David Kotz

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Education

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

Positions

Dartmouth College, Administration

2021–2025	Provost (4 years)
2017–2018	Interim Provost (11 months)
2009–2015	Associate Dean of the Faculty for the Sciences (6 years)

Dartmouth College, Research leadership

2016–2022	Core Director (Emerging Technologies and Data Analytics), Center for Technology and Behavioral Health
2004–2007	Executive Director, Institute for Security Technology Studies
2003–2004	Director of Research and Development, Institute for Security Technology Studies

Dartmouth College, Faculty: Department of Computer Science

2020–	Pat and John Rosenwald Professor (endowed chair)
2019–2020	International Paper Professor (endowed chair)
2010–2019	Champion International Professor (endowed chair)
2003–	Professor
1997–2003	Associate Professor
1991–1997	Assistant Professor

Visiting positions

2025–2026	Royal Society Wolfson Visiting Fellow at Imperial College London, UK
2025–2026	Visiting Professor at University College London, UK
2019–2020	Visiting Professor in the Center for Digital Health Interventions at ETH Zürich, Switzerland
2008–2009	Fulbright Research Scholar at the Indian Institute of Science (IISc), Bangalore, India

Executive summary

David Kotz is the Pat and John Rosenwald Professor in the Department of Computer Science at Dartmouth College, where he also served 15 years in administrative roles as Provost, Associate Dean, and center director. His current research involves security and privacy in smart homes and wireless networks. During his forty-year research career he has published over 280 refereed papers, received 13 patents, obtained $89m in grant funding, given over 200 invited lectures, and mentored over 100 research students and postdocs. He is a AAAS Fellow, an ACM Fellow, an IEEE Fellow, and an elected member of Phi Beta Kappa. He was a Royal Society Wolfson Visiting Fellow at Imperial College London (2025-26), a Visiting Professor at ETH Zürich (2019-20), and a Fulbright Fellow to India (2008-09). He received his AB in Computer Science and Physics from Dartmouth in 1986, and his PhD in Computer Science from Duke University in 1991.

Publishing: 284 refereed publications, 448 overall. h-index = 82, according to Google Scholar in August 2026.
Inventing: 13 patents issued, and 5 patents pending.
Funding: Principal Investigator of about $10m in current research grants with a career total of $90 million.
Mentoring: 57 undergraduate and 31 graduate students as well as 21 postdoctoral scholars.
Administering: Five years as provost, six years as associate dean, and four years as center director.
Serving: Chair of ACM SIG and IEEE TC; Associate Editor of journals; 39 conference program committees.
Speaking: 220 invited lectures and presentations in conferences, universities, companies, and government.
Consulting: Expert witness for patent and intellectual-property cases.
Honors: elected as AAAS Fellow, ACM Fellow, IEEE Fellow, AAIA Fellow, and member of Phi Beta Kappa.

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Administrative and leadership experience

Administrative experience:

- **Provost**, for total of five years: January 2022 – June 2025, after 17 months as Interim Provost (December 2017–October 2018 and July–December 2021).
  - As chief academic officer, I oversaw and worked with six deans to ensure excellence in our academic mission: arts & sciences, engineering, business, medicine, graduate programs, and undergraduate affairs.
  - As chief budget officer, I worked closely with the EVP and CFO to determine the $1.6B university budget.
  - As part of the senior leadership team, I set strategy for our $3.7B capital campaign (2018–2023).
  - I also oversaw research and technology transfer, information technology, sustainability, international programs, the library system, the art museum, the performing arts center, and several topical centers.
  - Until 2023 I also oversaw undergraduate admissions and financial aid.
  - In 2017–18 I also oversaw the Office of Institutional Diversity and Equity and the Title IX office.
  - **Major accomplishments 2021-2025:**
    - co-led the proposal and creation of a new school – the School of Arts & Sciences.
    - guided the creation of a strategic plan for student mental health and wellness.
    - guided the creation of an academic strategy for climate and sustainability.
    - guided the creation of an academic strategy for artificial intelligence.
    - guided the update of policies on *institutional restraint* and *freedom of expression and dissent*.
    - co-led Dartmouth's response to the COVID-19 pandemic.
    - supported a presidential transition and oversaw several dean transitions.
- **Associate Dean of the Faculty for the Sciences** (2009–15); accomplishments include:
  - Hired 29 new science faculty in six years.
  - Mentored 31 junior faculty in the science division; oversaw 36 tenure & promotion cases.
  - Oversaw budget and academic affairs of six departments: Biological Sciences, Chemistry, Computer Science, Earth Sciences, Mathematics, Physics & Astronomy.
  - Chaired the Science Divisional Council, which coordinates academic affairs for the six science departments above and undergraduate curricular affairs for Engineering Sciences.
  - Co-wrote a strategic plan for the future of graduate studies at Dartmouth.
  - Prepared strategic directions for the next capital campaign, in collaboration with other A&S deans.
  - Planned strategic budget reductions (2009, 2014, 2015), in collaboration with other A&S deans.
  - Organized programs to improve faculty diversity.
  - Oversaw the E.E. Just Program, which engages students of color in STEM fields; hired its faculty director.
  - Developed policy infrastructure to support research-track faculty and research staff.
  - Re-structured advising programs for students interested in pre-health careers.
  - Chaired a broadly representative committee to select an email/calendaring tool for the entire campus.
  - Represented the faculty on committees relating to budget, computing, conflict of interest, major speakers, reaccreditation, science facilities, sponsored research, technology transfer, and undergraduate research.
- **Director of the Institute for Security Technology Studies** (ISTS) (2003–07); accomplishments include:
  - Managed over $65m in block-grant funding and dozens of research projects.
  - Led strategic-planning effort and an external review of the Institute.
  - Managed change as we restructured and adapted the Institute to strategic directions.
  - Represented Institute faculty in relations with federal agencies (primarily DHS, NIST, DOJ, NSF).

Research Leadership:

- Principal Investigator of about $10m in current research grants (p. 6) with a career total of $90 million.
- Led (and lead) collaborative research groups spanning computer science, sociology, psychiatry, healthcare, engineering, and business, across several universities and every school at Dartmouth College.
- Mentored over 57 undergraduate and 31 graduate students as well as 21 postdoctoral scholars (p. 60).

Other Leadership:

- Co-chaired the Provost's working group to develop a Strategic Plan for Science at Dartmouth (2016).
- Chaired faculty search committee in the Department of Computer Science four times.
- Chaired numerous research conferences sponsored by professional societies (p. 55).
- Chair of SIGOPS branch of the Association for Computing Machinery (ACM), an elected position (2001–03).

International experience:

- Royal Society Wolfson Visiting Fellow at Imperial College London for nine months in 2025–26.
- Visiting Professor at ETH Zürich for eleven months in 2019–20.
- Fulbright Research Scholar at Indian Institute of Science (IISc) for nine months in 2008–09.
- Co-led a collaborative research project involving Dartmouth, Rice, and IIT Delhi, funded by NSF and India.

Honors and awards

WHILE A PROFESSOR

- **Royal Society Wolfson Visiting Fellow** at Imperial College London, 2025–2026.
- **AAAS Fellow** awarded March 2025 by the American Association for the Advancement of Science.
- **AAIA Fellow** awarded April 2024 by the Asia-Pacific Artificial Intelligence Association.
- **ACM Fellow** ("For contributions to the security, privacy, and usability of mobile systems") awarded January 2021 by the Association for Computing Machinery.
- **Pat and John Rosenwald Professorship** (endowed chair), July 2020–date
- International Paper Professorship (endowed chair), July 2019–2020.
- ACM Distinguished Member, awarded by the Association for Computing Machinery, November 2018.
- Best Poster Award for our poster PP5, at ACM International Conference on Mobile Computing and Networking (MobiCom), October 2018.
- ACM SIGMOBILE Test-of-Time Paper Award, March 2017; for our paper RC101. 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 2010–2019.
- **Phi Beta Kappa**, initiated by Dartmouth College, Alpha chapter of New Hampshire, June 2010.
- **IEEE Fellow** ("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 STUDENT

- 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.
- Magna cum Laude B.A., 1986.

Funding

Total grants awarded $89,501,765

AWARDED – CURRENT *in reverse-chronological order*

Current grants total $10,335,073, including $10,335,073 as PI.

UK Royal Society, £78,020 (approximately $104,660) for 2025–2026 PI
Royal Society Wolfson Visiting Fellow based at Imperial College London. [Read more.]

NSF SaTC, $198,413 for 2024–2026 PI
Broadening Participation in Computing. With Tina Pavlovich, Sarah Preum, Vasanta Kommineni.

NSF SaTC, $10,032,000 for 2020–2026 (Dartmouth amount $5,582,047) PI
Security and Privacy in the Lifecycle of IoT for Consumer Environments (SPLICE). With Denise Anthony, Adam Bates, Carl Gunter, Kevin Kornegay, Michel Kornegay, Susan Landau, Michelle Mazurek, Tim Pierson, and Avi Rubin. Learn more at splice-project.org.

AWARDED – PAST *in reverse-chronological order*

NSF SCH via **NIH/NIA R01**, $1,179,714 for 2020–25 (Dartmouth share $582,870). Consultant
Exploiting voice assistant systems for early detection of cognitive decline. With Xiaohui Liang (PI), John Batsis, Robert Roth, and Brian MacWhinney. [Read more.]

NIH 'All of Us' program via **VibrentHealth**, $1,392,895 for 2021–2026 (exited 2024) sub-PI
Application Platform for Personalized Engagement. Subcontract via VibrentHealth, which manages the Participant Technologies Systems Center.

Center for Inclusive Computing, $60,000 for 2021–2023 PI
Diagnostic Grant.

Association for Computing Machinery, $250,000 for 2009–2023. PI
CRAWDAD: Community Resource for Archiving Wireless Data At Dartmouth.
With Tristan Henderson and Chris McDonald. [Read more.]

NIH/NIDA P30, $7,141,109 for 2021–2026 2021-22 Core Director
Technology-based Treatments for Substance Use Disorders, NIDA "Center of Excellence" Grant (P30). With Lisa Marsch (PI), Alan Budney, Sarah Lord, Cathy Stanger, and others. The grant continued, but I rotated out in July 2022. [Read more.]

NIH/NIDA via Clinical Trials Network (CTN), $1,427,569 for 2019-22. Investigator
Harnessing Digital Health Technologies and Analytics to Understand Clinical Trajectories of Individuals with Opioid Use Disorder in Buprenorphine Treatment. With Lisa Marsch and Cynthia Campbell (PIs), and other co-investigators. [Read more.]

NSF/CRA CIFellow, $250,087 for 2020–2022 Mentor
Computing Innovation Fellows 2020 Project, with Beatrice Perez (CI Fellow). Learn more at cifellows2020.org.

Samsung SmartThings.com, $449 in-kind for 2020. PI
SmartThings IoT products.

Minim.com, $344 in-kind for 2020. PI
Minim routers for IoT monitoring.

NIH/NIDA P30, $6,220,162 for 2016–2021. Core Director
Technology-based Treatments for Substance Use Disorders. With Lisa Marsch (PI), Alan Budney, Sarah Lord, and others. Renewed in 2021. [Read more.]

NSF CNS, $2,864,079 for 2016–2021 (Dartmouth share $2,091,074). 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.

National Institute on Aging K23, $585,900 for 2016–22. Mentor
Mobile Health Obesity Wellness Intervention in Rural Older Adults. With John Batsis (PI).

NIH/NIDA via **Dartmouth Center for Technology and Behavioral Health**, $20,000 for 2018–21. PI
Development of a Mobile Application for the Auracle Wearable System for Eating Behavior Monitoring Studies. With Sougata Sen. [Read more.]

NSF SaTC, $10,136,867 (Dartmouth share $4,139,814) for 2013–2020. 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. [Read more.]

Vechain Foundation, $189,939 for 2018–20. PI
Privacy-preserving storage of mHealth data using blockchains.

NIH/NIDA via **Dartmouth Center for Technology and Behavioral Health**, $20,000 for 2018–20. PI
Remote, Home-Based Strength Monitoring for Older Adults. With John Batsis. [Read more.]

Senior Faculty Grant, Dartmouth College. $138,000 for Fall 2019. PI
Mobile technology for behavioral health.

NSF CNS, $2,721,690 for 2013–2019 (Dartmouth share $1,825,270) 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.

NIH/NIDA via **Dartmouth Center for Technology and Behavioral Health**, $20,887 for 2018–19. PI
Development of an open-source state-of-receptivity MobileCoach module for mHealth field studies. With Varun Mishra. [Read more.]

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).

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.

NSF (CISE) supplement, $34,795 for 2012–13 PI
Workshop: Securing Information Technology for Healthcare. With Denise Anthony.

Dartmouth Conference Award, $35,000 for 2012–13 PI
Securing Information Technology in Healthcare: Part II (SITH2)
With Denise Anthony and Tom Candon.

NSF (Cyber Trust), $300,000, plus $16,000 REU supplement, plus $27,088 supplement, for 2009–11. PI
CT-ISG: Dartmouth Trace Sanitization Framework.

Fulbright Fellowship (India) $42,693 for 2008–09. PI
Measuring and modeling wireless networks.

Senior Faculty Grant, Dartmouth College. Approximately $80,000 for Spring 2009 PI
Measuring and modeling wireless networks.

DHS-NCSD (Institute for Security Technology Studies), $2,314,597 for 2006–11. PI
Dartmouth Internet Security Testbed. With George Cybenko and Guanling Chen.

Intel Corporation, $25,000 for 2007–08. PI
A Community Resource for Archiving Wireless Data At Dartmouth: CRAWDAD.

Intel University Research Council, $142,089 for 2007–09. PI
Data Assurance in Medical Sensor Applications.

DHS-NCSD (Institute for Security Technology Studies), $622,625 for 2007–08. Co-PI
Metrosense: scalable secure sensor systems.
With Andrew Campbell (PI) and George Cybenko.

NIST (Institute for Security Technology Studies), $1,112,800 for 2006–07. Co-PI
Scalable Secure Sensor Systems.
With Andrew Campbell (PI) and George Cybenko.

DHS-HSARPA Cybersecurity program, $1,598,545 for 2005–07. PI
M.A.P. (Measure, Analyze, Protect): security through measurement for wireless LANs.
With Andrew Campbell, Guanling Chen, Tristan Henderson.

Department of Justice – BJA (Institute for Security Technology Studies), $650,932 for 2005–06. PI
Digital Living: Sensors, Privacy, and Trust.
With Denise Anthony, Andrew Campbell, and Tristan Henderson.

Department of Justice – BJA (Institute for Security Technology Studies), $598,015 for 2005–06. Co-PI
Communications, Networking and Application Development.
With Susan McGrath (PI), Daniela Rus.

NSF Computing Research Infrastructure program, $500,000 for 2005–08, plus REU supplement $12,405. PI
CRI: A Community Resource for Archiving Wireless Data At Dartmouth: CRAWDAD.
With Tristan Henderson.

McKinsey&Company, $24,882 for 2004. PI
Study of Behavior on the Wireless Network.
With Denise Anthony.

Intel University Research Council, $225,327 for 2004–2008. PI
Modeling High-Throughput Wireless Networks Using Real-World Data.
With Tristan Henderson and Sergey Bratus.

DHS Science & Technology (Institute for Security Technology Studies), $1,013,507 for 2003–2006. PI
The Kerf toolkit for intrusion analysis.
With Jay Aslam and Daniela Rus.

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. Advisor
The Galley Parallel File System.
With student Nils Nieuwejaar. *We turned down the funding due to Nils' impending graduation.*

DOE ASCI program (Sandia National Lab), $841,133 for 1996–2003. Solo PI
An Extensible File System for High-Performance Parallel Computing.

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
Autonomous Information Agents: Intelligent, Extensible, and Adaptable Tactical Picture Agents.
With Daniela Rus (PI) and George Cybenko.

NASA Ames, $99,990 + **IBM/Dartmouth** matching funds $55,230, for 1994–95. Solo PI
SCORPIO: A Testbed for Tomorrow's Multiprocessor File Systems

NSF CISE, $98,997 + $19,286 equipment supplement + $5,000 REU supplement, for 1994–97. Solo PI
High-performance File Systems for Scientific Multiprocessing.

Digital Equipment Corporation, $52,037 for 1994–97. PI
Large-Address-Space Operating Systems, Parallel I/O, and Algorithms on a Digital 2100 Server.
With Thomas H. Cormen and Clifford Stein.

NASA Ames, $149,622 for 1993–96. Solo PI
Characterizing the Workload of Multiprocessor File Systems.

NASA GSRP, $66,000 for 1993–96 (renewed twice). Advisor
High Performance through a Unified Memory Hierarchy.
With student Preston Crow.

Digital Equipment Corporation, workstation approx. $20,000 for 1993. Solo PI
A Unified Memory Hierarchy for Distributed Computing.

NSF, $29,689 for 1993. Senior Investigator
Issues and Obstacles in the Implementation of Parallel Algorithms and the Use of Parallel Machines: a Proposal to fund a School on Parallel Programming.
With Fillia Makedon (PI) and Donald B. Johnson.

NSF ILI-LLD, $100,000 for 1993–95. Co-PI
It's Never Too Early: Teaching Parallel Computing to Freshmen.
With Fillia Makedon (PI) and Donald B. Johnson.

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. Student
High Performance File System Design for MIMD Parallel Processors.

MCNC Graduate Fellowship, $19,308 for 1986–87. Student

GRANT MANAGEMENT

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.

NCSD (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

My ORCID is 0000-0001-7411-2783; see also my profiles on Zotero, SCOPUS, ScholarGPS, and Google Scholar. Readers of this vita in electronic PDF format can click the links below. Others may find those papers at URL https://kotz.cs.dartmouth.edu/research/papers.html.

OVERALL **284 refereed publications, 448 overall as co-author.**

89 Refereed journal articles (page 12)
3 Invited conference papers (page 19)
135 Refereed conference papers (page 19)
37 Posters and position papers (many reviewed) (page 29)
20 Invited book chapters (page 31)
1 Dissertations and theses – my own (page 33)
53 Dissertations and theses – my students (page 33)
13 Patents (page 36)
5 Published Patent applications (page 38)
12 Software artifacts (page 38)
36 Unrefereed papers (page 39)
97 Unrefereed technical reports (page 41)

Student theses are not included in my co-authorship count.

REFEREED JOURNAL ARTICLES (89) *in reverse-chronological order*

All are peer-reviewed.

RJ1. Michael V. Heinz, George D. Price, Avijit Singh, Sukanya Bhattacharya, Ching-Hua Chen, Asma Asyyed, Monique B. Does, Saeed Hassanpour, Emily Hichborn, David Kotz, Chantal A. Lambert-Harris, Zhiguo Li, Bethany McLeman, Varun Mishra, Catherine Stanger, Geetha Subramaniam, Weiyi Wu, Cynthia I. Campbell, Lisa A. Marsch, and Nicholas C. Jacobson. **A longitudinal observational study with ecological momentary assessment and deep learning to predict non-prescribed opioid use, treatment retention, and medication nonadherence among persons receiving medication treatment for opioid use disorder.** *Journal of Substance Use and Addiction Treatment (JSAT)*, volume 173, article 209685, 10 pages. Elsevier, March 2025. [Details]

RJ2. Timothy J. Pierson, Cesar Arguello, Beatrice Perez, Wondimu Zegeye, Kevin Kornegay, Carl A. Gunter, and David Kotz. **We Need a "Building Inspector for IoT" When Smart Homes Are Sold.** *IEEE Security & Privacy*, volume 22, number 6, pages 75–84. IEEE, Nov-Dec. 2024. [Details]

RJ3. Chixiang Wang, Weijia He, Timothy J. Pierson, and David Kotz. **Moat: Adaptive Inside/Outside Detection System for Smart Homes.** *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)*, volume 8, number 4, article 157, 31 pages. ACM, September 2024. [Details]

RJ4. Weijia He, Nathan Reitinger, Atheer Almogbil, Yi-Shyuan Chiang, Timothy J. Pierson, and David Kotz. **Contextualizing Interpersonal Data Sharing in Smart Homes.** *Proceedings on Privacy Enhancing Technologies (PETS)*, volume 2024, number 2, pages 295–312. De Gruyter Open, July 2024. Acceptance rate 17%. [Details]

RJ5. Ravindra Mangar, Timothy J. Pierson, and David Kotz. **A Framework for Evaluating the Security and Privacy of Smart-Home Devices, and its Application to Common Platforms.** *IEEE Pervasive Computing*, volume 23, number 3, pages 7–19. IEEE, July 2024. [Details]

RJ6. José Camacho, Katarzyna Wasielewska, Rasmus Bro, and David Kotz. **Interpretable Feature Learning in Multivariate Big Data Analysis for Network Monitoring.** *IEEE Transactions on Network and Service Management*, volume 21, number 3, pages 2926–2943. IEEE, June 2024. Revision of TR3. [Details]

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INVITED CONFERENCE PAPERS (3) *in reverse-chronological order*

Most of these papers were peer-reviewed (bold labels indicates peer review).

IC1. David Kotz. **Safety and Security in the Internet of Things.** *Proceedings of the ACM Workshop on Wireless of the Students, by the Students, and for the Students (S3)*, 1 page, page 1. ACM, October 2017. Invited keynote lecture. [Details]

IC2. David Kotz. **Challenges and Opportunities in Wearable Systems.** *Proceedings of the Workshop on Wearable Systems and Applications (WearSys)*, 1 page, page 3. ACM, June 2017. Invited keynote lecture. [Details]

IC3. Janani Sriram, Minho Shin, David Kotz, Anand Rajan, Manoj Sastry, and Mark Yarvis. **Challenges in Data Quality Assurance in Pervasive Health Monitoring Systems.** *Future of Trust in Computing: Proceedings of the First International Conference Future of Trust in Computing*, pages 129–142. Edited by David Gawrock, Helmut Reimer, Ahmad-Reza Sadeghi, and Claire Vishik. Vieweg+Teubner Verlag, July 2009. ISBN13: 978-3-8348-9324-6. [Details]

REFEREED CONFERENCE PAPERS (135) *in reverse-chronological order*

All are peer-reviewed.

RC1. Sina Abdollahi, Amir Al Sadi, David Kotz, Marios Kogias, and Hamed Haddadi. **CAEC: Confidential, Attestable, and Efficient Inter-CVM Communication with Arm CCA.** *Proceedings of the IEEE European Symposium on Security and Privacy (Euro S&P)*, pages 789–803. IEEE, July 2026. Revision of TR2. Acceptance rate 19%. [Details]

RC2. Sina Abdollahi, Mohammad M Maheri, Javad Forough, Amir Al Sadi, Josh Millar, David Kotz, Marios Kogias, and Hamed Haddadi. **AgenTEE: Confidential LLM Agent Execution on Edge Devices.** *Proceedings of the Workshop on Machine Learning and Systems (EuroMLSys)*, pages 473–480. ACM, April 2026. Revision of TR1. Acceptance rate 81%. [Details]

RC3. Song Liao, Jingwen Yan, Yichen Liu, David Kotz, Luyi Xing, and Long Cheng. **Position Paper: Towards Ubiquitous and Automated User Privacy Configuration.** *Proceedings of the Workshop on Security and Privacy in Standardized IoT (SDIoTSec'26)*. Internet Society, February 2026. Acceptance rate 59%. [Details]

RC4. Ravindra Mangar, Jared Chandler, Timothy J. Pierson, and David Kotz. **Enabling Research Extensions in Matter via Custom Clusters.** *Proceedings of the Workshop on Security and Privacy in Standardized IoT (SDIoTSec'26)*. Internet Society, February 2026. Distinguished Paper Award. Acceptance rate 59%. [Details]

RC5. Ravindra Mangar, Jared Chandler, Jingyu Qian, Carl A. Gunter, Timothy J. Pierson, and David Kotz. **A Trigger for the Autonomous Decommissioning of Smart Devices.** *Proceedings of the International Conference on the Internet of Things*, pages 174–182. ACM, November 2025. Acceptance rate 42%. [Details]

RC6. Wondimu Zegeye, Ravindra Mangar, Jingyu Qian, Vinton Morris, Mounib Khanafer, Kevin Kornegay, Timothy J. Pierson, and David Kotz. **Comparing smart-home devices that use the Matter protocol.** *Proceedings of the IEEE Consumer Communications & Networking Conference (CCNC)*, 6 pages. IEEE, January 2025. Acceptance rate 34%. [Details]

RC7. Varun Mishra, Sarah Hong, and David Kotz. **Exploring the Relationship Between Intrinsic Motivation and Receptivity to mHealth Interventions.** *Proceedings of UbiComp Workshop on Computing for Well-being (WellComp)*, pages 437–443. ACM, October 2024. [Details]

RC8. Cesar Arguello, Beatrice Perez, Timothy J. Pierson, and David Kotz. **Detecting Battery Cells with Harmonic Radar.** *Proceedings of the ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec)*, pages 231–236. ACM, May 2024. Acceptance rate 21%. [Details]

RC9. Mounib Khanafer, Logan Kostick, Chixiang Wang, Wondimu Zegeye, Weijia He, Berkay Kaplan, Nurzaman Ahmed, Kevin Kornegay, David Kotz, and Timothy J. Pierson. **Device Discovery in the Smart Home Environment.** *Proceedings of the IEEE/ACM Workshop on the Internet of Safe Things (SafeThings)*, pages 298–304. IEEE, May 2024. Acceptance rate 59%. [Details]

RC10. Tushar M. Jois, Tina Pavlovich, Brigid M. McCarron, David Kotz, and Timothy J. Pierson. **Smart Use of Smart Devices in Your Home: A Smart Home Security and Privacy Workshop for the General Public.** *Proceedings of the ACM Technical Symposium on Computer Science Education (SIGCSE)*, pages 611–617. ACM, March 2024. Acceptance rate 33%. [Details]

RC11. Ravindra Mangar, Jingyu Qian, Wondimu Zegeye, Abdulrahman AlRabah, Ben Civjan, Shalni Sundram, Sam Yuan, Carl A. Gunter, Mounib Khanafer, Kevin Kornegay, Timothy J. Pierson, and David Kotz. **Designing and Evaluating a Testbed for the Matter Protocol: Insights into User Experience.** *Proceedings of the NDSS Workshop on Security and Privacy in Standardized IoT (SDIoTSec)*. Internet Society, February 2024. Distinguished Paper Award. Acceptance rate 90%. [Details]

RC12. Chixiang Wang, Liam Cassidy, Weijia He, Timothy J. Pierson, and David Kotz. **Challenges and opportunities in onboarding smart-home devices.** *Proceedings of the International Workshop on Mobile Computing Systems and Applications (HotMobile)*, pages 60–65. ACM, February 2024. Acceptance rate 56%. [Details]

RC13. Beatrice Perez, Cesar Arguello, Timothy J. Pierson, Gregory Mazzaro, and David Kotz. **Evaluating the practical range of harmonic radar to detect smart electronics.** *Proceedings of the IEEE Military Communications Conference (MILCOM)*, pages 528–535. IEEE, October 2023. Acceptance rate 40%. [Details]

RC14. Beatrice Perez, Timothy J. Pierson, Gregory Mazzaro, and David Kotz. **Identification and Classification of Electronic Devices Using Harmonic Radar.** *Proceedings of the Distributed Computing in Smart Systems and the Internet of Things (DCOSS-IoT)*, pages 248–255. IEEE, June 2023. Acceptance rate 38%. [Details]

RC15. Taylor Hardin and David Kotz. **Amanuensis: provenance, privacy, and permission in TEE-enabled blockchain data systems.** *Proceedings of the IEEE International Conference on Distributed Computing Systems (ICDCS)*, pages 144–156. IEEE, July 2022. Acceptance rate 20%. [Details]

RC16. Shengjie Bi and David Kotz. **Eating detection with a head-mounted video camera.** *Proceedings of the IEEE International Conference on Healthcare Informatics (ICHI)*, pages 60–66. IEEE, June 2022. Acceptance rate 50%. [Details]

RC17. Gregory Mazzaro, Kyle Gallagher, Kelly Sherbondy, Alex Bouvy, Beatrice Perez, Timothy Pierson, and David Kotz. **Harmonic response vs. target orientation: a preliminary study of the effect of polarization on nonlinear junction detection.** *Proceedings of the SPIE Radar Sensor Technology XXVI*, volume 12108, article 1210803, 21 pages. Society of Photo-Optical Instrumentation Engineers, May 27, 2022. Acceptance rate 85%. [Details]

RC18. Travis Peters, Timothy J. Pierson, Sougata Sen, José Camacho, and David Kotz. **Recurring Verification of Interaction Authenticity Within Bluetooth Networks.** *Proceedings of the ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec 2021)*, pages 192–203. ACM, June 2021. Acceptance rate 22%. [Details]

RC19. Shengjie Bi, Yiyang Lu, Nicole Tobias, Ella Ryan, Travis Masterson, Sougata Sen, Ryan Halter, Jacob Sorber, Diane Gilbert-Diamond, and David Kotz. **Measuring children's eating behavior with a wearable device.** *Proceedings of the IEEE International Conference on Healthcare Informatics (ICHI)*. IEEE, December 2020. Acceptance rate 35%. [Details]

RC20. Sougata Sen and David Kotz. **VibeRing: Using vibrations from a smart ring as an out-of-band channel for sharing secret keys.** *Proceedings of the International Conference on the Internet of Things (IoT)*, article 13, 8 pages. ACM, October 2020. ISBN13: 9781450387583. Nominated for Best-Paper award. Later revised as RJ15. Acceptance rate 41%. [Details]

RC21. José Camacho, Rasmus Bro, and David Kotz. **Automatic Learning coupled with Interpretability: MBDA in Action.** *Proceedings of the Network Traffic Measurement and Analysis Conference (TMA)*. IFIP, June 2020. ISBN13: 978-3-903176-27-0. Revision of TR7. Later revised as TR3. Acceptance rate 33%. [Details]

RC22. George Boateng, Vivian Genaro Motti, Varun Mishra, John A. Batsis, Josiah Hester, and David Kotz. **Experience: Design, Development and Evaluation of a Wearable Device for mHealth Applications.** *Proceedings of the International Conference on Mobile Computing and Networking (MobiCom)*, article 31, 14 pages. ACM, October 2019. Acceptance rate 16%. [Details]

RC23. Taylor Hardin and David Kotz. **Blockchain in Health Data Systems: a Survey.** *Proceedings of the International Conference on Internet of Things: Systems, Management and Security (IOTSMS)*, pages 490–497. IEEE, October 2019. Acceptance rate 39%. [Details]

RC24. Timothy J. Pierson, Travis Peters, Ronald Peterson, and David Kotz. **Proximity Detection with Single-Antenna IoT Devices.** *Proceedings of the ACM International Conference on Mobile Computing and Networking (MobiCom)*, article 21, 15 pages. ACM, October 2019. Revision of PP5. Acceptance rate 24%. [Details]

RC25. Timothy J. Pierson, Travis Peters, Ronald Peterson, and David Kotz. **CloseTalker: Secure, Short-Range Ad Hoc Wireless Communication.** *Proceedings of the ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 340–352. ACM, June 2019. Acceptance rate 23%. [Details]

RC26. Shrirang Mare, Reza Rawassizadeh, Ronald Peterson, and David Kotz. **Continuous Smartphone Authentication using Wristbands.** *Proceedings of the Workshop on Usable Security (USEC)*, 12 pages. Internet Society, February 2019. Acceptance rate 51%. [Details]

RC27. David Kotz. **Amulet: an open-source wrist-worn platform for mHealth research and education.** *Proceedings of the Workshop on Networked Healthcare Technology (NetHealth)*, pages 891–897. IEEE, January 2019. [Details]

RC28. Varun Mishra, Gunnar Pope, Sarah Lord, Stephanie Lewia, Byron Lowens, Kelly Caine, Sougata Sen, Ryan Halter, and David Kotz. **The Case for a Commodity Hardware Solution for Stress Detection.** *Proceedings of the Workshop on Mental Health: Sensing & Intervention*, pages 1717–1728. ACM, October 2018. Acceptance rate 70%. [Details]

RC29. Curtis L. Petersen, Emily V. Wechsler, Ryan J. Halter, George G. Boateng, Patrick O. Proctor, David F. Kotz, Summer B. Cook, and John A. Batsis. **Detection and Monitoring of Repetitions Using an mHealth-Enabled Resistance Band.** *Proceedings of the IEEE/ACM International Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, pages 22–24. ACM, September 2018. Acceptance rate 69%. [Details]

RC30. Taylor Hardin, Ryan Scott, Patrick Proctor, Josiah Hester, Jacob Sorber, and David Kotz. **Application Memory Isolation on Ultra-Low-Power MCUs.** *Proceedings of the USENIX Annual Technical Conference (USENIX ATC)*, pages 127–132. USENIX Association, July 2018. Acceptance rate 20%. [Details]

RC31. Travis Peters, Reshma Lal, Srikanth Varadarajan, Pradeep Pappachan, and David Kotz. **BASTION-SGX: Bluetooth and Architectural Support for Trusted I/O on SGX.** *Proceedings of the International Workshop on Hardware and Architectural Support for Security and Privacy (HASP)*, 9 pages, pages 1–9. ACM, June 2018. Acceptance rate 42%. [Details]

RC32. George Boateng, John A. Batsis, Patrick Proctor, Ryan Halter, and David Kotz. **GeriActive: Wearable App for Monitoring and Encouraging Physical Activity among Older Adults.** *Proceedings of the IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, pages 46–49. IEEE, March 2018. Acceptance rate 43%. [Details]

RC33. Gunnar Pope, Varun Mishra, Stephanie Lewia, Byron Lowens, David Kotz, Sarah Lord, and Ryan Halter. **An Ultra-Low Resource Wearable EDA Sensor Using Wavelet Compression.** *Proceedings of the International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, pages 193–196. IEEE, March 2018. Acceptance rate 43%. [Details]

RC34. David Kotz and Travis Peters. **Challenges to ensuring human safety throughout the life-cycle of Smart Environments.** *Proceedings of the ACM Workshop on the Internet of Safe Things (SafeThings)*, pages 1–7. ACM, November 2017. Acceptance rate 54%. [Details]

RC35. Aarathi Prasad, Xiaohui Liang, and David Kotz. **SPICE: Secure Proximity-based Infrastructure for Close Encounters.** *Proceedings of the ACM Workshop on Mobile Crowdsensing Systems and Applications (CrowdSense)*, pages 56–61. ACM, November 2017. Acceptance rate 75%. [Details]

RC36. Varun Mishra, Byron Lowens, Sarah Lord, Kelly Caine, and David Kotz. **Investigating Contextual Cues As Indicators for EMA Delivery.** *Proceedings of the International Workshop on Smart and Ambient Notification and Attention Management (UbiTtention)*, pages 935–940. ACM, September 2017. Later revised as TR8. Acceptance rate 68%. [Details]

RC37. Shengjie Bi, Tao Wang, Ellen Davenport, Ronald Peterson, Ryan Halter, Jacob Sorber, and David Kotz. **Toward a Wearable Sensor for Eating Detection.** *Proceedings of the ACM Workshop on Wearable Systems and Applications (WearSys)*, pages 17–22. ACM, June 2017. Acceptance rate 80%. [Details]

RC38. Xiaohui Liang and David Kotz. **AuthoRing: Wearable User-presence Authentication.** *Proceedings of the ACM Workshop on Wearable Systems and Applications (WearSys)*, pages 5–10. ACM, June 2017. Acceptance rate 80%. [Details]

RC39. Rui Liu, Reza Rawassizadeh, and David Kotz. **Toward Accurate and Efficient Feature Selection for Speaker Recognition on Wearables.** *Proceedings of the ACM Workshop on Wearable Systems and Applications (WearSys)*, pages 41–46. ACM, June 2017. Acceptance rate 80%. [Details]

RC40. Aarathi Prasad and David Kotz. **ENACT: Encounter-based Architecture for Contact Tracing.** *Proceedings of the ACM Workshop on Physical Analytics (WPA)*, pages 37–42. ACM, June 2017. Acceptance rate 70%. [Details]

RC41. Xiaohui Liang, Tianlong Yun, Ronald Peterson, and David Kotz. **LightTouch: Securely Connecting Wearables to Ambient Displays with User Intent.** *Proceedings of the IEEE Conference on Computer Communications (INFOCOM)*, pages 1–9. IEEE, May 2017. Acceptance rate 21%. [Details]

RC42. George Boateng, John A. Batsis, Ryan Halter, and David Kotz. **ActivityAware: An App for Real-Time Daily Activity Level Monitoring on the Amulet Wrist-Worn Device.** *Proceedings of the IEEE PerCom Workshop on Pervasive Health Technologies (PerHealth)*, pages 431–435. IEEE, March 2017. Acceptance rate 69%. [Details]

RC43. George Boateng and David Kotz. **StressAware: An App for Real-Time Stress Monitoring on the Amulet Wearable Platform.** *Proceedings of the IEEE MIT Undergraduate Research Technology Conference (URTC)*, pages 1–4. IEEE, November 2016. Acceptance rate 71%. [Details]

RC44. 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.** *Proceedings of the ACM Conference on Embedded Networked Sensor Systems (SenSys)*, pages 216–229. ACM, November 2016. Acceptance rate 18%. [Details]

RC45. Timothy J. Pierson, Xiaohui Liang, Ronald Peterson, and David Kotz. **Wanda: securely introducing mobile devices.** *Proceedings of the IEEE Conference on Computer Communications (INFOCOM)*, pages 1–9. IEEE, April 2016. Revision of TR10. Acceptance rate 18%. [Details]

RC46. Andrés Molina-Markham, Ronald Peterson, Joseph Skinner, Tianlong Yun, Bhargav Golla, Kevin Freeman, Travis Peters, Jacob Sorber, Ryan Halter, and David Kotz. **Amulet: A secure architecture for mHealth applications for low-power wearable devices.** *Proceedings of the Workshop on Mobile Medical Applications–Design and Development (WMMADD)*, pages 16–21. ACM, November 2014. Acceptance rate 57%. [Details]

RC47. Cory Cornelius, Ronald Peterson, Joseph Skinner, Ryan Halter, and David Kotz. **A wearable system that knows who wears it.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 55–67. ACM, June 2014. Acceptance rate 14%. [Details]

RC48. Shrirang Mare, Andres Molina-Markham, Cory Cornelius, Ronald Peterson, and David Kotz. **ZEBRA: Zero-Effort Bilateral Recurring Authentication.** *Proceedings of the IEEE Symposium on Security and Privacy*, pages 705–720. IEEE, May 2014. This project has been renamed CSAW. Acceptance rate 14%. [Details]

RC49. Rima Murthy and David Kotz. **Assessing blood-pressure measurement in tablet-based mHealth apps.** *Proceedings of the Workshop on Networked Healthcare Technology (NetHealth)*, pages 1–5. IEEE, January 2014. Acceptance rate 75%. [Details]

RC50. Aarathi Prasad, Ronald Peterson, Shrirang Mare, Jacob Sorber, Kolin Paul, and David Kotz. **Provenance framework for mHealth.** *Proceedings of the Workshop on Networked Healthcare Technology (NetHealth)*, pages 1–6. IEEE, January 2013. Acceptance rate 100%. [Details]

RC51. Aarathi Prasad, Jacob Sorber, Timothy Stablein, Denise Anthony, and David Kotz. **Understanding Sharing Preferences and Behavior for mHealth Devices.** *Proceedings of the Workshop on Privacy in the Electronic Society (WPES)*, pages 117–128. ACM, October 2012. Revision of T23. Later revised as IB1. Acceptance rate 28%. [Details]

RC52. Cory Cornelius, Jacob Sorber, Ronald Peterson, Joe Skinner, Ryan Halter, and David Kotz. **Who wears me? Bioimpedance as a passive biometric.** *Proceedings of the USENIX Workshop on Health Security and Privacy (HealthSec)*, 10 pages. USENIX Association, August 2012. Acceptance rate 52%. [Details]

RC53. Jacob Sorber, Minho Shin, Ron Peterson, and David Kotz. **Plug-n-Trust: Practical trusted sensing for mHealth.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 309–322. ACM, June 2012. Acceptance rate 18%. [Details]

RC54. Jacob Sorber, Minho Shin, Ronald Peterson, Cory Cornelius, Shrirang Mare, Aarathi Prasad, Zachary Marois, Emma Smithayer, and David Kotz. **An Amulet for Trustworthy Wearable mHealth.** *Proceedings of the Workshop on Mobile Computing Systems and Applications (HotMobile)*, article 7, 6 pages. ACM, February 2012. Acceptance rate 21%. [Details]

RC55. Phil Fazio, Keren Tan, and David Kotz. **Effects of network trace sampling methods on privacy and utility metrics.** *Proceedings of the Annual Workshop on Wireless Systems: Advanced Research and Development (WISARD)*, pages 1–8. IEEE, January 2012. Acceptance rate 50%. [Details]

RC56. Shrirang Mare, Jacob Sorber, Minho Shin, Cory Cornelius, and David Kotz. **Adapt-lite: Privacy-aware, Secure, and Efficient mHealth Sensing.** *Proceedings of the Workshop on Privacy in the Electronic Society (WPES)*, pages 137–142. ACM, October 2011. Revision of TR13. Later revised as RJ51. Acceptance rate 28%. [Details]

RC57. Shrirang Mare, Jacob Sorber, Minho Shin, Cory Cornelius, and David Kotz. **Adaptive security and privacy for mHealth sensing.** *Proceedings of the USENIX Workshop on Health Security (HealthSec)*, 5 pages. USENIX Association, August 2011. Short paper. Later revised as TR13. Acceptance rate 34%. [Details]

RC58. Cory Cornelius and David Kotz. **Recognizing whether sensors are on the same body.** *Proceedings of the International Conference on Pervasive Computing (Pervasive)*, volume 6696 in Lecture Notes in Computer Science, pages 332–349. Springer, June 2011. Later revised as RJ54. Acceptance rate 23%. [Details]

RC59. Phil Fazio, Keren Tan, Jihwang Yeo, and David Kotz. **Short Paper: The NetSANI Framework for Analysis and Fine-tuning of Network Trace Sanitization.** *Proceedings of the ACM Conference on Wireless Network Security (WiSec)*, pages 5–10. ACM, June 2011. Acceptance rate 22%. [Details]

RC60. Keren Tan, Guanhua Yan, Jihwang Yeo, and David Kotz. **Privacy analysis of user association logs in a large-scale wireless LAN.** *Proceedings of the IEEE Conference on Computer Communications (INFOCOM) mini-conference*, pages 31–35. IEEE, April 2011. Revision of PP23. Later revised as TR14. Acceptance rate 23%. [Details]

RC61. Soumendra Nanda and David Kotz. **Social Network Analysis Plugin (SNAP) for Mesh Networks.** *Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC)*, pages 725–730. IEEE, March 2011. Acceptance rate 48%. [Details]

RC62. David Kotz. **A threat taxonomy for mHealth privacy.** *Proceedings of the Workshop on Networked Healthcare Technology (NetHealth)*, article 1, 6 pages. IEEE, January 2011. Acceptance rate 36%. [Details]

RC63. Keren Tan and David Kotz. **Saluki: a High-Performance Wi-Fi Sniffing Program.** *Proceedings of the International Workshop on Wireless Network Measurements (WiNMee)*, pages 591–596. IEEE, May 2010. Invited paper. [Details]

RC64. Chrisil Arackaparambil, Sergey Bratus, Anna Shubina, and David Kotz. **On the Reliability of Wireless Fingerprinting using Clock Skews.** *Proceedings of the ACM Conference on Wireless Network Security (WiSec)*, 6 pages, pages 169–174. ACM, March 2010. Later revised as TR15. Acceptance rate 21%. [Details]

RC65. Shrirang Mare, David Kotz, and Anurag Kumar. **Experimental Validation of Analytical Performance Models for IEEE 802.11 Networks.** *Proceedings of the Workshop on WIreless Systems: Advanced Research and Development (WISARD)*, pages 1–8. IEEE, January 2010. Acceptance rate 36%. [Details]

RC66. David Kotz, Sasikanth Avancha, and Amit Baxi. **A privacy framework for mobile health and home-care systems.** *Proceedings of the Workshop on Security and Privacy in Medical and Home-Care Systems (SPIMACS)*, pages 1–12. ACM, November 2009. Acceptance rate 26%. [Details]

RC67. Sergey Bratus, David Kotz, Keren Tan, William Taylor, Anna Shubina, Bennet Vance, and Michael E. Locasto. **Dartmouth Internet Security Testbed (DIST): building a campus-wide wireless testbed.** *Proceedings of the Workshop on Cyber Security Experimentation and Test (CSET)*, 6 pages. USENIX Association, August 2009. Acceptance rate 33%. [Details]

RC68. Guanling Chen, Bo Yan, Minho Shin, David Kotz, and Ethan Berke. **MPCS: Mobile-Phone Based Patient Compliance System for Chronic Illness Care.** *Proceedings of the International Workshop on Ubiquitous Mobile Healthcare Applications (MobiCare)*, pages 1–7. IEEE, July 2009. [Details]

RC69. Minho Shin, Patrick Tsang, David Kotz, and Cory Cornelius. **DEAMON: Energy-efficient sensor monitoring.** *Proceedings of the IEEE Communications Society Conference on Sensor, Mesh, and Ad Hoc Communications and Networks (SECON)*, pages 1–9. IEEE, June 2009. Acceptance rate 19%. [Details]

RC70. Soumendra Nanda and David Kotz. **Localized Bridging Centrality for Distributed Network Analysis.** *Proceedings of the International Conference on Computer Communications and Networks (ICCCN)*, pages 1–6. IEEE, August 2008. Revision of TR20. Later revised as IB3. Acceptance rate 26%. [Details]

RC71. Ming Li and David Kotz. **Event Dissemination via Group-aware Stream Filtering.** *Proceedings of the International Conference on Distributed Event-Based Systems (DEBS)*, pages 59–70. ACM, July 2008. Later revised as RJ58. Acceptance rate 25%. [Details]

RC72. Cory Cornelius, Apu Kapadia, David Kotz, Dan Peebles, Minho Shin, and Nikos Triandopoulos. **AnonySense: Privacy-Aware People-Centric Sensing.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 211–224. ACM, June 2008. Later revised as RJ57. Acceptance rate 18%. [Details]

RC73. Apu Kapadia, Nikos Triandopoulos, Cory Cornelius, Daniel Peebles, and David Kotz. **AnonySense: Opportunistic and Privacy-Preserving Context Collection.** *Proceedings of the International Conference on Pervasive Computing (Pervasive)*, volume 5013 in Lecture Notes in Computer Science, pages 280–297. Springer, May 2008. Later revised as RJ49. Acceptance rate 15%. [Details]

RC74. Udayan Deshpande, Chris McDonald, and David Kotz. **Refocusing in 802.11 Wireless Measurement.** *Proceedings of the Passive and Active Measurement Conference (PAM 2008)*, volume 4979 in Lecture Notes in Computer Science, pages 142–151. Springer, April 2008. Acceptance rate 32%. [Details]

RC75. Yong Sheng, Keren Tan, Guanling Chen, David Kotz, and Andrew Campbell. **Detecting 802.11 MAC Layer Spoofing Using Received Signal Strength.** *Proceedings of the IEEE Conference on Computer Communications (INFOCOM)*, pages 1768–1776. IEEE, April 2008. Acceptance rate 21%. [Details]

RC76. Sergey Bratus, Cory Cornelius, David Kotz, and Daniel Peebles. **Active Behavioral Fingerprinting of Wireless Devices.** *Proceedings of the ACM Conference on Wireless Network Security (WiSec)*, pages 56–61. ACM, March 2008. Later revised as TR19. Acceptance rate 27%. [Details]

RC77. Udayan Deshpande, David Kotz, and Chris McDonald. **Coordinated Sampling to Improve the Efficiency of Wireless Network Monitoring.** *Proceedings of the IEEE International Conference on Networks (ICON)*, pages 353–358. IEEE, November 2007. Acceptance rate 60%. [Details]

RC78. Libo Song and David F. Kotz. **Evaluating Opportunistic Routing Protocols with Large Realistic Contact Traces.** *Proceedings of the ACM MobiCom Workshop on Challenged Networks (CHANTS)*, pages 35–42. ACM, September 2007. Later revised as IB2. Acceptance rate 33%. [Details]

RC79. Ming Li and David Kotz. **Group-aware Stream Filtering.** *Proceedings of the Workshop on Wireless Ad hoc and Sensor Networks (WWASN)*, 8 pages. IEEE, Toronto, June 2007. Acceptance rate 42%. [Details]

RC80. Apu Kapadia, Tristan Henderson, Jeffrey J. Fielding, and David Kotz. **Virtual Walls: Protecting Digital Privacy in Pervasive Environments.** *Proceedings of the International Conference on Pervasive Computing (Pervasive)*, volume 4480 in Lecture Notes in Computer Science, pages 162–179. Springer, May 2007. Honorable Mention for Best Paper. Acceptance rate 16%. [Details]

RC81. Rajnish Kumar, Arnab Paul, Umakishore Ramachandran, and David Kotz. **On improving wireless broadcast reliability of sensor networks using erasure codes.** *Proceedings of the International Conference on Mobile Ad-hoc and Sensor Networks (MSN)*, volume 4325 in Lecture Notes in Computer Science, pages 155–170. Springer, December 2006. Acceptance rate 29%. [Details]

RC82. Minkyong Kim, Jeffrey J. Fielding, and David Kotz. **Risks of using AP locations discovered through war driving.** *Proceedings of the International Conference on Pervasive Computing (Pervasive)*, volume 3968 in Lecture Notes in Computer Science, pages 67–82. Springer, Dublin, Ireland, May 2006. Acceptance rate 13%. [Details]

RC83. Kazuhiro Minami and David Kotz. **Scalability in a Secure Distributed Proof System.** *Proceedings of the International Conference on Pervasive Computing (Pervasive)*, volume 3968 in Lecture Notes in Computer Science, pages 220–237. Springer, Dublin, Ireland, May 2006. Acceptance rate 13%. [Details]

RC84. Udayan Deshpande, Tristan Henderson, and David Kotz. **Channel Sampling Strategies for Monitoring Wireless Networks.** *Proceedings of the International Workshop on Wireless Network Measurement (WiNMee)*, 7 pages. IEEE, April 2006. Acceptance rate 48%. [Details]

RC85. Minkyong Kim, David Kotz, and Songkuk Kim. **Extracting a mobility model from real user traces.** *Proceedings of the IEEE Conference on Computer Communications (INFOCOM)*, pages 1–12. IEEE, Barcelona, Spain, April 2006. Acceptance rate 18%. [Details]

RC86. Libo Song, Udayan Deshpande, Ulaş C. Kozat, David Kotz, and Ravi Jain. **Predictability of WLAN Mobility and its Effects on Bandwidth Provisioning.** *Proceedings of the IEEE Conference on Computer Communications (INFOCOM)*, pages 1–13. IEEE, Barcelona, Spain, April 2006. Acceptance rate 18%. [Details]

RC87. David P. Blinn, Tristan Henderson, and David Kotz. **Analysis of a Wi-Fi Hotspot Network.** *Proceedings of the International Workshop on Wireless Traffic Measurements and Modeling (WiTMeMo)*, pages 1–6. USENIX Association, June 2005. Acceptance rate 46%. [Details]

RC88. Minkyong Kim and David Kotz. **Modeling users' mobility among WiFi access points.** *Proceedings of the International Workshop on Wireless Traffic Measurements and Modeling (WiTMeMo)*, pages 19–24. USENIX Association, June 2005. Acceptance rate 46%. [Details]

RC89. Minkyong Kim and David Kotz. **Classifying the Mobility of Users and the Popularity of Access Points.** *Proceedings of the International Workshop on Location- and Context-Awareness (LoCA)*, volume 3479 in Lecture Notes in Computer Science, pages 198–210. Edited by Thomas Strang and Claudia Linnhoff-Popien. Springer, Germany, May 2005. Later revised as TR24. Acceptance rate 34%. [Details]

RC90. Tristan Henderson, Denise Anthony, and David Kotz. **Measuring wireless network usage with the experience sampling method.** *Proceedings of the Workshop on Wireless Network Measurements (WiNMee)*, 6 pages. International Communications Sciences and Technology Association (ICST), April 2005. ISBN: 0-9767294-0-7. Acceptance rate 41%. [Details]

RC91. Guanling Chen and David Kotz. **Policy-Driven Data Dissemination for Context-Aware Applications.** *Proceedings of the IEEE International Conference on Pervasive Computing and Communications (PerCom)*, pages 283–289. IEEE, Kauai, Hawaii, March 2005. Short paper. Revision of TR35. Acceptance rate 17%. [Details]

RC92. Kazuhiro Minami and David Kotz. **Secure Context-sensitive Authorization.** *Proceedings of the IEEE International Conference on Pervasive Computing and Communications (PerCom)*, pages 257–268. IEEE, Kauai, Hawaii, March 2005. Later revised as TR26. Acceptance rate 13%. [Details]

RC93. 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.** *Proceedings of the ACM/IEEE International Symposium on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, pages 220–229. ACM, October 2004. Finalist for Best Paper award. Revision of TR28. Acceptance rate 27%. [Details]

RC94. David Kotz, Calvin Newport, Robert S. Gray, Jason Liu, Yougu Yuan, and Chip Elliott. **Experimental Evaluation of Wireless Simulation Assumptions.** *Proceedings of the ACM/IEEE International Symposium on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, pages 78–82. ACM, October 2004. Revision of TR29. Later revised as RJ65. Acceptance rate 37%. [Details]

RC95. Tristan Henderson, David Kotz, and Ilya Abyzov. **The Changing Usage of a Mature Campus-wide Wireless Network.** *Proceedings of the ACM International Conference on Mobile Computing and Networking (MobiCom)*, pages 187–201. ACM, September 2004. Revision of TR33. Later revised as RJ60. Acceptance rate 8%. [Details]

RC96. Guanling Chen, Ming Li, and David Kotz. **Design and implementation of a large-scale context fusion network.** *Proceedings of the International Conference on Mobile and Ubiquitous Systems: Networking and Services (Mobiquitous)*, pages 246–255. IEEE, August 2004. Acceptance rate 38%. [Details]

RC97. 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.** *Proceedings of the Workshop on Parallel and Distributed Simulation (PADS)*, pages 7–16. ACM, May 2004. Nominated for Best Paper award. Later revised as RJ69. Acceptance rate 54%. [Details]

RC98. Libo Song, David Kotz, Ravi Jain, and Xiaoning He. **Evaluating location predictors with extensive Wi-Fi mobility data.** *Proceedings of the IEEE Conference on Computer Communications (INFOCOM)*, volume 2, pages 1414–1424. IEEE, March 2004. Revision of PP34. Later revised as TR37. Acceptance rate 18%. [Details]

RC99. Guanling Chen and David Kotz. **Context-Sensitive Resource Discovery.** *Proceedings of the IEEE International Conference on Pervasive Computing and Communications (PerCom)*, pages 243–252. IEEE, March 2003. Acceptance rate 32%. [Details]

RC100. Arne Grimstrup, Robert Gray, David Kotz, Maggie Breedy, Marco Carvalho, Thomas Cowin, Daria Chacón, Joyce Barton, Chris Garrett, and Martin Hofmann. **Toward Interoperability of Mobile-Agent Systems.** *Proceedings of the IEEE International Conference on Mobile Agents*, volume 2535 in Lecture Notes in Computer Science, pages 106–120. Springer, October 2002. Acceptance rate 28%. [Details]

RC101. David Kotz and Kobby Essien. **Analysis of a Campus-wide Wireless Network.** *Proceedings of the ACM International Conference on Mobile Computing and Networking (MobiCom)*, pages 107–118. ACM, September 2002. Revised and corrected as Dartmouth CS Technical Report TR2002-432. Winner of ACM SIGMOBILE Test-of-Time award, 2017. Revision of TR42. Later revised as TR40. Acceptance rate 7%. [Details]

RC102. Guanling Chen and David Kotz. **Context Aggregation and Dissemination in Ubiquitous Computing Systems.** *Proceedings of the IEEE Workshop on Mobile Computing Systems and Applications (WMCSA)*, pages 105–114. IEEE, June 2002. Revision of TR43. Acceptance rate 35%. [Details]

RC103. Guanling Chen and David Kotz. **Solar: An Open Platform for Context-Aware Mobile Applications.** *Proceedings of the International Conference on Pervasive Computing (Pervasive) (Short paper)*, pages 41–47. Springer, June 2002. In an informal companion volume of short papers. Revision of TR44. Acceptance rate 29%. [Details]

RC104. G. Ayorkor Mills-Tettey and David Kotz. **Mobile Voice Over IP (MVOIP): An Application-level Protocol for Call Hand-off in Real Time Applications.** *Proceedings of the IEEE International Phoenix Conference on Computers and Communications (IPCCC)*, pages 271–279. IEEE, April 2002. Received award for "Best Student Paper". Acceptance rate 33%. [Details]

RC105. 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.** *Proceedings of the IEEE International Conference on Mobile Agents*, volume 2240 in Lecture Notes in Computer Science, pages 229–243. Springer, Atlanta, Georgia, December 2001. A corrected version of this paper is available on the Dartmouth web site. Revision of TR49. Acceptance rate 24%. [Details]

RC106. Ron Oldfield and David Kotz. **Armada: A parallel file system for computational grids.** *Proceedings of the IEEE/ACM International Symposium on Cluster Computing and the Grid (ccGrid)*, pages 194–201. IEEE, Brisbane, Australia, May 2001. Acceptance rate 38%. [Details]

RC107. Jon Howell and David Kotz. **End-to-end authorization.** *Proceedings of the Symposium on Operating Systems Design and Implementation (OSDI)*, pages 151–164. USENIX Association, October 2000. Acceptance rate 22%. [Details]

RC108. Jon Howell and David Kotz. **A Formal Semantics for SPKI.** *Proceedings of the European Symposium on Research in Computer Security (ESORICS)*, volume 1895 in Lecture Notes in Computer Science, pages 140–158. Springer, October 2000. Revision of TR54. Acceptance rate 25%. [Details]

RC109. David Kotz, Guofei Jiang, Robert Gray, George Cybenko, and Ronald A. Peterson. **Performance Analysis of Mobile Agents for Filtering Data Streams on Wireless Networks.** *Proceedings of the Workshop on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, pages 85–94. ACM, August 2000. Honorable mention as "Best Paper". Revision of TR52. Later revised as TR51. Acceptance rate 30%. [Details]

RC110. Jonathan Bredin, David Kotz, and Daniela Rus. **Trading Risk in Mobile-Agent Computational Markets.** *International Conference on Computing in Economics and Finance*, 10 pages. Kluwer Academic Publishers, Barcelona, Spain, July 2000. No proceedings available. [Details]

RC111. Jonathan Bredin, Rajiv T. Maheswaran, Çagri Imer, Tamer Başar, David Kotz, and Daniela Rus. **A Game-Theoretic Formulation of Multi-Agent Resource Allocation.** *Proceedings of the International Conference on Autonomous Agents*, pages 349–356. ACM, June 2000. Revision of TR56. Later revised as RJ73. Acceptance rate 24%. [Details]

RC112. Jonathan Bredin, David Kotz, and Daniela Rus. **Economic Markets as a Means of Open Mobile-Agent Systems.** *Proceedings of the Mobile Agents in the Context of Competition and Cooperation (MAC3) Workshop at Autonomous Agents'99*, pages 43–49. ACM, May 1999. Acceptance rate 62%. [Details]

RC113. David Kotz and Robert S. Gray. **Mobile Code: The Future of the Internet.** *Proceedings of the Mobile Agents in the Context of Competition and Cooperation (MAC3) Workshop at Autonomous Agents'99*, pages 6–12. ACM, May 1999. Later revised as U20. Acceptance rate 62%. [Details]

RC114. Jonathan Bredin, David Kotz, and Daniela Rus. **Market-based Resource Control for Mobile Agents.** *Proceedings of the International Conference on Autonomous Agents*, pages 197–204. ACM, May 1998. Revision of TR63. Acceptance rate 34%. [Details]

RC115. Daniela Rus, Robert Gray, and David Kotz. **Transportable Information Agents.** *Proceedings of the International Conference on Autonomous Agents*, pages 228–236. ACM, February 1997. Revision of U25. Later revised as RJ78. Acceptance rate 38%. [Details]

RC116. David Kotz, Robert Gray, and Daniela Rus. **Transportable Agents Support Worldwide Applications.** *Proceedings of the ACM SIGOPS European Workshop*, pages 41–48. ACM, September 1996. Acceptance rate 28%. [Details]

RC117. Apratim Purakayastha, Carla Schlatter Ellis, and David Kotz. **ENWRICH: A Compute-Processor Write Caching Scheme for Parallel File Systems.** *Proceedings of the Workshop on Input/Output in Parallel and Distributed Systems (IOPADS)*, pages 55–68. ACM, Philadelphia, May 1996. Revision of TR73. Acceptance rate 37%. [Details]

RC118. Nils Nieuwejaar and David Kotz. **Performance of the Galley Parallel File System.** *Proceedings of the Workshop on Input/Output in Parallel and Distributed Systems (IOPADS)*, pages 83–94. ACM, Philadelphia, May 1996. Later revised as TR69. Acceptance rate 37%. [Details]

RC119. Nils Nieuwejaar and David Kotz. **The Galley Parallel File System.** *Proceedings of the ACM International Conference on Supercomputing (ICS)*, pages 374–381. ACM, Philadelphia, May 1996. Later revised as TR69. Acceptance rate 52%. [Details]

RC120. David Kotz. **Expanding the Potential for Disk-Directed I/O.** *Proceedings of the IEEE Symposium on Parallel and Distributed Processing (SPDP)*, pages 490–495. IEEE, San Antonio, TX, October 1995. Revision of TR76. Acceptance rate 40%. [Details]

RC121. David Kotz. **Disk-directed I/O for an Out-of-core Computation.** *Proceedings of the IEEE International Symposium on High Performance Distributed Computing (HPDC)*, pages 159–166. IEEE, August 1995. Revision of TR79. Acceptance rate 43%. [Details]

RC122. A. Purakayastha, Carla Ellis, David Kotz, N. Nieuwejaar, and Michael L. Best. **Characterizing Parallel File-Access Patterns on a Large-Scale Multiprocessor.** *Proceedings of the International Parallel Processing Symposium (IPPS)*, pages 165–172. IEEE, April 1995. Revision of TR81. Later revised as TR75. Acceptance rate 40%. [Details]

RC123. David Kotz and Ting Cai. **Exploring the use of I/O Nodes for Computation in a MIMD Multiprocessor.** *Proceedings of the IPPS Workshop on Input/Output in Parallel and Distributed Systems (IOPADS)*, pages 78–89. ACM, April 1995. Revision of TR82. Later revised as TR78. Acceptance rate 33%. [Details]

RC124. Nils Nieuwejaar and David Kotz. **Low-level Interfaces for High-level Parallel I/O.** *Proceedings of the IPPS Workshop on Input/Output in Parallel and Distributed Systems (IOPADS)*, pages 47–62. April 1995. Identical to TR77. Later revised as IB20. Acceptance rate 33%. [Details]

RC125. David Kotz. **A DAta-Parallel Programming Library for Education (DAPPLE).** *Proceedings of the SIGCSE Technical Symposium on Computer Science Education*, pages 76–81. ACM, March 1995. Also ACM SIGCSE Bulletin 27(1). Revision of TR80. Later revised as RJ82. Acceptance rate 35%. [Details]

RC126. David Kotz. **Disk-directed I/O for MIMD Multiprocessors.** *Proceedings of the 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 TR84. Acceptance rate 18%. [Details]

RC127. David Kotz and Nils Nieuwejaar. **Dynamic File-Access Characteristics of a Production Parallel Scientific Workload.** *Proceedings of the ACM/IEEE conference on Supercomputing*, pages 640–649. IEEE, Washington, DC, November 1994. Revision of TR86. Later revised as RJ86. Acceptance rate 28%. [Details]

RC128. David Kotz and Preston Crow. **The Expected Lifetime of "Single-Address-Space" Operating Systems.** *Proceedings of the ACM SIGMETRICS Conference on Measurement and Modeling of Computer Systems*, pages 161–170. ACM, May 1994. Revision of TR87. Later revised as RJ85. Acceptance rate 23%. [Details]

RC129. Thomas H. Cormen and David Kotz. **Integrating Theory and Practice in Parallel File Systems.** *Proceedings of the Dartmouth Institute for Advanced Graduate Studies (DAGS)*, pages 64–74. Dartmouth Institute for Advanced Graduate Studies (DAGS), Dartmouth College, Hanover, NH, June 1993. Revised as Dartmouth PCS-TR93-188 on 9/20/94. Later revised as TR89. Acceptance rate 64%. [Details]

RC130. Owen Astrachan, Vivek Khera, and David Kotz. **The Internet Programming Contest: A Report and Philosophy.** *Proceedings of the SIGCSE Technical Symposium on Computer Science Education*, pages 48–52. ACM, February 1993. Revision of TR93. Acceptance rate 29%. [Details]

RC131. David Kotz. **Multiprocessor File System Interfaces.** *Proceedings of the International Conference on Parallel and Distributed Information Systems (PDIS)*, pages 194–201. IEEE, January 1993. Revision of TR91. Acceptance rate 18%. [Details]

RC132. David Kotz and Carla Schlatter Ellis. **Practical Prefetching Techniques for Parallel File Systems.** *Proceedings of the International Conference on Parallel and Distributed Information Systems (PDIS)*, pages 182–189. IEEE, December 1991. Later revised as RJ87. Related to D1. Acceptance rate 16%. [Details]

RC133. David Kotz and Carla Schlatter Ellis. **Caching and Writeback Policies in Parallel File Systems.** *Proceedings of the IEEE Symposium on Parallel and Distributed Processing (SPDP)*, pages 60–67. IEEE, December 1991. Later revised as RJ88. Related to D1. Acceptance rate 33%. [Details]

RC134. Carla Schlatter Ellis and David Kotz. **Prefetching in File Systems for MIMD Multiprocessors.** *Proceedings of the International Conference on Parallel Processing (ICPP)*, volume 1, pages 306–314. Pennsylvania State University Press, St. Charles, IL, August 1989. ISBN: 0-271-00686-2. Revision of TR94. Later revised as RJ89. Related to D1. Acceptance rate 25%. [Details]

RC135. David Kotz and Carla Ellis. **Evaluation of Concurrent Pools.** *Proceedings of the International Conference on Distributed Computer Systems (ICDCS)*, pages 378–385. IEEE, June 1989. Revision of TR96. Acceptance rate 33%. [Details]

POSTERS AND POSITION PAPERS (MANY REVIEWED) (37) *in reverse-chronological order*

These are short papers, poster abstracts, or position papers. (Bold labels indicates peer review.)

PP1. Sina Abdollahi, Amir Al Sadi, David Kotz, Marios Kogias, and Hamed Haddadi. **Poster: Confidential, Attestable, and Efficient Inter-CVM Communication with Arm CCA.** European Conference on Computer Systems (EuroSys), April 2026. No abstract appears in the ACM proceedings. Later revised as TR2. Acceptance rate 76%. [Details]

PP2. Hillary Spangler, Tiffany Driesse, Robert Roth, Xiaohui Liang, David Kotz, and John Batsis. **Privacy Concerns Among Older Adults Using Voice Assistant Systems.** *Innovation in Aging*, volume 5, number 1, page 265. Oxford University Press, December 2021. Later revised as RJ10. [Details]

PP3. Eduardo Mañas-Martínez, Elena Cabrera, Katarzyna Wasielewska, David Kotz, and José Camacho. **Mining social interactions in connection traces of a campus Wi-Fi network.** *Proceedings of the SIGCOMM Poster and Demo Sessions*, 3 pages, pages 6–8. ACM, August 2021. Acceptance rate 54%. [Details]

PP4. Sougata Sen, Varun Mishra, and David Kotz. **Using vibrations from a SmartRing as an out-of-band channel for sharing secret keys.** *Adjunct Proceedings of the ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp)*, pages 198–201. ACM, September 2019. [Details]

PP5. Timothy J. Pierson, Travis Peters, Ronald Peterson, and David Kotz. **Poster: Proximity Detection with Single-Antenna IoT Devices.** *Proceedings of the ACM International Conference on Mobile Computing and Networking (MobiCom)*, pages 663–665. ACM, October 2018. Best poster award. Later revised as RC24. Acceptance rate 50%. [Details]

PP6. J. A. Batsis, A. B. Zagaria, J. A. Naslund, D. F. Kotz, S. J. Bartels, and E. Carpenter-Song. **Technology for Behavioral Change in Rural Older Adults with Obesity.** *Journal of the American Geriatrics Society*, volume 66, number S2, 1 page, page S141. American Geriatrics Society, April 2018. Abstracts of the Annual Scientific Meeting. [Details]

PP7. Florian Künzler, Jan-Niklas Kramer, Varun Mishra, Bastien Presset, Shawna N. Smith, David Kotz, Urte Scholz, Elgar Fleisch, and Tobias Kowatsch. **Ally: A Smartphone-based Physical Activity Intervention.** *CSS Health Insurance meets CDHI Event*, 1 page. Lucerne, Switzerland, December 2017. [Details]

PP8. Timothy J. Pierson, Reza Rawassizadeh, Ronald Peterson, and David Kotz. **Secure Information Transfer Between Nearby Wireless Devices.** *Proceedings of the ACM Workshop on Wireless of the Students, by the Students, and for the Students (S3)*, pages 11–13. ACM, October 2017. Acceptance rate 100%. [Details]

PP9. Shengjie Bi, Ellen Davenport, Jun Gong, Ronald Peterson, Joseph Skinner, 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.** *Proceedings of the ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, page 176. ACM, June 2017. [Details]

PP10. Taylor Hardin, Josiah Hester, Patrick Proctor, Jacob Sorber, and David Kotz. **Poster: Memory Protection in Ultra-Low-Power Multi-Application Wearables.** *Proceedings of the ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, page 170. ACM, June 2017. [Details]

PP11. Rui Liu, Cory Cornelius, Reza Rawassizadeh, Ron Peterson, and David Kotz. **Poster: Vocal Resonance as a Passive Biometric.** *Proceedings of the ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, page 160. ACM, June 2017. [Details]

PP12. E. V. Wechsler, J. A. Batsis, D. F. Kotz, J. Skinner, A. B. Zagaria, R. A. Peterson, S. B. Cook, S. J. Bartels, and R. J. Halter. **Development of a 'Smart' TheraBand to Assess Strength.** *Journal of the American Geriatrics Society*, volume 65, number S1, page S218. American Geriatrics Society, May 2017. Student presentation abstract. [Details]

PP13. 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. **Demo Abstract: The Amulet Wearable Platform.** *Proceedings of the ACM Conference on Embedded Networked Sensor Systems (SenSys)*, pages 290–291. ACM, November 2016. [Details]

PP14. Timothy J. Pierson, Xiaohui Liang, Ronald Peterson, and David Kotz. **Demo: Wanda, securely introducing mobile devices.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, page 113. ACM, June 2016. [Details]

PP15. Xiaohui Liang and David Kotz. **Securely Connecting Wearable Health Devices to External Displays.** *Proceedings of the USENIX Summit on Health Information Technologies (HealthTech)*. USENIX Association, August 2014. No paper – workshop presentation only. [Details]

PP16. Tristan Henderson and David Kotz. **POSTER: CRAWDAD: A Wireless Network Data Archive for WiSec Researchers.** *Proceedings of the ACM Conference on Security and Privacy in Wireless & Mobile Networks (WiSec)*, 2 pages. ACM, July 2014. [Details]

PP17. Andrés Molina-Markham, Ronald A. Peterson, Joseph Skinner, Ryan J. Halter, Jacob Sorber, and David Kotz. **Poster: Enabling Computational Jewelry for mHealth Applications.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 374–375. ACM, June 2014. [Details]

PP18. Aarathi Prasad, Xiaohui Liang, and David Kotz. **Poster: Balancing Disclosure and Utility of Personal Information.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 380–381. ACM, June 2014. [Details]

PP19. Aarathi Prasad, Ronald Peterson, Jacob Sorber, and David Kotz. **A Provenance Framework for mHealth.** *Proceedings of the Workshop for Mobile Systems, Applications, and Services for Healthcare (mHealthSys) Poster Track*, article 9, 2 pages. ACM, November 2012. [Details]

PP20. Cory Cornelius, Zachary Marois, Jacob Sorber, Ron Peterson, Shrirang Mare, and David Kotz. **Passive Biometrics for Pervasive Wearable Devices (Poster paper).** *Proceedings of the Workshop on Mobile Computing Systems and Applications (HotMobile)*, 1 page. ACM, February 2012. [Details]

PP21. Aarathi Prasad, Jacob Sorber, Timothy Stablein, Denise Anthony, and David Kotz. **Exposing privacy concerns in mHealth.** *Proceedings of the USENIX Workshop on Health Security (HealthSec)*, 2 pages. USENIX Association, August 2011. Position paper. Acceptance rate 34%. [Details]

PP22. Jacob Sorber, Minho Shin, Ron Peterson, and David Kotz. **Poster: Practical Trusted Computing for mHealth Sensing.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 405–406. ACM, June 2011. [Details]

PP23. Keren Tan, Guanhua Yan, Jihwang Yeo, and David Kotz. **A Correlation Attack Against User Mobility Privacy in a Large-scale WLAN network.** *Proceedings of the ACM workshop on Wireless of the Students, by the Students, for the Students (MobiCom S3)*, pages 33–35. ACM, September 2010. Later revised as RC60. [Details]

PP24. Cory Cornelius and David Kotz. **On Usable Authentication for Wireless Body Area Networks.** *Proceedings of the USENIX Workshop on Health Security (HealthSec)*, 2 pages. USENIX Association, August 2010. Position paper. Acceptance rate 49%. [Details]

PP25. Shrirang Mare and David Kotz. **Is Bluetooth the right technology for mHealth?** *Proceedings of the USENIX Workshop on Health Security (HealthSec)*, 2 pages. USENIX Association, August 2010. Position paper. Acceptance rate 49%. [Details]

PP26. Aarathi Prasad and David Kotz. **Can I access your Data? Privacy Management in mHealth.** *Proceedings of the USENIX Workshop on Health Security (HealthSec)*, 2 pages. USENIX Association, August 2010. Position paper. Acceptance rate 49%. [Details]

PP27. Janani Sriram, Minho Shin, Tanzeem Choudhury, and David Kotz. **Activity-aware ECG-based patient authentication for remote health monitoring.** *Proceedings of the International Conference on Multimodal Interfaces and Workshop on Machine Learning for Multi-modal Interaction (ICMI-MLMI)*, pages 297–304. ACM, November 2009. Acceptance rate 36%. [Details]

PP28. Sergey Bratus, Joshua Brody, David Kotz, and Anna Shubina. **Streaming Estimation of Information-theoretic Metrics for Anomaly Detection (Extended Abstract).** *Proceedings of the International Symposium on Recent Advances in Intrusion Detection— Posters*, volume 5230 in Lecture Notes in Computer Science, pages 412–414. Springer, Cambridge, MA, September 2008. Acceptance rate 41%. [Details]

PP29. Cory Cornelius, Apu Kapadia, David Kotz, Dan Peebles, Minho Shin, and Patrick Tsang. **Poster Abstract: Reliable People-Centric Sensing with Unreliable Voluntary Carriers.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, 1 page. ACM, June 2008. [Details]

PP30. Libo Song, Udayan Deshpande, Ulaş Kozat, David Kotz, and Ravi Jain. **MobiCom Poster Abstract: Bandwidth Reservation using WLAN Handoff Prediction.** *ACM SIGMOBILE Mobile Computing and Communications Review*, volume 10, number 4, pages 22–23. ACM, October 2006. Poster presented at Mobicom 2005. [Details]

PP31. Javed Aslam, Sergey Bratus, David Kotz, Ron Peterson, and Daniela Rus. **Kerf: Machine Learning to Aid Intrusion Analysts.** *Proceedings of the USENIX Security Symposium*, 1 page. USENIX Association, August 2004. Work-in-progress report. [Details]

PP32. Jue Wang, Guanling Chen, and David Kotz. **A sensor-fusion approach for meeting detection.** *Proceedings of the MobiSys 2004 Workshop on Context Awareness*, 7 pages. ACM, June 2004. Revision of TR34. Acceptance rate 71%. [Details]

PP33. Guanling Chen and David Kotz. **Dependency management in distributed settings (Poster Abstract).** *Proceedings of the International Conference on Autonomic Computing (ICAC)*, pages 272–273. IEEE, May 2004. Revision of TR32. Acceptance rate 48%. [Details]

PP34. 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 Communications Review*, volume 7, number 4, pages 64–65. ACM, October 2003. Later revised as RC98. Acceptance rate 23%. [Details]

PP35. Javed Aslam, Sergey Bratus, David Kotz, Ron Peterson, Daniela Rus, and Brett Tofel. **The Kerf toolkit for intrusion analysis (Poster abstract).** *Proceedings of the IEEE Workshop on Information Assurance*, pages 301–303. IEEE, West Point, NY, June 2003. Later revised as RJ72. [Details]

PP36. Guanling Chen and David Kotz. **SOLAR: Towards a Flexible and Scalable Data-Fusion Infrastructure for Ubiquitous Computing.** *Proceedings of the UbiTools workshop at UbiComp 2001*, 4 pages. October 2001. Acceptance rate 84%. [Details]

PP37. Jon Howell and David Kotz. **Restricted delegation: seamlessly spanning administrative boundaries.** *ACM Operating Systems Review*, volume 34, number 2, pages 38–39. ACM, April 2000. [Details]

INVITED BOOK CHAPTERS (20) *in reverse-chronological order*

Most, but not all, of these papers were peer-reviewed. (Bold labels indicates peer review.)

IB1. Aarathi Prasad, Jacob Sorber, Timothy Stablein, Denise L. Anthony, and David Kotz. **Understanding User Privacy Preferences for mHealth Data Sharing.** *MHealth: Multidisciplinary Verticals*, chapter 30, pages 545–569. Edited by Sasan Adibi. CRC Press, November 2014. ISBN13: 978-1-4822-1480-2. Revision of RC51. [Details]

IB2. Libo Song and David F. Kotz. **Routing in Mobile Opportunistic Networks.** *Mobile Opportunistic Networks: Architectures, Protocols and Applications*, chapter 1, pages 1–24. Edited by Mieso K. Denko. CRC Press, 2011. ISBN13: 978-1-4200-8813-7. Revision of RC78. [Details]

IB3. Soumendra Nanda and David Kotz. **Localized Bridging Centrality.** *Handbook of Optimization in Complex Networks: Communication and Social Networks*, chapter 7, pages 197–218. Edited by My T. Thai and Panos M. Pardalos. Volume 58, Springer, October 2011. ISBN: 9781461408567. Revision of RC70. [Details]

IB4. Keren Tan, Jihwang Yeo, Michael E. Locasto, and David Kotz. **Catch, Clean, and Release: A Survey of Obstacles and Opportunities for Network Trace Sanitization.** *Privacy-Aware Knowledge Discovery: Novel Applications and New Techniques*, chapter 5, pages 111–141. Edited by Francesco Bonchi and Elena Ferrari. Chapman and Hall/CRC Press, December 2010. ISBN13: 9781439803653. [Details]

IB5. Kazuhiro Minami and David Kotz. **Distributed proof systems for cross-domain authorization.** *Information Assurance, Security and Privacy Services*, chapter 1. Edited by H. Raghav Rao and Shambhu Upadhyaya. Volume 4 in Handbooks in Information Systems, Emerald Group Publishing Limited, 2009. ISBN13: 9781848551947. [Details]

IB6. Guanling Chen, Kazuhiro Minami, and David Kotz. **Naming and Discovery in Mobile Systems.** *The Handbook of Mobile Middleware*, chapter 16, pages 387–407. Edited by Paolo Bellavista and Antonio Corradi. John Wiley & Sons, 2007. ISBN13: 9780367390105. [Details]

IB7. Tristan Henderson and David Kotz. **Measuring Wireless LANs.** *Mobile, Wireless, and Sensor Networks: Technology, Applications, and Future Directions*, chapter 1, pages 5–27. Edited by Rajeev Shorey, Akkihebbal L. Ananda, Mun Choon Chan, and Wei Tsang Ooi. John Wiley & Sons, New York, NY, December 2005. ISBN13: 9780471755593. [Details]

IB8. Robert S. Gray, George Cybenko, David Kotz, and Daniela Rus. **Mobile agents: Motivations and state-of-the-art systems.** *Handbook of Agent Technology*. Edited by Jeffrey Bradshaw. AAAI/MIT Press, 2002. Accepted for publication, but the book never published. Draft available as Technical Report TR2000-365, Department of Computer Science, Dartmouth College. Revision of TR53. [Details]

IB9. Jonathan Bredin, David Kotz, Daniela Rus, Rajiv T. Maheswaran, Çagri Imer, and Tamer Başar. **A Market-Based Model for Resource Allocation in Agent Systems.** *Coordination of Internet Agents: Models, Technologies, and Applications*, chapter 17, pages 426–442. Edited by Franco Zambonelli. Springer, 2001. ISBN: 3-540-41613-7. [Details]

IB10. David Kotz. **Disk-directed I/O for MIMD Multiprocessors.** *High Performance Mass Storage and Parallel I/O: Technologies and Applications*, chapter 35, pages 513–535. Edited by Hai Jin, Toni Cortes, and Rajkumar Buyya. Wiley-IEEE Press, September 2001. ISBN13: 978-0-471-20809-9. Identical to RJ81. [Details]

IB11. David Kotz and Carla Schlatter Ellis. **Practical Prefetching Techniques for Multiprocessor File Systems.** *High Performance Mass Storage and Parallel I/O: Technologies and Applications*, chapter 17, pages 245–258. Edited by Hai Jin, Toni Cortes, and Rajkumar Buyya. Wiley-IEEE Press, New York, NY, September 2001. ISBN13: 978-0-471-20809-9. Identical to RJ87. [Details]

IB12. Ron Oldfield and David Kotz. **Scientific Applications using Parallel I/O.** *High Performance Mass Storage and Parallel I/O: Technologies and Applications*, chapter 45, pages 655–666. Edited by Hai Jin, Toni Cortes, and Rajkumar Buyya. Wiley-IEEE Press, September 2001. ISBN13: 978-0-471-20809-9. Revision of TR60. [Details]

IB13. Brian Brewington, Robert Gray, Katsuhiro Moizumi, David Kotz, George Cybenko, and Daniela Rus. **Mobile Agents for Distributed Information Retrieval.** *Intelligent Information Agents*, chapter 15, pages 355–395. Edited by Matthias Klusch. Springer, 1999. ISBN: 3-540-65112-8. [Details]

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IB19. David Kotz. **Introduction to Multiprocessor I/O Architecture.** *Input/Output in Parallel and Distributed Computer Systems*, chapter 4, pages 97–124. Edited by Ravi Jain, John Werth, and James C. Browne. Volume 362 in The Kluwer International Series in Engineering and Computer Science, Kluwer Academic Publishers, 1996. ISBN13: 978-1-4613-1401-1. [Details]

IB20. Nils Nieuwejaar and David Kotz. **Low-level Interfaces for High-level Parallel I/O.** *Input/Output in Parallel and Distributed Computer Systems*, chapter 9, pages 205–223. Edited by Ravi Jain, John Werth, and James C. Browne. Volume 362 in The Kluwer International Series in Engineering and Computer Science, Kluwer Academic Publishers, 1996. ISBN13: 978-1-4613-1401-1. Revision of RC124. [Details]

DISSERTATIONS AND THESES – MY OWN (1) *in reverse-chronological order*

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

DISSERTATIONS AND THESES – MY STUDENTS (53) *in reverse-chronological order*

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

T1. Adam Vandenbussche. **TorSH: Obfuscating consumer Internet-of-Things traffic with a collaborative smart-home router network.** June 2022. Undergraduate Thesis. Related to P1. [Details]

T2. Taylor Hardin. **Information Provenance for Mobile Health Data.** PhD thesis, Dartmouth Computer Science, Hanover, NH, May 2022. [Details]

T3. Namya Malik. **SPLICEcube Architecture: An Extensible Wi-Fi Monitoring Architecture for Smart-Home Networks.** Master's thesis, Dartmouth Computer Science, Hanover, NH, May 2022. [Details]

T4. Varun Mishra. **Towards Effective Delivery of Digital Interventions for Mental and Behavioral Health.** PhD thesis, Dartmouth Computer Science, Hanover, NH, September 2021. [Details]

T5. Paul Gralla. **An inside vs. outside classification system for Wi-Fi IoT devices.** June 2021. Undergraduate Thesis. [Details]

T6. Sarah Hong. **Exploring the Relationship Between Intrinsic Motivation and Receptivity to mHealth Interventions.** June 2021. Undergraduate Thesis. [Details]

T7. Fedor Myagkov. **Classifying Common Knee Rehabilitation Exercise Mistakes Using IMU Data.** June 2021. Undergraduate Thesis. [Details]

T8. Shengjie Bi. **Detection of health-related behaviours using head-mounted devices.** PhD thesis, Dartmouth Computer Science, Hanover, NH, May 2021. PhD Dissertation. [Details]

T9. Travis Peters. **Trustworthy Wireless Personal Area Networks.** PhD thesis, Dartmouth Computer Science, Hanover, NH, August 2020. Available as Dartmouth Computer Science Technical Report TR2020-878. [Details]

T10. Timothy J. Pierson. **Secure Short-range Communications.** PhD thesis, Dartmouth Computer Science, Hanover, NH, June 2018. Available as Dartmouth Computer Science Technical Report TR2018-845. [Details]

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T15. Anna J. Knowles. **Integrating Bluetooth Low Energy Peripherals with the Amulet.** Technical Report number TR2016-807, Dartmouth Computer Science, Hanover, NH, May 2016. Senior Honors Thesis. [Details]

T16. Shrirang Mare. **Seamless Authentication for Ubiquitous Devices.** PhD thesis, Dartmouth Computer Science, Hanover, NH, May 2016. Available as Dartmouth Computer Science Technical Report TR2016-793. [Details]

T17. Aarathi Prasad. **Privacy-preserving controls for sharing mHealth data.** PhD thesis, Dartmouth Computer Science, Hanover, NH, May 2016. Available as Dartmouth Computer Science Technical Report TR2016-794. [Details]

T18. Bingyue Wang. **Learning Device Usage in Context: A Continuous and Hierarchical Smartphone Authentication Scheme.** Technical Report number TR2016-790, Dartmouth Computer Science, Hanover, NH, March 2016. Senior Honors Thesis. [Details]

T19. Rima Narayana Murthy. **mCollector: Sensor-enabled health-data collection system for rural areas in the developing world.** Master's thesis, Dartmouth Computer Science, Hanover, NH, August 2014. Available as Dartmouth Technical Report TR2015-788. [Details]

T20. Cory T. Cornelius. **Usable Security for Wireless Body-Area Networks.** PhD thesis, Dartmouth Computer Science, Hanover, NH, September 2013. Available as Dartmouth Computer Science Technical Report TR2013-741. [Details]

T21. Shloka R. Kini. **Please Take My Survey: Compliance with smartphone-based EMA/ESM studies.** Technical Report number TR2013-734, Dartmouth Computer Science, Hanover, NH, May 2013. Senior Honors Thesis. [Details]

T22. Emma N. Smithayer. **Sensor-based system for verifying blood-pressure measurement position.** Technical Report number TR2012-720, Dartmouth Computer Science, Hanover, NH, June 2012. Senior Honors Thesis. [Details]

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T24. Keren Tan. **Large-scale Wireless Local-area Network Measurement and Privacy Analysis.** PhD thesis, Dartmouth Computer Science, Hanover, NH, August 2011. Available as Dartmouth Computer Science Technical Report TR2011-703. [Details]

T25. Phillip A. Fazio. **Effects of network trace sampling methods on privacy and utility metrics.** Technical Report number TR2011-697, Dartmouth Computer Science, Hanover, NH, June 2011. Senior Honors Thesis. [Details]

T26. Jeffrey Fielding. **Linkability in Activity Inference Data Sets.** Technical Report number TR2008-623, Dartmouth Computer Science, Hanover, NH, June 2008. Available as Dartmouth Computer Science Technical Report TR2008-623. Senior Honors Thesis. Advisors: Tanzeem Choudhury and David Kotz. [Details]

T27. Udayan Deshpande. **A Dynamically Refocusable Sampling Infrastructure for 802.11 Networks.** PhD thesis, Dartmouth Computer Science, Hanover, NH, May 2008. Available as Dartmouth Computer Science Technical Report TR2008-620. [Details]

T28. Ming Li. **Group-Aware Stream Filtering.** PhD thesis, Dartmouth Computer Science, Hanover, NH, May 2008. Available as Dartmouth Computer Science Technical Report TR2008-621. [Details]

T29. Soumendra Nanda. **Mesh-Mon: a Monitoring and Management System for Wireless Mesh Networks.** PhD thesis, Dartmouth Computer Science, Hanover, NH, May 2008. Available as Dartmouth Computer Science Technical Report TR2008-619. [Details]

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T31. Kazuhiro Minami. **Secure Context-sensitive Authorization.** PhD thesis, Dartmouth Computer Science, Hanover, NH, February 2006. Available as Dartmouth Computer Science Technical Report TR2006-571. [Details]

T32. Zhenhui Jiang. **A Combined Routing Method for Ad hoc Wireless Networks.** Master's thesis, Dartmouth Computer Science, Hanover, NH, December 2005. Available as Dartmouth Computer Science Technical Report TR2005-566. [Details]

T33. Jue Wang. **Performance Evaluation of a Resource Discovery Service.** Master's thesis, Dartmouth Computer Science, Hanover, NH, October 2004. Available as Dartmouth Computer Science Technical Report TR2004-513. [Details]

T34. Guanling Chen. **Solar: Building A Context Fusion Network for Pervasive Computing.** PhD thesis, Dartmouth Computer Science, Hanover, NH, August 2004. Available as Dartmouth Computer Science Technical Report TR2004-514. [Details]

T35. Calvin Newport. **Simulating mobile ad hoc networks: a quantitative evaluation of common MANET simulation models.** Technical Report number TR2004-504, Dartmouth Computer Science, Hanover, NH, June 2004. Available as Dartmouth Computer Science Technical Report TR2004-504. Senior Honors Thesis. Advisor: David Kotz. [Details]

T36. Clara Lee. **Persistence and Prevalence in the Mobility of Dartmouth Wireless Network Users.** Technical Report number TR2003-455, Dartmouth Computer Science, Hanover, NH, May 2003. The data in this paper is highly suspect; see TR2003-480. Available as Dartmouth Computer Science Technical Report TR2003-455. Senior Honors Thesis. Advisor: David Kotz. [Details]

T37. Ron Oldfield. **Efficient I/O for Computational Grid Applications.** PhD thesis, Dartmouth Computer Science, Hanover, NH, May 2003. Available as Dartmouth Computer Science Technical Report TR2003-459. [Details]

T38. A. Abram White. **Performance and Interoperability In Solar.** Technical Report number TR2002-427, Dartmouth Computer Science, Hanover, NH, June 2002. Available as Dartmouth Computer Science Technical Report TR2002-427. Senior Honors Thesis. Advisor: David Kotz. See also TR2002-429. [Details]

T39. Christopher P. Masone. **Role Definition Language (RDL): A Language to Describe Context-Aware Roles.** Technical Report number TR2002-426, Dartmouth Computer Science, Hanover, NH, May 2002. Available as Dartmouth Computer Science Technical Report TR2002-426. Senior Honors Thesis. Advisor: David Kotz. [Details]

T40. Jonathan L. Bredin. **Market-based Control of Mobile-agent Systems.** PhD thesis, Dartmouth Computer Science, Hanover, NH, June 2001. Available as Dartmouth Computer Science Technical Report TR2001-408. [Details]

T41. Ammar Khalid. **A Directory Infrastructure to Support Mobile Services.** Technical Report number TR2001-391, Dartmouth Computer Science, Hanover, NH, June 2001. Available as Dartmouth Computer Science Technical Report TR2001-391. Senior Honors Thesis. Advisor: David Kotz. [Details]

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T43. G. Ayorkor Mills-Tettey. **Mobile Voice Over IP (MVOIP): An Application-level Protocol.** Technical Report number TR2001-390, Dartmouth Computer Science, Hanover, NH, June 2001. Available as Dartmouth Computer Science Technical Report TR2001-390. Senior Honors Thesis. Advisor: David Kotz. [Details]

T44. Pablo Stern. **Measuring early usage of Dartmouth's wireless network.** Technical Report number TR2001-393, Dartmouth Computer Science, Hanover, NH, June 2001. Available as Dartmouth Computer Science Technical Report TR2001-393. Senior Honors Thesis. Advisor: David Kotz. [Details]

T45. John C. Artz. **Personal Radio.** Technical Report number TR2000-372, Dartmouth Computer Science, Hanover, NH, June 2000. Available as Dartmouth Computer Science Technical Report TR2000-372. Senior Honors Thesis. Advisors: David Kotz and Daniela Rus. [Details]

T46. Jonathan R. Howell. **Naming and sharing resources across administrative boundaries.** PhD thesis, Dartmouth Computer Science, Hanover, NH, June 2000. Available as Dartmouth Computer Science Technical Reports TR2000-378, 379, and 380. [Details]

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T50. Joel T. Thomas. **The Panda Array I/O Library on the Galley Parallel File System.** Technical Report number PCS-TR96-288, Dartmouth Computer Science, Hanover, NH, June 1996. Available as Dartmouth Computer Science Technical Report PCS-TR96-288. Senior Honors Thesis. Advisor: David Kotz. [Details]

T51. Kenneth Harker. **TIAS: A Transportable Intelligent Agent System.** Technical Report number PCS-TR95-258, Dartmouth Computer Science, Hanover, NH, June 1995. Available as Dartmouth Computer Science Technical Report PCS-TR95-258. Senior Honors Thesis. Advisor: David Kotz. [Details]

T52. Song Bac Toh. **Simulation of a Video-on-Demand System.** Technical Report number PCS-TR95-260, Dartmouth Computer Science, Hanover, NH, June 1995. Available as Dartmouth Computer Science Technical Report PCS-TR95-260. Senior Honors Thesis. [Details]

T53. James Gochee. **SPEDE: Simple Programming Environment for Distributed Execution.** Technical Report number PCS-TR94-218, Dartmouth Computer Science, Hanover, NH, June 1994. Senior Honors Thesis. [Details]

PATENTS (13) *in reverse-chronological order*

This section lists only issued patents; USPTO review is a form of peer review.

P1. Adam Vandenbussche, David Kotz, and Timothy Pierson. **Onion Routing Network for Smart Homes.** U.S. Patent 12,665,877, June 23, 2026. Priority date 2022-05-12; filed 2023-05-12; published 2023-11-16 as US20230370425A1; allowed 2026-03-10; issued 2026-06-23. Related to T1. [Details]

P2. Taylor Hardin and David Kotz. **Data system with information provenance.** U.S. Patent 12,244,726, March 4, 2025. Priority date 2020-03-02 to US17/189,704; filed 2021-03-02; published 2021-09-02 as US20210273812A1; issued 2025-03-04. [Details]

P3. Timothy J. Pierson, Ronald Peterson, and David F. Kotz. **Apparatuses, methods, and software for secure short-range wireless communication.** U.S. Patent 11,894,920, February 6, 2024. Continuation of 11,153,026. Priority date 2017-09-06 to US17/477,718; WO filed 2018-09-06, US filed 2020-02-26; published 2022-01-06 as US20220006557A1; issued 2024-02-06. Revision of P7. [Details]

P4. Timothy J. Pierson, Ronald Peterson, and David F. Kotz. **System and method for proximity detection with single-antenna device.** U.S. Patent 11,871,233; International Patent Application WO2019210201A1, January 9, 2024. Priority date 2018-04-27 to US17/050,764; filed 2019-04-26; published 2021-07-29 as US20210235273A1; issued 2024-01-09. [Details]

P5. Timothy J. Pierson, Xiaohui Liang, Ronald Peterson, and David Kotz. **Apparatus for securely configuring a target device.** U.S. Patent 11,683,071, June 20, 2023. Continuation of U.S. Patent 10,574,298. Priority date 2015-06-23 to US16/747,451; filed 2020-01-20; published 2020-05-28 as US20200169295A1allowed 2023-02-10; issued 2023-06-20. Revision of P9. [Details]

P6. Shrirang Mare, David Kotz, and Ronald Peterson. **Effortless authentication for desktop computers using wrist wearable tokens.** U.S. Patent 11,574,039, February 7, 2023. Priority date 2018-07-20 to US17/261,691; world application filed 2019-07-19; US filed 2021-01-20; published 2021-08-26 as US20210264012A1; issued 2023-02-07. [Details]

P7. Timothy J. Pierson, Ronald Peterson, and David F. Kotz. **Apparatuses, methods, and software for secure short-range wireless communication.** U.S. Patent 11,153,026, October 19, 2021. Priority date 2017-09-06 to US16/642,160; WO filed 2018-09-06, US filed 2020-02-26; published 2020-11-12 as US20200358550A1; US amendment filed 2021-01-29; issued 2021-10-19. Later revised as P3. [Details]

P8. Xiaohui Liang, Tianlong Yun, Ronald Peterson, and David Kotz. **Secure System For Coupling Wearable Devices To Computerized Devices with Displays.** U.S. Patent 10,581,606, March 3, 2020. Priority date 2014-08-18, Filed 2015-08-18; Issued 2020-03-03. [Details]

P9. Timothy J. Pierson, Xiaohui Liang, Ronald Peterson, and David Kotz. **Apparatus for securely configuring a target device and associated methods.** U.S. Patent 10,574,298, February 25, 2020. Priority date 2015-06-23 to US15/739,122; filed 2016-06-23; published 2018-07-05 as US20180191403A1; issued 2020-02-25. Later revised as P5. [Details]

P10. Andrés D. Molina-Markham, Shrirang Mare, Ronald Peterson, Jr., and David Kotz. **Continuous seamless mobile device authentication using a separate electronic wearable apparatus.** U.S. Patent 9,961,547, May 1, 2018. Priority date 2016-09-30 to US15/281,694; filed 2016-09-30; published 2018-05-01 US9961547B1; issued 2018-05-01. [Details]

P11. David Kotz, Ryan Halter, Cory Cornelius, Jacob Sorber, Minho Shin, Ronald Peterson, Shrirang Mare, Aarathi Prasad, Joseph Skinner, and Andres 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 9,936,877; International Patent Application WO2013096954A1, April 10, 2018. This patent adds claims to its predecessor. Priority date 2011-12-23 to US15/426,801; filed 2017-02-07; published 2017-05-25 as US20170143206A1; issued 2018-04-10. Revision of P13. [Details]

P12. Shrirang Mare, Andrés Molina-Markham, Ronald Peterson, and David Kotz. **System, Method and Authorization Device for Biometric Access Control to Digital Devices.** U.S. Patent 9,832,206; International Patent Application WO2014153528A2, November 28, 2017. Priority date 2013-03-21 to US14/778,839; filed 2014-03-21; published as US20160050217A1; issued 2017-11-28. [Details]

P13. David Kotz, Ryan Halter, Cory Cornelius, Jacob Sorber, Minho Shin, Ronald Peterson, Shrirang Mare, Aarathi Prasad, Joseph Skinner, and Andres 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; International Patent Application WO2013096954A1, March 14, 2017. Priority date 2011-12-23 to US14/312,316; filed 2012-12-24; published 2014-10-09 as US20140300490A1; issued 2017-03-14. Later revised as P11. [Details]

PUBLISHED PATENT APPLICATIONS (5) *in reverse-chronological order*

This section lists patent applications published by the US Patent Office; pending applications are not listed here until they are published. Some patent applications are eventually rejected or abandoned and are indicated below. Successful applications are issued as Patents and listed above.

PA1. Cesar Arguello, Beatrice Perez, Timothy J. Pierson, and David Kotz. **Harmonic Radar for Wireless Battery Detection.** U.S. Patent Application US19/216,352, May 22, 2025. Priority date 2024-05-23; filed 2025-05-22; published 2025-11-17 as US20250362406A1. [Details]

PA2. Beatrice Perez, Timothy Pierson, Gregory Mazzaro, and David Kotz. **Harmonic Radar Scanner for Electronics.** U.S. Patent Application 18/749,826, December 26, 2024. Priority date 6/21/23; filed 6/21/24; published 12/26/24 as US2024/0426974. [Details]

PA3. David Kotz and Shengjie Bi. **System and Method for Detection of Health-Related Behaviors.** U.S. Patent Application US18/287,428, June 20, 2024. Priority date 2021-05-01; filed 2022-05-02; published 2024-06-20 as US20240203590A1; rejected 2026-03-11; abandoned. [Details]

PA4. Shengjie Bi, Tao Wang, Nicole Tobias, Josephine Nordrum, Robert Halvorsen, Ron Peterson, Kelly Caine, Xing-Dong Yang, Kofi Odame, Ryan Halter, Jacob Sorber, and David Kotz. **System for detecting eating with sensor mounted by the ear.** U.S. Patent Application PCT/US2019/044317; Worldwide Patent Application WO2020028481A9, February 6, 2020. Priority date 2018-07-31 to US17/265,032; filed 2019-07-31; published 2020-02-06 as WO2020028481A1; published 2020-04-30 as WO2020028481A9; amended 2021-02-01; rejected 2025-07-02; abandoned. [Details]

PA5. David Kotz, Daniela Rus, David Maramros, and John C. Artz. **Methods and apparatus for personalized content presentation.** U.S. Patent Application PCT/US2001/049518; World Patent Application WO2002052374A2, July 4, 2002. Priority date 2000-12-26 to US10/250,449; filed 2001-12-26; published 2002-07-04 as WO2002052374A2; revised and published 2003-03-23 as WO2002052374A3; abandoned 2003-06-26. Note third author's name is misspelled; the correct spelling is Marmaros. [Details]

SOFTWARE ARTIFACTS (12) *in 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. The links below generally lead to websites with more information and downloads. The 'Related' cross-references below refer to the most-relevant paper.

SW1. Florian Künzler, Varun Mishra, Jan-Niklas Kramer, David Kotz, Elgar Fleisch, and Tobias Kowatsch. **Exploring the State-of-Receptivity for mHealth Interventions: Supplementary Material.** *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) (Ubicomp)*, volume 3, number 4, article 140, 27 pages. ACM, December 2019. Related to RJ35. [Details]

SW2. David Kotz, Tristan Henderson, Ilya Abyzov, and Jihwang Yeo. **CRAWDAD dataset dartmouth/campus (v. 2009-09-09).** Available for download on IEEE DataPort, September 2009. Related to RJ60. [Details]

SW3. Robert Gray, David Kotz, Calvin Newport, Nikita Dubrovsky, Aaron Fiske, Jason Liu, Christopher Masone, Susan McGrath, and Yougu Yuan. **CRAWDAD dataset dartmouth/outdoor (v. 2006-11-06).** Data set, November 6, 2006. Related to RC93. [Details]

SW4. Minkyong Kim, David Kotz, and Jeffery Fielding. **CRAWDAD data set dartmouth/wardriving (v. 2006-06-02).** Data set, June 2, 2006. Related to RC82. [Details]

SW5. David Kotz, Tristan Henderson, and Chris McDonald. **CRAWDAD archive: a Community Resource for Archiving Wireless Data At Dartmouth.** Web site, 2005. Related to U11. [Details]

SW6. David Kotz. **STARFISH parallel file-system simulator.** The basis for my research on disk-directed I/O; used by at least two other research groups, October 1996. Third release. Related to TR67. [Details]

SW7. David Kotz. **DAta-Parallel Programming Library for Education DAPPLE.** A C++ class library that provides the illusion of data-parallel programming on sequential computers, 1994. Related to RJ82. [Details]

SW8. David Kotz. **HP 97560 disk simulation module.** Used in STARFISH and several other research projects, 1994. Related to TR85. [Details]

SW9. David Kotz. **Bibliography about Parallel I/O.** BibTeX bibliography, 1994. First released in 1994, and updated periodically through 2011. [Details]

SW10. David Kotz. **RAPID-Transit parallel file-system simulator.** The software basis for my Ph.D dissertation, 1991. Related to D1. [Details]

SW11. David Kotz. **LaTeX and the GNUPLOT Plotting Program.** Informal report, July 3, 1991. For current version of GNUPLOT, see gnuplot.sourceforge.net. [Details]

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UNREFEREED PAPERS (36) *in reverse-chronological order*

Articles published but not peer-reviewed, or unpublished.

U1. David Kotz and Guoliang Xing. **Introduction to the Special Issue on the Wearable Technologies for Smart Health, Part 2.** *ACM Transactions on Healthcare*, volume 2, number 1, article 1, 2 pages. ACM, January 2021. [Details]

U2. David Kotz and Guoliang Xing. **Introduction to the Special Issue on the Wearable Technologies for Smart Health, Part 1.** *ACM Transactions on Healthcare*, volume 1, number 4, article 19, 2 pages. ACM, October 2020. [Details]

U3. David Kotz, Kevin Fu, Carl Gunter, and Avi Rubin. **Security for Mobile and Cloud Frontiers in Healthcare.** *Communications of the ACM*, volume 58, number 8, pages 21–23. ACM, August 2015. [Details]

U4. David Kotz, Michael Bailey, Roy Campbell, Steve Checkoway, Kevin Fu, Carl Gunter, Peter Honeyman, Eric Johnson, Darren Lacey, Carl Landwehr, Lisa Marsch, Klara Nahrstedt, Avi Rubin, and Jonathan Weiner. **Five trends in healthcare IT – and their implications for security.** Blog post on thaw.org, July 17, 2013. [Details]

U5. David Kotz, Michael Bailey, Roy Campbell, Steve Checkoway, Kevin Fu, Carl Gunter, Peter Honeyman, Eric Johnson, Darren Lacey, Carl Landwehr, Lisa Marsch, Klara Nahrstedt, Avi Rubin, and Jonathan Weiner. **The healthcare IT landscape.** Blog post on thaw.org, July 10, 2013. [Details]

U6. Jean Camp, Lorrie Cranor, Nick Feamster, Joan Feigenbaum, Stephanie Forrest, Dave Kotz, Wenke Lee, Patrick Lincoln, Vern Paxson, Mike Reiter, Ron Rivest, William Sanders, Stefan Savage, Sean Smith, Eugene Spafford, and Sal Stolfo. **Data for Cybersecurity Research: Process and "Wish List".** June 10, 2009. Informal report. [Details]

U7. Apu Kapadia, David Kotz, and Nikos Triandopoulos. **Opportunistic Sensing: Security Challenges for the New Paradigm.** *Proceedings of the International Conference on COMmunication Systems and NETworkS (COMSNETS)*, 10 pages. IEEE, January 2009. Invited paper. Revision of TR22. [Details]

U8. Yong Sheng, Keren Tan, Udayan Deshpande, Bennet Vance, Hongda Yin, Chris McDonald, Tristan Henderson, Guanling Chen, David Kotz, Andrew Campbell, and Joshua Wright. **MAP: A scalable measurement infrastructure for securing 802.11 wireless networks.** Unpublished manuscript, 2008, 9 pages. [Details]

U9. Jihwang Yeo, Tristan Henderson, and David Kotz. **CRAWDAD Workshop 2007.** *ACM SIGCOMM Computer Communication Review*, volume 38, number 3, pages 79–82. ACM, July 2008. [Details]

U10. Jihwang Yeo, Tristan Henderson, and David Kotz. **Workshop report — CRAWDAD Workshop 2006.** *ACM SIGMOBILE Mobile Computing and Communication Review*, volume 11, number 1, pages 67–69. ACM, January 2007. [Details]

U11. Jihwang Yeo, David Kotz, and Tristan Henderson. **CRAWDAD: A Community Resource for Archiving Wireless Data at Dartmouth.** *ACM SIGCOMM Computer Communication Review*, volume 36, number 2, pages 21–22. ACM, April 2006. Project overview. Related to SW5. [Details]

U12. David Kotz and Tristan Henderson. **CRAWDAD: A Community Resource for Archiving Wireless Data at Dartmouth.** *IEEE Pervasive Computing*, volume 4, number 4, pages 12–14. IEEE, October 2005. [Details]

U13. Javed Aslam, Sergey Bratus, David Kotz, Ronald Peterson, and Daniela Rus. **The Kerf toolkit for intrusion analysis.** *IAnewsletter*, volume 8, number 2, pages 12–16. Information Assurance Technology Analysis Center (IATAC), Summer 2005. Related to RJ72. [Details]

U14. David Kotz. **The Institute for Security Technology Studies (ISTS): overview.** *Proceedings of SPIE 5403, Sensors, and Command, Control, Communications, and Intelligence (C3I) Technologies for Homeland Security and Homeland Defense III*, volume 5403, pages 9–17. SPIE, Orlando, FL, September 2004. Invited paper, presented April 2004. [Details]

U15. Ron Oldfield and David Kotz. **The Armada framework for parallel I/O on computational grids.** *Proceedings of the USENIX Conference on File and Storage Technologies (FAST)*. USENIX Association, January 2002. Work-in-progress report. [Details]

U16. Jay Aslam, Marco Cremonini, David Kotz, and Daniela Rus. **Using Mobile Agents for Analyzing Intrusion in Computer Networks.** *Proceedings of the Workshop on Mobile Object Systems at ECOOP*, 2 pages. July 2001. [Details]

U17. Jonathan Bredin, Daniela Rus, and David Kotz. **The Role of Information in Computational-Resource Allocation, for the TASK REF: Dynamic Control of Emergent Behavior in E-Commerce Ecologies.** Invited paper at the DARPA TASK PI meeting, May 2001. [Details]

U18. Omer F. Rana and David Kotz. **Special Issue: High Performance Agent Systems.** *Concurrency and Computation: Practice and Experience*, volume 13, number 1, pages 3–4. John Wiley & Sons, February 2001. Introduction to a special issue. [Details]

U19. David Kotz and Friedemann Mattern. **Preface.** *Proceedings of the International Symposium on Agent Systems and Applications and Fourth International Symposium on Mobile Agents (ASA/MA)*, volume 1882 in Lecture Notes in Computer Science, page V–VII. Springer, September 2000. ISBN: 3-540-41052-X. [Details]

U20. David Kotz and Robert S. Gray. **Mobile Agents and the Future of the Internet.** *ACM Operating Systems Review*, volume 33, number 3, pages 7–13. ACM, August 1999. Revision of RC113. [Details]

U21. David Kotz. **Special Issue on Parallel I/O Systems.** *ACM SIGMETRICS Performance Evaluation Review*, volume 25, number 3, 1 page, page 2. ACM, December 1997. [Details]

U22. Robert Gray, David Kotz, Saurab Nog, Daniela Rus, and George Cybenko. **Mobile Agents: The Next Generation in Distributed Computing.** *Proceedings of the Aizu International Symposium on Parallel Algorithms and Architectures Synthesis (pAs)*, pages 8–24. IEEE, Fukushima, Japan, March 1997. Invited paper. Identical to TR68. Later revised as RJ79. [Details]

U23. Alok Choudhary and David Kotz. **Large-Scale File Systems with the Flexibility of Databases.** *ACM Computing Surveys (CSUR)*, volume 28, number 4es, 1 page. ACM, December 1996. 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. [Details]

U24. David Kotz and Nils Nieuwejaar. **Flexibility and Performance of Parallel File Systems.** *Proceedings of the International Conference of the Austrian Center for Parallel Computation (ACPC)*, volume 1127 in Lecture Notes in Computer Science, pages 1–11. Springer, September 1996. Invited paper. Revision of U26. [Details]

U25. Daniela Rus, Robert Gray, and David Kotz. **Autonomous and Adaptive Agents that Gather Information.** *Proceedings of the AAAI International Workshop on Intelligent Adaptive Agents*, pages 107–116. AAAI Press, August 1996. Proceedings available as AAAI Technical Report WS-96-04. Revision of TR71. Later revised as RC115. [Details]

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U27. 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. [Details]

U28. David Kotz. **Review of 'Introduction to Parallel Programming', by Steven Brawer.** *Scientific Programming*, volume 4, pages 115–118. John Wiley & Sons, 1995. Reviewed June 1993. [Details]

U29. Dan Reed, Charles Catlett, Alok Choudhary, David Kotz, and Marc Snir. **Parallel I/O: Getting Ready for Prime Time.** *IEEE Parallel & Distributed Technology: Systems & Applications*, volume 3, number 2, pages 64–71. IEEE, Summer 1995. Edited transcript of panel discussion at the 1994 International Conference on Parallel Processing. [Details]

U30. Keith D. Kotay and David Kotz. **Transportable Agents.** *Proceedings of the CIKM Workshop on Intelligent Information Agents, Third International Conference on Information and Knowledge Management*, 15 pages. CIKM, Gaithersburg, Maryland, December 1994. [Details]

U31. David Kotz. **Disk-directed I/O for MIMD Multiprocessors.** *Bulletin of the IEEE Technical Committee on Operating Systems and Application Environments*, pages 29–42. IEEE, Autumn 1994. Later revised as TR84. [Details]

U32. Donald Johnson, David Kotz, and Fillia Makedon. **Teaching Parallel Computing to Freshmen.** *Proceedings of the Conference on Parallel Computing for Undergraduates*, 7 pages. Edited by Chris Nevison. Colgate University, Colgate University, June 1994. [Details]

U33. David Kotz. **Multiprocessor File System Interfaces.** *Proceedings of the USENIX File Systems Workshop (WOFS)*, pages 149–150. USENIX Association, May 1992. Later revised as RC131. [Details]

U34. Carla Ellis, Mark Holliday, Rick LaRowe, David Kotz, Vick Khera, Steve Owen, and Chris Connelly. **NUMAtic Project and the DUnX OS.** *IEEE Technical Committee on Operating Systems and Application Environments (Newsletter)*, volume 5, number 4, pages 12–14. IEEE, Winter 1991. [Details]

U35. 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. [Details]

U36. David Kotz. **Eleazar Wheelock's Surveying Instruments: A Historical View.** Term paper for History 12, October 16, 1985. [Details]

UNREFEREED TECHNICAL REPORTS (97) *in reverse-chronological order*

TR1. Sina Abdollahi, Mohammad M Maheri, Javad Forough, Amir Al Sadi, Josh Millar, David Kotz, Marios Kogias, and Hamed Haddadi. **AgenTEE: Confidential LLM Agent Execution on Edge Devices.** Technical Report number 2604.18231, arXiv, April 2026. Later revised as RC2. [Details]

TR2. Sina Abdollahi, Amir Al Sadi, David Kotz, Marios Kogias, and Hamed Haddadi. **Confidential, Attestable, and Efficient Inter-CVM Communication with Arm CCA.** Technical Report number 2512.01594, arXiv, December 2025. V3 released 7 March 2026. Revision of PP1. Later revised as RC1. [Details]

TR3. José Camacho, Rasmus Bro, and David Kotz. **Interpretable Learning in Multivariate Big Data Analysis for Network Monitoring.** Technical Report number 1907.02677, arXiv, April 2023. Revision of RC21. Later revised as RJ6. [Details]

TR4. Shengjie Bi and David Kotz. **Eating detection with a head-mounted video camera.** Technical Report number TR2021-1002, Dartmouth Computer Science, December 2021. [Details]

TR5. Carl Landwehr and David Kotz. **THaW publications.** Technical Report number TR2020-904, Dartmouth Computer Science, December 2020. [Details]

TR6. Varun Mishra, Florian Künzler, Jan-Niklas Kramer, Elgar Fleisch, Tobias Kowatsch, and David Kotz. **Detecting Receptivity for mHealth Interventions in the Natural Environment.** Technical Report number arXiv:2011.08302, arXiv, November 16, 2020. V1. Later revised as RJ16. [Details]

TR7. José Camacho, Rasmus Bro, and David Kotz. **Networkmetrics unraveled: MBDA in Action.** Technical Report number 1907.02677, arXiv, July 2019. Later revised as RC21. [Details]

TR8. Varun Mishra, Byron Lowens, Sarah Lord, Kelly Caine, and David Kotz. **Investigating Contextual Cues as Indicators for EMA Delivery.** Technical Report number TR2018-842, Dartmouth Computer Science, April 2018. Revision of RC36. [Details]

TR9. Joseph Carrigan, David Kotz, and Aviel Rubin. **STEM Outreach Activity with Fitbit Wearable Devices.** Technical Report number TR2018-839, Dartmouth College and Johns Hopkins University, February 2018. [Details]

TR10. Timothy J. Pierson, Xiaohui Liang, Ronald Peterson, and David Kotz. **Wanda: securely introducing mobile devices (Extended version).** Technical Report number TR2016-789, Dartmouth Computer Science, February 2016. Expanded version of the INFOCOM 2016 paper by the same title. Later revised as RC45. [Details]

TR11. Shrirang Mare, Andrés Molina-Markham, Cory Cornelius, Ronald Peterson, and David Kotz. **ZEBRA: Zero-Effort Bilateral Recurring Authentication (Companion report).** Technical Report number TR2014-748, Dartmouth Computer Science, May 2014. This project has been renamed CSAW. [Details]

TR12. Cory Cornelius, Zachary Marois, Jacob Sorber, Ron Peterson, Shrirang Mare, and David Kotz. **Vocal resonance as a passive biometric.** Technical Report number TR2014-747, Dartmouth Computer Science, February 2014. [Details]

TR13. Shrirang Mare, Jacob Sorber, Minho Shin, Cory Cornelius, and David Kotz. **Hide-n-Sense: Privacy-aware secure mHealth sensing.** Technical Report number TR2011-702, Dartmouth Computer Science, September 2011. Revision of RC57. Later revised as RC56. [Details]

TR14. Keren Tan, Guanhua Yan, Jihwang Yeo, and David Kotz. **Privacy Analysis of User Association Logs in a Large-scale Wireless LAN.** Technical Report number TR2011-679, Dartmouth Computer Science, January 2011. Revision of RC60. [Details]

TR15. Chrisil Arackaparambil, Sergey Bratus, Anna Shubina, and David Kotz. **On the Reliability of Wireless Fingerprinting using Clock Skews.** Technical Report number TR2010-661, Dartmouth Computer Science, Hanover, NH, January 2010. Revision of RC64. [Details]

TR16. Dan Peebles, Cory Cornelius, Apu Kapadia, David Kotz, Minho Shin, and Nikos Triandopoulos. **AnonyTL Specification.** Technical Report number TR2010-660, Dartmouth Computer Science, January 2010. [Details]

TR17. Jihwang Yeo, Keren Tan, and David Kotz. **User survey regarding the needs of network researchers in trace-anonymization tools.** Technical Report number TR2009-658, Dartmouth Computer Science, Hanover, NH, November 2009. [Details]

TR18. Soumendra Nanda, Zhenhui Jiang, and David Kotz. **A Combined Routing Method for Ad Hoc Wireless Networks.** Technical Report number TR2009-641, Dartmouth Computer Science, February 2009. Revision of TR21. [Details]

TR19. Sergey Bratus, Cory Cornelius, David Kotz, and Daniel Peebles. **Active Behavioral Fingerprinting of Wireless Devices.** Technical Report number TR2008-610, Dartmouth Computer Science, Hanover, NH, March 2008. Revision of RC76. [Details]

TR20. Soumendra Nanda and David Kotz. **Localized Bridging Centrality for Distributed Network Analysis.** Technical Report number TR2008-612, Dartmouth Computer Science, January 2008. Later revised as RC70. [Details]

TR21. Soumendra Nanda, Zhenhui Jiang, and David Kotz. **A Combined Routing Method for Wireless Ad Hoc Networks.** Technical Report number TR2007-588, Dartmouth Computer Science, June 2007. Later revised as TR18. [Details]

TR22. Peter Johnson, Apu Kapadia, David Kotz, and Nikos Triandopoulos. **People-Centric Urban Sensing: Security Challenges for the New Paradigm.** Technical Report number TR2007-586, Dartmouth Computer Science, February 2007. Later revised as U7. [Details]

TR23. Guanling Chen and David Kotz. **Structural Analysis of Social Networks with Wireless Users.** Technical Report number TR2005-549, Dartmouth Computer Science, July 2005. [Details]

TR24. Minkyong Kim and David Kotz. **Classifying the Mobility of Users and the Popularity of Access Points.** Technical Report number TR2005-540, Dartmouth Computer Science, May 2005. Revision of RC89. Later revised as RJ66. [Details]

TR25. David Kotz. **Department of Computer Science Activity 1998-2004.** Technical Report number TR2005-534, Dartmouth Computer Science, March 20, 2005, 133 pages. [Details]

TR26. Kazuhiro Minami and David Kotz. **Secure Context-sensitive Authorization.** Technical Report number TR2004-529, Dartmouth Computer Science, December 2004. Revision of RC92. Later revised as RJ70. [Details]

TR27. Kwang-Hyun Baek, Sean W. Smith, and David Kotz. **A Survey of WPA and 802.11i RSN Authentication Protocols.** Technical Report number TR2004-524, Dartmouth Computer Science, Hanover, NH, November 2004. [Details]

TR28. 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 number TR2004-511, Dartmouth Computer Science, June 2004. Later revised as RC93. [Details]

TR29. David Kotz, Calvin Newport, Robert S. Gray, Jason Liu, Yougu Yuan, and Chip Elliott. **Experimental evaluation of wireless simulation assumptions.** Technical Report number TR2004-507, Dartmouth Computer Science, June 2004. Revision of TR39. Later revised as RC94. [Details]

TR30. Darren Erik Vengroff and David Kotz. **A Holesome File System.** Technical Report number TR2004-497, Dartmouth Computer Science, May 2004. Originally written in July 1995; released May 2004. [Details]

TR31. Javed Aslam, Sergey Bratus, David Kotz, Ron Peterson, Daniela Rus, and Brett Tofel. **The Kerf toolkit for intrusion analysis.** Technical Report number TR2004-493, Dartmouth Computer Science, March 2004. Revision of RJ72. [Details]

TR32. Guanling Chen and David Kotz. **Dependency management in distributed settings.** Technical Report number TR2004-495, Dartmouth Computer Science, March 2004. Later revised as PP33. [Details]

TR33. Tristan Henderson, David Kotz, and Ilya Abyzov. **The Changing Usage of a Mature Campus-wide Wireless Network.** Technical Report number TR2004-496, Dartmouth Computer Science, March 2004. Later revised as RC95. [Details]

TR34. Jue Wang, Guanling Chen, and David Kotz. **A meeting detector and its applications.** Technical Report number TR2004-486, Dartmouth Computer Science, March 2004. Later revised as PP32. [Details]

TR35. Guanling Chen and David Kotz. **Application-Controlled Loss-Tolerant Data Dissemination.** Technical Report number TR2004-488, Dartmouth Computer Science, February 2004. Later revised as RC91. [Details]

TR36. Guanling Chen and David Kotz. **A Case Study of Four Location Traces.** Technical Report number TR2004-490, Dartmouth Computer Science, February 2004. [Details]

TR37. Libo Song, David Kotz, Ravi Jain, and Xiaoning He. **Evaluating next-cell predictors with extensive Wi-Fi mobility data.** Technical Report number TR2004-491, Dartmouth Computer Science, February 2004. Revision of RC98. Later revised as RJ67. [Details]

TR38. Tristan Henderson and David Kotz. **Problems with the Dartmouth wireless SNMP data collection.** Technical Report number TR2003-480, Dartmouth Computer Science, December 2003. Related to RJ71. [Details]

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TR40. David Kotz and Kobby Essien. **Analysis of a Campus-wide Wireless Network.** Technical Report number TR2002-432, Dartmouth Computer Science, September 2002. Revision of RC101. Later revised as RJ71. [Details]

TR41. Ron Oldfield and David Kotz. **Using the Emulab network testbed to evaluate the Armada I/O framework for computational grids.** Technical Report number TR2002-433, Dartmouth Computer Science, Hanover, NH, September 2002. [Details]

TR42. David Kotz and Kobby Essien. **Characterizing Usage of a Campus-wide Wireless Network.** Technical Report number TR2002-423, Dartmouth Computer Science, March 2002. Later revised as RC101. [Details]

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TR44. Guanling Chen and David Kotz. **Solar: A pervasive-computing infrastructure for context-aware mobile applications.** Technical Report number TR2002-421, Dartmouth Computer Science, February 2002. Later revised as RC103. [Details]

TR45. Kazuhiro Minami and David Kotz. **Controlling access to pervasive information in the "Solar" system.** Technical Report number TR2002-422, Dartmouth Computer Science, February 2002. [Details]

TR46. David Kotz, Robert Gray, and Daniela Rus. **Future Directions for Mobile-Agent Research.** Technical Report number 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, Niranjan Suri, and Christian Tschudin. Later revised as RJ74. [Details]

TR47. Arne Grimstrup, Robert Gray, David Kotz, Thomas Cowin, Greg Hill, Niranjan Suri, Daria Chacón, and Martin Hofmann. **Write Once, Move Anywhere: Toward Dynamic Interoperability of Mobile Agent Systems.** Technical Report number TR2001-411, Dartmouth Computer Science, July 2001. [Details]

TR48. Guanling Chen and David Kotz. **Supporting Adaptive Ubiquitous Applications with the SOLAR System.** Technical Report number TR2001-397, Dartmouth Computer Science, May 2001. [Details]

TR49. Robert S. Gray, David Kotz, Ronald A. Peterson, Jr., Peter Gerken, Martin Hofmann, Daria Chacón, Greg Hill, and Niranjan Suri. **Mobile-Agent versus Client/Server Performance: Scalability in an Information-Retrieval Task.** Technical Report number TR2001-386, Dartmouth Computer Science, January 2001. Later revised as RC105. [Details]

TR50. Guanling Chen and David Kotz. **A Survey of Context-Aware Mobile Computing Research.** Technical Report number TR2000-381, Dartmouth Computer Science, November 2000. [Details]

TR51. 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 number TR2000-377, Dartmouth Computer Science, October 2000. Revision of RC109. Later revised as RJ76. [Details]

TR52. 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 number TR2000-366, Dartmouth Computer Science, May 2000. Later revised as RC109. [Details]

TR53. Robert S. Gray, George Cybenko, David Kotz, and Daniela Rus. **Mobile agents: Motivations and state-of-the-art systems.** Technical Report number TR2000-365, Dartmouth Computer Science, April 2000. Later revised as IB8. [Details]

TR54. Jon Howell and David Kotz. **A Formal Semantics for SPKI.** Technical Report number TR2000-363, Dartmouth Computer Science, March 2000. Revision of TR55. Later revised as RC108. [Details]

TR55. Jon Howell and David Kotz. **An Access-Control Calculus for Spanning Administrative Domains.** Technical Report number PCS-TR99-361, Dartmouth Computer Science, November 1999. Later revised as TR54. [Details]

TR56. 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 number PCS-TR99-360, Dartmouth Computer Science, October 1999. Later revised as RC111. [Details]

TR57. Jonathan Bredin, David Kotz, and Daniela Rus. **Mobile-Agent Planning in a Market-Oriented Environment.** Technical Report number PCS-TR99-345, Dartmouth Computer Science, May 1999. Revision 1 of May 20, 1999. [Details]

TR58. David Kotz. **Technological Implications for Privacy.** Technical Report number TR2004-505, Dartmouth Computer Science, January 3, 1999. Originally written during Summer 1998 Ethics Institute at Dartmouth; released in 2004 as a technical report. [Details]

TR59. Jon Howell and David Kotz. **Snowflake: Spanning Administrative Domains.** Technical Report number PCS-TR98-343, Dartmouth Computer Science, December 1998. [Details]

TR60. Ron Oldfield and David Kotz. **Applications of Parallel I/O.** Technical Report number PCS-TR98-337, Dartmouth Computer Science, August 1998. Supplement to PCS-TR96-297. Revision of TR66. Later revised as IB12. [Details]

TR61. Jonathan Bredin, David Kotz, and Daniela Rus. **Utility Driven Mobile-Agent Scheduling.** Technical Report number PCS-TR98-331, Dartmouth Computer Science, May 1998. Revised October 3, 1998. [Details]

TR62. Matthew P. Carter and David Kotz. **An Implementation of the Vesta Parallel File System API on the Galley Parallel File System.** Technical Report number PCS-TR98-329, Dartmouth Computer Science, April 1998. [Details]

TR63. Jonathan Bredin, David Kotz, and Daniela Rus. **Market-based Resource Control for Mobile Agents.** Technical Report number PCS-TR97-326, Dartmouth Computer Science, December 1997. Later revised as RC114. [Details]

TR64. Sanjay Khanna and David Kotz. **A Split-Phase Interface for Parallel File Systems.** Technical Report number PCS-TR97-312, Dartmouth Computer Science, March 1997. [Details]

TR65. Melissa Hirschl and David Kotz. **AGDB: A Debugger for Agent Tcl.** Technical Report number PCS-TR97-306, Dartmouth Computer Science, Hanover, NH, February 1997. [Details]

TR66. David Kotz. **Applications of Parallel I/O.** Technical Report number PCS-TR96-297, Dartmouth Computer Science, October 1996. Release 1. Later revised as TR60. [Details]

TR67. David Kotz. **Tuning STARFISH.** Technical Report number PCS-TR96-296, Dartmouth Computer Science, October 1996. Related to SW6. [Details]

TR68. Robert Gray, David Kotz, Saurab Nog, Daniela Rus, and George Cybenko. **Mobile agents for mobile computing.** Technical Report number PCS-TR96-285, Dartmouth Computer Science, May 1996. Identical to U22. [Details]

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TR70. Saurab Nog, Sumit Chawla, and David Kotz. **An RPC Mechanism for Transportable Agents.** Technical Report number PCS-TR96-280, Dartmouth Computer Science, March 1996. [Details]

TR71. Robert Gray, Daniela Rus, and David Kotz. **Transportable Information Agents.** Technical Report number PCS-TR96-278, Dartmouth Computer Science, January 8, 1996. Later revised as RC115. [Details]

TR72. Saurab Nog and David Kotz. **A Performance Comparison of TCP/IP and MPI on FDDI, Fast Ethernet, and Ethernet.** Technical Report number PCS-TR95-273, Dartmouth Computer Science, November 1995. Revised January 8, 1996. [Details]

TR73. Apratim Purakayastha, Carla Schlatter Ellis, and David Kotz. **ENWRICH: A Compute-Processor Write Caching Scheme for Parallel File Systems.** Technical Report number CS-1995-22, Dept. of Computer Science, Duke University, October 1995. Later revised as RC117. [Details]

TR74. David Kotz. **Interfaces for Disk-Directed I/O.** Technical Report number PCS-TR95-270, Dartmouth Computer Science, September 1995. [Details]

TR75. Nils Nieuwejaar, David Kotz, Apratim Purakayastha, Carla Schlatter Ellis, and Michael Best. **File-Access Characteristics of Parallel Scientific Workloads.** Technical Report number PCS-TR95-263, Dartmouth Computer Science, August 1995. Revision of RJ86. Later revised as RJ84. [Details]

TR76. David Kotz. **Expanding the Potential for Disk-Directed I/O.** Technical Report number PCS-TR95-254, Dartmouth Computer Science, March 1995. Later revised as RC120. [Details]

TR77. Nils Nieuwejaar and David Kotz. **Low-level Interfaces for High-level Parallel I/O.** Technical Report number PCS-TR95-253, Dartmouth Computer Science, March 1995. Revised 4/18/95 and appeared in IOPADS workshop at IPPS'95. Identical to RC124. Revision of TR83. [Details]

TR78. David Kotz and Ting Cai. **Exploring the use of I/O Nodes for Computation in a MIMD Multiprocessor.** Technical Report number NASA-CR-199625, NASA, January 1995. Reprint of IPPS'95 paper. Revision of RC123. [Details]

TR79. David Kotz. **Disk-directed I/O for an Out-of-core Computation.** Technical Report number PCS-TR95-251, Dartmouth Computer Science, January 1995. Later revised as RC121. [Details]

TR80. David Kotz. **A DAta-Parallel Programming Library for Education (DAPPLE).** Technical Report number PCS-TR94-235, Dartmouth Computer Science, November 1994. Later revised as RC125. [Details]

TR81. Apratim Purakayastha, Carla Schlatter Ellis, David Kotz, Nils Nieuwejaar, and Michael Best. **Characterizing Parallel File-Access Patterns on a Large-Scale Multiprocessor.** Technical Report number CS-1994-33, Dept. of Computer Science, Duke University, October 1994. Later revised as RC122. [Details]

TR82. David Kotz and Ting Cai. **Exploring the use of I/O Nodes for Computation in a MIMD Multiprocessor.** Technical Report number PCS-TR94-232, Dartmouth Computer Science, October 1994. Revised 2/20/95. Later revised as RC123. [Details]

TR83. Nils Nieuwejaar and David Kotz. **A Multiprocessor Extension to the Conventional File System Interface.** Technical Report number PCS-TR94-230, Dartmouth Computer Science, September 1994. Later revised as TR77. [Details]

TR84. David Kotz. **Disk-directed I/O for MIMD Multiprocessors.** Technical Report number PCS-TR94-226, Dartmouth Computer Science, July 1994. Revised November 8, 1994. Revision of RC126. Later revised as RJ81. [Details]

TR85. David Kotz, Song Bac Toh, and Sriram Radhakrishnan. **A Detailed Simulation Model of the HP 97560 Disk Drive.** Technical Report number PCS-TR94-220, Dartmouth Computer Science, July 1994. Related to SW8. [Details]

TR86. David Kotz and Nils Nieuwejaar. **Dynamic File-Access Characteristics of a Production Parallel Scientific Workload.** Technical Report number PCS-TR94-211, Dept. of Math and Computer Science, Dartmouth College, April 1994. Revised May 11, 1994. Later revised as RC127. [Details]

TR87. David Kotz and Preston Crow. **The Expected Lifetime of "Single-Address-Space" Operating Systems.** Technical Report number 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 RC128. [Details]

TR88. David Kotz. **Throughput of Existing Multiprocessor File Systems (an informal study).** Technical Report number PCS-TR93-190, Dept. of Math and Computer Science, Dartmouth College, May 1993. [Details]

TR89. Thomas H. Cormen and David Kotz. **Integrating Theory and Practice in Parallel File Systems.** Technical Report number PCS-TR93-188, Dept. of Math and Computer Science, Dartmouth College, March 1993. Revised 9/20/94. Revision of RC129. [Details]

TR90. B. Bershad, A. Chien, A. Choudhary, T. Cormen, E. DeBenedictis, D. DeWitt, D. Ecklund, W. Gropp, R. Grossman, R. Kendall, K. Kennedy, C. Koelbel, D. Kotz, K. Li, P. Lyster, D. Marinescu, P. Messina, R. Moore, S. O'Malley, D. Payne, T. Pratt, D. Reed, J. Saltz, R. Stevens, S. Wallach, and R. Williams. **The Scalable I/O Initiative.** Technical Report, CalTech Concurrent Supercomputing Consortium, February 23, 1993. [Details]

TR91. David Kotz. **Multiprocessor File System Interfaces.** Technical Report number PCS-TR92-179, Dept. of Math and Computer Science, Dartmouth College, March 1992. Later revised as RC131. [Details]

TR92. David Kotz, Fillia Makedon, Matt Bishop, Scot Drysdale, Don Johnson, and Takis Metaxas. **Parallel Computer Needs at Dartmouth College.** Technical Report number PCS-TR92-176, Dartmouth Computer Science, Hanover, NH 03775, January 1992. [Details]

TR93. Owen Astrachan, Vivek Khera, and David Kotz. **The Duke Internet Programming Contest.** Technical Report number CS-1990-21, Dept. of Computer Science, Duke University, December 1990. Later revised as RC130. [Details]

TR94. Carla Schlatter Ellis and David Kotz. **Prefetching in File Systems for MIMD Multiprocessors.** Technical Report number CS-1988-23, Dept. of Computer Science, Duke University, November 1988. Later revised as RC134. [Details]

TR95. David Kotz. **The Architecture of the Butterfly Plus Parallel Processor.** Technical Report number CS-1988-6, Dept. of Computer Science, Duke University, January 1988. [Details]

TR96. David Kotz and Carla Ellis. **Evaluation of Concurrent Pools.** Technical Report number CS-1987-30, Dept. of Computer Science, Duke University, October 1987. Later revised as RC135. [Details]

TR97. Neil G. Sullivan, Jonathan B. Rosenberg, Mark T. Jones, David F. Kotz, R. James Nusbaum, James W. O'Neil, and Hervé Tardif. **Prism: A Distributed VLSI Design System.** Technical Report number CS-1987-21, Dept. of Computer Science, Duke University, June 1987. [Details]

Media coverage

I list here the most significant instances.

Imperial College and Dartmouth recognized me in November 2025 when I was awarded a Royal Society Wolfson Visiting Fellowship.

AAAS and Dartmouth recognized me in March 2025 when I was elected a Fellow of the American Association for the Advancement of Science (AAAS); I was recognized for my contributions to the field of computer systems.

Dartmouth produced in 2021 a short interview about the privacy risks of smart home technology.

ACM and Dartmouth recognized me in winter 2021 when I was named a Fellow of the ACM in the class of 2020.

I was quoted extensively in a 2020 Lifewire article about a new Amazon–AT&T partnership.

Many media outlets covered the June 2020 announcement of our new SPLICE project, including *San Francisco Chronicle*, *BusinessInsider*, *Valley News*, *GraniteGeek*, *NH Business Review*, *Yahoo Finance*, *Technically*, *engadget*, and the *AAAS news service*.

ACM and Dartmouth recognized me in fall 2018 when I was named a Distinguished Member of the ACM.

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 in July 2017.

Many media outlets covered our mHealth agenda paper (RJ48), 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 (RC45), including National Public Radio (NPR), Chicago Daily Herald, Daily Mail, FierceMobileHealthcare, New York Times, San Francisco Chronicle, Seattle Times, The Hindu, and the Washington Post, 2016.

Articles about our ZEBRA paper (RC48) 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 News*, *Clemson news*, and many others.

Articles announcing our Trustworthy Health and Wellness project on *Dartmouth News*, *Vermont Public Radio*, and others.

Articles on our bioimpedance-as-biometric paper (RC52) 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 [RC101] several times.

Invited talks and colloquia (220)

Some of these talks, and other presentations, are online in my YouTube playlist.

CONFERENCES AND WORKSHOPS *in reverse-chronological order*

(Invited presentations other than those for accepted papers.)

2026: Invited presentation at the UKRI Future Internet workshop, London, March 2026.
2026: Invited presentation at the PrivaSki workshop, France, March 2026.
2023: Keynote lecture at the International Conference on Distributed Computing in Smart Systems and the Internet of Things (DCOSS-IoT), Cyprus, June 2023.
2022: "Webinar on Healthcare IoT", January 2022
2020: Workshop "Technology for Automated Capture of Diet, Nutrition, and Eating Behaviors in Context" (virtual), October 2020.
2020: Workshop "Mobile Health Applications," Universität Zürich, June 2020.
2019: Big Data in the Life Sciences Symposium, Geisel School of Medicine, Dartmouth College, NH, May 2019.
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.
2016: ACM MobiSys Workshop on Mobile Data (MobiData), Singapore, June 2016.
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).
1995: IEEE Symposium on High-Performance Distributed Computing (Tutorial, with Thomas H. Cormen).
1994: Dartmouth Institute for Advanced Graduate Studies (Tutorial).
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 reverse-chronological order*

(Name of my host is in parentheses.)

2026: University College London (Mirco Musolesi)
2026: Cardiff University (Omer Rana)
2026: UK Next Generation Networking (NGN) webinar series (Nishanth Sastry and Ignacio Castro) [video]
2026: Oxford University (Kasper Rasmussen and Ivan Martinovic)
2026: Cambridge University (Cecilia Mascolo) [video]
2026: University of Edinburgh (Paul Patras)
2026: St Andrews University (Tristan Henderson)
2026: University of Southampton (Weijia He)
2026: Imperial College (Hamed Haddadi)
2026: American University of Kuwait (Mounib Khanafer)
2026: University College London (Anna Mandalari)
2025: Indian Institute of Management, Bangalore (webinar panel) (Shivam Srivastava) [video]
2025: Clemson University (Jacob Sorber)
2024: Indian Institute of Science, Bangalore (Office of International Relations)
2023: Boston University (Reza Rawassizadeh) [video]
2021: ETH Zurich – Center for Digital Health Interventions (Elgar Fleisch)
2020: Rice University ECE, Distinguished Seminar (Akane Sano)
2020: Dartmouth Institute for Security, Technology, and Society (panel discussion)
2020: University of Basel (Christian Tschudin)
2020: Uppsala University (Christian Rohner)
2020: University of Oulu (Timo Ojala)
2020: ETH Zurich – Computer Science (Srdjan Capkun)
2019: EPFL Lausanne – Computer Science (Jean-Pierre Hubaux)
2019: Oxford University (Nic Lane)
2019: Cambridge University (Cecilia Mascolo)
2019: UC London (Mirco Musolesi)
2019: Mobile Health to Knowledge (MD2K) Consortium (Vivek Shetty) [video]
2019: Skidmore College (Aarathi Prasad)
2019: Chinese University of Hong Kong (CUHK) (Guoliang Xing)
2018: Carnegie-Mellon University (CMU) – CyLab (Douglas Sicker)
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) [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)
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 reverse-chronological order*

(Name of my host is in parentheses.)

2026: Accenture (Qin Zhang)
2019: Samsung Research (Minkyong Kim)
2019: ARM Research (Prakash Ramrakhyani) [video]
2016: Intel Labs (Cory Cornelius)
2015: Medical Mutual Insurance, Falmouth ME (annual meeting)
2012: Microsoft Research, Redmond (Stefan Saroiu) [video]
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) [video]
2003: HP Labs (John Barton)
2003: Microsoft Research (Jon Howell) [video]
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 reverse-chronological order*

2020: Smart and Connected Health — Expert Panel: Secure and Private Smart Health
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: Precision Medicine Initiative — planning workshop with NIH Director Francis Collins
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) [video]
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) [video]
1994: Sandia National Laboratories (David Womble)
1992: Army Research Office (Ken Clark)
1991: ICASE (job talk)

Consulting (expert witness)

I am a **Fellow at Harbor Experts** – please contact them to arrange a consulting opportunity.

In the list below, I consulted behalf of the party marked with asterisk.*

CallWave Communications vs. Google and others* 2014–2017
Attorney: Suparna Datta, Pepper Hamilton

Skyhook Wireless vs. Google*
Attorney: Steven Cherensky, Tensegrity 2013–2015
Attorney: Sam Lu, Irell & Manella 2011
Deposed in 2011 and 2014; case settled before trial.

Wi-LAN vs. Research in Motion (RIM)* 2011
Attorney: James Hietala, Carlson Caspers

TMC Patents vs. HP and Compaq* 2002
Attorney: Jeffrey M. Gold, Morgan Lewis & Brockius

*Previo vs. Connected Corporation** 2001
Attorney: Howard Susser, of Mintz Levin Cohn Ferris Glovsky and Popeo

*Palm vs. Kessel Electronics** 2001
Attorney: Sanny Kwong, of Hong Kong
Studying computer codes for copyright suit on behalf of Kessel Electronics (Hong Kong).

EMC Corporation vs. StorageApps* 2001
Attorney: Peter Dichiara, of Hale and Dorr

SeaChange International vs. nCUBE* 2000
Attorney: Steven Katz, of Fish & Richardson
Deposed and attended trial but did not need to testify.

Professional activities

AAAS Fellow and member of the American Association for the Advancement of Science.

ACM Fellow and longtime member of the Association for Computing Machinery.

- Chair of SIGMOBILE "Outstanding Contribution" and "Rockstar" Committee, 2019–2021.
- Member of SIGMOBILE "Test of Time Award" Committee, 2019.
- 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.

IEEE Fellow and longtime member of the IEEE Computer Society.

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

USENIX member.

- University Campus Liaison for Dartmouth College, 1992–2024.

CRAWDAD co-founder and co-leader.

- Community Resource for Archiving Wireless Data At Dartmouth, 2004–date.

JOURNALS – EDITORIAL COMMITTEES *in reverse-chronological order*

Associate Editor for *ACM HEALTH*, 2020–2021.

Co-editor of Special Issue of *ACM HEALTH* on "Wearable Technologies for Smart Health," 2019–20.

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

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

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.

TECHNICAL PROGRAM COMMITTEES *in reverse-chronological order*

Chair or member of 39 technical program committees (TPC).

SenSys 2019: ACM Conference on Embedded Networked Sensor Systems (SenSys)

IEEE S&P 2019: IEEE Symposium on Security & Privacy, aka "Oakland"

CCS 2017: ACM Conference on Computer and Communications Security

(external) MobiSys 2016: ACM Conference on Mobile Systems, Applications, and Services

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

HealthTech 2014: USENIX Summit on Health Information Technologies Safety, Security, Privacy, and Interoperability of Health Information Technologies

NetHealth 2014: COMSNETS Workshop on Networked Healthcare Technology

ACM DEV4: ACM Symposium on Computing for Development (end of 2013)

MobiSys 2013: ACM Conference on Mobile Systems, Applications, and Services

NetHealth 2012: COMSNETS Workshop on Networked Healthcare Technology

mHealthSys 2011: Workshop on Mobile Systems, Applications, and Services for Healthcare

HealthSec 2011: USENIX Workshop on Health Security and Privacy

NetHealth 2011: COMSNETS Workshop on Networked Healthcare Technology

HealthSec 2010: USENIX Workshop on Health Security and Privacy

HotPlanet 2010: ACM International Workshop on Hot Topics in Planet-scale Measurements

ICDCN 2009: International Conference on Distributed Computing and Networking

Mobility Models 2008: Workshop on Mobility Models, colocated with MobiHoc 2008

Mobicom 2007:ACM Conference on Mobile Computing and Networking

MobiSys 2006: ACM Conference on Mobile Systems, Applications, and Services

(co-chair) MobiSys 2005: ACM Conference on Mobile Systems, Applications, and Services

Mobicom 2004:ACM Conference on Mobile Computing and Networking

WMASH 2003: Workshop on Wireless Mobile Applications and Services on WLAN Hotspots

MobiSys 2003: ACM Conference on Mobile Systems, Applications, and Services

MDM 2003: International Conference on Mobile Data Management

COOPIS 2002: International Conference on Cooperative Information Systems

FAST 2002: File systems And Storage Technology

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

ASA/MA 1999: Joint Symposium on Agent Systems and Applications, and on Mobile Agents

Workshop "Agent-Based High Performance Computing: Problem Solving Applications and Practical Deployment" at Autonomous Agents '99

MAC3 1999: Workshop on Mobile Agents in the Context of Competition and Cooperation at Autonomous Agents '99

MA 1998: International Workshop on Mobile Agents

(chair) IOPADS 1997: Workshop on I/O in Parallel and Distributed Systems

(chair) FPCC 1997: Forum on Parallel Computing Curricula, held in conjunction with SPAA

PDIS 1996: Int'l Conference on Parallel and Distributed Information Systems

ACPC 1996: International Conference of the Austrian Center for Parallel Computation

IOPADS 1996: Workshop on I/O in Parallel and Distributed Systems

SIGMETRICS 1996: Conference of Measurement and Modeling of Computer Systems

DAGS 1993: Dartmouth Institute for Advanced Graduate Studies Symposium on Parallel Computing

DAGS 1992: Dartmouth Institute for Advanced Graduate Studies Symposium on Parallel Computing

ORGANIZING COMMITTEES *in reverse-chronological order*

Role as General Chair or member of organizing committee.

General co-chair, MobiSys 2014: ACM 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

General co-chair, SITH 2010: Securing Information Technology in Healthcare

Instigator and Co-organizer, mHealth India 2009: Workshop on mobile computing in healthcare, for India

Steering Committee Chair: "Mobile Agents" series of conferences

Steering committee chair, SOSP 2001, 2003: Symposium on Operating Systems Principles

General Chair, MA 2001: Mobile Agents

Co-organizer, DWTA 2000: Dartmouth Workshop on Transportable Agents

General chair, SOSP '99: Symposium on Operating Systems Principles

Co-organizer, DWTA 1999: Dartmouth Workshop on Transportable Agents

Co-organizer: Workshop "Agent-Based High Performance Computing: Problem Solving Applications and Practical Deployment" at Autonomous Agents '99

Steering committee, WMCSA 1998–99: Workshop on Mobile Computing Systems and Applications

Treasurer, DWTA 1997: Dartmouth Workshop on Transportable Agents

General co-chair, DWTA 1996: Dartmouth Workshop on Transportable Agents

Tutorials Committee member, Supercomputing '96

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

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

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

OTHER PROFESSIONAL COMMITTEES *in reverse-chronological order*

Board member: Computing Research Association (CRA), 2026–present.

NSF review panel member: 1995, 1996, 2005, 2009, 2010, 2011, 2013, 2014, 2015, 2016, 2017, 2018, 2020.

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. 2016–2021.

Health Information Technology Policy Committee: 2013–2017. The HIT Policy Committee made 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. The Precision Medicine Initiative is now the "All of Us" program.

White House Office of Science and Technology Policy (OSTP), Fall 2015: I was invited to a round-table discussion regarding cyber-security policy for the president's Precision Medicine Initiative, now known as the "All of Us" program.

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 COMMITTEES *in reverse-chronological order*

Dartmouth College Leadership:

DIMEX Faculty Ambassador to the Dartmouth-AUK Program (American University of Kuwait), 2026–date.
Provost, 3.5 years January 2022–June 2025.
Interim Provost, 0.5 years July–December 2021.
Chair, Academic Planning Council, 2021–2025.
Chair, Executive Budget Committee, 2021–2025.
Chair, Budget Committee, 2021–2025.
Steering Committee of the General Faculty, 2021–2025.
Dartmouth Senior Leadership Team, 2021–2025.
Executive Sponsor, Data Governance Committee, 2021–2025.
Executive Sponsor, Climate Collaborative, 2024–2025.
Co-chair, Arts & Sciences Future Project, 2023–2025.
Interim Provost, eleven months 2017–18.
Chair, Academic Planning Council, 2017–18.
Chair, Budget Committee, 2017–18.
Steering Committee of the General Faculty, 2017–18.
Dartmouth Senior Leadership Group, 2017–18.
Associate Dean of Faculty for the Sciences, six years 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:

Advisory Board, Dartmouth Initiative for Middle East Exchange (DIMEX), 2026–date.
Committee Advisory to the President (CAP), ex officio, 2021–2025.
Committee on Priorities (CPr), ex officio, 2021–2025.
Council on Institutional Priorities (CIPr), ex officio, 2021–2025.
Council on Work-Life Issues (COWLI), ex officio, 2021–2023.
Council on Academic Freedom and Responsibility (CAFR), 2020–21.
Committee on the Faculty (COF), 2020–21.
Committee Advisory to the President (CAP), 2020–21.
Committee Advisory to the President (CAP), ex officio, 2017–18.
Committee on Priorities (CPr), ex officio, 2017–18.
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:

CS Undergraduate Program Director. Spring 2021.
CS Faculty Recruiting Committee. 1993–1994, 1995–1996, 1999–2000, 2002–04, 2006–07, 2016–17; chair 2000, 2003, 2007 and 2017.
Ph.D Student Recruiting Committee (publicity), 2007–08.
Assistant Chair of Computer Science. 2002–2003.
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

SABBATICALS *in reverse-chronological order*

Fall 2025 – Spring 2026: Imperial College, London
Fall 2019 – Spring 2020: ETH Zürich, Switzerland
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

RESEARCH STUDENTS *in reverse-chronological order*

Ph.D students (current):
- Ravindra Mangar (2022–present): SPLICE.
- César Arguello Martinez (2022–present): SPLICE.
- Chixiang Wang (2021–present): SPLICE.

Ph.D students (completed): *See list of their theses on page 33.*
- Taylor Hardin (2016–2022): now a postdoctoral engineer at Blocky, a blockchain startup.
- Varun Mishra (2016–2021): now an Assistant Professor at Northeastern University.
- Shengjie Bi (2016–2021): now a Research Scientist at Meta.
- Travis Peters (2014–2020): now at Latacora.
- Timothy Pierson (2012–2018): now a Lecturer at Dartmouth.
- Shrirang Mare (2009–2016): now an Assistant Professor at Western Washington University.
- Aarathi Prasad (2009–2016): now an Assistant Professor at Skidmore College.
- Cory Cornelius (2009–2013): now a Research Scientist at Intel Labs.
- Keren Tan (2006–2011): now at Senior Engineering Manager at Meta.
- Udayan Deshpande (2003–2008): now at ThreatWorx.
- Ming Li (2002–2008): now at Daily Goods Design LABS.
- Soumendra Nanda (2004–2008): now at the Institute for Intelligent Networked Systems at Northeastern University.
- Libo Song (2002–2008): now Software Engineer at Hubspot.
- Kazuhiro Minami (1999–2006): now an Associate Professor at the Institute of Statistical Mathematics in Japan.
- Guanling Chen (1999–2004): now CTO of ForU (China), after years as a tenured professor at UMass Lowell.
- Ron Oldfield (1997–2003): now Manager, Scientific Machine Learning, Sandia National Laboratories.
- Jonathan Bredin (1996–2001): was VP at Two Sigma Investments, and tenured professor at Colorado College.
- Jon Howell (1995–2000): now at OpenAI, after many years at Microsoft Research, Google, and VMware.
- Nils Nieuwejaar (1993–1996): now an Engineer at Oxide Computer Company.

M.S. students (completed): *See list of their theses on page 33.*
- Namya Malik (2021–2022): now a software engineer at Pinterest.
- George Boateng (2016–17): now in a PhD program at ETH Zürich.
- 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 Rakuten, after many years at Microsoft and Google.
- Saurab Nog (1996): now VP of Oracle Cloud.
- Preston Crow (1992–1994): now at EMC.

Post-docs supervised:
- Jared Chandler (2024–2026): in the SPLICE project.
- Weijia He (2022–2024): now a Lecturer (Assistant Professor) at Southampton University, UK.
- Nurzaman Ahmed (2022): now an Engineering Research Scientist at the Donald Danforth Plant Science Center.
- Beatrice Perez (2020–2022): now a visiting lecturer, after several years at Riverside Research.
- Varun Mishra (2021): now an Assistant Professor at Northeastern University.
- Sougata Sen (2017–2019): now an associate professor at BITS-Pilani University in Goa.
- Reza Rawassizadeh (2016–2017): now an Associate Professor at Boston University.
- Xiaohui Liang (2014–2015): now an Assistant Professor at UMass Boston.

Andrés Molina-Markham (2012–2014): now Lead Cyber Security Researcher at MITRE.
Jacob Sorber (2010–12): now an Associate Professor at Clemson University.
Anna Shubina (2008–2010): now a computer security consultant.
Minho Shin (2007–2010): now an Professor at Myongji University, Korea.
Michael Locasto (2008): now VP of Government Research and Development at Narf Industries.
Apu Kapadia (2006–2008): now an Associate Professor at Indiana University.
Sergey Bratus (2002–2005, 2007–2008): now a Program Director at DARPA.
Vijay Bhuse (2007): now an Assistant Professor at Grand Valley State University, after several years in industry.
Yong Sheng (2006–2007): now Tech Lead Manager, Senior Staff Engineer at Google.
Tristan Henderson (2003–2006): now on the faculty at the University of St. Andrews, Scotland.
Minkyong Kim (2004–2006): now Director of (AI/ML) Siri Experience, at Apple.
Arnab Paul (2005): now a freelance researcher after many years at Intel.
Marco Cremonini (2000–2001): now an Assistant Professor at Universitá degli Studi di Milano in Milan, Italy.

Undergraduate research students mentored:

Senior Thesis:

Adam Vandenbussche	Senior Thesis	2022
Paul Gralla	Senior Thesis	2021
Sarah Hong	Senior Thesis	2021
Fedor Myagkov	Senior Thesis	2021
Tanguy Nef	Senior Thesis	2021
Viney Regunath	Senior Thesis	2021
Alexandra Dalton	Senior Thesis	2017
Emily Greene	Senior Thesis	2017
David Harmon	Senior Thesis	2017
Anna Knowles	Senior Thesis	2016
George Boateng	Senior Thesis	2016
Bingyue Wang	Senior Thesis	2016
Rebecca Lau	Senior Thesis	2013
Shloka Kini	Senior Thesis	2013
Emma Smithayer	Senior Thesis	2012
Phillip Fazio	Senior Thesis	2011
Jeff Fielding	Senior Thesis	2008
Cal Newport	Senior Thesis	2004
Clara Lee	Senior Thesis	2003
Chris Masone	Senior Thesis	2002
Abe White	Senior Thesis	2002
Ammar Khalid	Senior Thesis	2001
Arun Mathias	Senior Thesis	2001
Ayorkor Mills-Tettey	Senior Thesis	2001
Pablo Stern	Senior Thesis	2001
Debbie Chyi	Senior Thesis	2000
Jay Artz	Senior Thesis	2000
Cenk Ergan	Senior Thesis	1999
Eric White	Senior Thesis	1998
Scott Silver	Senior Thesis	1996
Joel Thomas	Senior Thesis	1996
Ken Harker	Senior Thesis	1995
Song Bac Toh	Senior Thesis	1995
Jim Gochee	Senior Thesis	1992
Brendan Hahn	Senior Thesis	1992

Presidential Scholar:

Michael Perezous	Presidential Scholar	2017
Yining Chen	Presidential Scholar	2017
Emma Oberstein	Presidential Scholar	2017

Emily Greene	Presidential Scholar	2016
Cal Newport	Presidential Scholar	2002
Tiffany Wong	Presidential Scholar	2000
Debbie Chyi	Presidential Scholar	1999
Jeff Steeves	Presidential Scholar	1998
Matt Carter	Presidential Scholar	1997
Dawn Lawrie	Presidential Scholar	1995
Sriram Radhakrishnan	Presidential Scholar	1994
Song Bac Toh	Presidential Scholar	1993

WISP (Women in Science Program):

Morgan Sorbaro	WISP Intern	2017
Lucy Tantum	WISP Intern	2016
Emily Greene	WISP Intern	2014
Christina Ma	WISP Intern	2011
Alex Della Pia	WISP Intern	2011
Janet Kim	WISP Intern	2010
Dana Malajian	WISP Intern	2007
Kelly Duggar	WISP Intern	2003
Amanda Eubanks	WISP Intern	2000
Neha Narula	WISP Intern	2000

Above, **mentored over 57 undergraduate and 31 graduate students as well as 21 postdoctoral scholars.**

Thesis committee member:

Dartmouth College:

Josie Nordrum (MS)	2018	Dartmouth College
Xi Xiong (MS)	2018	Dartmouth College
Rui Wang	2018	Dartmouth College
George Boateng (MS)	2017	Dartmouth College
Jason Reeves	2016	Dartmouth College
Scout Sinclair	2013	Dartmouth College
Peter Johnson	2015	Dartmouth College
Priya Natarajan	2011	Dartmouth College
Chrisil Arackaparambil	2011	Dartmouth College
Song Ye	2008	Dartmouth College
Chris Masone	2008	Dartmouth College
Yurong Xu	2008	Dartmouth College
Meiyuan Zhao	2005	Dartmouth College
Guanhua Yan	2005	Dartmouth College
Fang Pei (MS)	2004	Dartmouth College
Nick Goffee (MS)	2004	Dartmouth College
Soumendra Nanda (MS)	2004	Dartmouth College
Jason Liu	2003	Dartmouth College
Qun Li	2004	Dartmouth College
Katya Pelekov	2001	Dartmouth College
Mark Montague	2002	Dartmouth College
Robert Gray	1997	Dartmouth College
Alex Colvin	1999	Dartmouth College
Pichet Chintrakulchai	1995	Dartmouth College
Len Wisniewski	1995	Dartmouth College
Peter Su	1993	Dartmouth College
John van Meter	1993	Dartmouth College
Larry Raab	1992	Dartmouth College
Deb Banerjee	1992	Dartmouth College

elsewhere:

George Boateng	2022	ETH Zürich & University of St. Gallen, Switzerland
Florian Künzler	2020	ETH Zürich & University of St. Gallen, Switzerland
Filipe Barata	2020	ETH Zürich & University of St. Gallen, Switzerland
Hang Cai	2018	Worcester Polytechnic Institute
Vincent Messerli	1998	École Polytechnique Fédérale de Lausanne (EPFL), Switzerland
Rajesh Bordawekar	1996	Syracuse University
Rajeev Thakur	1995	Syracuse University
Orran Krieger	1994	University of Toronto

TEACHING *in reverse-chronological order*

Graduate courses taught at Dartmouth College:

CS 89/189	Seminar (Security & Privacy for Smart Homes)
CS 200	Seminar (Mobile and Wearable Health Systems)
CS 88/188	Seminar (Pervasive computing)
CS 88/188	Seminar (Context-aware mobile computing)
CS 88/188	Seminar (Wireless networks and hand-held computers)
CS 88/188	Seminar (Electronic Commerce and Market-based control)
CS 88/188	Seminar (Transportable agents and extensible operating systems)
CS 108	Advanced Operating Systems (3 times)
CS 88/188	Seminar (Parallel Computing)

Undergraduate courses taught at Dartmouth College:

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

Other activities

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

Avid photographer, with gallery at photos.davidkotz.org.

Avid hiker:

- NE111: climbed all 115 peaks in New York and New England over 4000' elevation.
- NE67: climbed all 67 peaks in New England over 4000' elevation.
- NH48: climbed all 48 peaks in New Hampshire over 4000' elevation.
- ADK46er #10431: climbed all 46 high peaks in the Adirondack Mountains of New York.
- Kilimanjaro: climbed the highest peak on the continent of Africa.

Vice President of the Montshire Corporation for Montshire Museum (Member since 2012, Vice President 2022–2024).

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, 2020).

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).

Student Conservation Association 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.