Ian A. Kash

University of Illinois at Chicago   iankash@uic.edu

Research Interests	Market design, mechanism design, auction theory, scoring rules, sponsored search, cloud economics, algorithmic game theory, multi-agent systems, incentive engineering for networks and systems, social computing, machine learning.

Education

⋄ 2004–2009 Cornell University

Ph.D. in Computer Science

Thesis Title: Robustness and Optimization of Scrip Systems

Advisors: Eric Friedman and Joseph Halpern

⋄ 2000–2004 Carnegie Mellon University

B.S. in Computer Science with additional majors in Mathematics and Philosophy

Appointments

⋄ Associate Professor 2018–present

University of Illinois at Chicago

⋄ Researcher 2011–2018

Microsoft Research Cambridge

⋄ Postdoctoral Fellow 2009–2011

Center for Research on Computation and Society, School of Engineering and Applied Sciences, Harvard University

Advisor: David Parkes

⋄ Instructor Summer 2006, Summer 2009

Cornell University

Taught undergraduate theory of computation course.

Honors

⋄ Best Paper Award at AAMAS 2012 for "Predicting Your Own Effort." 1 award given out of 137 accepted papers and 671 submissions.

⋄ Invited to special issue of ACM-TEAC on selected papers from EC 2013 for "Ranking and Tradeoffs in Sponsored Search Auctions."

⋄ Invited to special issue of ACM-TEAC on selected papers from EC 2013 for "Truthful Mechanisms for Agents that Value Privacy."

⋄ Invited to special issue of GEB on selected papers from EC 2010 and 2011 for "Mix and Match."

⋄ Invited to special issue of IEEE-JSAC on selected papers from EC 2006 for "Efficiency and Nash Equilibria in a Scrip System for P2P Networks."

⋄ Thesis nominated by department for 2009 ACM Doctoral Dissertation Award

⋄ Finalist for Best SPC Member at AAMAS 2017

Teaching

⋄ Summer 2009, Summer 2006: Instructor for Cornell CS381, Introduction to Theory of Computing. Responsible for teaching summer offering of course.

⋄ 2011 - present: Supervisor for Ph.D. students visiting for 3 month internships.

⋄ Fall 2008, Fall 2006: Teaching Assistant for Cornell Econ676, Decision Theory I

⋄ Spring 2003: Teaching Assistant for Carnegie Mellon 15-451, Algorithm Design and Analysis

⋄ Spring 2002: Teaching Assistant for Carnegie Mellon 15-241, Great Theoretical Ideas in Computer Science I

⋄ Guest Lectures: Harvard CS285, Multi-agent Systems (Fall 2010), Cornell CS2800, Discrete Structures (Spring 2009)

Service

⋄ PC Co-Chair NetEcon 2018

⋄ Co-organizer 2013 Advertising Auctions Workshop at ACM EC 2013

⋄ Journal Reviewing Comm. of the ACM, J. of the ACM, Artificial Intelligence, J. of Artificial Intelligence Research, J. of Autonomous Agents and Multi-Agent Systems, IEEE Trans. on Cloud Computing ACM Trans. on Economics and Computation, Games and Economic Behavior, Information Systems Research, ACM Trans. on Internet Technology IEEE Trans. on Mobile Computing, IEEE/ACM Trans. on Networking, Operations Research, IEEE Trans. on Parallel and Distributed Systems, IEEE J. on Selected Areas in Communications, IEEE Trans. on Systems, Man, and Cybernetics—Part C: Applications and Reviews, IEEE Trans. on Wireless Communications

⋄ Program Committee AAAI 2010, 2012–2019; AAMAS 2012–2016, 2017–2018 (SPC); AMMA 2011, 2015; AdAuctions 2012, 2015; EC 2011–2015, 2016–2017 (SPC), 2018; ECAI 2010; IJCAI 2011, 2013, 2015–2016 (SPC); NetEcon 2011–2016; WINE 2012–2013; WWW 2017

⋄ Outside Reviewer AAAI 2011; AAMAS 2011; ASPLOS 2014; COMSOC 2010; CCS 2012; DySpAN 2012; EuroSys 2013; ITCS 2018; NIPS 2018; PODC 2008; SAGT 2011, 2015; SODA 2015, 2016; SPAA 2011; STACS 2012; WINE 2007,2015; WWW 2008

⋄ Grant Reviewing Israel Science Foundation, Swiss National Science Foundation

Theses and Book Chapters

[1] Ian A. Kash, Rohan Murty, and David C. Parkes. Enabling sharing in auctions for short-term spectrum licenses. In Tansu Alpacan, Holger Boche, Michael Honig, and H. Vincent Poor, editors, *Mechanisms and Games for Dynamic Spectrum Allocation*, pages 467–496. Cambridge University Press, 2013.

[2] Ian A. Kash. *Robustness and Optimization of Scrip Systems*. PhD thesis, Cornell University, February 2010.

Journal Articles

[3] Natasha Alechina, Joseph Y Halpern, Ian A Kash, and Brian Logan. Incentive-compatible mechanisms for norm monitoring in open multi-agent systems. *Journal of Artificial Intelligence Research*, 62:433–458, 2018.

[4] Ian A Kash and Peter B Key. Pricing the cloud. *IEEE Internet Computing*, 20(1):36–43, 2016.

[5] Ben Roberts, Dinan Gunawardena, Ian A Kash, and Peter Key. Ranking and tradeoffs in sponsored search auctions. *ACM Transactions on Economics and Computation*, 4(3):17, 2016.

[6] Yiling Chen, Stephen Chong, Ian A Kash, Tal Moran, and Salil Vadhan. Truthful mechanisms for agents that value privacy. *ACM Transactions on Economics and Computation*, 4(3):13, 2016.

[7] Itai Ashlagi, Felix Fischer, Ian A. Kash, and Ariel Procaccia. Mix and match. *Games and Economic Behavior*, 91:284–296, May 2015.

[8] Ian A. Kash, Eric J. Friedman, and Joseph Y. Halpern. An equilibrium analysis of scrip systems. *ACM Transactions on Economics and Computation*, 3(3):13:1–13:32, June 2015.

[9] Ian A. Kash, Ariel D. Procaccia, and Nisarg Shah. No agent left behind: Dynamic fair division of multiple resources. *Journal of Artificial Intelligence Research*, 51:579–603, 2014.

[10] Yiling Chen, Xi Alice Gao, Rick Goldstein, and Ian A. Kash. Market manipulation with outside incentives. *Autonomous Agents and Multi-Agent Systems*, pages 1–36, 2014.

[11] Yiling Chen, Ian A. Kash, Michael Ruberry, and Victor Shnayder. Eliciting predictions and recommendations for decision making. *ACM Transactions on Economics and Computation*, 2(2):6:1–6:27, June 2014.

[12] Ian A. Kash, Rohan Murty, and David C. Parkes. Enabling spectrum sharing in secondary market auctions. *IEEE Transactions on Mobile Computing*, 13(3):556–568, 2014.

[13] Ian A. Kash, Eric J. Friedman, and Joseph Y. Halpern. Optimizing scrip systems: crashes, altruists, hoarders, sybils and collusion. *Distributed Computing*, 25(5):335–357, 2012.

[14] Ian A. Kash, Eric J. Friedman, and Joseph Y. Halpern. Multiagent learning in large anonymous games. *Journal of Artificial Intelligence Research*, 40:571–589, 2011.

Peer-Reviewed Conference Publications

[15] Sofia Ceppi, Rafael Frongillo, and Ian A. Kash. Truthful mechanisms without money: what you do not need to worry about. In *AAAI*, 2019.

[16] Greg O'Shea, Stavros Volos, and Ian A. Kash. Dc-drf : Multi-resource allocation at cloud scale. In *ACM Symposium on Cloud Computing 2018 (SoCC)*, 2018.

[17] Ghufran Baig, Bozidar Radunovic, Thomas Karagiannis, Ian A. Kash, and Lili Qiu. Interference management for unlicensed users in shared cbrs spectrum. In *14th International Conference on emerging Networking EXperiments and Technologies (CoNEXT)*, 2018.

[18] Ian A. Kash, Peter Key, and Warut Suksompong. Simple pricing schemes for the cloud. In *13th Conference on Web and Internet Economics (WINE)*, 2017.

[19] Natasha Alechina, Joseph Y. Halpern, Ian A. Kash, and Brian Logan. Incentivising monitoring in open normative systems. In *29th AAAI Conference on Artificial Intelligence (AAAI)*, 2017.

[20] Ian A. Kash and Rafael M. Frongillo. Optimal auctions with restricted allocations. In *Seventeenth ACM Conference on Economics and Computation (EC)*, 2016.

[21] Yoram Bachrach, Sofia Ceppi, Ian A. Kash, Peter Key, and Mohammad Reza Khani. Mechanism design for mixed ads. In *Proceedings of the 25th International World Wide Web Conference (WWW)*, 2016.

[22] Rafael Frongillo and Ian A. Kash. On elicitation complexity. In *29th Annual Conference on Neural Information Processing Systems (NIPS)*, 2015.

[23] Paolo Costa, Hitesh Ballani, Kaveh Razavi, and Ian A. Kash. R2C2: A network stack for rack-scale computers. In *2015 ACM Conference on Special Interest Group on Data Communication (SIGCOMM)*, pages 551–564, 2015.

[24] Rafael M. Frongillo, Yiling Chen, and Ian A. Kash. Elicitation for aggregation. In *29th AAAI Conference on Artificial Intelligence (AAAI)*, pages 900–906, 2015.

[25] Rafael M. Frongillo and Ian A. Kash. Vector-valued property elicitation. In *28th Conference on Learning Theory (COLT)*, pages 710–727, 2015.

[26] Yair Zick, Yoram Bachrach, Ian A. Kash, and Peter Key. Non-myopic negotiators see what's best. In *24th International Conference on Artificial Intelligence (IJCAI)*, pages 2047–2053, 2015.

[27] Rafael M. Frongillo and Ian A. Kash. General truthfulness characterizations via convex analysis. In *10th Conference on Web and Internet Economics (WINE)*, pages 354–370, 2014.

[28] Yoram Bachrach, Sofia Ceppi, Ian A. Kash, Peter Key, and David Kurokawa. Optimising trade-offs among stakeholders in ad auctions. In *Fifteenth ACM Conference on Economics and Computation (EC)*, pages 75–92, 2014.

[29] Ben Roberts, Dinan Gunawardena, Ian A. Kash, and Peter Key. Ranking and tradeoffs in sponsored search auctions. In *14th ACM Conference on Electronic Commerce (EC)*, pages 751–766, 2013.

[30] Yiling Chen, Stephen Chong, Ian A. Kash, Tal Moran, and Salil Vadhan. Truthful mechanisms for agents that value privacy. In *14th ACM Conference on Electronic Commerce (EC)*, pages 215–232, 2013.

[31] Ian A. Kash, Ariel D. Procaccia, and Nisarg Shah. No agent left behind: Dynamic fair division of multiple resources. In *12th International Conference on Autonomous Agents And Multiagent Systems (AAMAS)*, pages 351–358, 2013.

[32] Yoram Bachrach, Ian Kash, and Nisarg Shah. Agent failures in totally balanced games and convex games. In *Internet and Network Economics - 8th International Workshop (WINE)*, pages 15–29, 2012.

[33] David F. Bacon, David C. Parkes, Yiling Chen, Malvika Rao, Ian Kash, and Manu Sridharan. Predicting your own effort. In *11th International Conference on Autonomous Agents and Multiagent Systems - Volume 2 (AAMAS)*, pages 695–702, 2012. BEST PAPER AWARD.

[34] Ian A. Kash, John K. Lai, Haoqi Zhang, and Aviv Zohar. Economics of BitTorrent communities. In *21st international conference on World Wide Web (WWW)*, pages 221–230, New York, NY, USA, 2012. ACM.

[35] Yiling Chen, Ian A. Kash, Mike Ruberry, and Victor Shnayder. Decision markets with good incentives. In *Internet and Network Economics - 7th International Workshop (WINE)*, pages 72–83, 2011.

[36] Yiling Chen, Xi Alice Gao, Rick Goldstein, and Ian A. Kash. Market manipulation with outside incentives. In *Twenty-Fifth AAAI Conference on Artificial Intelligence (AAAI)*, pages 614–619, 2011.

[37] Yiling Chen and Ian A. Kash. Information elicitation for decision making. In *Tenth International Conference on Autonomous Agents And Multiagent Systems (AAMAS)*, pages 175–182, 2011.

[38] Itai Ashlagi, Felix Fischer, Ian A. Kash, and Ariel Procaccia. Mix and match. In *Eleventh ACM Conference on Electronic Commerce (EC)*, pages 305–314, 2010.

[39] Ian A. Kash, Eric J. Friedman, and Joseph Y. Halpern. Multiagent learning in large anonymous games. In *Eighth International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 765–772, 2009.

[40] Ian A. Kash, Eric J. Friedman, and Joseph Y. Halpern. Optimizing scrip systems: Efficiency, crashes, hoarders and altruists. In *Eighth ACM Conference on Electronic Commerce (EC)*, pages 305–315, 2007.

[41] Eric J. Friedman, Joseph Y. Halpern, and Ian A. Kash. Efficiency and Nash equilibria in a scrip system for P2P networks. In *Seventh ACM Conference on Electronic Commerce (EC)*, pages 140–149, 2006.

[42] Daniel K. Blandford, Guy E. Blelloch, and Ian A. Kash. Compact representations of separable graphs. In *Fourteenth Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 679–688, 2003.

Workshops, Short Papers, Demos, and Other Lightly Reviewed Publications

[43] Ian A. Kash and Katja Hofmann. Combining no-regret and q-learning. In *EWRL*, 2018.

[44] Yuxiang Li, Ian A. Kash, and Katja Hofmann. Learning good policies from suboptimal demonstrations. In *EWRL*, 2018.

[45] Ian A. Kash, Qin Jia, Zhiming Shen, Weijia Song, Robert van Renesse, and Hakim Weatherspoon. Economics of a supercloud. In *Cross Cloud Workshop*, 2016.

[46] Rafael Frongillo, Ian A. Kash, and Stephen Becker. Open problems in property elicitation. In *COLT Open Problems Session*, 2016.

[47] Yoad Lewenberg, Yoram Bachrach, Ian A. Kash, and Peter Key. Using convolutional neural networks to determine properties of mathematical functions from an image of their graph representation (demonstration). In *30th AAAI Conference on Artificial Intelligence (AAAI)*, 2016.

[48] Natasha Alechina, Joseph Y. Halpern, Ian A. Kash, and Brian Logan. Decentralised norm monitoring in open multi-agent systems (extended abstract). In *15th International Conference on Autonomous Agents And Multiagent Systems (AAMAS)*, 2016.

[49] Yoram Bachrach, Sofia Ceppi, Ian A. Kash, Peter Key, and Mohammad Reza Khani. Mechanism design for mixed ads. In *Ad Auctions Workshop*, 2015.

[50] Sofia Ceppi and Ian A. Kash. Personalized payments for storage-as-a-service. In *10th Workshop on the Economics of Networks, Systems, and Computation (NetEcon)*, 2015.

[51] Yoram Bachrach, Sofia Ceppi, Ian A. Kash, Peter Key, Filip Radlinski, Ely Porat, Michael Armstrong, and Vijay Sharma. Building a personalized tourist attraction recommender system using crowdsourcing (demonstration). In *13th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1631–1632, 2014.

[52] Vineet Abhishek, Ian A. Kash, and Peter Key. Fixed and market pricing for cloud services. In *7th Workshop on the Economics of Networks, Systems, and Computation (NetEcon)*, pages 157–162, 2012.

[53] Ian A. Kash, John K. Lai, Haoqi Zhang, and Aviv Zohar. The economy of a BitTorrent community. In *6th Workshop on the Economics of Networks, Systems, and Computation (NetEcon)*, 2011.

[54] Ian A. Kash, Rohan Murty, and David C. Parkes. Enabling spectrum sharing in secondary market auctions. In *6th Workshop on the Economics of Networks, Systems, and Computation (NetEcon)*, 2011.

[55] Ian A. Kash, Michael Mitzenmacher, Justin Thaler, and John Ullman. On the zero-error capacity threshold for deletion channels. In *Information Theory and Applications Workshop (ITA)*, pages 1–5, 2011.

[56] Ian A. Kash and David C. Parkes. Impersonation strategies in auctions. In *Sixth Workshop on Internet and Network Economics (WINE)*, pages 492–495, 2010. Short Paper.

[57] David F. Bacon, Eric Bokelberg, Yiling Chen, Ian A. Kash, David C. Parkes, Malvika Rao, and Manu Sridharan. Software economies. In *Workshop on the Future of Software Engineering Research (FoSER)*, pages 7–12, 2010.

[58] Ian A. Kash, Eric J. Friedman, and Joseph Y. Halpern. Manipulating scrip systems: Sybils and collusion. In *First Conference on Auctions, Market Mechanisms and Their Applications (AMMA)*, 2009.

[59] Ian A. Kash, Eric J. Friedman, and Joseph Y. Halpern. Brief announcement: The lotus-eater attack. In *27th Annual ACM Symposium on Principles of Distributed Computing (PODC)*, page 455, 2008.

[60] Daniel K. Blandford, Guy E. Blelloch, and Ian A. Kash. An experimental analysis of a compact graph representation. In *Sixth Workshop on Algorithm Engineering and Experiments (ALENEX)*, pages 49–61, 2004.

Unpublished Work

[61] Nicole Immorlica, Ian A. Kash, and Brendan Lucier. The evolving value of data. Working Paper.

[62] Ludwig Dierks, Ian A. Kash, and Sven Seuken. Bayesian admission policies for cloud computing clusters. Working Paper.

[63] Ian A. Kash, Peter B. Key, and Spyros I Zoumpoulis. Optimal pricing and introduction timing of new virtual machines. Working Paper.

[64] Joanna Drummond, Ian A. Kash, and Peter B. Key. Airline-style pricing for cloud reservations. Working Paper.

[65] Sina Dehghani, Ian A. Kash, and Peter Key. Online stochastic scheduling and pricing the cloud. Working Paper.

[66] Felix Fischer, Ian A. Kash, Peter Key, and Junxing Wang. Approximately efficient cost sharing via double auctions. Working Paper.

[67] Yoram Bachrach, Sofia Ceppi, Ian A. Kash, Peter Key, Filip Radlinski, and Paolo Serafino. Analysis of auction mechanisms for shared services. Working Paper.

[68] Yoad Lewenberg, Yoram Bachrach, Ian A. Kash, and Peter Key. Using convolutional neural networks to determine properties of mathematical functions from an image of their graph representation. Full Version of AAAI 2016 Demonstration.

[69] Douglas Fearing, Ian A. Kash, and Prateek Srivastava. Managing air traffic disruptions through strategic prioritization. Working Paper.

[70] Sofia Ceppi and Ian A. Kash. Personalized payments for storage-as-a-service. Full version of NetEcon 2015 paper.

[71] Allen Lavoie, Yoram Bachrach, Ian A. Kash, and Peter Key. Influence, utility, and diversity in social recommender systems. Working Paper.

[72] Joel Oren, Yoram Bachrach, Ian A. Kash, and Peter Key. An empirical study of human strategic behavior and learning in all-pay auctions and crowdsourcing contests. Working Paper.

[73] Vineet Abhishek, Ian A. Kash, and Peter Key. Fixed and market pricing for cloud services. Full version of NetEcon 2012 paper.

[74] Ian A. Kash and David C. Parkes. Impersonation strategies in auctions. Full version of WINE 2010 short paper.

[75] Ian A. Kash and Yee Jiun Song. One-step k-set agreement. Retired Paper, 2009.

[76] Ian A. Kash, Eric J. Friedman, and Joseph Y. Halpern. The lotus-eater attack. Full version of PODC 2008 brief announcement. arXiv:0806.1711, 2008.

Postdoc Mentoring
⋄ Sofia Ceppi

2013–2015

First Position: Postdoc at University of Edinburgh

Current Position: Senior Machine Learning Researcher at PROWLER.io

Intern (Co-) Mentoring
⋄ Yuxiang Li

Autumn 2017

Project: Deep Imitation Learning (EWRL18 [44])

⋄ Hooi May Hen

Autumn 2017

Project: Understanding Cloud Users

⋄ Warut Suksompong

Summer 2016

Project: Cloud Pricing (WINE17 [18])

⋄ Joanna Drummond

Summer 2016

Project: Pricing Cloud Reservations

⋄ Shreyas Sekar

Spring 2016

Project: Effective Bandwidth for Cloud Pricing

⋄ Junxing Wang

Summer 2015

Project: Cloud Pricing and Double Auctions

◇ Sina Dehghani

Summer 2015

Project: Online Cloud Pricing

◇ Paolo Serafino

Summer 2015

Project: Location Auctions

◇ Mohammad Reza Khani

Autumn 2014

Project: Mechanism Design for Mixed Ads (WWW16 [21])

◇ Bowei Chen

Summer 2014

Project: Information Revelation in GSP Auctions

◇ Allen Lavoie

Summer 2014

Project: Social Recommender Systems

◇ Yair Zick

Summer 2013

Project: Iterated Fair Division (IJCAI15 [26])

◇ David Kurokawa

Summer 2013

Project: Optimizing Tradeoffs in Ad Auctions (EC14 [28])

◇ Joel Oren

Winter 2013

Project: Behavior in All-Pay Auctions

◇ Rafael Frongillo

Autumn 2012

Project: General Truthfulness Characterizations Via Convex Analysis (WINE14 [27])

◇ Nisarg Shah

Summer 2012

Project: Agent Failures in Totally Balanced Games and Convex Games (WINE12 [32])

◇ Ben Roberts

Winter 2012

Project: Ranking and Tradeoffs in Sponsored Search Auctions (EC13 [29])

◇ Vineet Abhishek

Autumn 2011

Project: Fixed and Market Pricing for Cloud Services (NetEcon12 [52])

Invited Talks ◇ "On Elicitation Complexity." London School of Economics Social and Economic Data Science Seminar October 26, 2017.

⋄ "Optimal Auctions with Restricted Allocations." INFORMS Annual Meeting 2016 Invited Cluster on Auctions. November 14, 2016

⋄ "Cloud Pricing." University of Zurich Department of Informatics Computation and Economics Research Group Seminar. June 06, 2016

⋄ "Ranking and Optimal Tradeoffs in Ad Auctions." University of Toronto CS Department AI, Theory, Economics Seminar. November 04, 2015

⋄ "Mechanism Design for Mixed Ads." INFORMS Annual Meeting 2015 Invited Cluster on Auctions. November 03, 2015

⋄ "General Truthfulness Characterizations Via Convex Analysis." INFORMS Annual Meeting 2015 Invited Cluster on Auctions. November 03, 2015

⋄ "Elicitation for Aggregation." Cambridge University Statistical Laboratory Optimization and Incentives Seminar. November 11, 2014.

⋄ "Proper Scores for Property Elicitation." Microsoft Research Workshop on Games, Learning and Markets 2014 June 20, 2014

⋄ "General Truthfulness Characterizations Via Convex Analysis." Workshop on Propriety and Elicitability at Heidelberg Institute for Theoretical Studies June 18, 2014

⋄ "General Truthfulness Characterizations Via Convex Analysis." 2nd Southampton Winter Workshop in Economic Theory. January 21, 2014.

⋄ "Ranking and Tradeoffs in Sponsored Search Auctions." INFORMS Annual Meeting 2013 Invited Cluster on Auctions. October 7, 2013.

⋄ "General Truthfulness Characterizations Via Convex Analysis." Microsoft Research Workshop on Games, Networks and Markets 2012 June 07, 2013

⋄ "General Truthfulness Characterizations Via Convex Analysis." University of Southampton Agents, Interaction, and Complexity Seminar. May 21, 2013.

⋄ "Dynamic Fair Division of Multiple Resources." COST Action IC1205 on Computational Social Choice: Oxford Meeting. April 15, 2013.

⋄ "General Truthfulness Characterizations Via Convex Analysis." Cambridge University Statistical Laboratory Optimization and Incentives Seminar. November 26, 2012.

⋄ "Managing Air Traffic Disruptions Through Strategic Prioritization." INFORMS Annual Meeting 2012 Invited Cluster on Auctions. October 15, 2012.

⋄ "Fixed and Market Pricing for Cloud Services." INFORMS Annual Meeting 2012 Invited Cluster on Auctions. October 15, 2012.

⋄ "Managing Air Traffic Disruptions Through Strategic Prioritization." Microsoft Research Workshop on Games, Networks and Markets 2012 June 28, 2012

⋄ "Motivating Richer Models of Sponsored Search." Invited talk at Ad Auctions Workshop 2012 at EC 2012. June 8, 2012.

⋄ "Economics of BitTorrent Communities." Cambridge University Computing Laboratory Systems Research Group Seminar. May 24, 2012

⋄ "Managing Air Traffic Disruptions Through Strategic Prioritization." Cambridge University Statistical Laboratory Optimization and Incentives Seminar. May 21, 2012

⋄ "Economics of BitTorrent Communities." Duke University CS. November 17, 2011

⋄ "Enabling Spectrum Sharing in Secondary Market Auctions." INFORMS Annual Meeting 2011 Invited Cluster on Auctions. November 13, 2011.

⋄ "Algorithmic Market Design: Spectrum Sales and BitTorrent Communities." Microsoft Research Cambridge. April 26, 2011.

⋄ "Algorithmic Market Design: Spectrum Sales and Hiding Hospitals." Columbia Business School Decision, Risk, and Operations Division. February 17, 2011.

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⋄ "Algorithmic Market Design: Spectrum Sales and Hiding Hospitals." Boston University CS Colloquium. December 1, 2010.

⋄ "Enabling Spectrum Sharing in Secondary Market Auctions." Boston College. Seminar co-sponsored by CS and economics departments. October 25, 2010.

⋄ "Impersonation Strategies in Auctions." Rensselaer Polytechnic Institute CS Theory Seminar. October 6, 2010.

⋄ "Impersonation Strategies in Auctions." Brown University CS Theory Seminar. September 27, 2010.

⋄ "Enabling Spectrum Sharing in Secondary Market Auctions." Harvard Business School Market Design Workshop. May 14, 2010.

⋄ "Algorithmic Market Design: Currency Crashes, Spectrum Sales, and Lying Hospitals." University of Rochester CS Colloquium. April 5, 2010.

⋄ "Robustness and Optimization of Scrip Systems." China Theory Week. September 23, 2009.

⋄ "Optimizing Scrip Systems: Efficiency, Crashes, Altruists, and Learning." Carnegie Mellon University. March 18, 2009.

⋄ "Optimizing Scrip Systems: Efficiency, Crashes, Altruists, and Learning." Northwestern University. March 4, 2009.

⋄ "Optimizing Scrip Systems: Efficiency, Crashes, Hoarders, and Altruists." Harvard University EconCS Seminar. November 20, 2007.