

# ACM ECONOMICS AND COMPUTATION (EC) 2019 PROGRAM

## DAY 1: JUNE 25, 2019

### 8:30-9:50 AM

#### 1a: Theory of Matching Markets

8:30-8:50 AM Stable fractional matchings,  
by Ioannis Caragiannis, Aris Filos-Ratsikas, Panagiotis Kanellopoulos and Rohit Vaish

8:50-9:10 AM Matchings under Preferences: Strength of Stability and Trade-offs,  
by Jiehua Chen, Piotr Skowron and Manuel Sorge

9:10-9:30 AM Stability in Matching Markets with Complex Constraints,  
by Thanh Nguyen, Hai Nguyen and Alexander Teytelboym

9:30-9:50 AM Trading Networks with General Preferences,  
by Jan Christoph Schlegel

#### 1b: Machine Learning and Applications

Fundamental Limits on Testing the Independence of Irrelevant Alternatives in Discrete Choice,  
by Arjun Seshadri and Johan Ugander

How Do Machine Learning Algorithms Perform in Predicting Hospital Choices? Evidence from Changing Environments,  
by Devesh Raval, Ted Rosenbaum and Nathan Wilson

Identifying Bid Leakage In Procurement Auctions: Machine Learning Approach,  
by Dmitry Ivanov and Alexander Nesterov

The Congressional Classification Challenge: Domain Specificity and Partisan Intensity,  
by Hao Yan, Sanmay Das, Allen Lavoie, Sirui Li and Betsy Sinclair

#### 1c: Prophet Inequalities

Nearly Optimal Pricing Algorithms for Production Constrained and Laminar Bayesian Selection,  
by Nima Anari, Rad Niazadeh, Amin Saberi and Ali Shameli

Prophet inequality for bipartite matching: merits of being simple and non adaptive,  
by Nick Gravin and Hongao Wang

Posted Pricing and Prophet Inequalities with Inaccurate Priors,  
by Paul Duetting and Thomas Kesselheim

Pandora's Problem with Nonobligatory Inspection,  
by Hedyeh Beyhaghi and Robert Kleinberg

### 10:00-11:00 AM

#### EC PLENARY SESSION: ACM SIGecom Best Full Paper and Best Paper with a Student Lead Author

10:00-10:30 AM *ACM SIGecom Best Full Paper Award:* Prophet Inequalities for i.i.d. Random Variables from an Unknown Distribution,  
by Jose Correa, Paul Duetting, Felix Fischer and Kevin Schewior

10:30-11:00 AM *ACM SIGecom Best Paper with a Student Lead Author Award:* Combinatorial Auctions with Interdependent Valuations: SOS to the Rescue,  
by Alon Eden, Michal Feldman, Amos Fiat, Kira Goldner and Anna Karlin

### 11:00 AM-11:20 PM

#### COFFEE BREAK

### 11:20 AM-12:20 PM

#### FCRC KEYNOTE SESSION

### 12:30 PM-2:00 PM

#### LUNCH

### 2:00-3:40 PM

#### 2a: Signaling and Strategic Learning

2:00-2:20 PM Persuasion in Networks: Public Signals and k-Cores,  
by Ozan Candogan

2:20-2:40 PM Optimal Algorithm for Bayesian Incentive-Compatible Exploration,  
by Lee Cohen and Yishay Mansour

2:40-3:00 PM Social Learning and the Innkeeper's Challenge,  
by Gal Bahar, Rann Smorodinsky and Moshe Tennenholtz

3:00-3:20 PM Competing Bandits: The Perils of Exploration under Competition,  
by Guy Aridor, Aleksandrs Slivkins, Zhiwei Steven Wu and Kevin Liu

3:20-3:40 PM Regression Equilibrium,  
by Omer Ben - Porat and Moshe Tennenholtz

#### 2b: Online Platforms

Equilibrium Effects of Pay Transparency in a Simple Labor Market,  
by Zoe Cullen and Bobak Pakzad-Hurson  
*Exemplary Applied Modeling Track Paper*

Managing Market Mechanism Transitions: A Randomized Trial of Decentralized Pricing Versus Platform Control,  
by Apostolos Filippas, Srikanth Jagabathula and Arun Sundararajan

The Supply and Demand Effects of Review Platforms,  
by Gregory Lewis and Georgios Zervas

Observational Data for Heterogeneous Treatment Effects with Application to Recommender Systems,  
Akos Lada, Alexander Peysakhovich, Diego Aparicio and Michael Bailey  
*Exemplary Empirics Track Paper*

You Can Lead a Horse to Water: Spatial Learning and Path Dependence in Consumer Search,  
by Greg Lewis and Charles Hodgson

#### 2c: Mechanism Design I

Simple Mechanisms for Profit Maximization in Multi-item Auctions,  
by Yang Cai and Mingfei Zhao

Buy-Many Mechanisms are Not Much Better than Item Pricing,  
by Shuchi Chawla, Yifeng Teng and Christos Tzamos

Simple and Approximately Optimal Pricing for Proportional Complementarities,  
by Yang Cai, Nikhil Devanur, Kira Goldner and R. Preston McAfee

Consumer-Optimal Market Segmentation,  
by Nima Haghpanah and Ron Siegel

The Value of Price Discrimination in Large Random Networks,  
by Jiali Huang, Ankur Mani and Zizhuo Wang

### 3:40-4:00 PM

#### COFFEE BREAK

**(DAY 1 CONTINUED)**

<b>4:00-6:00 PM</b>	<b>3a: Voting and Social Choice</b>	<b>3b: Applied Matching Markets</b>	<b>3c: Pricing and Contracts</b>	<b>3d: Joint Session With STOC</b>
4:00-4:20 PM	Improved Metric Distortion for Deterministic Social Choice Rules, by Kamesh Munagala and Kangning Wang	Matching for the Israeli "Mechinot" Gap-Year Programs: Handling Rich Diversity Requirements, by Yannai A. Gonczarowski, Lior Kovalio, Noam Nisan and Assaf Romm	Simple versus Optimal Contracts, by Paul Duetting, Tim Roughgarden and Inbal Talgam-Cohen	[STOC] Settling the Sample Complexity of Single-parameter Revenue Maximization, by Chenghao Guo, Zhiyi Huang, and Xinzhi Zhang
4:20-4:40 PM	Group Fairness in Committee Selection, by Yu Cheng, Kamesh Munagala and Kangning Wang	Centralized Admissions for Engineering Colleges in India, by Surender Baswana, Partha P Chakrabarti, Sharat Chandran, Yash Kanoria and Utkarsh Patange	Probabilistic Verification in Mechanism Design, by Ian Ball and Deniz Kattwinkel	[EC] Sample Complexity for Non-Truthful Mechanisms, by Samuel Taggart and Jason Hartline
4:40-5:00 PM	No Stratification Without Representation, by Johannes Gerhardus Benade, Paul Gözl and Ariel Procaccia	School Choice in Chile, by Jose Correa, Rafael Epstein, Juan Escobar, Ignacio Rios, Bastian Bahamondes, Carlos Bonet, Natalie Epstein, Nicolas Aramayo, Martin Castillo, Andres Cristi and Boris Epstein	Sample-Based Optimal Pricing, by Amine Allouah and Omar Besbes	[STOC] Tight Approximation Ratio of Anonymous Pricing, by Yaonan Jin, Pinyan Lu, Qi Qi, Zhihao Gavin Tang, and Tao Xiao
5:00-5:20 PM	Equitable Voting Rules, by Laurent Bartholdi, Wade Hann-Caruther, Maya Josyula, Omer Tamuz and Leeat Yariv	Playing on a level field: Sincere and sophisticated players in the Boston mechanism with a coarse priority structure, by Moshe Babaioff, Yannai A. Gonczarowski and Assaf Romm	Static Pricing: Universal Guarantees for Reusable Resources, by Omar Besbes, Adam Elmachtoub and Yunjie Sun	[EC] Smoothed Analysis of Multi-Item Auctions with Correlated Values, by Christos-Alexandros Psomas, Ariel Schwartzman and S. Matthew Weinberg
5:20-5:40 PM	Analysis of Approval Voting in Poisson Games, by François Durand, Antonin Macé and Matias Núñez	Simultaneous Search: Beyond Independent Successes, by Ran Shorrer	Power of Dynamic Pricing in Revenue Management with Strategic (Forward-looking) Customers, by Yiwei Chen and Stefanus Jasin	[STOC] Optimal (and Benchmark-Optimal) Competition Complexity for Additive Buyers over Independent Items, by Hedyeh Beyhaghi, and S. Matthew Weinberg
5:40-6:00 PM	News We Like to Share: How News Sharing on Social Networks Influences Voting Outcomes, by Matthew Shum and Kirill Pogorelskiy	Incorporating Compatible Pairs in Kidney Exchange: A Dynamic Weighted Matching Model, by Zhuoshu Li, Kelsey Lieberman, William Macke, Sofia Carrillo, Chien-Ju Ho, Jason Wellen and Sanmay Das	Dynamic learning and market making in spread betting markets with informed bettors, by John Birge, Yifan Feng, Bora Keskin and Adam Schultz	[EC] The Vickrey Auction with a Single Duplicate Bidder Approximates the Optimal Revenue, by Hu Fu, Christopher Liaw and Sikander Randhawa
<b>6:00-8:00 PM</b>	<b>EC RECEPTION AND POSTER SESSION</b>			

**DAY 2: JUNE 26, 2019**

<b>8:30-9:50 AM</b>	<b>4a: Networks</b>	<b>4b: Cryptocurrency and Financial Markets</b>	<b>4c: Fair Division</b>
8:30-8:50 AM	Seeding with Costly Network Information, by Dean Eckles, Hossein Esfandiari, Elchanan Mossel and M. Amin Rahimian	Formal Barriers to Longest-Chain Proof-of-Stake Protocols, by Jonah Brown-Cohen, Arvind Narayanan, Christos-Alexandros Psomas and S. Matthew Weinberg	High-Multiplicity Fair Allocation: Lenstra empowered by N-fold Integer Programming, by Robert Bredereck, Andrzej Kaczmarczyk, Dušan Knop and Rolf Niedermeier
8:50-9:10 AM	Influence Maximization on Undirected Graphs: Towards Closing the (1-1/e) Gap, by Grant Schoenebeck and Biaoshuai Tao	Mind the Mining, by Guy Goren and Alexander Spiegelman	Communication Complexity of Cake Cutting, by Simina Branzei and Noam Nisan
9:10-9:30 AM	Displaying Things in Common to Encourage Friendship Formation: A Large Randomized Field Experiment, by Tianshu Sun and Sean Taylor	Energy Equilibria in Proof-of-Work Mining, by Amos Fiat, Anna Karlin, Elias Koutsoupias and Christos Papadimitriou	Envy-freeness up to any item with high Nash welfare: The virtue of donating items, by Ioannis Caragiannis, Nick Gravin and Xin Huang
9:30-9:50 AM	Graphon games, by Francesca Parise and Asuman Ozdaglar	Information and Learning in Heterogeneous Markets, by Yaarit Even, Alireza Tahbaz-Salehi and Xavier Vives	Fair Cake-Cutting in Practice, by Maria Kyropoulou, Josue Ortega and Erel Segal-Halevi

**(DAY 2 CONTINUED)**

**10:00-11:00 AM EC PLENARY SESSION: ACM SIGecom Dissertation Award and Best Paper Award**

10:00-10:30 AM *ACM SIGecom Dissertation Award: Aspects of Complexity and Simplicity in Economic Mechanisms,*  
by Yannai Gonczarowski

10:30-11:00 AM *ACM SIGecom Best Paper Award: Obvious Dominance and Random Priority,*  
by Peter Troyan and Marek Pycia  
*Also awarded Exemplary Theory Track Paper*

**11:00 AM-11:20 PM COFFEE BREAK**

**11:20 AM-12:20 PM FCRC KEYNOTE SESSION**

**12:30 PM-2:00 PM LUNCH**

**2:00-3:40 PM 5a: Social Learning**

2:00-2:20 PM Robust non-Bayesian social learning,  
by Segev Shlomov, Yakov Babichenko and Itai Arieli

2:20-2:40 PM Local non-Bayesian social learning with stubborn agents,  
by Daniel Vial and Vijay Subramanian

2:40-3:00 PM Naive Learning Through Probability Matching,  
by Itai Arieli, Yakov Babichenko and Manuel Mueller-Frank

3:00-3:20 PM Information Inundation on Platforms and Implications,  
by Gad Allon, Kimon Drakopoulos and Vahideh Manshadi

3:20-3:40 PM The Implications of Pricing on Social Learning,  
by Itai Arieli, Moran Koren and Rann Smorodinsky

**5b: Routing and Ridesharing**

On the Price of Anarchy for flows over time,  
by Jose Correa, Andrés Cristi and Tim Oosterwijk

Price of Anarchy in Stochastic Atomic Congestion Games with  
Affine Costs,  
by Roberto Cominetti, Marco Scarsini, Marc Schröder and Nicolas  
Stier-Moses

Carpooling and the Economics of Self-Driving Cars,  
by Michael Ostrovsky and Michael Schwarz

Spatio-Temporal Pricing for Ridesharing Platforms,  
by Hongyao Ma, Fei Fang and David C. Parkes

Spatial Capacity Planning,  
by Francisco Castro, Omar Besbes and Ilan Lobel

**5c: Applied Pricing**

Pacing Equilibrium in First-Price Auction Markets,  
by Vincent Conitzer, Christian Kroer, Debmalya Panigrahi, Okke  
Schrijvers, Eric Sodomka, Nicolas Stier-Moses and Chris Wilkens

LP-based Approximation for Personalized Reserve Prices,  
by Mahsa Derakhshan, Negin Golrezaei and Renato Paes Leme

Dashboard Mechanisms for Online Market Places,  
by Jason Hartline, Aleck Johnsen, Denis Nekipelov and Onno  
Zoeter

Cloud Pricing: The Spot Market Strikes Back,  
by Ludwig Dierks and Sven Seuken

Optimal Pricing in Markets with Non-Convex Costs,  
by Navid Azizan, Yu Su, Krishnamurthy Dvijotham and Adam  
Wierman

**3:40-4:00 PM COFFEE BREAK**

**4:00-5:00 PM EC PLENARY SESSION: The Future of Work**

Plenary talk: *Automation vs. Procreation*, Hal Varian (Google)  
Discussant: Jonathan Hall (Uber)

**5:15-6:45 PM EC BUSINESS MEETING**

## DAY 3: JUNE 27, 2019

### 8:30-9:50 AM

#### 6a: Game Theory

8:30-8:50 AM

Optimal Strategies of Blotto Games: Beyond Convexity,  
by Soheil Behnezhad, Avrim Blum, Mahsa Derakhshan,  
Mohammadtaghi Hajiaghayi, Christos Papadimitriou and Saeed  
Seddighin

8:50-9:10 AM

Iterated Deep Reinforcement Learning in Games: History-Aware  
Training for Improved Stability,  
by Mason Wright, Yongzhao Wang and Michael Wellman

9:10-9:30 AM

Robust commitments and partial reputation,  
by Vidya Muthukumar and Anant Sahai

9:30-9:50 AM

Imitative Follower Deception in Stackelberg Games,  
by Jiarui Gan, Haifeng Xu, Qingyu Guo, Long Tran-Thanh, Zinovi  
Rabinovich and Michael Wooldridge

#### 6b: Data Markets

Prior-free Data Acquisition for Accurate Statistical Estimation,  
by Shuran Zheng and Yiling Chen

How to Sell a Dataset? Pricing Policies for Data Monetization,  
by Sameer Mehta, Milind Dawande, Ganesh Janakiraman and Vijay  
Mookerjee

Adversarial Contract Design for Private Data Commercialization,  
by Parinaz Naghizadeh and Arunesh Sinha

A Marketplace for Data: An Algorithmic Solution,  
by Anish Agarwal, Munther Dahleh and Tuhin Sarkar

#### 6c: Dynamic Algorithms

Tight Weight-dependent Competitive Ratios for Online Edge-  
weighted Bipartite Matching and Beyond,  
by Will Ma and David Simchi-Levi

Edge Weighted Online Windowed Matching,  
by Itai Ashlagi, Maximilien Burq, Chinmoy Dutta, Patrick Jaillet,  
Amin Saberi and Chris Sholley

Learning in structured MDPs with convex cost functions: Improved  
regret bounds for inventory management,  
by Randy Jia and Shipra Agrawal

### 10:00-11:00 AM

#### EC PLENARY SESSION: Highlights Beyond EC

10:00-10:20 AM

Predicting and Understanding Initial Play,  
presented by Annie Liang

10:20-10:40 AM

Mechanism Design with Aftermarkets: Cutoff Mechanisms,  
presented by Piotr Dworczak

10:40-11:00 AM

Consistent Probabilistic Social Choice,  
presented by Felix Brandt

### 11:00 AM-11:20 PM

#### COFFEE BREAK

### 11:20 AM-12:20 PM

#### FCRC KEYNOTE SESSION

### 12:30 PM-2:00 PM

#### LUNCH

### 2:00-2:30 PM

#### EC PLENARY SESSION: ACM SIGecom Test-of-Time Award

ACM SIGecom Test-of-Time Award: The communication requirements of efficient allocations and supporting prices,  
by Noam Nisan and Ilya Segal

### 2:30-3:30 PM

#### EC PLENARY SESSION: Data Markets

Plenary talk: *Markets for Information*, Dirk Bergemann (Yale)

Discussant: Yiling Chen (Harvard)

### 3:30-4:00 PM

#### COFFEE BREAK

**(DAY 3 CONTINUED)**

**4:00-6:00 PM**

**7a: Combinatorial Markets and Social Choice**

**7b: Fairness and Social Good**

**7c: Mechanism Design II**

4:00-4:20 PM

Computing Large Market Equilibria using Abstractions,  
by Christian Kroer, Alexander Peysakhovich, Eric Sodomka and  
Nicolas Stier-Moses

Allocation for Social Good: Auditing Mechanisms for Utility  
Maximization,  
by Taylor Lundy, Alexander Wei, Hu Fu, Scott Duke Kominers and  
Kevin Leyton-Brown

Obvious Manipulations,  
by Thayer Morrill and Peter Troyan

4:20-4:40 PM

Computing Core-Stable Outcomes in Combinatorial Exchanges with  
Financially Constrained Bidders,  
by Martin Bichler and Stefan Waldherr

Individual Fairness in Hindsight,  
by Swati Gupta and Vijay Kamble

Estimating Approximate Incentive Compatibility,  
by Maria-Florina Balcan, Tuomas Sandholm and Ellen Vitercik  
*Exemplary Artificial Intelligence Track Paper*

4:40-5:00 PM

Adaptive-Price Combinatorial Auctions,  
by Sebastien Lahaie and Benjamin Lubin

Simplicity Creates Inequity: Implications for Fairness, Stereotypes,  
and Interpretability,  
by Jon Kleinberg and Sendhil Mullainathan

The Complexity of Black-Box Mechanism Design with Priors,  
by Evangelia Gergatsouli, Christos Tzamos and Brendan Lucier

5:00-5:20 PM

Truthful Aggregation of Budget Proposals,  
by Rupert Freeman, David Pennock, Dominik Peters and Jennifer  
Wortman Vaughan

Tracking and Improving Information in the Service of Fairness,  
by Sumegha Garg, Michael P. Kim and Omer Reingold

Optimal auctions vs. anonymous pricing: beyond linear utility,  
by Yiding Feng, Jason Hartline and Yingkai Li

5:20-5:40 PM

Fair mixing: the case of dichotomous preferences,  
by Haris Aziz, Anna Bogomolnaia and Herve Moulin

How Do Classifiers Induce Agents to Invest Effort Strategically?,  
by Jon Kleinberg and Manish Raghavan

Optimal Budget-Feasible Mechanisms for Additive Valuations,  
by Nick Gravin, Yaonan Jin, Pinyan Lu and Chenhao Zhang

5:40-6:00 PM

Principal-Agent VCG Contracts,  
by Ron Lavi and Elisheva Shamash

Price of Privacy in the Keynesian Beauty Contest,  
by Hadi Elzayn and Zachary Schutzman

Budget-Feasible Mechanism Design for Non-Monotone Submodular  
Objectives: Offline and Online,  
by Georgios Amanatidis, Pieter Kleer and Guido Schäfer