLSI design system*. Technical Report CS-1987-21, Dept. of Computer Science, Duke University, June 1987.
- TR86. David Kotz and Carla Ellis. *Evaluation of concurrent pools*. Technical Report CS-1987-30, Dept. of Computer Science, Duke University, October 1987. Later revised as [RC102](#). [PDF](#)

SOFTWARE ARTIFACTS (in approximate reverse-chronological order)

- SW1. David Kotz, Tristan Henderson, Ilya Abyzov, and Jihwang Yeo. *CRAWDAD dataset dartmouth/campus (v. 2009-09-09)*. Downloaded from <http://crawdad.org/dartmouth/campus/20090909>, September 2009, DOI [10.15783/C7F59T](#). Revision of [RJ15](#). [PDF](#)

PATENTS AND PATENT APPLICATIONS (in approximate reverse-chronological order)

- P1. Shirang Mare, Andrés Molina-Markham, Ronald Peterson, and David Kotz, *System, Method and Authorization Device for Biometric Access Control to Digital Devices*. U.S. Patent 9,595,187: Priority date 2013-03-21; Filing date 2014-03-21; Publication date 2014-09-25; Grant date 2017-11-28. [PDF](#) continuously verifying authorized users of a digital device includes an authentication device attached to an arm or wrist of authorized users. The authentication device has an accelerometer, digital radio, a processor configured to provide identity information over the radio, and to transmit motion data. The motion data is received by the digital device and the identity transmitted is verified as an identity associated with an authorized user. Input at a touchscreen, touchpad, mouse, trackball, or keyboard of the digital device is detected, and correlated with the motion data. Access to the digital device is allowed if the detected input and the detected motion data correlate, and disallowed otherwise.
- P2. Timothy J. Pierson, Ronald Peterson, David Kotz. *Secure Short-Range Information Exchange*. Provisional patent application serial number 62/554,867. Filed September 2017.
- P3. David Kotz, Ryan Halter, Cory Cornelius, Jacob Sorber, Minh Shin, Ronald Peterson, Shirang Mare, Aarathi Prasad, Joseph Skinner, and Andrés Molina-Markham, *Wearable computing device for secure control of physiological sensors and medical devices, with secure storage of medical records, and bioimpedance biometric*. U.S. Patent 9,595,187: Priority date 2011-12-23; Filing date 2012-12-24; Grant date 2017-03-14. [PDF](#)
- P4. Timothy J. Pierson, Xiaohui Liang, Ronald Peterson, and David Kotz, *Apparatus for Securely Configuring A Target Device and Associated Methods*. Patent application PCT/US2016/039009: Priority date 2015-06-23; Filing date 2016-06-23; Publication date 2016-12-29. [HTML](#)
- P5. Xiaohui Liang, Tianlong Yun, Ron Peterson, and David Kotz, *Secure System For Coupling Wearable Devices To Computerized Devices with Displays*. Patent application PCT/US2015/045651: Priority date 2014-08-18; Filing date 2015-08-18; Publication date 2016-02-25. [HTML](#)
- P6. David Kotz, Daniela Rus, David Maramros, and John C. Artz, *Methods and apparatus for personalized content presentation*. Patent application PCT/US2001/049518: Priority date 2000-12-26; Filing date 2001-12-26; Publication date 2002-07-04. [HTML](#)

SOFTWARE ARTIFACTS (in approximate reverse-chronological order)

My research involves building software systems and simulations. I believe that it is important to distribute this software for others to use, either to extend their own research or to better understand my own. All are available from my home page at <http://www.cs.dartmouth.edu/~dfk/>.

- SW1. CRAWDAD archive: a Community Resource for Archiving Wireless Data At Dartmouth. <http://crawdad.org/>. 2005–present.
- SW2. HP 97560 disk simulation module, used in STARFISH and several other research projects. 1994.

- SW3. Parallel-I/O archive, bibliography, mailing list, and WWW page. <http://www.cs.dartmouth.edu/pario/>. 1989–2005.
- SW4. STARFISH parallel file-system simulator, The basis for my work in the mid-1990s. Used by at least two other research groups. 1992–1996. Third release October 1996.
- SW5. DAta-Parallel Programming Library for Education DAPPLE, a C++ class library that provides the illusion of data-parallel programming on sequential computers. 1994.
- SW6. RAPID-TRANSIT parallel file-system simulator. The basis for my Ph.D dissertation. 1987–1991.
- SW7. `gnuplot` plotting software. Major contributor 1987–1991.

Media coverage

I list here the most significant instances.

The National Academy of Engineering quoted me in a brief story about the Auracle project on their *Engineering Innovation Podcast and Radio Series*, hosted by WTOP News. [Listen](#) on their website.

Many media outlets covered our mHealth agenda paper (RJ4), including [ScienceDaily](#), [Healthcare IT News](#), [FierceHealthcare](#), [EurekAlert](#), [Newswise](#), and [FierceBiotech](#).

Quoted in *US News* about privacy of health-tracking apps, 2016.

Over 300 media outlets covered our Wanda paper (RC12), including [National Public Radio \(NPR\)](#), [ABC News](#), [Boston Herald](#), [Chicago Daily Herald](#), [Daily Mail](#), [FierceMobileHealthcare](#), [New York Times](#), [San Francisco Chronicle](#), [Seattle Times](#), [The Hindu](#), [The Independent](#), and the [Washington Post](#), 2016.

Articles about our ZEBRA paper (RC14) appeared in Communications of the ACM (CACM), VICE Motherboard, Gizmag, The Register UK, Planet Biometrics, Computer Business Review, Fierce Health IT, Daily Science News, Senior Tech Insider, Motherboard, Homeland Security Newswire, Dartmouth's Graduate Forum, and NFC World (follow links [here](#)), 2014. Project renamed CSAW (Continuous Seamless Authentication with Wristbands).

Articles announcing our [Amulet project](#) on [Dartmouth Now](#), [Clemson news](#), and [many others](#).

Articles announcing our [Trustworthy Health and Wellness project](#) on [Dartmouth Now](#), [Associated Press](#), [Vermont Public Radio](#), and [others](#).

Articles on our bioimpedance-as-biometric paper (RC23) appeared in [Technology Review](#), [Popular Science](#), [Popular Mechanics](#), [NextGov](#), [ThirdFactor](#), [ARS Technica](#) and [In Vivo](#) magazine, The most thorough coverage was in [The Dartmouth](#) and [Dartmouth Now](#). August 2012.

Panelist on *The Exchange*, a call-in show on New Hampshire Public Radio. [How Safe Is Safe?](#) September 12, 2005.

Interviewed in Waters magazine [You're Hit; Wall Street and Global Capital Markets are Prepared for Another Physical Attack, But is the Industry Ready for Cyber-Terrorism?](#), October 1, 2004.

Interviewed on BBC's The World [Tech report](#), August 2, 2004, about terrorists' use of the Internet.

Interviewed in The New York Times story [A New Kind of Revolution In the Dorms of Dartmouth](#), September 23, 2003.

Interviewed on [Discovery Channel Canada](#)'s technology show "Gadget Grrls." October 2002.

Expert guest on [CREN Tech Talk](#), a technical talk show hosted by the Corporation for Research and Educational Networking on Thursday, September 12, 2002.

Josh McHugh, [Unplugged U.](#), Wired Magazine, October 2002. This feature article is about the wireless network at Dartmouth College, and mentions my research [RC72] several times.

Invited Talks and Colloquia

CONFERENCES AND WORKSHOPS (*in approximate reverse-chronological order*)

(Invited presentations other than those for accepted papers.)

- 2018: [Symposium on Automated Sensor Based Mobility Analysis for Disease Prevention and Treatment](#) at BSN/BHI, Las Vegas, Nevada, March 2018.
- 2018: [Workshop on Automated Dietary monitoring](#) at BSN/BHI, Las Vegas, Nevada, March 2018.
- 2017: [ACM Workshop on Wireless of the Students, by the Students, and for the Students Workshop \(S3\) at MobiCom](#), Snowbird, Utah, October 2017.
- 2017: [ACM Workshop on Wearable Systems and Applications \(WearSys\)](#), Niagara Falls, June 2017.
- 2015: [Medical Informatics World](#), Boston, May 2015.
- 2015: [Workshop on Networked Healthcare Technology \(NetHealth\)](#), Bangalore India, January 2015.
- 2014: [Privacy & Security Symposium at the mHealth Summit](#), Washington DC, December 2014.
- 2014: [Workshop on Mobile Medical Applications – Design and Development \(WMMADD\)](#), Memphis TN, November 2014.
- 2014: AAAS Workshop on Exploring Legal Challenges to Fulfilling the Potential of mHealth in a Safe and Responsible Environment, Washington DC, October 2014.
- 2014: [USENIX Summit on Health Information Technologies](#), San Diego CA, August 2014.
- 2013: [Wireless Health](#), Baltimore, MD, November 2013.
- 2012: [Workshop on Networked Healthcare Technology \(NetHealth\)](#), Bangalore, India, January 2012.
- 2011: [WiREless Systems: Advanced Research and Development \(WISARD\)](#), Bangalore, India, January 2011.
- 2010: [Workshop on Scenarios for Network Evaluation Studies \(SCENES\)](#), San Francisco, November 2010.
- 2009: [COMmunication Systems and NETworkS \(COMSNETS\)](#), Bangalore, India, January 2009.
- 2009: [WiREless Systems: Advanced Research and Development \(WISARD\)](#), Bangalore, India, January 2009.
- 2007: [The Colloquium for Information Systems Security Education \(CISSE 2007\)](#), Boston, MA, June 2007.
- 2006: MSR Summit on Corporate/Campus Networks (EdgeNet 2006), Snoqualmie, WA, June 2006.
- 2005: [City WLAN 2005](#) (Keynote speech), Oulu, Finland, August 2005.
- 2005: Intel Security Workshop, Hillsboro, OR, July 2005.
- 2005: [Wireless Traffic Measurements and Modeling workshop](#) (panel session), June 2005.
- 2005: [First Workshop on Wireless Network Measurements](#) (Keynote speech), Riva del Garda, Italy, April 2005.
- 2004: EDUCAUSE ([award presentation](#)), October 2004.
- 2003: First ACM International Workshop on Wireless Mobile Applications and Services on WLAN Hotspots (panel chair), September 2003.
- 2002: Mobile Agents (keynote), October 2002.
- 1999: Dartmouth Workshop on Transportable Agents, October 1999.
- 1996: Third International Conference of the Austrian Center for Parallel Computation (keynote).
- 1996: CUNY Workshop on the First-year Computer-Science Curriculum (talk).
- 1995: Gordon Research Conference on High-Performance Computing and National Information Infrastructure (talk).
- 1995: International Parallel Processing Symposium (panel discussion).
- 1995: OSF/RI Research Symposium (talk).
- 1995: Wellesley Forum on Parallel Computing Curricula (talk).
- 1995: Frontiers '95 Workshop on Scalable I/O (talk).
- 1994: International Conference on Parallel Processing (panel discussion).
- 1992: Parallel Computing Curriculum Development Workshop, Colgate University (talk).
- 1990: DARPA/UMIACS Workshop on Parallel Processing (talk).
- 1989: DARPA/UMIACS Workshop on Parallel Processing (talk).
- 1987: BBN Butterfly User's Group Meeting (talk).

ACADEMIA (*in approximate reverse-chronological order*)

(Name of my host is in parentheses.)

2017: IIT (Indian Institute of Technology), Delhi (Sanjiva Prasad)
2017: ETH Zurich – Center for Digital Health Interventions (Tobias Kowatsch)
2017: New York University – Center for Drug Use and HIV Research (CDUHR) (Noelle Leonard)
2016: University of Washington (Shrirang Mare) [see [video](#)]
2016: Amherst College (Aarathi Prasad)
2016: University of Massachusetts Amherst (Brian Levine)
2016: University of Massachusetts Boston (Xiaohui Liang)
2016: Healthcare Privacy Working Group
2016: NIDA National Clinical Trials Network
2014: University of Memphis (MD2K.org) (Santosh Kumar)
2014: Stanford University (John Mitchell)
2014: UC Berkeley (Anthony Joseph)
2013: Clemson University (Jacob Sorber)
2013: Medical University of South Carolina (Frank Treiber)
2012: Indiana University (Apu Kapadia)
2011: St Andrews University (Tristan Henderson)
2009: University of Auckland, New Zealand (Gerard Rowe)
2009: University of Adelaide, Australia (Cheryl Pope)
2009: University of Sydney, Australia (Lavy Libman)
2009: Reva Institute of Technology & Management, Bangalore (Vijay Kumar, CSE)
2009: Indian Institute of Technology, Guwahati (G. Sajith, CSE)
2009: National Degree College, Bangalore (M. K. Sridhar)
2009: Indian Institute of Technology, Delhi (Sandeep Sen, CSE)
2009: Indian Institute of Science, Bangalore (Y. N. Srikant, CSA)
2009: Indian Institute of Science, Bangalore (Y. N. Srikant, CSA)
2009: Indian Institute of Technology, Bombay (Varsha Apte, CSE)
2008: Indian Institute of Technology, Madras (Krishna Sivalingam, CSE)
2008: Madras Institute of Technology (S. Srikanth, AU-KBC Research Centre)
2008: Indian Institute of Science, Bangalore (Y. N. Srikant, CSA)
2008: Indian Institute of Technology, Kharagpur (Indranil Sen Gupta, SIT)
2008: Indian Institute of Technology, Kanpur (Rajat Moona, CSE)
2008: Indian Institute of Science, Bangalore (Anurag Kumar, ECE)
2008: Rutgers University Distinguished Lecture Series (Marco Gruteser)
2007: University of Massachusetts Lowell (Guanling Chen)
2007: Indian Institute of Science, Bangalore (Anurag Kumar)
2006: Cornell University (Emin Gün Sirer)
2006: Georgia Institute of Technology (Mustaque Ahamad)
2006: University of California, Berkeley (Kris Pister)
2005: Duke University (Owen Astrachan)
2004: Colorado School of Mines (Jason Liu)
2002: Boston University (Mark Crovella)
2002: Stanford University (Mary Baker)
2002: U.C. Berkeley (Randy Katz)
2001: Institute for Security Technology Studies (Garry Davis)
1998: University of Geneva, Switzerland (Alex Villazon)
1998: Ecole Polytechnique Fédérale de Lausanne, Switzerland (Roger Hersch)
1996: University of Vienna (Peter Brezany)
1996: University of New Hampshire (Phil Hatcher)
1995: University of Connecticut (Phyllis Crandall)
1995: Duke University (Carla Ellis)

1995: University of North Carolina (Nyland, Lastra, Prins, Chatterjee)
 1995: Georgia Tech (Karsten Schwan)
 1995: Cornell University (Ken Birman)
 1995: University of Rochester (Michael Scott)
 1995: Rochester Institute of Technology (Nan Schaller)
 1995: University of Illinois Urbana-Champaign (Dan Reed, Andrew Chien)
 1995: Syracuse University (ACM Chapter)
 1994: University of Virginia (Andrew Grimshaw)
 1994: University of Maryland (Joel Saltz)
 1994: University of Toronto (Michael Stumm)
 1994: Syracuse University (Alok Choudhary)
 1994: UC Santa Cruz (Darrell Long)
 1994: Princeton University (Kai Li)
 1994: Johns Hopkins University (Magda Konstantinidou)
 1994: University of Michigan (Peter Chen)
 1994: University of Wisconsin (David DeWitt)
 1994: Carnegie Mellon University (Garth Gibson) (2 talks)
 1991: University of Pittsburgh (job talk)
 1991: Dartmouth College (job talk)
 1991: University of North Carolina (job talk)
 1991: University of Kentucky (job talk)
 1991: Syracuse University (job talk)
 1991: University of South Carolina (job talk)
 1991: University of Cincinnati (job talk)
 1991: University of Tennessee (job talk)

INDUSTRY (*in approximate reverse-chronological order*)

(Name of my host is in parentheses.)

2016: Intel Labs (Cory Cornelius)
 2015: Medical Mutual Insurance, Falmouth ME (annual meeting)
 2012: Microsoft Research, Redmond (Stefan Saroiu)
 2011: Microsoft Research India, Bangalore (Krishna Chintalapudi)
 2009: Nokia Research Lab, Bangalore (Archana Sunderashan)
 2009: Tata Consulting Services (TCS) Innovation Lab, Bangalore (P. Balamuralidhar)
 2009: IBM Research Lab, Bangalore (Shivkumar Kalyanaraman)
 2009: Bell Labs India, Bangalore (Vikram Srinivasan)
 2008: Microsoft Research, Bangalore (Venkat Padmanabhan)
 2008: Intel Research, Bangalore (Vittal Kini)
 2007: Microsoft Research, Bangalore (Venkat Padmanabhan)
 2007: Infosys, Bangalore (V. P. Kochikar)
 2007: Intel Research, Bangalore (Vittal Kini)
 2006: IBM T.J. Watson Research Center (Apratim Purakayastha)
 2005: BAE Systems (Rich Ashooh)
 2004: Microsoft Research
 2004: Google
 2004: McKinsey & Company
 2004: Cisco Systems
 2004: Cisco Systems (Matt Schmitz)
 2003: Intel Research Seattle (Gaetano Borriello)

2003: Intel Labs, Hillsboro (Abel Weinrib)
 2003: HP Labs (John Barton)
 2003: Microsoft Research (Jon Howell)
 2002: Intel (Julie Coppernoll)
 2002: Cisco Systems (Joe DeStefano, Bill Rossi)
 2002: Airgo Networks (Skip Stritter)
 2002: Handspring (Debbie Chyi, Arun Mathias)
 2002: DoCoMo Labs USA (Ravi Jain)
 2001: Mitsubishi Electric Research Lab (David Wong)
 2000: IBM T.J. Watson Research Center (Apratim Purakayastha)
 1997: General Magic, Inc. (James White)
 1993: Thinking Machines Corporation (Mike Best)
 1993: MasPar Computer Corporation (Russ Tuck)
 1992: IBM T.J. Watson Research Center (Marc Snir, Peter Corbett)
 1992: Intel SSD (Denise Ecklund)
 1992: nCUBE (Mike del Rosario)
 1992: Hewlett Packard Labs (John Wilkes)
 1992: Center for High Performance Computing (Richard LaRowe, Jr.)

GOVERNMENT (*in approximate reverse-chronological order*)

2017: NSF Smart and Connected Health — vision meeting
 2017: NSF Secure and Trustworthy Cyberspace — semi-annual PI meeting
 2016: U.S. Department of State — Workshop on *Cyber Security: Data Manipulation*
 2015: National Science Foundation
 2015: [NSF Workshop on Wireless Security](#)
 2014: [NSF Workshop on Mobile Community Measurement Infrastructure](#)
 2014: [NIH and NSF National Workshop on Computing Challenges in Future Mobile Health \(mHealth\) Systems and Applications](#)
 2014: [USA Science Festival](#) (NSF booth)
 2014: [NSF Workshop on Research Frontiers in Medical Cyber-Physical Systems](#)
 2013: [NSF Workshop on Future Directions in Wireless Networking](#)
 2011: [NSF Indo-US Workshops on Developing a Research Agenda in Pervasive Communications and Computing Collaboration \(PC3\)](#)
 2011: [NSF Workshop on Pervasive Computing at Scale \(PeCS\)](#) [report]
 2008: US/DoD – Finland/Tekes Collaborative Workshop, Washington, DC
 2005: [NSF workshop on Grand Challenges in Distributed Systems](#) [report]
 2002: Argonne National Laboratory (Rajeev Thakur)
 1999: Air Force Research Lab, Rome, NY (Rick Metzger)
 1999: Sandia National Laboratories, Albuquerque (David Womble)
 1997: Sandia National Laboratories, Livermore (Joe Durant)
 1996: Sandia National Laboratories, Albuquerque (David Womble)
 1995: Argonne National Laboratory (Ian Foster)
 1994: NASA Ames Research Center (Bill Nitzberg)
 1994: Sandia National Laboratories (David Womble)
 1992: Army Research Office (Ken Clark)
 1991: ICASE (job talk)

TUTORIALS (*in approximate reverse-chronological order*)

Parallel-I/O Issues for High-Performance Distributed Computing, with Thomas H. Cormen.
 IEEE Symposium on High-Performance Distributed Computing (1995).

Parallel File Systems and Current Work.

Dartmouth Institute for Advanced Graduate Studies, School for Parallel Computation (1994).

Consulting (expert witness)

On behalf of the party marked with asterisk.*

<i>CallWave Communications* vs. Google and others</i> Attorney: Suparna Datta, Pepper Hamilton	2014–date
<i>Skyhook Wireless* vs. Google</i> Attorney: Steven Cherensky, Tensegrity Attorney: Sam Lu, Irell & Manella Deposed in 2011 and 2014; case settled before trial.	2013–2015 2011
<i>Wi-LAN* vs. Research in Motion (RIM)</i> Attorney: James Hietala, Carlson Caspers	2011
<i>TMC Patents* vs. HP and Compaq</i> Attorney: Jeffrey M. Gold, Morgan Lewis & Brockius	2002
<i>Previo vs. Connected Corporation*</i> Attorney: Howard Susser, of Mintz Levin Cohn Ferris Glovsky and Popeo	2001
<i>Palm vs. Kessel Electronics*</i> Attorney: Sanny Kwong, of Hong Kong Studying computer codes for copyright suit on behalf of Kessel Electronics (Hong Kong).	2001
<i>EMC Corporation* vs. StorageApps</i> Attorney: Peter Dichiara, of Hale and Dorr	2001
<i>SeaChange International* vs. nCUBE</i> Attorney: Steven Katz, of Fish & Richardson Deposed and attended trial but did not need to testify.	2000

Professional Activities

IEEE Fellow and member of IEEE Computer Society.

Senior Member of Association for Computing Machinery (SIGOPS, SIGMOBILE).

Member of USENIX, University Campus Liaison for Dartmouth College, 1992–date.

Advisory Board member for NSF-funded effort *Provenance-based Data Analytics Cyberinfrastructure for High-frequency Mobile Sensor Data*; Principal Investigator: Santosh Kumar, University of Memphis.

Associate Editor for *Pervasive and Mobile Computing*, 2007–2012.

Associate Editor for *IEEE Transactions on Mobile Computing*, 2005–2011.

Chair of ACM Special Interest Group on Operating Systems (SIGOPS), 2001–2003.

Secretary-treasurer of ACM Special Interest Group on Operating Systems (SIGOPS), 1999–2001.

Vice-chair of IEEE Technical Committee on Operating Systems (TCOS), 1997–1998.

Area Editor of “Context-aware mobile computing” in SIGMOBILE’s flagship publication *Mobile Computing and Communications Review* (MC2R), 2002–2003.

Co-editor of Special Issue of *Concurrency Practice and Experience* on “High-performance agent systems,” 1999.

CONFERENCE COMMITTEES (in approximate reverse-chronological order)

Program committee, [IEEE S&P 2019](#): IEEE Symposium on Security & Privacy, aka “Oakland”

Program committee, [CCS 2017](#): ACM Conference on Computer and Communications Security

Program committee (external), [MobiSys 2016](#): Int’l Conference on Mobile Systems, Applications, and Services

Program co-chair, [HealthTech 2015](#): USENIX Summit on Health Information Technologies Safety, Security, Privacy, and Interoperability of Health Information Technologies

Program committee, [HealthTech 2014](#): USENIX Summit on Health Information Technologies Safety, Security, Privacy, and Interoperability of Health Information Technologies

General co-chair, [MobiSys 2014](#): International Conference on Mobile Systems, Applications, and Services

Program committee, [NetHealth 2014](#): COMSNETS Workshop on Networked Healthcare Technology

Program committee, [ACM DEV4](#): ACM Symposium on Computing for Development (end of 2013)

Program committee, [MobiSys 2013](#): International Conference on Mobile Systems, Applications, and Services

General co-chair, [SITH 2013](#): Securing Information Technology in Healthcare: Part III

General co-chair, [COMSNETS 2013](#): International Conference on COMMunication Systems and NETWORKS

General co-chair, [SITH 2012](#): Securing Information Technology in Healthcare: Part II

Program committee, [NetHealth 2012](#): COMSNETS Workshop on Networked Healthcare Technology

Program committee, [mHealthSys 2011](#): Workshop on Mobile Systems, Applications, and Services for Healthcare

Program committee, [HealthSec 2011](#): USENIX Workshop on Health Security and Privacy

Program committee, [NetHealth 2011](#): COMSNETS Workshop on Networked Healthcare Technology

Program committee, [HealthSec 2010](#): USENIX Workshop on Health Security and Privacy

General co-chair, [SITH 2010](#): Securing Information Technology in Healthcare

Program committee, [HotPlanet 2010](#): ACM International Workshop on Hot Topics in Planet-scale Measurements

Instigator and Co-organizer, [mHealth India 2009](#): Workshop on mobile computing in healthcare, for India

Program committee, [ICDCN 2009](#): International Conference on Distributed Computing and Networking

Program committee, [Mobility Models 2008](#): Workshop on Mobility Models, colocated with MobiHoc 2008

Program committee, [Mobicom 2007](#): International Conference on Mobile Computing and Networking

Program committee, [MobiSys 2006](#): International Conference on Mobile Systems, Applications, and Services

Program co-Chair, [MobiSys 2005](#): International Conference on Mobile Systems, Applications, and Services

Program committee, [Mobicom 2004](#): International Conference on Mobile Computing and Networking

Program committee, [WMASH 2003](#): Workshop on Wireless Mobile Applications and Services on WLAN Hotspots

Program committee, [MobiSys 2003](#): International Conference on Mobile Systems, Applications, and Services

Program committee, [MDM 2003](#): International Conference on Mobile Data Management

Program committee, [COOPIS 2002](#): International Conference on Cooperative Information Systems

Steering Committee Chair: “Mobile Agents” series of conferences

Program committee, [FAST 2002](#): File systems And Storage Technology

Steering committee chair, [SOSP 2001, 2003](#): Symposium on Operating Systems Principles

General Chair, [MA 2001](#): Mobile Agents

Program chair, [ASA/MA 2000](#): Joint Symposium on Agent Systems and Applications, and on Mobile Agents

Co-organizer, [DWTA 2000](#): Dartmouth Workshop on Transportable Agents

General chair, [SOSP '99](#): Symposium on Operating Systems Principles

Steering committee, [WMCSA 1998–99](#): Workshop on Mobile Computing Systems and Applications

Co-organizer, [DWTA 1999](#): Dartmouth Workshop on Transportable Agents

Program committee, [ASA/MA 1999](#): Joint Symposium on Agent Systems and Applications, and on Mobile Agents

Co-organizer and Program Committee member: [Workshop](#) “Agent-Based High Performance Computing: Problem Solving Applications and Practical Deployment” at Autonomous Agents '99

Program Committee member, [MAC3 1999](#): Workshop on Mobile Agents in the Context of Competition and Cooperation at Autonomous Agents '99

Program Committee member, [MA 1998](#): International Workshop on Mobile Agents

Treasurer, [DWTA 1997](#): Dartmouth Workshop on Transportable Agents

Program Committee chair, [IOPADS 1997](#): Workshop on I/O in Parallel and Distributed Systems

Program Committee chair, [FPCC 1997](#): Forum on Parallel Computing Curricula, held in conjunction with SPAA

General co-chair, [DWTA 1996](#): Dartmouth Workshop on Transportable Agents

Program Committee member, [PDIS 1996](#): Int'l Conference on Parallel and Distributed Information Systems

Tutorials Committee member, [Supercomputing '96](#)

Program Committee member, ACPC 1996: International Conference of the Austrian Center for Parallel Computation

Working Group member, SDCR: ACM Workshop on Strategic Directions in Computing Research, Working Group on Storage I/O for Large-Scale Computing, June 1996

Program Committee member, IOPADS 1996: Workshop on I/O in Parallel and Distributed Systems

General co-chair, IOPADS 1996: Workshop on I/O in Parallel and Distributed Systems

Program Committee member, SIGMETRICS 1996: Conference of Measurement and Modeling of Computer Systems

Organizing Committee member, FCRC 1996: Federated Computing Research Conference

Local Arrangements Committee chair, DAGS 1993: Dartmouth Institute for Advanced Graduate Studies, Symposium on Parallel I/O and Databases

Program Committee member, DAGS 1992, 1993: Dartmouth Institute for Advanced Graduate Studies Symposium on Parallel Computing

Steering Committee member, DAGS 1992–94: Dartmouth Institute for Advanced Graduate Studies

OTHER PROFESSIONAL COMMITTEES (*in approximate reverse-chronological order*)

Health Information Technology Policy Committee: 2013–2017. The [HIT Policy Committee](#) makes recommendations to the National Coordinator for Health IT on the development and adoption of a nationwide health information infrastructure, including standards for the exchange of patient medical information.

NIH review panel member, 2016: Precision Medicine Initiative Cohort Program Participant Technologies Center study section

NSF review panel member: 1995, 1996, 2005, 2009, 2010, 2011, 2013, 2014, 2015, 2016, 2017.

IEEE Fellows selection committee: 2012.

USENIX Scholastic Committee: Evaluating research-funding proposals from graduate students, 1997–2000.

Computer Science Advisory Committee member: Computer Management Group (CMG), 1995. Selecting awardees for CMG Fellowships.

DARTMOUTH COLLEGE COMMITTEES (*in approximate reverse-chronological order*)

Dartmouth College Leadership:

Associate Dean of Faculty for the Sciences, 2009–2015.

Chair, Science Divisional Council, 2009–2015.

Chair, Dartmouth Centers Forum: 2006–2007.

Executive Director of the Institute for Security Technology Studies (ISTS), 2004–2007.

Director of Research and Development at ISTS, 2003–2004.

Director of the Center for Mobile Computing, 1997–2007.

Dartmouth College Committees and Councils:

Science strategy working group, co-chair, 2016.

Pre-health advising working group, 2014–2015.

BASIC 50th anniversary planning committee: 2013–2014.

Learning 21: Steering Committee, 2012–2013.

Executive Working Group on Information Technology, 2012–2015.

Strategic planning workgroup on Graduate Studies of the Future, 2011–12.

Budget Committee, 2010–2015.

Faculty Advisory Group on Blitz Transition project: 2010–2011.
 Council on Undergraduate Research: 2010–2015.
 Academic Planning Committee, 2009–2015.
 Council on Computing, 2009–2015.
 Council on Sponsored Activities, 2009–2015.
 Conflict of Interest Committee, 2009–2015.
 Committee on Withdrawals, 2009–2015.
 Montgomery Endowment Steering Committee, 2009–2015.
 Research Computing Oversight Committee, 2009–2011.
 Enterprise Systems Review Committee, 2009–2010.
 Committee on NEASC Reaccreditation (Standard 4), 2009–2010.
 Study group on Communication and Collaboration Tools (Chair), Spring 2010.
 Committees on IT consolidation (research, infrastructure, support), Winter 2010.
 Ad-hoc committee to review technology transfer and entrepreneurship, Fall 2009.
 Security Oversight Committee (Computing Services): 2005.
 ISTS Faculty Advisory Committee, 2002–2007 (Chair, 2003–2007).
 Alumni Council (Faculty Representative), 2002–2004.
 Computing Technology Venture Fund, 2001–2002.
 Ad-hoc committee to bring a wireless network to campus, 1999–2001.
 Ad-hoc committee on Academic Computing, leading to “eLearning center” proposal, 1999–2000.
 Accreditation subcommittee on Computing and Information Environment, 1999.
 Dartmouth Outing Club, Board of Directors, 1993–1999.
 Council on Libraries, 1992–1994, 1998–1999.
 College Course Steering Committee, 1997–1999.
 Council on Honorary Degrees, 1996.

Dartmouth Departmental Committees:

Ph.D Student Recruiting Committee (publicity), 2007–08.
 Assistant Chair of Computer Science. 2002–2003.
 CS Faculty Recruiting Committee. 1993–1994, 1995–1996, 1999–2000, 2002–04, 2006–07, 2016–17; chair 2000, 2003, 2007 and 2017.
 Advisor to CS Ph.D students, 2000.
 Equipment Committee, 1992–2000, chair 1995–1996 and 1997–2000.
 Building Committee, chair 1997–1999, Summer 2001, Winter-Spring 2002, chair 2002–2003.
 Advisor to CS undergraduates, 1993–1994, 1995–1998.
 CS Curriculum Committee. 1995–1998.
 CS Undergraduate Program Committee. 1993–1994.
 Computer Science Colloquium Chair, 1992–93.
 John G. Kemeny Prize committee, judging for an undergraduate programming prize, 1992, 1998, 1999.
 Chair of “Parallel Needs” (PaN) Committee, 1991–1992.

Dartmouth College Alumni Committees:

VOX Alumni Network Advisory Committee, 1997–2002.

Academic Activities

RESEARCH STUDENTS (*in approximate reverse-chronological order*)

Ph.D students (completed): *See list of their theses on page 22.*

Shrirang Mare, 2009–2016; now a postdoc at University of Washington.
 Aarathi Prasad, 2009–2016; now an Assistant Professor at Skidmore College.
 Cory Cornelius, 2009–13; now at Intel Labs.
 Keren Tan, 2006–2011; now at Facebook.
 Udayan Deshpande, 2003–2008; now at icebrg.io, a cybersecurity firm.
 Ming Li, 2002–2008; now at Oracle.
 Soumendra Nanda, 2004–2008; now at BAE Systems.
 Libo Song, 2002–2008; now at Google.
 Kazuhiro Minami, 1999–2006; now an Associate Professor at the Institute of Statistical Mathematics in Japan.
 Guanling Chen, 1999–2004; now an Associate Professor of Computer Science at Univ. Massachusetts, Lowell.
 Ron Oldfield, 1997–2003; now Manager, Scalable Analysis and Visualization, Sandia National Laboratories.
 Jonathan Bredin, 1996–2001; now at Two Sigma Investments, after a tenured professorship at Colorado College.
 Jon Howell, 1995–2000; now at Google, after many years at Microsoft Research.
 Nils Nieuwejaar, 1993–1996; now at Stealth Mode Startup Company.

Ph.D students (current):

Shengjie Bi, Auracle wearable platform for mHealth. 2016–present.
 Taylor Hardin, Amulet wearable platform for mHealth. 2016–present.
 Varun Mishra, Amulet wearable platform for mHealth. 2016–present.
 Travis Peters, trustworthy mobile-health systems. 2014–present.
 Timothy Pierson, trustworthy mobile-health systems. 2012–present.

M.S. students (completed): *See list of their theses on page 22.*

George Boateng, 2016–17; now at Dartmouth.
 Tianlong Yun, 2014–2016; now at Google.
 Rima Narayana Murthy, 2011–2014; recently at Oracle.
 Zhenhui Jiang, 2004–2005; now at Bridgewater Consulting.
 Jue Wang, 2003–2004; now at Visa, Inc.
 Ting Cai, 1997; now at Microsoft.
 Saurab Nog, 1996; now VP of Oracle Cloud.
 Preston Crow, 1992–1994; now at EMC.

Post-docs supervised:

Sougata Sen, 2017–date (Ph.D from Singapore Management University)
 Reza Rawassizadeh, 2016–2017 (Ph.D from U.Vienna, Austria). Now a Research Scientist at U.Rochester.
 Xiaohui Liang, 2014–2015 (Ph.D from Univ. Waterloo). Now an Assistant Professor at UMass Boston.
 Andrés Molina-Markham, 2012–2014 (Ph.D from UMass). Now Lead Cyber Security Researcher at MITRE.
 Jacob Sorber, 2010–12. Now an Associate Professor at Clemson University.
 Anna Shubina, 2008–2010. Now research staff at Dartmouth College.
 Minho Shin, 2007–2010. Now an Associate Professor at Myongji University, Korea.
 Michael Locasto, 2008. Now a Senior Computer Scientist at SRI International.
 Apu Kapadia, 2006–2008. Now an Associate Professor at Indiana University.
 Sergey Bratus, 2002–2005, 2007–2008. Now a Research Associate Professor at Dartmouth College.
 Vijay Bhuse, 2007. Now an Assistant Professor at Grand Valley State University, after several years in industry.
 Yong Sheng, 2006–2007. Now at Pinterest.
 Tristan Henderson, 2003–2006. Now on the faculty at the University of St. Andrews, Scotland.
 Minkyong Kim, 2004–2006. Now at Samsung Electronics, Korea.
 Arnab Paul, 2005. Now a Research Scientist at Intel.
 Marco Cremonini, 2000–2001. Now an Assistant Professor at Università degli Studi di Milano in Milan, Italy.

Undergraduate senior theses supervised:

2017: Alexandra Dalton
2017: Emily Greene
2017: David Harmon
2016: Anna Knowles
2016: George Boateng
2016: Bingyue Wang
2013: Rebecca Lau
2013: Shloka Kini
2012: Emma Smithayer
2011: Phillip Fazio
2008: Jeff Fielding
2004: Cal Newport
2003: Clara Lee
2002: Chris Masone
2002: Abe White
2001: Ammar Khalid
2001: Arun Mathias
2001: Ayorkor Mills-Tettey
2001: Pablo Stern
2000: Debbie Chyi
2000: Jay Artz
1999: Cenk Ergan
1998: Eric White
1996: Scott Silver
1996: Joel Thomas
1995: Ken Harker
1995: Song Bac Toh
1992: Jim Gochee
1992: Brendan Hahn

Undergraduate Presidential Scholars supervised:

Michael Perezous, Summer/Fall, 2017.
Yining Chen, Winter/Spring, 2016/2017.
Emma Oberstein, Summer/Winter, 2016/2017.
Emily Greene, Summer/Winter, 2015/2016.
Cal Newport, Summer/Fall 2002.
Tiffany Wong, Winter/Spring 2000.
Debbie Chyi, Fall/Winter, 1998/1999.
Jeff Steeves, Summer/Fall, 1997/1998.
Matt Carter, Summer/Winter, 1996/1997.
Dawn Lawrie, Summer/Fall 1995.
Sriram Radhakrishnan, Winter/Spring 1994.
Song Bac Toh, Spring/Fall 1993.

Undergraduate Women in Science (WISP) students supervised:

Morgan Sorbaro '20
Lucy Tantum '19
Emily Greene '17
Christina Ma '14
Alex Della Pia '14
Janet Kim '13
Dana Malajian '10
Kelly Duggar '06
Amanda Eubanks '03

Neha Narula '03

Thesis committee member:

Dartmouth College

Jason Reeves	2016		
Scout Sinclair	2013	Peter Johnson	2015
Priya Natarajan	2011	Chrisil Arackaparambil	2011
Song Ye	2008	Chris Masone	2008
Yurong Xu	2008	Meiyuan Zhao	2005
Guanhua Yan	2005	Fang Pei (MS)	2004
Nick Goffee (MS)	2004	Soumendra Nanda (MS)	2004
Jason Liu	2003	Qun Li	2004
Katya Pelekov	2001	Mark Montague	2002
Bob Gray	1997	Alex Colvin	1999
Pichet Chintrakulchai	1995	Len Wisniewski	1995
Peter Su	1993	John van Meter	1993
Larry Raab	1992	Deb Banerjee	1992

elsewhere

Hang Cai	2018?	Worcester Polytechnic Institute	
Vincent Messerli	1998	Ecole Polytechnique Fédérale de Lausanne, Switzerland	
Rajesh Bordawekar	1996	Syracuse University	
Rajeev Thakur	1995	Syracuse University	
Orran Krieger	1994	University of Toronto	

TEACHING (in approximate reverse-chronological order)

Graduate courses taught at Dartmouth College:

CS 88/188	Seminar (Parallel Computing)
CS 88/188	Seminar (Transportable agents and extensible operating systems)
CS 88/188	Seminar (Electronic Commerce and Market-based control)
CS 88/188	Seminar (Wireless networks and hand-held computers)
CS 88/188	Seminar (Context-aware mobile computing)
CS 88/188	Seminar (Pervasive computing)
CS 108	Advanced Operating Systems (3 times)
CS 200	Seminar (Mobile and Wearable Health Systems)

Undergraduate courses taught at Dartmouth College:

CS 9	Introduction to Computer Science, Honors Section
CS 23	Software Design and Implementation (2 times)
CS 37	Computer Architecture (4 times)
CS 50	Software Design and Implementation (2 times)
CS 58	Operating Systems
CS 78	Computer Networks (4 times)
CS 98	Engineering Projects in Community Service (2 times)
CS 99	Current Trends and Ethical Issues in Computer Science (3 times)

Other Activities

Married, with three children (born 1996, 1999, and 2001).

Adirondack 46er #10431 – having climbed all 46 high peaks in the Adirondack Mountains of New York.

AMC 4000-footer – having climbed all 48 peaks in New Hampshire over 4000' elevation.

Member of the Montshire Corporation for [Montshire Museum](#) (2012–present).

Member of the Board of Trustees for [Crossroads Academy](#) (2011–2017).

Member of the Advisory Council for the [Dartmouth Outing Club](#) (2009–2013).

Member of the Upper Valley Subcommittee of the [Connecticut River Joint Commission](#) (2006–2013), alternate (2013–date), as appointed by the Town of Lyme, NH.

Volunteer Land Steward with [Upper Valley Land Trust](#) (2000–2011, 2014, 2016).

Co-founded an annual computer programming contest held in real-time over the Internet. Participation grew from 60 teams from 37 institutions in 5 countries in Fall 1990, to 495 teams in Fall 1993.

Member of Duke team, 1989 and 1990 ACM International Programming Contests. Finished fourth in 1989 (Louisville, KY) and eighth in 1990 (Washington, DC).

Volunteer with the National Park Service in Olympic National Park, Summer 1986. Spent the summer in the backcountry, contacting visitors and maintaining trails.

Director of Freshman Trips for Dartmouth College, 1985: Made all arrangements for three-day outdoor trips for over 800 incoming freshmen. Wrote the database and support software, used 1983–1989.

Trip Leader for Dartmouth's "DOC Trips" (was "Freshman Trips"), a program to take incoming freshmen on three-day outdoor trips. 1983, 1991, 1992, 1993, 1995, 1998.