

RUPERT FREEMAN

Microsoft Research, New York City

(916) 260-1914 ◊ rupert.freeman@microsoft.com ◊ <http://www.cs.duke.edu/~rupert>

APPOINTMENTS

Postdoctoral Researcher 2018-2020
Microsoft Research, NYC
Algorithmic Economics Group

EDUCATION

Ph.D. student in Computer Science 2013-2018
Duke University
Advisor: Vincent Conitzer

Bachelor of Science (First Class Honours) in Mathematics 2009-2012
University of Auckland, New Zealand

RESEARCH INTERNSHIPS AND VISITS

Microsoft Research, NYC Summer 2016, 2017
Research Intern

Simons Institute for the Theory of Computing Fall 2015
Visiting student as part of the program on Economics and Computation

FELLOWSHIPS AND AWARDS

Duke Computer Science Department Outstanding Dissertation Award 2018
Facebook Fellowship 2017-2019
IBM Ph.D. Fellowship (Declined in order to accept Facebook award) 2017-2018
Duke Computer Science Department Outstanding Preliminary Exam Award 2016
Duke Computer Science Department Outstanding Teaching Assistant Award 2014

JOURNAL PUBLICATIONS

Haris Aziz, Markus Brill, Vincent Conitzer, Edith Elkind, Rupert Freeman, and Toby Walsh. *Justified Representation in Approval-Based Committee Voting*. In *Social Choice and Welfare*. (Supersedes the AAAI-15 paper below)

CONFERENCE PUBLICATIONS

Rupert Freeman, David Pennock, and Jennifer Wortman Vaughan. *An Equivalence Between Wagering and Fair-Division Mechanisms*. In *Proceedings of the Thirty-Third AAAI Conference on Artificial Intelligence (AAAI-19)*, Honolulu, Hawaii, USA, 2019.

Vincent Conitzer, Rupert Freeman, Nisarg Shah, and Jennifer Wortman Vaughan. *Group Fairness for the Allocation of Indivisible Goods*. In *Proceedings of the Thirty-Third AAAI Conference on Artificial Intelligence (AAAI-19)*, Honolulu, Hawaii, USA, 2019.

Rupert Freeman and David Pennock. *An Axiomatic View of the Parimutuel Consensus Wagering Mechanism*. In *Proceedings of the Twenty-Seventh International Joint Conference on Artificial Intelligence (IJCAI-18)*, Stockholm, Sweden, 2018.

Rupert Freeman*, Seyed Majid Zahedi*, Vincent Conitzer, and Benjamin Lee (* Equal Contribution). *Dynamic Proportional Sharing: A Game-Theoretic Approach*. In Proceedings of the ACM SIGMETRICS International Conference on Measurement and Modeling of Computer Systems, Irvine, California, USA, 2018.

Jens Witkowski, Rupert Freeman, Jennifer Wortman Vaughan, David Pennock, and Andreas Krause. *Incentive-Compatible Forecasting Competitions*. In Proceedings of the Thirty-Second AAAI Conference on Artificial Intelligence (AAAI-18), New Orleans, Louisiana, USA, 2018.

Rupert Freeman, Seyed Majid Zahedi, and Vincent Conitzer. *Fair Social Choice in Dynamic Settings*. In Proceedings of the Twenty-Sixth International Joint Conference on Artificial Intelligence (IJCAI-17), Melbourne, Australia, 2017.

Vincent Conitzer, Rupert Freeman, and Nisarg Shah. *Fair Public Decision Making*. In Proceedings of the 18th ACM Conference on Economics and Computation (EC-17), Cambridge, Massachusetts, USA, 2017.

Rupert Freeman, David Pennock, and Jennifer Wortman Vaughan. *The Double Clinching Auction for Wagering*. In Proceedings of the 18th ACM Conference on Economics and Computation (EC-17), Cambridge, Massachusetts, USA, 2017.

Rupert Freeman, Sébastien Lahaie, and David Pennock. *Crowdsourced Outcome Determination in Prediction Markets*. In Proceedings of the Thirty-First AAAI Conference on Artificial Intelligence (AAAI-17), San Francisco, California, USA, 2017.

Markus Brill, Rupert Freeman, Svante Janson, and Martin Lackner. *Phragmén's Voting Methods and Justified Representation*. In Proceedings of the Thirty-First AAAI Conference on Artificial Intelligence (AAAI-17), San Francisco, California, USA, 2017.

Rupert Freeman, Sam Haney, and Debmalya Panigrahi. *On the Price of Stability of Undirected Multicast Games*. In Proceedings of the Twelfth Conference on Web and Internet Economics (WINE-16), Montreal, Canada, 2016.

Haifeng Xu, Rupert Freeman, Vincent Conitzer, Shaddin Dughmi, and Milind Tambe. *Signaling in Bayesian Stackelberg Games*. In Proceedings of the Fifteenth International Joint Conference on Autonomous Agents and Multi Agent Systems (AAMAS-16), Singapore, 2016.

Markus Brill, Vincent Conitzer, Rupert Freeman, and Nisarg Shah. *False-Name-Proof Recommendations in Social Networks*. In Proceedings of the Fifteenth International Joint Conference on Autonomous Agents and Multi Agent Systems (AAMAS-16), Singapore, 2016.

Vincent Conitzer, Rupert Freeman, Markus Brill, and Yuqian Li. *Rules for Choosing Societal Tradeoffs*. In Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence (AAAI-16), Phoenix, Arizona, 2016.

Markus Brill, Rupert Freeman, and Vincent Conitzer. *Computing Possible and Necessary Equilibrium Actions (and Bipartisan Set Winners)*. In Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence (AAAI-16), Phoenix, Arizona, 2016.

Rupert Freeman, Markus Brill, and Vincent Conitzer. *General Tiebreaking Schemes for Computational Social Choice*. In Proceedings of the Fourteenth International Joint Conference on Autonomous Agents and Multi Agent Systems (AAMAS-15), Istanbul, Turkey, 2015.

Vincent Conitzer, Markus Brill, and Rupert Freeman. *Crowdsourcing Societal Tradeoffs*. In Proceedings of the Fourteenth International Joint Conference on Autonomous Agents and Multi Agent Systems (AAMAS-15) Blue Sky Ideas Track, Istanbul, Turkey, 2015.

Haris Aziz, Markus Brill, Vincent Conitzer, Edith Elkind, Rupert Freeman, and Toby Walsh. *Justified Representation in Approval-Based Committee Voting*. In Proceedings of the Twenty-Ninth AAAI

Conference on Artificial Intelligence (AAAI-15), Austin, Texas, 2015.

Rupert Freeman, Markus Brill, and Vincent Conitzer. *On the Axiomatic Characterization of Runoff Voting Rules*. In Proceedings of the Twenty-Eighth AAAI Conference on Artificial Intelligence (AAAI-14), Quebec City, Canada, 2014.

INVITED TALKS

<i>Wagering Mechanisms: From Forecaster Selection to Fair Division</i> Rensselaer Polytechnic Institute, CS Colloquium	October 2018
<i>An Equivalence Between Wagering and Fair-Division Mechanisms</i> Harvard University, EconCS Seminar	September 2018
<i>Algorithmic Shared Ownership</i> Illinois Institute of Technology, CS Colloquium	February 2018
UC Santa Barbara, CS Colloquium	January 2018
Microsoft Research NYC	January 2018

TEACHING

Duke University Teaching Assistant: Crowdsourcing Societal Tradeoffs	Spring 2015
Duke University Teaching Assistant: Discrete Mathematics for Computer Science	Spring, Fall 2014

SERVICE

Program Committee for IJCAI-18 (two-star distinguished reviewer, among top 2%), AAAI-18, AISTATS-18
Program Committee for AI³ workshop 2018
Program Committee for EXPLORE Workshop 2015, 2016, 2017
Conference Reviewer for AAAI-14, AAAI-15, SAGT-15, ADT-15, COMSOC-16, SODA-17, WINE-17, EC-17, MFCS-17, SAGT-17, SODA-18, AIES-19
Journal Reviewer for Social Choice and Welfare (2014), Journal of Artificial Intelligence Research (2016, 2018), Artificial Intelligence Journal (2017), Discrete Optimization (2018)
Duke Computer Science Graduate Student Faculty Liaison 2017-2018
Organizer of Duke Computer Science Graduate Student Retreat Weekend 2016