Curriculum vitae for **Adam Wierman**

CONTACT DETAILS

Computing and Mathematical Sciences
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RESEARCH OVERVIEW

My research strives to make the networked systems that govern our world sustainable and resilient. My group develops new mathematical tools in machine learning, optimization, control, and economics and applies these tools to design new algorithms and markets that can be deployed in data centers, the electricity grid, transportation systems, and beyond.

RESEARCH KEYWORDS

Sustainable computing; Network economics; Power systems; Online algorithms; Scheduling and resource allocation; Distributed Systems; Stochastic Networks.

EMPLOYMENT

2015-pres	Professor of Computing and Mathematical Sciences Director of Information Science and Technology 2016-pres Executive officer (a.k.a. Department Chair) 2015-2020 California Institute of Technology
2012-2015	Professor of Computer Science California Institute of Technology
2007-2012	Assistant Professor of Computer Science California Institute of Technology

EDUCATION

2007	Ph.D. in Computer Science Carnegie Mellon University, Pittsburgh, PA *Advised by Mor Harchol-Balter.* *Thesis committee: Mor Harchol-Balter, John Lafferty, Bruce Maggs, Alan Scheller-Wolf, and Ward Whitt.*
2004	Masters of Science in Computer Science Carnegie Mellon University, Pittsburgh, PA *Advised by Mor Harchol-Balter.*
2001	B.S. in Computer Science with an additional major in Mathematics, and minors in Psychology and Statistics Carnegie Mellon University, Pittsburgh, PA

SELECTED HONORS AND AWARDS

2026 Coauthor of paper named "Best Paper Finalist" at ACM e-Energy
2026 Named an ACM Fellow
2025 Named an AAIS Fellow
2025 Named an INFORMS Senior Member
2025 Caltech Graduate Student Council Excellence in Mentoring award
2025 Coauthor of paper awarded AIStats Oral presentation
2025 Named an AIIA Fellow
2024 Named an IEEE Fellow
2024 Named a Distinguished Member of the ACM
2023 Selected as member of CRA Computer Community Consortium (CCC) Council
2023 Coauthor of paper that received the **IEEE Infocom "Test of Time" award**
2023 Became the most published author in history of ACM Sigmetrics (as measured by DBLP)
2022 Named IEEE Senior Member
2022 Caltech EAS Northrup Grumman Prize for Excellence in Teaching
2022 Coauthor of paper named a "Best Paper Finalist" at ACM e-Energy
2022 Coauthor of paper named an ICML Spotlight Presentation
2022 Caltech Center for Inclusion and Diversity IDEA Advocate Award
2021 Coauthor of paper that received the **ACM Sigmetrics "Test of Time" award**
2021 Coauthor of paper named a NeurIPS spotlight presentation
2020 Named member of IFIP Working Group on Computer Performance Modeling and Analysis
2020 Coauthor of paper named a Learning for Decision and Control spotlight presentation
2019 Coauthor of paper named a NeurIPS Spotlight presentation
2018 Co-author of paper named INFORMS Minority Issues Forum (MIF) Best Paper award
2018 Received ACM Recognition of Service Award
2017 Caltech ASCIT teaching award recipient
generation" named one of the most cited papers in Performance Evaluation during 2014-2016.
2016 Coauthor of ACM Greenmetrics "Best Student Paper" award recipient
2014 Coauthor of IEEE Communication Society William R. Bennet Prize recipient. Award recognizes the "best original paper published in any journal associated with the IEEE Communication Society in the previous 3 calendar years."
2013 Coauthor of IFIP Performance "Best Student Paper" award recipient.
2013 Coauthor of IEEE Power & Energy Society (PES) General Meeting "Best Paper on System Operations and Market Economics" award recipient
2013 Coauthor of IEEE Sustainable Computing Register "Pick of the month" for April
2013 Research on Sustainable Data centers included in the **"HP NetZero Data Center Architecture,"** which was named a **Computerworld Honors Laureate**
2012 Coauthor of IEEE Green Computing Conference (IGCC) "Best Paper" award recipient
2011 ACM Sigmetrics Rising Star award recipient. Award given in recognition of "outstanding contributions in the design and analysis of scheduling insights into policies, which provided fundamental scheduling and fairness in modern computing systems."
2011 Coauthor of IEEE Infocom "Best Paper" award recipient
2011 Coauthor of ACM Greenmetrics "Best Student Paper" award recipient
2010 Coauthor of IFIP Performance "Best Paper" award recipient
2010 Caltech ASCIT teaching award recipient
2010 Visiting Fellow at the Isaac Newton Institute of Mathematical Sciences
2009 NSF CAREER grant recipient
2008 Okawa Foundation grant recipient
2008 Finalist for the Microsoft New Faculty Fellowship
2008 Honorable Mention for the INFORMS Doctoral Dissertation Award for Operations Research in Telecommunications

2008 **CMU School of Computer Science Distinguished Dissertation Award recipient**
2007 Named a Siebel Scholar
2006 **Carnegie Mellon Graduate Student Teaching Award recipient**
2005 Alan J. Perlis School of Computer Science Student Teaching Award recipient
2005 Carnegie Mellon Graduate Student Teaching Award Honorable Mention
2003 Coauthor of ACM Sigmetrics "Best Student Paper" award recipient
2003-2006 National Science Foundation Graduate Fellowship recipient

PROFESSIONAL SERVICE

Editorial positions

2025 L4DC Program Co-Chair
2024-pres ACM e-Energy Steering Committee Chair
2023-pres ACM Sigmetrics conference advisory committee member
2023-pres CRA CCC council member
2023-pres JACM associate editor
2022-pres ACM e-Energy Steering Committee member
2019-pres INFORMS Journal of Computing associate editor
2019-2023 ACM Sigmetrics Board of Directors
2017-pres ACM POMACS Steering Committee
2015-2019 ACM Sigmetrics Vice-Chair
2015-2016 Guest editor of special issue for Queueing Systems (QUESTA)
2014-pres ACM Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS) associate editor
2014-2019 IEEE Transactions on Networking (ToN) associate editor
2014-2016 Sustainable Energy, Grids & Networks (SEGAN) editorial board
2014-pres IEEE Transactions on Network Science and Engineering (TNSE) associate editor
2013-2018 Queueing Systems (QUESTA) editorial board
2013-2015 IEEE Transactions on Cloud Computing (TCC) editorial board
2013-2014 Guest editor of special issue for ACM Transactions on Internet Technology (TOIT)
2012-2016 Operations Research (OR) associate editor
2011-2015 ACM Sigmetrics Board of Directors
2010-2016 Performance Evaluation (PEVA) editorial board

Conference-related duties:

2026 Program Committee: NeurIPS
2026 Program Committee: MLxOR
2026 Program Committee: ACM e-Energy
2026 Program Committee: ACM Sigmetrics
2026 Program Committee: ACM MAMA
2025 Program Committee: ACM e-Energy
2025 Program Committee: ACM MAMA
2024 Program Committee: ACM e-Energy
2024 Program Committee: ACM Sigmetrics
2024 Program Committee: ACM MAMA
2023 Program Committee: ACM e-Energy
2023 Program Committee: IEEE MASCOTS
2023 Program Committee: ACM Sigmetrics
2023 Program Committee: ACM MAMA
2022 Program co-Char: ACM e-Energy

2022 Program Committee: IEEE MASCOTS
2022 Program Committee: ACM Sigmetrics
2022 Program Committee: ACM MAMA
2021 Program co-Chair: Control for Autonomous Cities
2021 Program co-Chair: IFIP Performance
2021 Program Committee: e-Energy
2021 Program Committee: ICML
2021 Program Committee: ACM Sigmetrics
2021 Program Committee: Reinforcement Learning & Queues
2021 Program Committee: ACM MAMA
2020 Program Committee: NeurIPS
2020 Program Committee: IFIP Performance
2020 Program Committee: ACM Sigmetrics
2020 Highlights Beyond EC Committee
2020 Program Committee: ACM MAMA
2019 Program Committee: IFIP Performance
2019 Program Committee: ACM Sigmetrics
2019 Program Committee: ACM EC
2019 Program Committee: NeurIPS
2019 Program Committee: ACM MAMA
2019 Program Committee: ACM Energy Market Engineering Workshop
2018 Program Committee: ACM EC
2018 Program Committee: INFORMS APS
2018 Program Committee: IFIP Performance
2018 Program Committee: ACM MAMA
2018 Program co-Chair: ACM Sigmetrics
2017 Program Committee: IFIP Performance
2017 Program Committee: ACM Sigmetrics
2017 Steering Committee: ACM Greenmetrics
2017 Program Committee: ACM MAMA
2016 Program Committee: NSDI
2016 Program co-Chair: “Algorithms & Uncertainty” long program at the Simons Institute
2016 Conference co-Chair: Southern California Network Economics Game Theory (SoCal NEGT)
2016 Steering Committee: ACM Greenmetrics
2016 Program Committee: Workshop on Economics of Cloud Computing
2016 Program Committee: ACM MAMA
2016 Program Committee: ACM e-Energy
2015 Conference co-Chair: Southern California Network Economics Game Theory (SoCal NEGT)
2015 Program Committee: ACM MAMA
2015 SIG Webmaster: ACM Sigmetrics
2015 Program Committee: ACM EC
2015 Program Committee: ACM Sigmetrics
2015 Program Committee Chair: NetEcon
2014 Conference co-Chair: Southern California Network Economics Game Theory (SoCal NEGT)
2014 Steering Committee: ACM Greenmetrics
2014 Program Committee: ACM MAMA
2014 SIG Webmaster: ACM Sigmetrics
2014 Program Committee: ACM EC
2014 Program Committee: ACM eEnergy
2014 Program Committee: NetEcon, joint with WPIN
2014 Program Committee: European Conference on Queueing Theory (ECQT)
2014 Program Committee: “Mathematics of Planet Earth” series at DIMACS

2013 Conference co-Chair: Southern California Network Economics Game Theory (SoCal NEGT)
2013 SIG Webmaster: ACM Sigmetrics
2013 Program Committee: IEEE SmartGridComm
2013 Program Committee: IFIP Performance
2013 Steering Committee: ACM Greenmetrics
2013 Program Committee: ACM WPIN + NetEcon
2013 Program Committee: IEEE Green Computing Conference
2013 Program Committee: ACM MAMA
2013 Program Committee: ACM EC
2013 Program Committee: ACM Sigmetrics
2013 Program Committee: IEEE ICDCS
2012 Conference co-Chair: Southern California Network Economics Game Theory (SoCal NEGT)
2012 SIG Webmaster: ACM Sigmetrics
2012 Steering Committee: ACM Greenmetrics
2012 Program Committee: Workshop on Pricing and Incentives in Networks (WPIN)
2012 Program Committee: ACM Sigmetrics/Performance
2012 Program Committee: ACM Greenmetrics
2012 Program Committee: ACM MAMA
2012 Program Committee: WWW
2012 Program Committee: INFORMS MSOM
2012 Program Committee: DCPerf
2011 SIG Webmaster: ACM Sigmetrics
2011 Program Committee: ACM Greenmetrics
2011 Conference co-Chair: Southern California Network Economics Game Theory (SoCal NEGT)
2011 Program Committee: IEEE Workshop on Green and Sustanable Communication Networks
2011 Program Committee: Conference on Utility and Cloud Computing (UCC)
2011 Program Committee: IEEE ITC-23
2011 Program Committee: IFIP Performance
2011 Program Committee: ACM Sigmetrics
2011 Program Committee: ICST ValueTools
2010 SIG Webmaster: ACM Sigmetrics
2010 Conference co-Chair: Southern California Network Economics Game Theory (SoCal NEGT)
2010 Program Committee: ACM Greenmetrics
2010 Program Committee: EXERT Workshop
2010 Program Committee: IEEE ITC-22
2010 Program Committee: IFIP Performance
2010 Program Committee: ACM Sigmetrics
2010 Conference co-Chair: ACM Hotmetrics
2010 Program Committee: Newton Institute Stochastic Processes in Comm. Sciences (SCS)
2009 Conference co-Chair: Southern California Network Economics Game Theory (SoCal NEGT)
2009 SIG Webmaster: ACM Sigmetrics
2009 Conference co-Chair: EURANDOM Young European Queueing Theorists Symposium (YEQT-III)
2009 Discussant: ACM Hotmetrics
2009 Program Committee: Net-COOP
2009 Program Committee: ACM Hotmetrics
2009 Program Committee: ACM Greenmetrics
2009 Program co-Chair: IEEE ICCCN Network Algorithms and Perf. Eval. Track
2009 Program Committee: ACM Sigmetrics/Performance
2009 Program Committee: IEEE ITC-21
2009 Best Paper Committee: IEEE Mascots
2009 Program Committee: IEEE Mascots
2009 Conference Webmaster: ACM Sigmetrics

2008 SIG Webmaster: ACM Sigmetrics
2008 Discussant: ACM Hotmetrics
2008 Publicity co-Chair: ACM Sigmetrics
2008 Program Committee: ACM Sigmetrics
2008 Program Committee: IEEE Mascots
2007 Program Committee: ACM Sigmetrics
2007 Conference Webmaster: ACM Sigmetrics
2007 Best Paper Committee: ACM Sigmetrics

Invited Referee for Journals and Conferences (each listed only once):

Nature, Journal of the ACM (JACM), IEEE Transactions on Networking (ToN), Operations Research (OR), Annals of Operations Research (ANOR), Management Science (MS), Performance Evaluation (PEVA), Journal of Machine Learning Research (JMLR), Journal of Scheduling (JoS), Journal of Algorithms (JoA), Queueing Systems: Theory and Applications (QUESTA), Journal of Parallel and Distributed Computing (JPDC), Computer Networks (COMNET), Parallel Computing (PARCOMP), Applied Mathematics Letters, Operations Research Letters, Performance Evaluation Review (PER), ACM Sigmetrics, IFIP Performance, IEEE Infocom, QEST Conference, IEEE Mascots, ICST ValueTools Conference, IEEE International Parallel and Distributed Processing Symp (IPDPS), Conference on Decision and Control (CDC), The World-wide Web (WWW) Conference, ACM Hotmetrics, IEEE ITC, IEEE ICCCN, IEEE DSN, Wiley Encyclopedia of Operations Research and Management Science, Journal of Systems and Software, Internet Measurement Conference (IMC), IEEE Transactions on Automated Control (TAC), Probability in the Engineering and Informational Sciences (PEIS), Manufacturing and Service Operations management (MSOM).

Panel member for grant proposal review (each listed only once):

US National Science Foundation (NSF), Singapore National Research Foundation (NRF), Israel Science Foundation (ISF), Natural Sciences and Engineering Research Council of Canada (NSERC).

Professional Memberships:

ACM, IEEE, INFORMS

TEACHING EXPERIENCE

Courses taught at Caltech:

CS 42 *Computer Science Education in K-14 Settings*
This course provides students a chance to learn about educational pedagogy and develop lesson plans that they deliver to students in local K-14 classrooms.
Online reviews for Winter 2023: 5.00/5, 60% response rate.
Online reviews for Spring 2022: 4.95/5, 17% response rate.
Online reviews for Winter 2022: 4.91/5, 67% response rate.
Online reviews for Spring 2021: 4.00/5, 25% response rate.

CMS/CS/EE 144 *Networks: Structure & Economics*
This course is targeted at juniors and seniors and focuses a variety of topics in network science, from theory to practice.
Online reviews for Winter 2023: 4.65/5, 76% response rate.
Online reviews for Winter 2022: 4.76/5, 95% response rate.
Online reviews for Winter 2021: 4.80/5, 96% response rate.
Online reviews for Winter 2020: 4.83/5, 96% response rate.
Online reviews for Winter 2019: 4.75/5, 97% response rate.
Online reviews for Winter 2018: 4.75/5, 86% response rate.
Online reviews for Winter 2017: 4.71/5, 87% response rate.
Online reviews for Winter 2016: 4.59/5, 89% response rate.
Online reviews for Winter 2015: 4.70/5, 59% response rate.
Online reviews for Winter 2014: 4.62/5, 82% response rate.

Online reviews for Winter 2013: 4.46/5, 98% response rate.
Online reviews for Winter 2012: 4.42/5, 76% response rate.
Online reviews for Winter 2011: 4.76/5, 74% response rate.
Online reviews for Winter 2010: 4.77/5, 70% response rate.

CS/EE 145 *Projects in Networking*
Students work in small groups to design and execute a project in the area of networking, broadly construed. The goal is for the project to either end with a deliverable (e.g. a working web application prototype) or a publishable conference paper. Projects from this course have yielded multiple conference submissions, a patent, and a startup being incorporated.
Online reviews for Spring 2023: 4.75/5, 9% response rate.
Online reviews for Spring 2022: 5.00/5, 17% response rate.
Online reviews for Spring 2021: 4.58/5, 57% response rate.
Online reviews for Spring 2019: 4.07/5, 30% response rate.
Online reviews for Spring 2018: 5.00/5, 43% response rate.
Online reviews for Spring 2017: 4.71/5, 31% response rate.
Online reviews for Spring 2015: 4.88/5, 12% response rate.
Online reviews for Spring 2014: 4.33/5, 21% response rate.
Online reviews for Spring 2013: 4.60/5, 21% response rate.
Online reviews for Spring 2012: 4.00/5, 35% response rate.
Online reviews for Spring 2011: 4.00/5, 44% response rate.
Online reviews for Spring 2010: 5.00/5, 38% response rate.

CS/EE 146 *Advanced Networking*
This is a topics course in networking, with changing focus from year to year.
Topics have included Sustainable computing (2011) and platform design (2016) when I have taught the course.
Online reviews for Spring 2016: 4.54/5, 25% response rate.
Online reviews for Spring 2011: 4.11/5, 79% response rate.

CS/EE 147 *Network performance evaluation*
This course covers introductory stochastic modeling, scheduling theory, and queueing theory.
Online reviews for Spring 2013: 5.00/5, 60% response rate.
Online reviews for Spring 2010: 4.71/5, 47% response rate.
Online reviews for Winter 2009: 5.00/5, 86% response rate.
Online reviews for Fall 2008: 6.90/7, 69% response rate.

CS/SS 241 *Introduction to SISL, Topics in Algorithmic Game Theory*, co-taught with John Ledyard
This topics course is jointly offered by CS and Economics. When I taught it, the focus was on Algorithmic Game Theory.
Combination of online and paper reviews for Winter 2007: 6.70/7, 83% response rate.

Teaching awards:

Spring 2022 Caltech EAS Northrup Grumman Prize for Excellence in Teaching
Spring 2017 Caltech ASCIT Teaching Award
Spring 2010 Caltech ASCIT Teaching Award
Spring 2006 Carnegie Mellon Graduate Student Teaching Award.
Spring 2005 Alan J. Perlis School of Computer Science Student Teaching Award.
Spring 2005 Honorable Mention for the Carnegie Mellon Graduate Student Teaching Award.

ADVISING EXPERIENCE

Affiliated postdoctoral fellows:

Zaiwei Chen	2022-2024, supervised jointly with Eric Mazumdar
Yingying Lin	2022-2023
Jinhang Zuo	2022-2024, supervised jointly with Mohammad Hajiesmaili
Guannan Qu	2019-2021, supervised jointly with Steven Low Received the Simoudis Discovery Prize in 2019 Named a PIMCO Scolar in 2020 Named an AI4Science Amazon Fellow in 2020 Joined CMU as an Asst. Prof in 2021
Yuanyuan Shi	2020-2021, supervised jointly with Anima Anandkumar Received a RSI Research award Joined UCSD as an Asst. Prof in 2021
Hongyao Ma	2020 Received ACM SigEcom dissertation award Joined Columbia as an Asst. Prof in 2020
Alessandro Zoca	2017-2019, supervised jointly with Steven Low Named Resnick Fellow in 2018. Received a Rubicon Grant in 2017. Joined CWI as an Asst. Prof in 2019.
Shai Vardi	2016-2018, supervised jointly with Federico Echenique Joined Purdue as an Asst. Professor in 2018.
Krishnamurthy Dvijotham	2015-2016, supervised jointly with Steven Low Joined Deepmind.
Hu Fu	2015-2016, supervised jointly with Federico Echenique Joined UBC as an Asst. Professor in 2016.
Siddharth Barman	2012-2015, supervised jointly with Katrina Ligett and Federico Echenique Joined IIT, Bangalore as an Asst. Professor in 2015.
Umang Bhaskar	2012-2014, supervised jointly with Katrina Ligett and Federico Echenique Joined Tata Institute of Fundamental Research as an Asst. Professor in 2015.
Enrique Mallada	2013-2015, supervised jointly with Steven Low Joined Johns Hopkins University as an Asst. Professor in 2015.
Yunjian Xu	2012-2013, supervised jointly with Steven Low and K. Mani Chandy Joined Singapore University of Technology and Design as an Asst. Professor in 2013.
Eilyan Bitar	2012-2013, supervised jointly with Steven Low Joined Cornell University as an Asst. Professor in 2013.
Sachin Adlakha	2010-2013, supervised jointly with Steven Low and K. Mani Chandy Joined Ayasdi, a data science startup, in 2013.
Krishna Jagannathan	2010-2011, supervised jointly with Eytan Modiano (MIT) Joined IIT Madras as an Asst. Professor in 2011.
Daniel Golovin	2009-2011, supervised jointly with Andreas Krause Joined Google in 2011.
Lijun Chen	2008-2011, supervised jointly with Steven Low Joined Colorado U. at Boulder as an Asst. Professor
Jason Marden	2007-2009, supervised jointly with John Ledyard Joined Colorado U. at Boulder as an Asst. Professor in 2009.
Lachlan Andrew	2007-2008, supervised jointly with Steven Low Joined Swinburne University as an ARC Future Fellow in 2008.

Graduate student advising:

Tinashe Handina	Joined in 2022, supervised jointly with Eric Mazumdar
Nico Christianson	Joined 2021, supervised jointly with Steven Low

	Received an NSF Graduate Fellowship
Yiheng Lin	Joined 2021, supervised jointly with Yisong Yue
	Named a Kortschak Scholar
Christopher Yeh	Joined 2021, supervised jointly with Yisong Yue
Jing Yu	Joined 2017, supervised jointly with John Doyle
Lucien Werner	supervised jointly with Steven Low, defended in 2023
Tongxin Li	supervised jointly with Steven Low, defended in 2023
	Received ACM SIGENERGY Doctoral Dissertation Award honorable mention
	Joined CUHK-Shenzhen as an Assistant Prof. in 2022
Chen Liang	supervised jointly with Steven Low, defended in 2022
	Joined Five Rings
Riley Murray	Co-advised with Venkat Chandrasekaran, entered in 2016, defended in 2021
	Received an NSF Graduate Fellowship
	Received the Amori Dissertation Prize
	Joined UC Berkeley as a Postdoctoral scholar in 2021
Yu Su	entered in 2015. defended in 2021
	Named a PIMCO Data Science Fellow in 2019.
	Joined McKinsey
Navid Azizan	Co-advised with Babak Hassibi, defended in 2020.
	Named an Amazon AI Graduate Fellow in 2017.
	Named a PIMCO Data Science Fellow in 2018.
	Joined MIT as an Asst. Prof. in 2021.
Palma London	entered in 2014, defended in 2020
	Received an NSF Graduate Fellowship
	Named a Amazon AI Graduate Fellow in 2017.
	Joined Cornell as a postdoctoral scholar in 2020
Juba Ziani	Co-advised with Katrina Ligett, defended in 2020
	Named a PIMCO Data Science Fellow in 2018.
	Received the Bhansali Dissertation Prize in 2019.
	Joined Georgia Tech as an Asst Prof in 2020.
John Pang	Co-advised with Steven Low, entered in 2014, defended in 2019
	Named an A-Star Fellow
	Received the Amori Dissertation Prize in 2019.
	Joined Schlumberger as a postdoc in 2019.
Niangjun Chen	Entered in 2012, defended in 2018.
	Named an A-Star Fellow
	Joined the A-Star research institute, Singapore in 2018.
	After postdoc joined SUTD as Assistant Professor.
Xiaoqi Ren	Entered in 2012, defended in 2018.
	Named Caltech's "Outstanding TA" for Fall 2014.
	Named Resnick Institute for Sustainability Graduate Research Fellow in Spring 2016.
	Received the Bhansali Dissertation Prize in 2018.
	Received the Demetriades-Tsafks-Kokkalis Prize in 2018.
	Joined Google in 2018.
Changhong Zhao	Co-advised with Steven Low, entered in 2011, defended in 2016.
	"Real-time load-side control of electric power systems."
	Named Qualcomm Innovation Fellowship Finalist in 2015.
	Received the Demetriades Prize in 2016.
	Joined NREL in 2016 before joining CUHK as an Assistant Professor.
Desmond Cai	Co-advised with Mani Chandy and Steven Low, entered in 2010, defended in 2016.
	"Electricity Markets for the smart grid: Networks, timescales, and integration with control"

	Joined the A-Star research institute, Singapore in 2016.
Subhonmesh Bose	Co-advised with Steven Low, entered in 2009, defended in 2014.
	"An integrated design approach to power systems: From power flows to electricity markets."
	Received Atkinson Postdoctoral Fellowship in Sustainability at Cornell.
	Joined Cornell as a postdoctoral scholar and moved to UIUC as an Assistant Professor in 2015.
Zhenhua Liu	Co-advised with Steven Low, entered in 2009, defended in 2014.
	"Sustainable IT and IT for sustainability."
	Received an honorable mention for the SPEC Distinguished Dissertation Award.
	Joined LBNL as a postdoctoral scholar and moved to Stony Brook as an Asst. Professor in 2015.
Minghong Lin	Entered in 2008, defended in 2013.
	"Algorithmic challenges in green data centers."
	Received an IBM Graduate Fellowship and was named a finalist for the Facebook Fellowship.
	Joined Facebook as a Research Scientist in 2013.
Ragavendran Gopalakrishnan	Entered in 2008, defended in 2013.
	"Characterizing distribution rules for cost sharing games."
	Joined Colorado U at Boulder as a postdoctoral scholar before
	joining Queens University as an Assistant Professor
Elizabeth Bodine-Baron	Co-advised with Babak Hassibi, entered in 2007, defended in 2012.
	"Peer effects in social networks: Search, matching markets, and epidemics."
	Joined RAND as an Associate Engineer in 2013.
Jayakrishnan Nair	Co-advised with Steven Low, entered in 2007, defended in 2012.
	"Scheduling for heavy-tailed and light-tailed workloads in queueing systems."
	Joined CWI as a postdoctoral scholar and then moved to IIT Bombay as an Asst. Professor in 2014.

Undergraduate research advising (outside of courses):

Shenyi Li	2021 Independent Study
Yang Hu	2021 SURF & Independent Study
Ruixiao Yang	2021 SURF & Independent Study
Jannie Yu	2020-2021 SURF & Independent Study
Vivek Anand	2020-2021 SURF & Independent Study
Chenkai Yu	2020 SURF & Independent Study
Weici Pan	2020 SURF & Independent Study
Johanna Karras	2019-2020 Independent Study
Yongkyun Lee	2019-2020 Independent Study
Xiaotian Zhang	2019-2020 Independent Study
John Wang	2019-2020 Independent Study
Haoyuan Sun	2019 2020 Independent study
Yiheng Lin	2019 SURF & Independent study
Eric Zhao	2018 Independent study
	Won the 2019 Meeting of the Minds Best Poster award
Erich Liang	2018 & 2019 Independent study
	Won the 2019 Meeting of the Minds Best Poster award
Siddharth Prasad	2018 Independent study
Fransesco Macagno	2017-2018 Independent study
	Won the 2018 Smart Campus Innovation Challenge
Anish Agarwal	2017-2018 Independent study
Jack Kleeman	2017 Summer Undergraduate Research
Catherine Jamshidi	2015-2016 Independent study
	Received the Hinrichs Memorial Award
Joseph Choi	2014-2015 Independent study
Katie Knister	2013-2014 Independent study

Iris Liu	2013-2014 Independent study Received the Bhansali Prize for Undergraduate Research in Computer Science
Ben Razon	2012-2013 Independent study
Yizhen Wang	2012 Summer Undergraduate Research
Michael Hirshleifer	2012 Summer Undergraduate Research
Michael Wu	2010 Summer Undergraduate Research
Yuehua (Fred) Zhao	2010 Summer Undergraduate Research
Christina Lee	2010 Summer Undergraduate Research Joined Cornell as an Assistant Professor in 2018.
Sherwin Doroudi	2008-2010 Independent study Joined Minnesota as an Assistant Professor in 2017.
Matthew Maurer	2008-2010 Independent study
Anthony Chong	2009-2010 Senior thesis
Benjamin Flora	2008 SURF student
Gwendolyn Stockman	Senior honors thesis at CMU in 2005-2006.

CONTRACT AND GRANT SUPPORT

External grant support:

2021-2024	NSF CNS 2146814 Optimizing Large-Scale Heterogeneous ML Platforms *Adam Wierman (PI), Zhenhua Liu (co-PI)*
2021-2024	NSF CNS 2106403 Dynamic Data-driven Systems - Theory and Applications *Mohammad Hajiesmaili (co-PI), Zhenhua Liu (co-PI), Adam Wierman (co-PI)*
2021-2024	NSF CPS 2136197 Enabling DER Integration via Redesign of Information Flows *Enrique Mallada (PI), Adam Wierman (co-PI), Mohammad Hajiesmaili (co-PI),* *Dennice Gayme (co-PI), Steven Low (co-PI)*
2021-2024	NSF/VMWare 2105648 CNS: CarbonFirst: A Sustainable and Reliable Carbon-Centric Cloud-Edge Software Infrastructure *Prashant Shenoy (PI), David Irwin (co-PI), Tian Guo (PI), Mohammad Hajiesmaili (co-PI),* *Ramesh Sitaraman (co-PI), Adam Wierman (PI)*
2016 – 2020	NSF AitF 1637598 AitF: Algorithmic challenges in smart grids: control optimization & learning *Steven Low (PI), Adam Wierman (co-PI), Yisong Yue (co-PI), and Venkat Chandrasekaran (co-PI)*
2016 – 2019	ARPA-E NODES NODES: Real-time Optimization and Control of Next-Generation Distribution Infrastructure *Emiliano Dall'Anese, Brian Johnson, Blake Lundstrom, Benjamin Kroposki, Steven Low,* *John Doyle, Adam Wierman, Sairaj Dhople, Na Li, Antranik Paylan, Robert Sherick*
2015 – 2020	NSF CNS–1518941 NETS: Large: Networked Markets: Theory and Applications *Adam Wierman (PI), Federico Echenique (Co-PI), John Ledyard (Co-PI),* *Matthew Elliott (Co-PI), Katrina Ligett (Co-PI)*
2015 – 2018	NSF CPS–1545096 CPS: Synergy: Beyond Stability: Performance, Efficiency and Disturbance Management for Smart Infrastructure Systems *Adam Wierman (PI), Steven Low (co-PI), Dennice Gayme (PI), Ao Tang (PI), Vijay Gupta (PI)*
2013 – 2016	NSF EPAS–1307794 A unified approach to quantifying market power in the future grid

	Adam Wierman (PI), Hamed Mohsenian-Rad (PI)
2013 – 2016	NSF CNS–1319820
	CSR: Collaborative Research: Data center demand response: Coordinating the cloud and the smart grid
	Adam Wierman (PI), Steven Low (co-PI), Hamed Mohsenian-Rad (PI)
2011 – 2014	NSF CCF-1101470
	ICES: A revealed preference approach to computational complexity in economics
	Adam Wierman (PI), Federico Echienique (co-PI)
2009 – 2014	NSF CNS-0846025
	CAREER: Towards a rigorous foundation for scheduling in modern systems
	Adam Wierman (PI)
2008 – 2011	NSF CCF-0830511
	Bridging probabilistic and competitive analysis of scheduling policies
	Adam Wierman (PI)

External collaborator on international grant:

2013 – 2015	Netherlands: NWO 600.065.130.12N242
	Bridging probabilistic and competitive analysis of scheduling policies
2013 – 2015	Australia: ARC DP130101378
	Resource management algorithms and software systems for green cloud computing

Community interactions:

Math Academy	Board Member of Math Academy, an organization provides accelerated Mathematics curriculum for advanced middle schooler students.
PUSD	Consultant for the school district working to redesign open enrollment and transportation.
PEN	Board member for Parent Education Network for public schools in Pasadena.
STEAM Coders	Arranged summer programs at Caltech for elementary and middle school students from under-represented groups.
Math Circles	Teach weekly math circle class to local elementary students in grades 3-8

INSTITUTE SERVICE

2022-pres	CMS DEI steering committee member
2022-2023	AI Boot Camp director search
2021-pres	Undergraduate Admissions committee
2021-2022	CMS search committee
2020-2022	CMS DEI Steering committee chair
2020-2022	CMS Ombudsperson
2019-2021	CMS/HSS search committee
2019-2021	RSI Sunlight to Everything Advisory Board
2018	Led the creation of the Information and Data Science (IDS) undergraduate major and minor
2018-2021	Member of the Faculty Board
2018-2022	Member of the Core Curriculum Steering Committee
2018-2021	Member of the Faculty Board Steering Committee
2016-pres	Director of Information Science and Technology (IST) initiative
2016	Founded the CMS Partners Program
2016-2017	Member of student/faculty conference committee for CS
2015-2020	Executive officer of CMS
2015	EAS Division chair search committee
2013-pres	Member of Linde Institute Board
2013-2019	Co-director of SISL

2014-2015	CMS graduate option representative
2014-2015	Member of student/faculty conference committee for CS
2014	Led the creation of new CMS PhD option
2013-2014	EE faculty hiring committee
2013	Led the creation of the CS minor
2012-2013	Member of student/faculty conference committee for CS
2012-2013	CMS faculty hiring committee
May 2012	Created new CS minor
2012	Led an initiative to increase diversity in the CS major
2010-2011	Member of student/faculty conference committee for CS
2010-2011	CMS faculty hiring committee
2010-2015	CS undergraduate option representative
2008-pres	Co-director of the Rigorous System Design Research Group (RSRG)
2007-2013	IST Lunch Bunch co-organizer
2007-2011	CS/EC Hiring committee
2003-2006	Founded and organized the Random Distance Run at CMU
2003-2006	Member of the CMU Computer Science Department Speakers Club

Complete list of publications by **Adam Wierman**

Electronic copies of all listed publications are available on my web page. My web page also includes this list of publications indexed by year, topic, coauthor, and venue.

Books

[22] Jayakrishnan Nair, Adam Wierman, and Bert Zwart. "The Fundamentals of Heavy-Tails: Properties, Emergence, and Estimation." Cambridge University Press, 2022.

Thesis

[07] Adam Wierman. "Scheduling for today's computer systems: Bridging theory and practice." Ph.D. Thesis. Carnegie Mellon University, Pittsburgh, PA. May 2007. CMU-CS-07-126. **Co-recipient of the Carnegie Mellon School of Computer Science Distinguished Dissertation Award. Finalist receiving Honorable Mention for the INFORMS Doctoral Dissertation Award for Operations Research in Telecommunications.**

Refereed Journal and Conference Publications

[22] T Li, R Yang, G Qu, G Shi, C Yu, A Wierman, S Low. "Robustness and Consistency in Linear Quadratic Control with Untrusted Predictions." ACM Sigmetrics 2022.

[22] W Pan, G Shi, Y Lin, A Wierman. "Online Optimization with Feedback Delay and Nonlinear Switching Cost." ACM Sigmetrics 2022.

[22] G Qu, N Li, A Wierman. " Scalable Reinforcement Learning for Multi-Agent Networked Systems." Operations Research 2022.

[22] J Pang, W Lin, H Fu, J Kleeman, E Bitar, A Wierman. "Transparency and Control in Platforms for Networked Markets." Operations Research, 2022.

[22] Y Nakahira, A Ferragut, A Wierman. "Generalized Exact Scheduling: A Minimal-Variance Distributed Deadline Scheduler." Operations Research, 2022.

[22] L Werner, N Christianson, S Low, and A Wierman. 11Robust Resource Procurement for Feasible Online Economic Dispatch." Journal of Electric Power Systems Research, 2022.

[22] C Yeh, J Yu, Y Shi, and A Wierman. "Robust Online Voltage Control with an Unknown Grid Topology." ACM E-Energy 2022.

[22] Y Shi, G Qu, A Anandkumar, S Low, A Wierman. "Stability Constrained Reinforcement Learning for Real-Time Voltage Control." IEEE ACC 2022

[22] C Liang, A Zocca, S Low, and A Wierman. 11Interface Networks for Failure Localization in Power Systems." IEEE ACC 2022

[22] C Yu, G Shi, SJ Chung, Y Yue, A Wierman. "Competitive Control with Delayed Imperfect Information." IEEE ACC, 2022.

[21] N Bashir, T Guo, M Hajiesmaili, D Irwin, P Shenoy, R Sitaraman, A Souza, A Wierman. "Enabling Sustainable Clouds: The Case for Virtualizing the Energy System." ACM SoCC 2021.

[21] Y Lin, Y Hu, H Sun, G Shi, G Qu, A Wierman. "Perturbation-based Regret Analysis of Predictive Control in Linear Time Varying Systems." NeurIPS 2021, **spotlight presentation**.

[21] Y Lin, G Que, L Huang, A Wierman. "Multi-Agent Reinforcement Learning in Stochastic Networked Systems." NeurIPS 2021.

[21] B Sun, R Lee, M Hajiesmaili, A Wierman, D Tsang. "Pareto-Optimal Learning-Augmented Algorithms for Online Conversion Problems." NeurIPS 2021.

[21] G Qu, Y Shi, S Lale, A Anandkumar, A Wierman. "Stable Online Control of Linear Time-Varying Systems." Learning for Dynamics and Control.

[21] G Qu, C Yu, S Low, A Wierman. "Exploiting Linear Models for Model-Free Nonlinear Control: A Provably Convergent Policy Gradient Approach." IEEE CDC, 2021

[21] G Liao, Y Su, J Ziani, A Wierman, J Huang. "The Privacy Paradox and Optimal Bias-Variance Trade-offs in Data Acquisition." ACM EC 2021.

[21] L Werner, A Wierman, and SH Low. "Pricing flexibility of shiftable demand in electricity markets." ACM e-Energy, 2021.

[21] L Guo, C Liang, A Zocca, SH Low, A Wierman. "Line Failure Localization of Power Networks, Part I: Non-Cut Set Outages." IEEE Trans. on Power Systems, 2021.

[21] L Guo, C Liang, A Zocca, SH Low, A Wierman. "Line Failure Localization of Power Networks, Part I!: Cut Set Outages." IEEE Trans. on Power Systems, 2021.

[21] T Li, Y. Chen, B. Sun, A. Wierman, SH Low. "Information Aggregation for Constrained Online Control." ACM Sigmetrics 2021.

[21] R Murray, V Chandrasekaran, A Wierman. "Newton polytopes and relative entropy optimization." Foundations of Computational Mathematics. 2021.

[21] A. Zeynali, B. Sun, M. Hajiesmaili, A. Wierman. "Data-driven Competitive Algorithms for Online Knapsack and Set Cover." AAAI 2021.

[21] B Sun, A Zeynali, T Li, M Hajiesmaili, A Wierman, DHK Tsang. "Competitive Algorithms for the Online Multiple Knapsack Problem with Application to Electric Vehicle Charging." Sigmetrics 2021.

[20] Riley Murray, Venkat Chandrasekaran, Adam Wierman. "Signomial and polynomial optimization via relative entropy and partial dualization." Mathematical Programming Computation, 2021, pages 1-39.

[20] G Qu, A Wierman, N Li. "Scalable reinforcement learning of localized policies for multi-agent networked systems." Learning for Dynamics and Control, 2020.

[20] C Yu, G Shi, SJ Chung, Y Yue, A Wierman. "The Power of Predictions in Online Control." NeurIPS 2020.

[20] G Shi, Y Lin, SJ Chung, Y Yue, A Wierman. "Competitive Algorithms for Online Optimization with Memory and Control." NeurIPS 2020.

[20] G Qu, Y Lin, A Wierman, N Li. "Scalable Multi-Agent Reinforcement Learning for Networked Systems with Average Reward." NeurIPS 2020.

[20] T Li, SH Low, A Wierman. "Real-time Flexibility Feedback for Closed-loop Aggregator and System Operator Coordination." ACM e-Energy 2020.

[20] Z Scully, L van Kreveld, O Boxma, JP Dorsman, A Wierman. "Characterizing Policies with Optimal Response Time Tails under Heavy-Tailed Job Sizes." Sigmetrics 2020.

[20] L Yang, MH Hajiesmaili, R Sitaraman, A Wierman, E Mallada, WS Wong. "Online Linear Optimization with Inventory Management Constraints." Sigmetrics 2020.

[20] Y Lin, G Goel, A Wierman. "Online Optimization with Predictions and Non-convex Losses." Sigmetrics 2020.

[20] P London, S Vardi, A Wierman. "Logarithmic Communication for Distributed Optimization in Multi-Agent Systems." Sigmetrics 2020.

[20] Y Cai, F Echenique, H Fu, K Ligett, A Wierman, J Ziani. "Third-Party Data Providers Ruin Simple Mechanisms." Sigmetrics 2020.

[20] X Zhou, N Shroff, A Wierman. "Asymptotically Optimal Load Balancing in Large-scale Heterogeneous Systems with Multiple Dispatchers." IFIP Performance 2020.

[20] G Qu, A Wierman. "Finite-Time Analysis of Asynchronous Stochastic Approximation and -Learning." COLT 2020

[20] N Azizan, Y Su, K Dvijotham, A Wierman. "Optimal Pricing in Markets with Non-Convex Costs." Operations Research 2019. Previously appeared in ACM EC 2019.

[19] L Guo, C Liang, A Zocca, SH Low, A Wierman. "Less is More: Real-time Failure Localization in Power Systems." CDC 2019.

[19] Q Lin, H Yi, J Pang, M Chen, A Wierman, M Honig, Y Xiao. "Competitive online optimization under inventory constraints." Sigmetrics 2019.

[19] G Goel, Y Lin, H Sun, A Wierman. "Beyond online balanced descent: An optimal algorithm for smoothed online optimization." NeurIPS 2019 (**spotlight presentation**).

[19] G Goel, A Wierman. "An online algorithm for smoothed regression and lqr control." AIStats 2019.

[19] N Azizan, Y Su, K Dvijotham, A Wierman. "Optimal Pricing in Markets with Non-Convex Costs." ACM EC 2019.

[19] Z Fang, L Huang, A Wierman. "Prices and subsidies in the sharing economy." Performance Evaluation 2019.

[19] S Bose, D Cai, S Low, A Wierman. "The role of a market maker in networked cournot competition." Mathematics of Operations Research 2019.

[19] J Nair, V Subramanian, A Wierman. "Provisioning of ad-supported cloud services: The role of competition." Performance Evaluation 2018.

[18] X Ren, P London, J Ziani, A Wierman. "Datum: Managing data purchasing and data placement in a geo-distributed data market." IEEE/ACM Transactions on Networking 2018.

[18] M Islam, X Ren, S Ren, A Wierman. "A spot capacity market to increase power infrastructure utilization in multi-tenant data centers." HPCA 2018.

[18] Y Nakahira, A Ferragut, A Wierman. "Minimal-variance distributed scheduling under strict demands and deadlines." Performance 2018.

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[17] Jonatha Anselmi, Danilo Ardagna, John C. S. Lui, Adam Wierman, Yunjian Xu and Zichao Yang. "The economics of the cloud: price competition and congestion." ACM Transactions on Measurement and Performance Evaluation of Computer Systems (TOMPECS). Extension of paper that appeared in NetCoop 2013.

[17] Desmond Cai, Enrique Mallada, and Adam Wierman. "Distributed optimization decomposition for joint economic dispatch and frequency regulation." IEEE Transactions on Power systems. Extension of a paper that appeared in IEEE CDC in 2015.

[17] Mohammad A. Islam, Shaolei Ren, and Adam Wierman. "Exploiting a Thermal Side Channel for Power Attacks in Multi-Tenant Data Centers." In the proceedings of ACM Conference on Computer and Communications Security, 2017. Extended abstract appeared in ACM Greenmetrics 2017.

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[17] Zixuan Fang, Longbo Huang, and Adam Wierman. "Prices and subsidies in the sharing economy." In the proceedings of WWW, 2017.

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[16] Ragavendran Gopalakrishnan, Sherwin Doroudi, Amy Ward and Adam Wierman. "Routing and staffing when servers are strategic." Operations Research, 2016. Extension of a paper that appeared in the proceedings of *ACM EC*, 2014.

[16] Rachel Cummings, Federico Echenique, Adam Wierman. "The empirical implications of privacy-aware choice." To appear in Operations Research. Extension of paper that appeared in ACM EC, 2014.

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[16] Niangjun Chen, Joshua Comden, Zhenhua Liu, Anshul Ghandi, and Adam Wierman. "Using predictions in online optimization: Looking forward with an eye on the past." Proceedings of ACM Sigmetrics, 2016.

[16] Mahdi Ghamkhari, Adam Wierman, and Hamed Mohsenian-Rad. "Energy portfolio optimization of data centers." IEEE Transactions on Smart Grid (2016) 99: 1-13.

[16] Mohammad A. Islam, Xiaoqi Ren, Shaolei Ren, Adam Wierman and Xiaorui Wang. "A Market Approach for Handling Power Emergencies in Multi-Tenant Data Center." Proceedings of IEEE HPCA, 2016.

[16] Jayakrishnan Nair, Adam Wierman, and Bert Zwart. "Provisioning of large scale systems: The interplay between network effects and strategic behavior in the user base." Management Science (2016). 62(6): 1830-1841.

[15] Hao Chen, Zhenhua Liu, Ayse Coskun, and Adam Wierman. "Optimizing energy storage participation in emerging power markets." Proceedings of IEEE Green Computing Conference, 2015.

[15] Desmond Cai, Enrique Mallada, and Adam Wierman. "Distributed optimization decomposition for joint economic dispatch and frequency regulation." Proceedings of IEEE CDC, 2015. Extended version appeared in IEEE Transactions on Power systems in 2017.

[15] Masoud Badiai, Na Li, and Adam Wierman. "Online convex optimization with ramp constraints." Proceedings of IEEE CDC, 2015.

[15] Niangjun Chen, Xiaoqi Ren, Shaolei Ren, and Adam Wierman. "Greening multi-tenant data center demand response." Performance Evaluation (2015) 91, 229-254.

[15] Niangjun Chen, Xiaoqi Ren, Shaolei Ren, and Adam Wierman. "Greening multi-tenant data center demand response." Proceedings of IFIP Performance, 2015.

[15] Subhonmesh Bose, Chenye Wu, Yunjian Xu, Adam Wierman and Hamed Mohsenian-Rad. "A unifying market power measure for deregulated transmission-constrained electricity markets." (2015) IEEE Transactions on Power Systems, 30(5):2338-2348. Extension of a paper that appeared in IEEE PES General Meeting, 2013.

[15] Kai Wang, Minghong Lin, Florin Ciucu, Adam Wierman, and Chuang Lin. "Characterizing the impact of the workload on the value of dynamic resizing in data centers." Performance Evaluation, 2015. Extension of a paper that appeared in the IEEE Infocom mini-conference in 2013.

[15] Xiaoqi Ren, Ganesh Ananthanarayanan, Adam Wierman and Minlan Yu. "Hopper: Decentralized Speculation-aware Cluster Scheduling at Scale." Proceedings of ACM Sigcomm, 2015

[15] Niangjun Chen, Anish Agarwal, Adam Wierman, Siddharth Barman, and Lachlan Andrew. "Online Convex Optimization using Predictions." Proceedings of ACM Sigmetrics, 2015.

[14] Siddharth Barman, Umang Bhaskar, Federico Echenique, Adam Wierman. "On the Existence of Low-Rank Explanations for Mixed Strategy Behavior." Proceedings of WINE, 2014.

[14] Jayakrishnan Nair, Vijay Subramanian, and Adam Wierman. "On competitive provisioning of cloud services." Proceedings of IFIP Performance, 2014.

[14] Jayakrishnan Nair, Vijay Subramanian, and Adam Wierman. "On competitive provisioning of ad-supported cloud services." Proceedings of Allerton, 2014.

[14] Adam Wierman, Zhenhua Liu, Iris Liu, and Hamed Mohsenian-Rad. "Opportunities and challenges for data center demand response." Proceedings of IEEE IGCC, 2014.

[14] Niangjun Chen, Lingwen Gan, Steven Low and Adam Wierman. "Distributional analysis for model predictive deferrable load control." Proceedings of IEEE CDC, 2014.

[14] Subhonmesh Bose, Desmond Cai, Steven Low and Adam Wierman. "The role of a market maker in networked Cournot competition." Proceedings of IEEE CDC, 2014.

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[14] Zhenhua Liu, Iris Liu, Steven Low, and Adam Wierman. "Pricing data center demand response." Proceedings of ACM Sigmetrics, 2014.

[14] Jayakrishnan Nair, Sachin Adlakha, and Adam Wierman. "Energy procurement strategies in the presence of intermittent sources." Proceedings of ACM Sigmetrics, 2014.

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[14] Zhenhua Liu, Minghong Lin, Adam Wierman, Steven Low, and Lachlan Andrew. "Greening geographical load balancing." IEEE Transactions on Networking (2014) 23(2): 657-671.. Extension of a paper that appeared in the proceedings of *ACM Sigmetrics*, 2011.

[14] Ragavendran Gopalakrishnan, Jason Marden, and Adam Wierman. "Potential games are necessary to ensure pure Nash equilibria in cost sharing games." Mathematics of Operations Research, to appear. Extension of a paper that appeared in the proceedings of *ACM EC*, 2013.

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[13] Minghong Lin, Adam Wierman, Lachlan Andrew, and Eno Thereska. "Dynamic right-sizing for power-proportional data centers." IEEE Transactions on Networking (2013), 21(5): 1378-1391. Received the **2014 IEEE Communication Society William R. Bennet Prize** for the"best original paper published in any journal associated with the IEEE Communication Society. Conference version previously appeared in the Proceedings of *Infocom* 2011.

[13] Lachlan L.H. Andrew, Siddharth Barman, Katrina Ligett, Minghong Lin, Adam Meyerson, Alan Roytman, and Adam Wierman. "A tale of two metrics: Simultaneous bounds on competitiveness and regret." In proceedings of COLT, 2013.

[13] Lachlan L.H. Andrew, Siddharth Barman, Katrina Ligett, Minghong Lin, Adam Meyerson, Alan Roytman, and Adam Wierman. "A tale of two metrics: Simultaneous bounds on competitiveness and regret." In Proceedings of ACM Sigmetrics, 2013. (Accepted as a poster.)

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[13] Minghong Lin, Jian Tan, Adam Wierman, and Li Zhang. "Joint optimization of overlapping phases in MapReduce." Performance Evaluation (2013) 70:10,720-735. It was **one of the ten most downloaded papers** of Performance Evaluation during Fall 2013 and Winter 2014.

[13] Minghong Lin, Jian Tan, Adam Wierman, and Li Zhang. "Joint optimization of overlapping phases in MapReduce." In proceedings of IFIP Performance, 2013. **"Best Student Paper" award recipient.**

[13] Zhenhua Liu, Benjamin Razon, Adam Wierman, Yuan Chen. "Data center demand response: Avoiding the coincident peak via workload shifting and local generation" Performance Evaluation (2013) 70:10, 770-791. **Named one of the most cited papers in Performance Evaluation during 2014-2016.**

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[11] Zhenhua Liu, Minghong Lin, Adam Wierman, Steven Low, and Lachlan Andrew. "Greening geographical load balancing." Proceedings of *ACM Sigmetrics*, 2011. **IEEE Sustainable Computing Register "Pick of the month" for April 2013.** Received the **ACM Sigmetrics Test of Time award** in 2021

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[10] Jayakrishnan Nair, Adam Wierman, and Bert Zwart. "Scheduling for the tail: Robustness versus optimality." Proceedings of Allerton 2010.

[09] Jason Marden and Adam Wierman. "Overcoming limitations of game-theoretic distributed control." Proceedings of *Conference on Decision and Control (CDC)* 2009.

[09] Wei Chen, Dayu Huang, Ankur Kulkarni, Jayakrishnan Unnikrishnan, Quanyan Zhu, Prashant G. Mehta, Sean Meyn and Adam Wierman. "Approximate dynamic programming using fluid and diffusion approximations with applications to power management." Proceedings of *Conference on Decision and Control (CDC)* 2009.

[09] Elizabeth Bodine-Baron, Babak Hassibi, Adam Wierman. "Generalizing Kronecker graphs in order to model searchable networks." Proceedings of *Allerton* 2009.

[09] Adam Wierman, Lachlan L.H. Andrew, and Ao Tang. "Power-aware speed scaling in processor sharing systems." Proceedings of *INFOCOM* 2009.

[09] Ho-Lin Chen, Jason Marden, and Adam Wierman. "On the impact of heterogeneity and back-end scheduling in load balancing designs." Proceedings of *INFOCOM* 2009.

[08] Jason Marden and Adam Wierman. "Distributed welfare games with applications to sensor coverage." Proceedings of *Conference on Decision and Control (CDC)* 2008.

[08] Misja Nuyens, Adam Wierman, and Bert Zwart. "Preventing large sojourn times using SMART scheduling." Operations Research (2008) 56(1):88-101.

[08] Adam Wierman, Lachlan L.H. Andrew and Ao Tang. "Stochastic analysis of power-aware scheduling." Proceedings of *Allerton* 2008.

[08] Adam Wierman and Misja Nuyens. "Scheduling despite inexact job-size information." Proceedings of *ACM Sigmetrics 2008*.

[08] Misja Nuyens and Adam Wierman. "The foreground-background queue: a survey." Performance Evaluation (2008) 65(3-4):286-307.

[07] Adam Wierman. "Revisiting the performance of large jobs in the M/GI/1 queue." Proceedings of *Allerton* 2007.

[07] Adam Wierman, Erik Winands and Onno Boxma. "Scheduling in polling systems." Performance Evaluation (2007) 64(9-12):1009-1028.

[07] Adam Wierman, Erik Winands and Onno Boxma. "Scheduling in polling systems." Proceedings of *IFIP Performance 2007*.

[07] Adam Wierman."Fairness and classifications." Performance Evaluation Review (2007) 34(4):4-12.

[06] Chang Woo, Adam Wierman, Sanjay Shakkottai, and Mor Harchol-Balter. "Tail asymptotics for policies favoring short jobs in a many-flows regime." Proceedings of *ACM Sigmetrics 2006*.

[06] Bianca Schroeder, Adam Wierman, and Mor Harchol-Balter. " Closed versus open system models and their impact on performance and scheduling." Proceedings of *NSDI 2006*.

[06] Adam Wierman, Takayuki Osogami, Mor Harchol-Balter, and Alan Scheller-Wolf. "How many servers are best in a dual-priority M/PH/k system?" *Performance Evaluation* (2006) 63:12,1253-1272.

[06] Bianca Schroeder, Mor Harchol-Balter, Arun Iyengar, Erich Nahum, and Adam Wierman. "How to determine a good multi-programming level for external scheduling." Proceedings of *IEEE ICDE 2006*.

[05] Takayuki Osogami, Adam Wierman, Alan Scheller-Wolf, and Mor Harchol-Balter. "Multi-server queueing systems with multiple priority classes." *Queueing Systems* (2005) 51:1,331-360.

[05] Adam Wierman and Mor Harchol-Balter. "Classifying scheduling policies with respect to higher moments of conditional response time." Proceedings of *ACM Sigmetrics 2005*.

[05] Adam Wierman, Mor Harchol-Balter, and Takayuki Osogami. "Nearly insensitive bounds on SMART scheduling." Proceedings of *ACM Sigmetrics 2005*.

[04] Adam Wierman, Julia Salzman, Michael Jablonski, and Anant Godbole. "An improved upper bound for the pebbling threshold of the n-path." *Discrete Mathematics* (2004) 275, 367-373.

[04] Adam Wierman, Nikhil Bansal, and Mor Harchol-Balter. "A note comparing response times in the M/GI/1/FB and M/GI/1/PS Queues." *Operations Research Letters* (2004) 32:1, 73-76.

[03] Adam Wierman, Takayuki Osogami, and Jörgen Olsén. "A unified framework for modeling TCP-Vegas, TCP-SACK, and TCP-Reno." Proceedings of *IEEE Mascots 2003*.

[03] Adam Wierman and Mor Harchol-Balter. "Classifying scheduling policies with respect to unfairness in an M/GI/1." Proceedings of *ACM Sigmetrics 2003*. **"Best Student Paper" award recipient.**

[02] Mor Harchol-Balter, Karl Sigman, and Adam Wierman. "Asymptotic convergence of scheduling policies with respect to slowdown." *Performance Evaluation* (2002) 49, 241-256.

[02] Mor Harchol-Balter, Karl Sigman, and Adam Wierman. "Asymptotic convergence of scheduling policies with respect to slowdown." Proceedings of *IFIP Performance 2002*.

Refereed workshop papers

[21] Guannan Qu, Adam Wierman, and Na Li. Scalable Reinforcement Learning for Multi-Agent Networked Systems. In Proceedings of Reinforcement Learning in Networks and Queues (RLNQ).

[21] Y. Su, J. Yu, V. Anand, A. Wierman. Learning-Augmented Energy-Aware Scheduling of Precedence-Constrained Tasks. Proceedings of MAMA.

[21] G. Liao, Y. Su, J. Ziani, A. Wierman, J. Huang. The Privacy Paradox and Optimal Bias-Variance Trade-offs in Data Acquisition. Proceedings of MAMA.

[19] G. Goel, A. Wierman. An Online Algorithm for Smoothed Online Convex Optimization. Proceedings of MAMA.

[19] Y. Su, X. Ren, S. Vardi, A. Wierman, Y. He. Communication-Aware Scheduling of Precedence-Constrained Tasks. Proceedings of MAMA.

[18] J. Qin, R. Rajagopal, S. Vardi, A. Wierman. Convex Prophet Inequalities. Proceedings of MAMA.

[18] G. Goel, N. Chen, A. Wierman. Smoothed Online Convex Optimization via Online Balanced Descent. Proceedings of MAMA.

[18] Y. Nakahira, A. Ferragut, A. Wierman. Minimal-variance distributed scheduling under strict demands and deadlines. Proceedings of MAMA.

[17] Palma London, Niangjun Chen, Shai Vardi, and Adam Wierman. "Distributed optimization via local computation algorithms." Proceedings of MAMA.

[17] Gautam Goel, Niangjun Chen, and Adam Wierman. "Thinking fast and sow: Optimization decomposition across timescales." Proceedings of MAMA.

[17] John Pang, Adam Wierman, Weixuan Lin, and Eilyan Bitar. "Networked Cournot competition in platform markets: Access control and efficiency Loss." Proceedings of MAMA.

[15] Xiaoqi Ren, Ganesh Ananthanarayanan, Adam Wierman and Minlan Yu. "Speculation-aware Cluster Scheduling at Scale." Proceedings of MAMA.

[15] Niangjun Chen, Xiaoqi Ren, Shaolei Ren, and Adam Wierman. "Greening multi-tenant data center demand response." Proceedings of MAMA.

[14] Mahdi Ghamkhari, Hamed Mohsenian-Rad, and Adam Wierman. "Optimal power procurement for data centers in day-ahead and real-time electricity markets." *IEEE INFOCOM Workshop on Smart Data Pricing, 2014.*

[13] Minghong Lin, Jian Tan, Adam Wierman, and Li Zhang. "Joint optimization of overlapping phases in MapReduce." Proceedings of MAMA.

[12] Minghong Lin, Adam Wierman, Alan Roytman, Adam Meyerson, and Lachlan L.H. Andrew. "Online optimization with switching costs." Proceedings of MAMA.

[12] Jayakrishnan Nair, Sachin Adlakha, and Adam Wierman. "Inventory management in the presence of renewable energy." Proceedings of MSOM, 2012.

[11] Sherwin Doroudi, Ragavendran Gopalakrishnan, and Adam Wierman. "Dispatching to incentivize fast service in multi-server queues." Proceedings of MAMA.

[10] Minghong Lin, Adam Wierman, and Bert Zwart. "The average response time in a heavy-traffic SRPT queue." *Performance Evaluation Review* (2010) 38:2, 12-14. An earlier version appeared at the *MAMA workshop at Sigmetrics 2010*.

[09] Lachlan Andrew, Adam Wierman, and Ao Tang. "Optimal speed scaling under arbitrary power functions." Performance Evaluation Review (2009) 37:2, 39-41. An earlier version appeared at the *MAMA workshop at Sigmetrics 2009*.

[08] Ho-Lin Chen, Jason Marden, and Adam Wierman. "The effect of local scheduling in load balancing designs." *Performance Evaluation Review*. 36:2, 110-112. An earlier version appeared at the *MAMA workshop at Sigmetrics 2008*.

[06] Adam Wierman. "On the effect of inexact size information in size based policies." *Performance Evaluation Review*. 34:3, 21-23. An earlier version appeared in the *MAMA workshop at Sigmetrics 2006*.

[04] Takayuki Osogami, Adam Wierman, Mor Harchol-Balter, and Alan Scheller-Wolf. "A recursive analysis technique for multi-dimensionally infinite Markov chains." *Performance Evaluation Review.* (2004) 32:2, 3-5. An earlier version appeared in the *MAMA workshop at Sigmetrics 2004*.

[04] Adam Wierman and Mor Harchol-Balter. "Formalizing SMART scheduling." *Performance Evaluation Review.* (2004) 32:2, 12-13. An earlier version appeared in the *MAMA workshop at Sigmetrics 2004*.

[03] Adam Wierman, Takayuki Osogami, and Jörgen Olsén. "Modeling TCP-Vegas under on/off traffic." *Performance Evaluation Review* (2003) 31:2, 6-8. An earlier version appeared in the *MAMA workshop at Sigmetrics 2003*.

[02] Mor Harchol-Balter, Karl Sigman, and Adam Wierman. "Understanding the slowdown of large jobs." *Performance Evaluation Review* (2002) 30:3, 9-11. An earlier version appeared in the *MAMA workshop at Sigmetrics 2002*.

Chapters in Books

[12] Adam Wierman, Lachlan L. H. Andrew, and Minghong Lin. "Speed scaling: An algorithmic perspective." Sanjay Ranka and Ishfaq Ahmad. *Handbook of Energy-Aware and Green Computing*. CRC Press, to appear.

[08] Jack Mostow, Gregory S. Aist, Cathy Huang, Brian Junker, Rebecca Kennedy, Hua Lan, DeWitt Latimer IV, Rollanda O'Connor, Regina Tassone, and Adam Wierman. "4-Month evaluation of a learner-controlled reading tutor that listens." Melissa Holland and F. Pete Fisher (Editors), *The path of speech technologies in computer-assisted language learning*. Routledge, 2008.

Unrefereed Letters

[13] Subhonmesh Bose, Chenye Wu, Adam Wierman, and Hamed Mohsenian-Rad. "The need for new measures to assess market power in deregulated electricity markets." IEEE Smart Grid Newsletter 2013.

[11] Lachlan L. H. Andrew, Minghong Lin, Zhenhua Liu, and Adam Wierman. "Algorithms for Dynamic Capacity Provisioning." Proceedings of Conf. on Optical Internet (COIN) 2012.

[11] Federico Echenique, Daniel Golovin, and Adam Wierman. "Complexity and economics: computational constraints may not matter." ACM SigEcom Exchanges (2011) 10:1, 2-5.

[10] Lachlan L.H. Andrew, Minghong Lin, Ao Tang, and Adam Wierman. Speed Scaling to Trade-off Efficiency, Simplicity, Robustness and Fairness. IEEE COMSOC Multimedia Communications Technical Committee E-Letter (2010) 5:4, 32-36.

Technical Reports which do not overlap with above lists

[03] Adam Wierman and Mor Harchol-Balter. "Bounds on a fair policy with near optimal performance." *Carnegie Mellon School of Computer Science Technical Report* CMU-CS-03-198.

[02] Adam Wierman and Nikhil Bansal. "Competitive analysis of M/GI/1 queueing policies" *Carnegie Mellon School of Computer Science Technical Report* CMU-CS-02-201.

Selected invited talks by **Adam Wierman**

Keynotes and distinguished lectures

May 2023 Learning-Augmented Algorithms for Safety-Critical, Sustainable Systems
Fields Institute
Mar 2023 Learning-Augmented Algorithms for Safety-Critical Systems
Rice University
Nov 2022 Learning to Control Safety-Critical Systems
Simons Institute, UC Berkeley
Aug 2022 Data-driven Decision Processes Boot Camp
Simons Institute, UC Berkeley
Apr 2022 Online Optimization and Control using Black-Box Predictions
Georgia Tech ISYE
Apr 2022 Online Optimization and Control using Black-Box Predictions
MIT enOPTIMAL
Apr 2022 Machine Learning for Safety Critical Systems
JPL
Apr 2022 Online Optimization and Control using Black-Box Predictions
UIUC C3DTI
Mar 2022 Online Optimization and Control using Black-Box Predictions
SNAPP Virtual Seminar Series
Mar 2022 Online Optimization and Control using Black-Box Predictions
UIUC ISE
Mar 2022 System design using Black-Box Predictions
UT Austin
Feb 2022 Online Optimization and Control using Black-Box Predictions
Texas A&M
Jan 2022 Online Optimization and Control using Black-Box Predictions
MIT LIDS Student Conference Plenary
Dec 2021 Online Optimization and Control using Black-Box Predictions
CDC Control for Autonomous Cities Keynote
Aug 2021 Online optimization and Energy
Oxford Summer School for AI
June 2019 Online optimization and Energy
Keynote for ACM e-Energy
June 2019 Platforms and Networked Markets
Plenary at Marketplace Innovation Workshop 2019
June 2019 Platforms and Networked Markets
Plenary at Marketplace Innovation Workshop 2019
May 2018 Transparency and Control in Platforms and Networked Markets
MobiHoc Frontiers of Networks Keynote
May 2018 Transparency and Control in Platforms and Networked Markets
IMaCCS Keynote
July 2017 Caltech Computes: Disrupting Science and Engineering with Computational Thinking
Caltech Bay Area Alumni Luncheon
Apr 2017 How Clean is the Cloud
Caltech Watson Lecture
Dec 2016 How Clean is the Cloud
The Caltech Associates
Nov 2016 Caltech Computes: Disrupting Science and Engineering with Computational Thinking
Caltech Alumni College

Aug 2016 Online Scheduling meets Queueing
The Simons Institute
Aug 2016 Energy and Uncertainty
The Simons Institute
Apr 2016 Data Centers and Energy: Did we get it backwards?
Texas A&M Leaders & Innovators Series
Feb 2016 Data Centers and Energy: Did we get it backwards?
Keynote talk at UIUC CSL Student Conference
Dec 2015 Networked Markets: Intermediaries and Market Power
UCLA EE Distinguished Seminar
Apr 2015 Data Centers, Energy, and Optimization
Northwestern Industrial Engineering Distinguished Lecture
Feb 2015 Data Centers, Energy, and Optimization
Boston University CISE Distinguished Lecture
July 2014 Data centers and Energy: Have we gotten it backwards?
Microsoft Faculty Summit
Oct 2013 Algorithmic challenges for sustainable data centers
UCSD CS Distinguished Lecture
Sept 2013 Algorithmic challenges for sustainable data centers
Princeton ORFE Distinguished Lecture
June 2013 Heavy-tails: Properties, Emergence, and Identification
Tutorial at ACM Sigmetrics
June 2013 Congestion and price competition in the cloud
Keynote talk at ACM WPIN+NetEcon
May 2012 Algorithmic challenges for greening data centers
Keynote talk at the Imperial College Energy-Performance colloquium
May 2012 Energy procurement in the presence of intermittent sources
Keynote talk at the Imperial College Energy-Performance colloquium
May 2012 Algorithmic challenges in sustainable data centers
Keynote talk at the STOC workshop on Computational Sustainability
June 2011 Algorithmic challenges for greening IT
Keynote talk at ACM Sigmetrics conference
Sept 2009 Scheduling to balance energy and delay.
Columbia IEOR Distinguished Lecture
Sept 2008 Does helping the little guy help everyone?
Carnegie Mellon CS Distinguished Lecture
Aug 2008 Does helping the little guy help everyone?
Mini-course at the Adv. Network Sci. Lecture Series at UCSD

Invited conference talks and departmental seminars

June 2023 Learning to Control with Untrusted Advice
Siam Conference on Optimization
Jan 2022 Online Optimization and Control using Black-Box Predictions
enOPTIMAL MIT seminar
Apr 2022 Online Optimization and Control using Black-Box Predictions
SNAPP Virtual Seminar
Feb 2022 Online Optimization and Control using Black-Box Predictions
Texas A&M
Jun 2021 Online Optimization and Energy
UCSB
Jan 2021 Competitive Control of Energy Systems via Online Optimization

Math of Data Science Virtual Seminar Series

Dec 2020 Competitive Control of Energy Systems via Online Optimization
Georgia Tech Workshop on Electric Energy Systems and Optimization

Nov 2020 Competitive Control via Online Optimization
IIT Bombay

Oct 2020 Competitive Control via Online Optimization
Stanford

Oct 2020 Online optimization & energy
Princeton

Oct 2020 Competitive Control via Online Optimization
Columbia

Oct 2020 Competitive Control via Online Optimization
Michigan

Oct 2020 Online optimization & energy
PIMCO

Oct 2019 Online optimization & energy
Cornell

Oct 2019 Online optimization & energy
Allerton

April 2019 Platforms and Networked Markets
UC Irvine

Sept 2018 Platforms and Networked Markets
Stanford

Aug 2018 Transparency and Control in Platforms and Networked Markets
Tsinghua

May 2018 Transparency and Control in Platforms and Networked Markets
UC Irvine

Dec 2017 Transparency and Control in Platforms and Networked Markets
Stanford

Oct 2017 Networked cournot competition in platform markets
Allerton

May 2017 Platforms and Networked Markets
Purdue

Apr 2017 Platforms and Networked Markets
USC

Apr 2017 Platforms and Networked Markets
Chicago Booth

Feb 2017 The Power of Predictions in Online Optimization
Georgia Tech, ISYE

Nov 2016 The Power of Predictions in Online Optimization
The Simons institute

July 2016 Data Markets in the Cloud: Pricing, Privacy, and Versioning
Microsoft Faculty Summit

May 2016 Data Centers and Energy: Did we get it backwards?
University of Minnesota DTC Seminar series

Dec 2015 Data Centers and Energy
Berkeley AMPLab Seminar

Nov 2015 Data Centers, Energy, and Online Optimization
Invited talk at Johns Hopkins

Nov 2015 On the Efficiency of Networked Stackelberg Competition
Invited talk at INFORMS General Meeting

June 2015 Data Centers and Energy: Did we get it backwards?

Invited talk NSF Sustainable Data Center Workshop

May 2015 Data Centers, Energy, and Optimization
Stanford GSB / MSE

Jan 2015 Data Centers, Energy, and Optimization
Princeton CS Colloquium

Nov 2014 Online Convex Optimization with Predictions
Invited talk at the INFORMS general meeting

Oct 2014 Data Center Demand Response: Opportunities and Challenges
Invited talk at the IEEE Green Computing Conference

Sept 2014 Data Centers and Energy: Did we get it backwards?
Invited talk at the DIMACS Data Aware Energy Usage meeting

June 2014 Electricity markets and renewable energy
Invited talk at the Stochastic Networks Conference

April 2014 Algorithmic challenges in sustainable data centers
Invited talk at NYU Stern IOMS Department, Host: Ilan Lobel

Feb 2014 The empirical implications of complexity for economics
Invited keynote at IMSE Workshop, Host: Bruce Hajek and Yuliy Baryshnikov

Dec 2013 Algorithmic challenges in sustainable data centers
Invited talk at Ohio State, Host: Chris Stewart

Nov 2013 Algorithmic challenges in sustainable data centers
Invited talk at McGill, Host: Xue Liu

Oct 2013 An empirical perspective on the computational complexity of economic models
Invited talk at INFORMS General Meeting, Auctions section

Apr 2013 Congestion and price competition in the cloud
Invited talk at NSF IGERT at Wayne State

Feb 2013 Congestion and price competition in the cloud
Invited talk at Banff workshop on Large-scale networks

Nov 2012 Energy procurement in the presence of intermittent sources
Invited talk at Univ. of Waterloo, Hosts: Catherine Rosenberg and S. Keshav

Nov 2012 Algorithmic challenges in sustainable data centers
Invited talk at Univ. of Toronto, Host: Bianca Schroeder

Nov 2012 Algorithmic challenges in sustainable data centers
Invited talk at McMaster, Host: Doug Down

Nov 2012 Algorithmic challenges in sustainable data centers
Invited talk at USC, Host: Minlan Yu

Oct 2012 Energy procurement in the presence of intermittent sources
Invited talk at INFORMS

Oct 2012 Smoothed online convex optimization
Invited talk at INFORMS

Sept 2012 Energy procurement in the presence of intermittent sources
Invited talk at the "Stochastic Activities Month" at EURANDOM

Sept 2012 Congestion and price competition in the cloud
Invited talk at the "Stochastic Activities Month" at EURANDOM

Aug 2012 Algorithmic challenges in sustainable data centers
Invited talk at Univ. of Colorado at Boulder, Host: Jason Marden

July 2012 Algorithmic challenges in sustainable data centers
Invited talk at IBM Research, Host: Li Zhang

June 2012 Algorithmic challenges in sustainable data centers
Invited talk at the Stochastic Networks Conference

Mar 2012 Dynamic capacity provisioning in data centers
Invited talk at Texas A&M, Host: Srinivas Shakkottai

Feb 2012 Dynamic capacity provisioning in data centers

Invited talk at ITA, Host: Sujay Sanghavi

Dec 2011 Algorithmic challenges for greening IT
Invited talk at CMU, Host: Mor Hachol-Balter

Nov 2011 Algorithmic challenges for greening IT
Invited talk at Berkeley, Host: Rhonda Righter

Nov 2011 Algorithmic challenges for greening IT
Invited talk at UT Austin, Host: Sujay Sanghavi and Sanjay Shakkottai

Sept 2011 Online dynamic capacity provisioning in data centers
Invited talk at the Allerton Conference, Host: Yi Lu

July 2011 Speed scaling: Optimality vs. robustness
Invited talk at INFORMS Applied Probability Conference

May 2011 A revealed preference view of computation for economics.
Invited talk at MSR New England, Host: Ishai Menache

May 2011 A revealed preference view of computation for economics.
Invited talk at MIT, Host: Devavrat Shah

Mar 2011 A revealed preference view of computation for economics.
Invited talk at Univ. of Colorado at Boulder, Host: Jason Marden

Feb 2011 Scheduling to balance energy and delay.
Invited talk at UC Riverside, Host: Victor Zordan

Nov 2010 A revealed preference view of computation for economics.
Invited talk at Basque Center for Applied Mathematics, Host: Urtzi Ayesta

Nov 2010 Scheduling to balance energy and delay.
Invited talk at Basque Center for Applied Mathematics, Host: Urtzi Ayesta

Nov 2010 A revealed preference view of computation for economics.
Invited talk at Socal NEGT

Sept 2010 Scheduling for the tail: Robustness versus Optimality.
Invited talk at Allerton, Host: R. Srikant and Bruce Hajek

Aug 2010 Algorithmic issues for green data centers.
Invited talk at NSF Workshop on the Science of Power Management.

June 2010 Scheduling to balance energy and delay.
Invited talk at Cambridge University Newton Institute

Dec 2009 Scheduling to balance energy and delay.
Invited talk at Tokyo Institute of Technology, Host: T. Osogami and H. Takagi

Nov 2009 Scheduling to balance energy and delay.
Invited talk at EURANDOM, Host: Onno Boxma

Nov 2009 Scheduling to balance energy and delay.
Invited talk at Stanford, Host: Tim Roughgarden and Ramesh Johari

Oct 2009 Overcoming limitations of game theoretic control.
Invited talk at INFORMS annual meeting, Applied Probability section

Oct 2009 Understanding fairness using a queueing game.
Invited talk at INFORMS annual meeting, Applied Probability section

Oct 2009 Speed scaling for power management.
Invited talk at INFORMS annual meeting, Applied Probability section

Oct 2009 Scheduling to balance energy and delay.
Invited talk at UCLA, Host: Mihaela van der Schaar

Sept 2009 Scheduling to balance energy and delay.
Invited talk at UCSD, Host: Ruth Williams & Tara Javidi

July 2009 Scheduling to balance energy and delay.
Invited talk at Cornell, Host: Kevin Tang

July 2009 Stochastic analysis of power-aware speed scaling.
Invited talk at INFORMS Applied Probability meeting

June 2009 Scheduling to balance energy and delay.

Invited talk at USC, Host: Rahul Jain

May 2009 Power management via speed scaling.
Invited talk at Lee Center Workshop

Mar 2009 The impact of back-end scheduling in load balancing games.
Invited talk at Yahoo Research workshop

Oct 2008 Scheduling despite inexact job size information
Invited talk at INFORMS annual meeting, Telecommunications section

Oct 2008 The effect of local scheduling in load balancing designs
Invited talk at INFORMS annual meeting, Applied Probability section

Sept 2008 Stochastic analysis of power-aware scheduling
Invited talk at the Allerton Conference, Host: Bruce Hajek and R. Srikant

June 2008 "Non-cooperative cooperation."
ACM Hotmetrics Work in Progress session

June 2008 "Scheduling despite inexact job-size information."
ACM Sigmetrics

May 2008 "The effect of local scheduling in load balancing designs."
ACM MAMA workshop at Sigmetrics

Apr 2008 "Practical Theory."
Invited talk at Microsoft Research, Host: Harold Javid

Mar 2008 "Scheduling for today's systems."
Invited talk at INFORMS Telecommunication Conference, Dissertation Award Finalist Session

Jan 2008 "Modern scheduling issues."
Invited talk at IBM Research Watson, Host: Cathy Xia and Mark Squillante

Sept 2007 "Revisiting the performance of large jobs in the M/GI/1 queue."
Invited talk at the Allerton Conference, Host: Bruce Hajek and R. Srikant

July 2007 "Revisiting the performance of large jobs in the M/GI/1 queue."
Invited talk at INFORMS Applied Probability conference

July 2007 "Scheduling in polling systems."
Invited talk at INFORMS Applied Probability conference

Mar 2007 "Fairness in queues."
Invited talk at CMU, Host: Mor Harchol-Balter

Feb 2007 "Scheduling for today's computer systems."
Invited talk at NYU, Host: Michael Pinedo

Dec 2006 "Levels of information: How much do policies need to know about job sizes."
Invited talk at CWI, the Netherlands, Host: Rudesindo Nunez Queija

Nov 2006 "Characterizing the effect of inexact size information in size based policies."
Invited talk at INFORMS joint conference

Nov 2006 "A class of policies that prioritize small jobs."
Invited talk at University of Twente, the Netherlands, Host: Richard Boucherie

Oct 2006 "Fairness in queues."
Invited talk at EURANDOM Institute, the Netherlands, Host: Onno Boxma

Sept 2006 "A class of policies that prioritize small jobs."
Invited talk at TU/e, the Netherlands, Host: Ivo Adan

May 2006 "Classifying policies that prioritize small jobs."
Invited talk at Stanford University, Hosts: Peter Glynn and Balaji Prabhakar

Dec 2005 "Understanding the impact of SMART scheduling."
Invited talk at Columbia University, Host: Ward Whitt

Nov 2005 "Understanding the effects of SMART scheduling."
Invited talk at INFORMS joint conference

July 2005 "Classifying scheduling policies with respect to moments of conditional response time."
Invited talk at the CMU & TU/e Collaborative Workshop

July 2005 "Classifying scheduling policies with respect to fairness and predictability."
Invited talk at INFORMS Applied Probability conference

July 2004 "Formalizing SMART scheduling."
Invited talk at EURANDOM Workshop on quantitative models for production and communication networks

May 2004 "Scheduling web servers: Theory and practice."
Invited talk at University of Calgary, Host: Carey Williamson

May 2004 "Achieving low mean response times while providing fairness."
Invited talk at CORS/INFORMS joint conference

Oct 2003 "Prioritization in multiserver queues."
Invited talk at INFORMS joint conference