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

2021	Co-author of paper that received the **ACM Sigmetrics "Test of Time" award**.
2021	NeurIPS spotlight presentation
2020	Named member of IFIP Working Group on Computer Performance Modeling and Analysis
2020	Learning for Decision and Control spotlight presentation
2017	**Caltech ASCIT teaching award recipient**
2019	NeurIPS Spotlight presentation
2017	Paper "Data Center Demand Response: Avoiding the coincident peak via workload shifting and local 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
2012	Student Minghong Lin received an IBM Ph.D. Fellowship
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

2019-pres	INFORMS Journal of Computing associate editor
2019-pres	ACM Sigmetrics Board of Directors
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:

2022   Program co-Char: ACM e-Energy
2022   Program Committee: IEEE MASCOTS
2022   Program Committee: ACM Sigmetrics
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
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 Sustainable 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 (COM-NET), 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 IC-CCN, 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 2021: 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 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 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 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
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:

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	supervised jointly with John Doyle
Chen Liang	supervised jointly with Steven Low
Tongxin Li	supervised jointely with Steven Low
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

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 3-5

INSTITUTE SERVICE

2021-2022	CMS search committee
2020-pres	CMS DEI Steering committee chair
2020-pres	CMS Ombudsperson
2019-2021	CMS/HSS search committee
2019-pres	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.**

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[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.

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

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[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

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

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