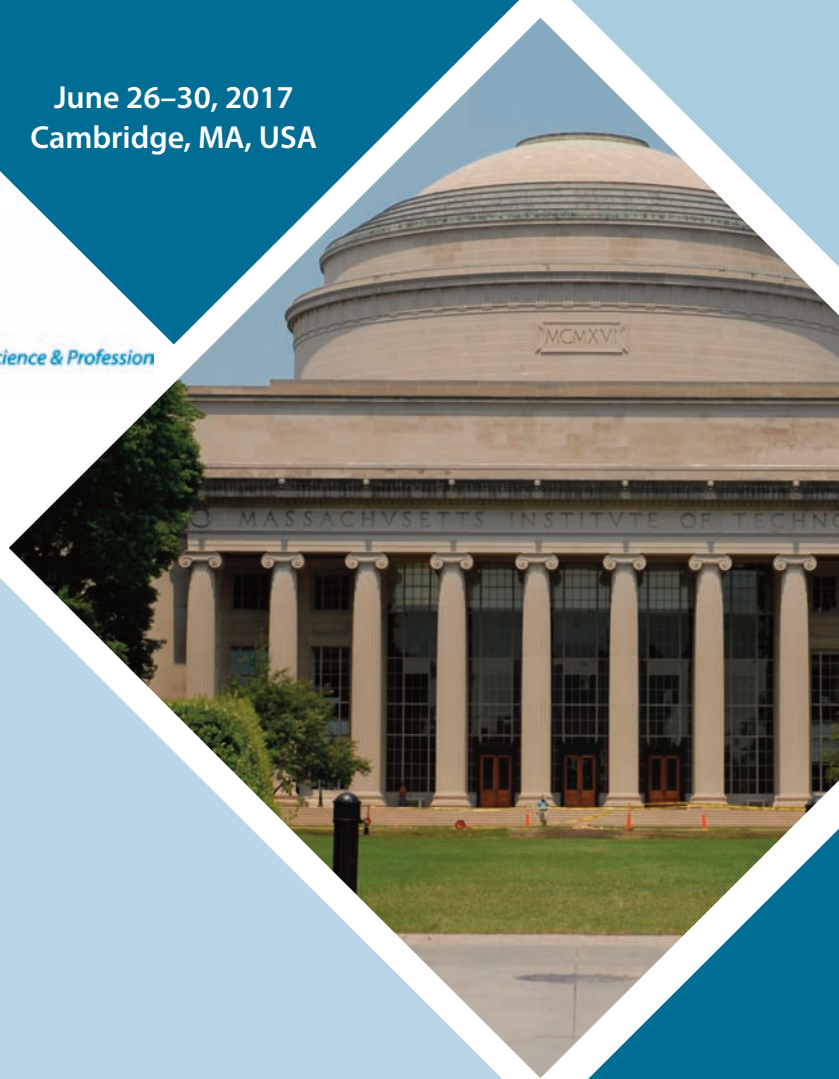


June 26–30, 2017
Cambridge, MA, USA



Association for
Computing Machinery

Advancing Computing as a Science & Profession



EC'17

Proceedings of the 2017 ACM Conference on
Economics and Computation

Sponsored by:

ACM SIGecom

Supported by:

Facebook, Google, Microsoft, MIT, and MIT CSAIL



Association for
Computing Machinery

Advancing Computing as a Science & Profession

**The Association for Computing
Machinery**
2 Penn Plaza, Suite 701
New York, New York 10121-0701

Copyright © 2017 by the Association for Computing Machinery, Inc. (ACM). Permission to make digital or hard copies of portions of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyright for components of this work owned by others than ACM must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permission to republish from: permissions@acm.org or Fax +1 (212) 869-0481

For other copying of articles that carry a code at the bottom of the first or last page, copying is permitted provided that the per-copy fee indicated in the code is paid through www.copyright.com.

ISBN: 978-1-4503-4527-9

Additional copies may be ordered prepaid from:

ACM Order Department

PO Box 30777

New York, NY 10087-0777, USA

Phone: 1-800-342-6626 (USA and Canada)

+1-212-626-0500 (Global)

Fax: +1-212-944-1318

E-mail: acmhelp@acm.org

Hours of Operation: 8:30 am – 4:30 pm ET

Printed in the USA.

EC 2017 Foreword

The papers in these Proceedings were presented at the Eighteenth ACM Conference on Economics and Computation (EC'17), held between June 26 and 30, 2017, at MIT in Cambridge, Massachusetts, USA. Since 1999 the ACM Special Interest Group on Electronic Commerce (SIGecom) has sponsored EC, the leading scientific conference on advances in theory, systems, and applications at the interface of economics and computation, including applications to electronic commerce.

The program committee has selected 75 papers from among 257 submissions that were received by February 13, 2017. Paper submissions were invited in the following three non-exclusive focus areas:

- TF: Theory and Foundations
- AI: Artificial Intelligence and Applied Game Theory
- EEA: Experimental, Empirical, and Applications

The call for papers attracted 257 distinct submissions. Each paper was reviewed by at least three program committee members and two senior program committee members on the basis of significance, scientific novelty, technical quality, readability, and relevance to the conference. Following the tradition of recent iterations of the conference, the authors were asked to align their submission with one or two of the tracks. The next table summarizes the number of submissions and the number of accepted papers for each possible combination of tracks.

Tracks	Submissions	Accepted
TF	161	52
AI	34	9
TF+AI	26	7
EEA	18	4
TF+EEA	15	2
AI+EEA	3	1
Total	257	75

Out of the 75 accepted papers, 35 papers are published in these Proceedings. For the remaining 40 papers, at the authors' request, only abstracts are included along with pointers to full working papers that the authors guarantee to be reliable for at least two years. This option accommodates the practices of fields outside of computer science in which conference publishing can preclude journal publishing. We expect that many of the papers in these Proceedings will appear in a more polished and complete form in scientific journals in the future.

Papers were presented in two parallel sessions, with the exception of a plenary session with talks for the following award-winners:

- *SIGecom Best Paper Award: Combinatorial Cost Sharing*, by Shahar Dobzinski and Shahar Ovadia
- *SIGecom Doctoral Dissertation Award*, by Peng Shi

A separate *SIGecom Best Paper with a Student Lead Author Award* was not given as the *SIGecom Best Paper Award* was given to a paper that has a student lead author.

To emphasize commonalities among the problems studied at EC, and to facilitate interchange at the conference, sessions were organized by topic rather than by focus area, and no indication of a paper's focus area(s) was given at the conference or appears in these proceedings.

EC'17 featured the following invited plenary talks:

- *Graphons: A Nonparametric Method to Model, Estimate, and Design Algorithms for Massive Networks*, by Jennifer Chayes (Microsoft Research)
- *Fair Algorithms for Machine Learning*, by Michael Kearns (University of Pennsylvania)
- *ACM SIGecom Test of Time Award: Truth Revelation in Approximately Efficient Combinatorial Auctions*, by Daniel Lehmann, Liadan Ita O'Callaghan and Yoav Shoham (ACM EC 1999, Journal of the ACM 2002)

In addition to the main technical program, EC'17 also featured four workshops:

- *The 3rd Workshop on Algorithmic Game Theory and Data Science*. Organizers: Jean Honorio, Denis Nekipelov, Renato Paes Leme, Yaron Singer, Vasilis Syrgkanis, and Elie Tamer
- *Workshop on Mechanism Design for Social Good*. Organizers: Rediet Abebe and Kira Goldner
- *The 12th Workshop on the Economics of Networks, Systems and Computation (NetEcon)*. PC Chairs: Vincent Conitzer and Roche Guerin
- *Forecasting Workshop*. Organizers: Rafael Frongillo, David Rothschild, and Bo Waggoner

five tutorials:

- *Advances in Game Theory for Security and Privacy*, presented by Bo An, Fei Fang, and Yevgeniy Vorobeychik
- *An information Theoretical View of Information Elicitation Mechanisms*, presented by Yuqing Kong and Grant Schoenebeck
- *Bargaining, Trading, and Coordination in Networks: Theory and Challenges*, presented by Benjamin Golub
- *Incentivizing and Coordinating Exploration*, presented by Robert Kleinberg and Aleksandrs Slivkins
- *Pricing in Combinatorial Markets: Equilibria and Prophet Inequalities*, presented by Michal Feldman and Brendan Lucier

as well as a poster session in which 30 posters were presented.

We thank the Workshop Chairs, Shuchi Chawla and Jenn Wortman Vaughan, and Tutorial Chairs, Edith Elkind and Katrina Ligett, for putting together the workshop and tutorial programs. We also thank the Posters Session Chair Yannai Gonczarowski for organizing the poster session.

We hope that you find this conference program interesting and thought provoking and that the conference provides you with a valuable opportunity to share ideas with other researchers from institutions around the world.

We are very grateful to the SIGecom chair Kevin Leyton-Brown, for all his help in organizing the conference. We thank Brendan Lucier for serving as the Local Arrangements Chair and the Treasurer of the conference. We thank Rebecca Yadegar for providing administrative support. We thank Anne-Marie King for the conference website maintenance. We are grateful to Thomas Preuss and David Shield for their constant support with the confmaster software and the review process. We thank Simina Brânzei for her help with the review system testing and Yannai Gonczarowski for his extensive help with the review process automation. We thank Lisa Tolles for her professional work in the production of the conference proceedings. We are very grateful to MIT and CSAIL for hosting the conference and to Microsoft for hosting the conference dinner. We are also very grateful to our sponsors: Facebook, Google, Microsoft Research, and SIGecom.

We owe big thanks to a large number of members of the community (listed on a separate page) who assisted the committee in assessing the merits of the submissions. Last, but not least, we wish to thank the Program Committee and the Senior Program Committee members for their wisdom and devotion and for their hard work throughout the process.

Moshe Babaioff

EC'17 Program Chair

Microsoft Research, Israel

Hervé Moulin

EC'17 Program Chair

University of Glasgow, UK

Constantinos Daskalakis

EC'17 General Chair

MIT, USA

Table of Contents

EC 2017 Conference Organization	xiii
--	------

EC 2017 Sponsor & Supporters	xxi
---	-----

Session Plenary Session

• Fair Algorithms for Machine Learning	1
Michael Kearns (<i>University of Pennsylvania</i>)	

Session 1a: Static Revenue Maximization 1

• Dominant-Strategy versus Bayesian Multi-item Auctions: Maximum Revenue Determination and Comparison	3
Andrew Chi-Chih Yao (<i>Tsinghua University</i>)	
• Deferred-Acceptance Auctions for Multiple Levels of Service	21
Vasilis Gkatzelis (<i>Drexel University</i>), Evangelos Markakis (<i>Athens University of Economics and Business</i>), Tim Roughgarden (<i>Stanford University</i>)	
• The Optimal Mechanism for Selling to a Budget Constrained Buyer: The General Case	39
Nikhil R. Devanur (<i>Microsoft Research</i>), S. Matthew Weinberg (<i>Princeton</i>)	
• Optimal Multi-Unit Mechanisms with Private Demands	41
Nikhil R. Devanur (<i>Microsoft Research</i>), Nima Haghpahan (<i>Penn State University</i>), Christos-Alexandros Psomas (<i>University of California, Berkeley</i>)	

Session 1b: Peer Predictions

• The Double Clinching Auction for Wagering	43
Rupert Freeman (<i>Duke University</i>), David M. Pennock, Jennifer Wortman Vaughan (<i>Microsoft Research</i>)	
• Forecast Aggregation	61
Itai Arieli, Yakov Babichenko, Rann Smorodinsky (<i>Technion</i>)	
• Machine-Learning Aided Peer Prediction	63
Yang Liu, Yiling Chen (<i>Harvard University</i>)	
• Peer Prediction with Heterogeneous Users	81
Arpit Agarwal (<i>University of Pennsylvania</i>), Debmalya Mandal, David C. Parkes, Nisarg Shah (<i>Harvard University</i>)	

Session 2a: Matching 1

• The Stochastic Matching Problem: Beating Half with a Non-Adaptive Algorithm	99
Sepehr Assadi, Sanjeev Khanna, Yang Li (<i>University of Pennsylvania</i>)	
• Facilitating the Search for Partners on Matching Platforms: Restricting Agent Actions	117
Yash Kanoria (<i>Columbia Business School</i>), Daniela Saban (<i>Stanford Graduate School of Business</i>)	

- **Matching while Learning** 119
Ramesh Johari, Vijay Kamble (*Stanford University*),
Yash Kanoria (*Columbia University*)
- **Redesigning the Israeli Psychology Master's Match** 121
Avinatan Hassidim (*Bar-Ilan University*), Assaf Romm (*Hebrew University of Jerusalem*),
Ran I. Shorrer (*Penn State University*)

Session 2b: Predictions and Queries

- **A "Quantal Regret" Method for Structural Econometrics in Repeated Games** 123
Noam Nisan (*Hebrew University & Microsoft Research*), Gali Noti (*Hebrew University*)
- **The Theory is Predictive, but is it Complete? An Application to Human Perception of Randomness** 125
Jon Kleinberg (*Cornell University*), Annie Liang (*Microsoft Research*),
Sendhil Mullainathan (*Harvard University*)
- **Comparison-based Choices** 127
Jon Kleinberg (*Cornell University*), Sendhil Mullainathan (*Harvard University*),
Johan Ugander (*Stanford University*)
- **Combinatorial Auctions Do Need Modest Interaction** 145
Sepehr Assadi (*University of Pennsylvania*)

Session 3a: Dynamic Revenue Maximization 1

- **The Scope of Sequential Screening with Ex Post Participation Constraints** 163
Dirk Bergemann (*Yale University*), Francisco Castro (*Columbia University*),
Gabriel Weintraub (*Stanford University & AppNexus*),
- **Dynamic Mechanisms with Martingale Utilities** 165
Santiago Balseiro (*Duke University*), Vahab Mirrokni, Renato Paes Leme (*Google Research*)
- **Repeated Sales with Multiple Strategic Buyers** 167
Nicole Immorlica, Brendan Lucier (*Microsoft Research*),
Emmanouil Pountourakis (*University of Texas, Austin*),
Samuel Taggart (*Northwestern University*)
- **Posted Price Mechanisms for a Random Stream of Customers** 169
José Correa, Patricio Foncea, Ruben Hoeksma (*Universidad de Chile*),
Tim Oosterwijk, Tjark Vredevelde (*Maastricht University*)

Session 3b: Economic Equilibrium

- **Accounting for Strategic Response in an Agent-Based Model of Financial Regulation** 187
Frank Cheng, Michael P. Wellman (*University of Michigan*)
- **Empirical Mechanism Design for Optimizing Clearing Interval in Frequent Call Markets** 205
Erik Brinkman, Michael P. Wellman (*University of Michigan*)
- **Potential Function Minimizers of Combinatorial Congestion Games: Efficiency and Computation** 223
Pieter Kleer (*CWI*), Guido Schäfer (*CWI & Vrije Universiteit Amsterdam*),
- **Surge Pricing Solves the Wild Goose Chase** 241
Juan Camilo Castillo (*Stanford University*), Dan Knoepfle (*Uber Technologies*),
Glen Weyl (*Microsoft Research & Yale University*)

Session 4a: Matching 2

- **Stable Secretaries** 243
Yakov Babichenko, Yuval Emek (*Technion*),
Michal Feldman, Boaz Patt-Shamir (*Tel Aviv University*),
Ron Peretz (*Bar-Ilan University*), Rann Smorodinsky (*Technion*),
- **Computing Equilibrium in Matching Markets** 245
Saeed Alaei (*Google*), Pooya Jalaly Khalilabadi, Eva Tardos (*Cornell University*)
- **Communication Requirements and Informative Signaling
in Matching Markets** 263
Itai Ashlagi (*Stanford University*), Mark Braverman (*Princeton University*),
Yash Kanoria (*Columbia University*), Peng Shi (*Microsoft Research*)
- **Complementary Inputs and the Existence of Stable Outcomes
in Large Trading Networks** 265
Ravi Jagadeesan (*Harvard University*)

Session 4b: Voting

- **Making Right Decisions Based on Wrong Opinions** 267
Gerdus Benade, Anson Kahng, Ariel D. Procaccia (*Carnegie Mellon University*)
- **Voting in the Limelight** 285
Ronen Gradwohl (*Northwestern University*)
- **Metric Distortion of Social Choice Rules: Lower Bounds and Fairness
Properties** 287
Ashish Goel, Anilesh K. Krishnaswamy (*Stanford University*),
Kamesh Munagala (*Duke University*)
- **Of the People: Voting Is More Effective with Representative Candidates** 305
Yu Cheng, Shaddin Dughmi, David Kempe (*University of Southern California*)

Session 5a: Static Revenue Maximization 2

- **A Simple and Approximately Optimal Mechanism for a Buyer
with Complements** 323
Alon Eden, Michal Feldman, Ophir Friedler (*Tel-Aviv University*),
Inbal Talgam-Cohen (*Hebrew University*), S. Matthew Weinberg (*Princeton University*),
- **Price Doubling and Item Halving: Robust Revenue Guarantees
for Item Pricing** 325
Elliot Anshelevich, Shreyas Sekar (*Rensselaer Polytechnic Institute*)
- **The Competition Complexity of Auctions: A Bulow-Klemperer
Result for Multi-Dimensional Bidders** 343
Alon Eden, Michal Feldman, Ophir Friedler (*Tel-Aviv University*),
Inbal Talgam-Cohen (*Hebrew University*), S. Matthew Weinberg (*Princeton University*)
- **Assortment Optimisation under a General Discrete Choice Model:
A Tight Analysis of Revenue-Ordered Assortments** 345
Gerardo Berbeglia (*Melbourne Business School, The University of Melbourne*),
Gwenaël Joret (*Université Libre de Bruxelles*)

Session 5b: Information Games

- **Optimal Signaling Mechanisms in Unobservable Queues
with Strategic Customers** 347
David Lingenbrink, Krishnamurthy Iyer (*Cornell University*)

• Information Sharing and Privacy in Networks	349
Ronen Gradwohl (<i>Northwestern University</i>)	
• Algorithmic Persuasion with No Externalities	351
Shaddin Dughmi, Haifeng Xu (<i>University of Southern California</i>),	
• Fairness Incentives for Myopic Agents	369
Sampath Kannan, Michael Kearns, Jamie Morgenstern (<i>University of Pennsylvania</i>),	
Malleesh Pai (<i>Rice University</i>),	
Aaron Roth, Rakesh Vohra, Zhiwei Steven Wu (<i>University of Pennsylvania</i>)	

Session Best Paper and Best Dissertation Presentations

• Combinatorial Cost Sharing	387
Shahar Dobzinski, Shahar Ovadia (<i>Weizmann Institute of Science</i>)	

Session 6a: Scheduling

• Makespan Minimization via Posted Prices	405
Michal Feldman, Amos Fiat (<i>Tel Aviv University</i>), Alan Roytman (<i>University of Copenhagen</i>)	
• Truth and Regret in Online Scheduling	423
Shuchi Chawla (<i>University of Wisconsin - Madison</i>),	
Nikhil Devanur, Janardhan Kulkarni (<i>Microsoft Research</i>), Rad Niazadeh (<i>Cornell University</i>)	
• Cost-Sharing Methods for Scheduling Games under Uncertainty	441
Giorgos Christodoulou (<i>University of Liverpool</i>), Vasilis Gkatzelis (<i>Drexel University</i>),	
Alkmini Sgouritsa (<i>University of Liverpool</i>)	

Session 6b: Fair Division 1

• Convex Program Duality, Fisher Markets, and Nash Social Welfare	459
Richard Cole (<i>New York University</i>), Nikhil Devanur (<i>Microsoft Research</i>),	
Vasilis Gkatzelis (<i>Drexel University</i>), Kamal Jain (<i>Faira</i>),	
Tung Mai, Vijay V. Vazirani, Sadra Yazdanbod (<i>Georgia Institute of Technology</i>)	
• Controlled Dynamic Fair Division	461
Eric Friedman (<i>ICSI & University of California, Berkeley</i>),	
Christos-Alexandros Psomas (<i>University of California, Berkeley</i>),	
Shai Vardi (<i>California Institute of Technology</i>)	
• A Lower Bound for Equitable Cake Cutting	479
Ariel D. Procaccia <i>Microsoft Research</i> Junxing Wang (<i>Carnegie Mellon University</i>)	

Session 7a: Dynamic Revenue Maximization 2

• Online Auctions and Multi-scale Online Learning	497
Sebastien Bubeck, Nikhil R. Devanur (<i>Microsoft Research</i>),	
Zhiyi Huang (<i>The University of Hong Kong</i>), Rad Niazadeh (<i>Cornell University</i>)	
• Joint Pricing and Inventory Management with Strategic Customers	515
Yiwei Chen (<i>Singapore University of Technology and Design</i>), Cong Shi (<i>University of Michigan</i>)	
• Pricing and Optimization in Shared Vehicle Systems:	
An Approximation Framework	517
Siddhartha Banerjee, Daniel Freund, Thodoris Lykouris (<i>Cornell University</i>)	
• Multidimensional Dynamic Pricing for Welfare Maximization	519
Aaron Roth (<i>University of Pennsylvania</i>), Aleksandrs Slivkins (<i>Microsoft Research</i>),	
Jonathan Ullman (<i>Northeastern University</i>), Zhiwei Steven Wu (<i>University of Pennsylvania</i>)	

Session 7b: Experiments

- **The Tragedy of your Upstairs Neighbors: Is the Negative Externality of Airbnb Internalized?**537
Apostolos Filippas *Microsoft Research* John Joseph Horton
(*New York University, Stern School of Business*)
- **Interacting User Generated Content Technologies: How Q&As Affect Ratings & Reviews**539
Shrabastee Banerjee, Chrysanthos Dellarocas, Georgios Zervas
(*Questrom School of Business, Boston University*)
- **Learning in the Repeated Secretary Problem**541
Daniel G. Goldstein (*Microsoft Research*), R. Preston McAfee (*Microsoft Corporation*),
Siddharth Suri, James R. Wright (*Microsoft Research*)
- **Diffusion in Networks and the Unexpected Virtue of Burstiness**543
Mohammad Akbarpour, Matthew Jackson (*Stanford University*)

Session 8a: Mechanism Design – General

- **Truthful Allocation Mechanisms Without Payments: Characterization and Implications on Fairness**545
Georgios Amanatidis, Georgios Birmpas (*Athens University of Economics and Business*),
George Christodoulou (*University of Liverpool*),
Evangelos Markakis (*Athens University of Economics and Business*)
- **From Monetary to Non-Monetary Mechanism Design via Artificial Currencies**563
Artur Gorokh, Siddhartha Banerjee, Krishnamurthy Iyer (*Cornell University*)
- **Gibbard-Satterthwaite Success Stories and Obvious Strategyproofness**565
Sophie Bade (*Royal Holloway, University of London & Max Planck Institute for Research
on Collective Goods, Bonn*),
Yannai A. Gonczarowski (*The Hebrew University of Jerusalem & Microsoft Research*)

Session 8b: Decision Making and Learning

- **Planning with Multiple Biases**567
Jon Kleinberg (*Cornell University*), Sigal Oren (*Ben-Gurion University of the Negev*),
Manish Raghavan (*Cornell University*)
- **Multidimensional Binary Search for Contextual Decision-Making**585
Ilan Lobel (*New York University*), Renato Paes Leme (*Google Research NY*),
Adrian Vladu (*Massachusetts Institute of Technology*)
- **Bifurcation Mechanism Design - from Optimal Flat Taxes to Improved Cancer Treatments**587
Ger Yang (*University of Texas at Austin*),
Georgios Piliouras (*Singapore University of Technology and Design*),
David Basanta (*H. Lee Moffitt Cancer Center and Research Institute*)

Session 9a: Auctions – Equilibrium

- **Approximating Gains from Trade in Two-sided Markets via Simple Mechanisms**589
Johannes Brustle, Yang Cai (*McGill University*),
Fa Wu (*McGill University and Zhejiang University*), Mingfei Zhao (*McGill University*)

- **Approximately Efficient Two-Sided Combinatorial Auctions** 591
Riccardo Colini-Baldeschi (*LUISS*), Paul W. Goldberg (*University of Oxford*),
Bart de Keijzer (*Centrum Wiskunde & Informatica (CWI)*),
Stefano Leonardi (*Sapienza University of Rome*),
Tim Roughgarden (*Stanford University*),
Stefano Turchetta (*KPMG Italy and University of Oxford*)
- **Learning in Repeated Auctions with Budgets:
Regret Minimization and Equilibrium** 609
Santiago R. Balseiro (*Duke University*), Yonatan Gur (*Stanford University*)

Session 9b: Fair Division 2

- **Nash Social Welfare Approximation for Strategic Agents** 611
Simina Branzei (*Hebrew University of Jerusalem*), Vasilis Gkatzelis (*Drexel University*),
Ruta Mehta (*University of Illinois at Urbana-Champaign*)
- **Fair Public Decision Making** 629
Vincent Conitzer, Rupert Freeman (*Duke University*), Nisarg Shah (*Harvard University*)
- **Approximation Algorithms for Maximin Fair Division** 647
Siddharth Barman (*Indian Institute of Science*),
Sanath Kumar Krishna Murthy (*Chennai Mathematical Institute*)

Plenary Session

- **Graphons: A Nonparametric Method to Model, Estimate,
and Design Algorithms for Massive Networks** 665
Christian Borgs, Jennifer Chayes (*Microsoft Research*)

Session 10a: Matching 3

- **Stability, Strategy-Proofness, and Cumulative Offer Mechanisms** 673
John William Hatfield (*University of Texas at Austin*),
Scott Duke Kominers (*Harvard University*),
Alexander Westkamp (*University of Cologne*),
- **Stable Matching with Proportionality Constraints** 675
Thanh Nguyen (*Purdue University*), Rakesh Vohra (*University of Pennsylvania*)
- **Making it Safe to Use Centralized Markets: Epsilon-Dominant
Individual Rationality and Applications to Market Design** 677
Benjamin N. Roth (*Massachusetts Institute of Technology*),
Ran Shorror (*The Pennsylvania State University*)
- **How (Not) to Allocate Affordable Housing** 679
Nick Arnosti (*Columbia University*), Peng Shi (*Microsoft Research*)

Session 10b: Strategic Games

- **Simple Approximate Equilibria in Games with Many Players** 681
Itai Arieli, Yakov Babichenko (*Technion*)
- **Theoretical and Practical Advances on Smoothing
for Extensive-Form Games** 693
Christian Kroer (*Carnegie Mellon University*), Kevin Waugh (*University of Alberta*),
Fatma Kilinc-Karzan, Tuomas Sandholm (*Carnegie Mellon University*)

• A Network Game of Dynamic Traffic	695
Zhigang Cao (<i>Chinese Academy of Sciences</i>), Bo Chen (<i>University of Warwick</i>), Xujin Chen (<i>Chinese Academy of Sciences</i>), Changjun Wang (<i>Beijing University of Technology</i>),	
• A Polynomial Time Algorithm for Spatio-Temporal Security Games	697
Soheil Behnezhad, Mahsa Derakhshan, MohammadTaghi Hajiaghayi (<i>University of Maryland</i>), Aleksandrs Slivkins (<i>Microsoft Research</i>)	
Author Index	715

EC 2017 Conference Organization

General Chair: Constantinos Daskalakis, Massachusetts Institute of Technology, USA

Program Chairs: Moshe Babaioff, Microsoft Research, Israel
Hervé Moulin, University of Glasgow, UK

Workshop Chairs: Shuchi Chawla, University of Wisconsin-Madison, USA
Jenn Wortman Vaughan, Microsoft Research, USA

Tutorial Chairs: Edith Elkind, University of Oxford, UK
Katrina Ligett, Caltech and Hebrew University, USA & Israel

Local Arrangement Chair: Brendan Lucier, Microsoft Research, USA

Poster Session Chair: Yannai A. Gonczarowski, Hebrew University of Jerusalem
and Microsoft Research, Israel

SIGecom Executive

Committee: Kevin Leyton-Brown, University of British Columbia, Canada
Michal Feldman, Tel Aviv University, Israel
Jennifer Wortman Vaughan, Microsoft Research, USA

Webmasters: Constantinos Daskalakis, Massachusetts Institute of Technology, USA
Ann Marie King, Harvard University, USA
Brendan Lucier, Microsoft, USA

Senior Program Committees

Theory & Foundations SPC: Maria-Florina Balcan, Carnegie Mellon University, USA
 Liad Blumrosen, Hebrew University, Israel
 Shuchi Chawla, University of Wisconsin-Madison, USA
 Avinatan Hassidim, Bar-Ilan University, Israel
 Nicole Immorlica, Microsoft Research, USA
 Anna Karlin, University of Washington, USA
 David Kempe, University of Southern California, USA
 Robert Kleinberg, Cornell University, USA
 Fuhito Kojima, Stanford University, USA
 Scott Kominers, Harvard University, USA
 Stefano Leonardi, Sapienza University of Rome, Italy
 Katrina Ligett, Caltech and Hebrew University, USA & Israel
 Yishay Mansour, Tel Aviv University, Israel
 Vahab Mirrokni, Google Research, USA
 Noam Nisan, Hebrew University, Israel
 Tim Roughgarden, Stanford University, USA
 Ilya Segal, Stanford University, USA
 Uzi Segal, Boston College, USA
 Aleksandrs Slivkins, Microsoft Research, USA
 Eva Tardos, Cornell University, USA
 Bernhard von Stengel, London School of Economics, UK
 Matt Weinberg, Princeton University, USA
 Glen Weyl, Microsoft Research, USA

Artificial Intelligence and

Applied Game Theory SPC: Felix Brandt, Technical University of Munich, Germany
 Vincent Conitzer, Duke University, USA
 Gabrielle Demange, Paris School of Economics, France
 David Easley, Cornell University, USA
 Federico Echenique, California Institute of Technology, USA
 Edith Elkind, University of Oxford, UK
 Ian Kash, Microsoft Research, USA
 David Pennock, Microsoft Research, USA
 Ariel Procaccia, Carnegie Mellon University, USA

Experimental, Empirical

and Applications SPC: Eric Budish, University of Chicago, USA
 Larry Blume, Cornell University, USA
 Denis Nekipelov, University of Virginia, USA
 Vasilis Syrgkanis, Microsoft Research, USA
 Siddharth Suri, Microsoft Research, USA
 John Wooders, New York University Abu Dhabi, UAE
 Georgios Zervas, Boston University, USA

Program Committee: Saeed Alaei, Google, USA
 Ashton Anderson, Microsoft Research, USA
 Elliot Anshelevich, RPI, USA
 Nick Arnosti, Columbia University, USA
 Itai Ashlagi, Stanford University, USA
 Yossi Azar, Tel Aviv University, Israel
 Eduardo Azevedo, Wharton, USA
 Haris Aziz, Data61 and UNSW, Australia
 Yakov Babichenko, Technion, Israel
 Matthew Backus, Columbia University, USA
 Ashwinkumar Badanidiyuru, Google, USA
 Sid Banerjee, Cornell University, USA
 Siddharth Barman, IISc, India
 Umang Bhaskar, Tata Institute of Fundamental Research, India
 Peter Biro, Institute of Economics, Hungarian Academy of Sciences, Hungary
 Francis Bloch, Paris School of Economics, France
 Aaron Bodoh-Creed, University of California, Berkeley, USA
 Gary Bolton, University of Texas at Dallas, USA
 Simina Branzei, Hebrew University of Jerusalem, Israel
 Benjamin Brooks, University of Chicago, USA
 Ceren Budak, University of Michigan, USA
 Yang Cai, McGill University, Canada
 Ioannis Caragiannis, University of Patras, Greece
 Ruggiero Cavallo, Yahoo Research, USA
 Jing Chen, Stony Brook University, USA
 Giorgos Christodoulou, University of Liverpool, USA
 Richard Cole, NYU, USA
 Rachel Cummings, California Institute of Technology, USA
 Bart de Keijzer, CWI Amsterdam, Netherlands
 Tommaso Denti, Princeton, USA

Program Committee

(continued): Nikhil R Devanur, Microsoft Research, USA
 John P. Dickerson, University of Maryland, USA
 Shahar Dobzinski, Weizmann, Israel
 Laura Doval, Cowles Foundation for Research
 in Economics and CalTech, USA
 Paul Duetting, London School of Economics, UK
 Umut Dur, NCSU, USA
 Piotr Dworczak, Stanford Graduate School of Business, USA
 Dean Eckles, Massachusetts Institute of Technology, USA
 Piotr Faliszewski, AGH University, Poland
 Fei Fang, Harvard University, USA
 Michal Feldman, Tel-Aviv University & Microsoft Research, USA
 Amos Fiat, Tel Aviv University, Israel
 Felix Fischer, University of Glasgow, UK
 Michele Flammini, University of L'Aquila and Gran Sasso
 Science Institute, Italy
 Tamas Fleiner, Budapest University of Technology and Economics
 & Eotvos Lorand, University, Hungary
 Rafael Frongillo, University of Colorado Boulder, USA
 Hu Fu, University of British Columbia, Canada
 Martin Gairing, University of Liverpool, UK
 Vasilis Gkatzelis, Drexel University, USA
 Ashish Goel, Stanford University, USA
 Renato Gomes, Toulouse School of Economics and CNRS, France
 Yannai A. Gonczarowski, Hebrew University of Jerusalem
 & Microsoft Research, Israel
 Simon Grant, Australian National University, Australia
 Nick Gravin, Shanghai University of Finance and Economics and
 Massachusetts Institute of Technology, China & USA
 Ben Greiner, Wirtschaftsuniversitaet Wien, Austria
 Mingyu Guo, University of Adelaide, Australia
 Nima Haghpahan, Penn State University, USA
 Jason Hartline, Northwestern University, USA
 John W Hatfield, University of Texas at Austin, USA
 Chien-Ju Ho, Cornell University, USA
 Martin Hoefer, Goethe-University, Germany
 John Horton, NYU, USA
 Zhiyi Huang, The University of Hong Kong, Hong Kong
 Patrick Hummel, Google, USA

Program Committee

(continued): Krishnamurthy Iyer, Cornell University, USA
 Sergei Izmalkov, NES, Russia
 Albert Xin Jiang, Trinity University, USA
 Ramesh Johari, Stanford University, USA
 Yash Kanoria, Columbia Business School, USA
 Thomas Kesselheim, Max-Planck-Institut fuer Informatik, Germany
 Nicolas Lambert, Stanford University, USA
 Laurent Lamy, CIRED - ENPC and Ecole Nationale des Ponts et Chaussees,
 France
 Jerome Lang, CNRS, France
 Brad Larsen, Stanford University, USA
 Kate Larson, University of Waterloo, Canada
 Ron Lavi, Technion, Israel
 SangMok Lee, University of Pennsylvania, Economics, USA
 Annie Liang, Microsoft Research New England, USA
 Ben Lubin, Boston University, USA
 Brendan Lucier, Microsoft, USA
 Troels B. Lund, IT University of Copenhagen, Denmark
 Mohammad Mahdian, Google, USA
 Azarakhsh Malekian, University of Toronto, USA
 Andrew Mao, Microsoft Research NYC, USA
 Evangelos Markakis, Athens University of Economics and Business,
 Greece
 Ruta Mehta, University of Illinois at Urbana-Champaign, USA
 Reshef Meir, Technion, Israel Institute of Technology, Israel
 Claudio Mezzetti, University of Queensland & University of Warwick,
 Australia and UK
 Joshua Mollner, Northwestern Kellogg School of Management, USA
 Jamie Morgenstern, Carnegie Mellon University & University
 of Pennsylvania, USA
 Thayer Morrill, North Carolina State University, USA
 Hamid Nazerzadeh, USC Marshall School of Business, USA
 Thanh Nguyen, Purdue, USA
 Evdokia Nikolova, UT Austin, USA
 Sigal Oren, Ben-Gurion University of the Negev, Israel
 Renato Paes Leme, Google Research, USA
 Alexander Peysakhovich, Facebook, USA
 Georgios Piliouras, Singapore University of Technology & Design,
 Singapore

Program Committee

(continued): Marek Pycia, University of California, Los Angeles, USA
Justin Rao, Microsoft Research, USA
Assaf Romm, Hebrew University, Israel
Aaron Roth, University of Pennsylvania, USA
Aviad Rubinstein, University of California, Berkeley, USA
Daniela Saban, Stanford University, USA
Kato Saito, Caltech, USA
Rahul Savani, University of Liverpool, UK
Guido Schaefer, CWI and VU University Amsterdam, Netherlands
Grant R Schoenebeck, University of Michigan, USA
Jay Sethuraman, Columbia University, USA
Sven Seuken, University of Zurich, Switzerland
Nisarg Shah, Harvard University and University of Toronto,
USA & Canada
Peng Shi, Microsoft Research, USA
Yaron Singer, Harvard University, USA
Balasubramanian Sivan, Google Research, USA
Rann Smorodinsky, Technion, Israel
Chaitanya Swamy, University of Waterloo, Canada
Steven Tadelis, University of California, Berkeley, USA
Inbal Talgam-Cohen, Hebrew University, USA
Pingzhong Tang, IIS, Tsinghua University, China
Peter Troyan, University of Virginia, USA
Christos Tzamos, Massachusetts Institute of Technology, USA
Matt Van Essen, University of Alabama, USA
Shai Vardi, California Institute of Technology, USA
Adrian Vetta, McGill University, Canada
Zihe Wang, Shanghai University of Finance and Economics, China
Michael Wellman, University of Michigan, USA
Alexander Westkamp, University of Cologne, Germany
Chris Wilkens, Yahoo, USA
James R. Wright, Microsoft Research, USA
Lirong Xia, RPI, USA
Andy Zapechelnyuk, University of Glasgow, UK
Yair Zick, National University of Singapore, Singapore

Additional reviewers: Lia Bozarth, University of Michigan, USA
Gianluca Brero, University of Zurich, Switzerland
Erik Brinkman, University of Michigan, USA
Niv Buchbinder, Tel Aviv University, Israel
Hau Chan, Trinity University, USA
Frank Cheng, University of Michigan, USA
Ashish Chiplunkar, Tel Aviv University, Israel
Gal Cohensius, Technion, Israel
Riccardo Colini-Baldeschi, LUISS, Italy
Agnes Cseh, Hungarian Academy of Sciences, Hungary
Argyrios Deligkas, Technion, Israel
Ludwig Dierks, University of Zurich, Switzerland
Alon Eden, Tel Aviv University
Tomer Ezra, Tel Aviv University
Ark Fangzhou Zhang, University of Michigan, USA
Rupert Freeman, Duke University, USA
Ophir Friedler, Tel Aviv University, Israel
Jiayang Gao, Cornell University, USA
Negin Golrezaei, University of Southern California, USA
Ben Golub, Harvard University, USA
Artur Gorokh, Cornell University, USA
Ronald de Haan, TU Vienna, Australia
Nika Haghtalab, Carnegie Mellon University, USA
Hoda Heidari, University of Pennsylvania, USA
Zsuzsanna Jankó, Corvinus University of Budapest, Hungary
Hossein Karkeabadi, Stanford University, USA
Pieter Kleer, Centrum Wiskunde & Informatica (CWI), Amsterdam, The Netherlands
Yuqing Kong, University of Michigan, USA
Christian Kroer, Carnegie Mellon University, USA
Gunjan Kumar, Tata Institute of Fundamental Research, India
Edward Lee, UNSW, Australia
Omer Lev, University of Toronto, Canada
Bo Li, Stony Brook University, USA
Yingkai Li, Stony Brook University, USA
Guang Li, Queen's University, Canada
David Lingenbrink, Cornell University, USA
Yang Liu, Harvard University, USA

Additional reviewers

(continued): Ali Makhdoumi, Massachusetts Institute of Technology, USA
Pasin Manurangsi, University of California, Berkeley, USA
Barnabé Monnot, Singapore University of Technology & Design,
Singapore
DMassachusetts Institute of Technologyry Moor,
University of Zurich, Switzerland
Paresh Nakhe, Goethe University Frankfurt, Germany
Thanh Nguyen, University of Michigan, USA
Ioannis Panageas, Singapore University of Technology & Design,
Singapore
Valentin Robu, Heriot Watt University, UK
Steffen Schuldenzucker, University of Zurich, Switzerland
Shreyas Sekar, Rensselaer Polytechnic Institute, USA
Megan Shearer, University of Michigan, USA
Yangguang Shi, Technion, Israel
Milad Siami, Massachusetts Institute of Technology, USA
Alkmini Sgouritsa, University of Liverpool, UK
Jakub Sliwinski, National University of Singapore
Biaoshuai Tao, University of Michigan, USA
Bo Tang, University of Oxford, UK
Alexandros Voudouris, University of Patras, Greece
Xintong Wang, University of Michigan, USA
Mason Wright, University of Michigan, USA
Steven Wu, University of Pennsylvania, USA
Fang-Yi Yu, University of Michigan, USA
Heng Zhang, University of Southern California, USA
Song Zuo, Tsinghua University, China

EC 2017 Sponsors & Supporters

Sponsor:



Supporters:

