



The Conference on Digital Experimentation (CODE@MIT)

Friday, October 16th

8:00-9:00am	Registration, Breakfast, Opening Remarks (Foyer and Salon IV)	
9:00-10:45am	Plenary Session A (Salon IV) <i>Session Chair: Sinan Aral</i> Machine Learning to Test Theories. <i>Sendhil Mullainathan (Harvard University).</i> Inference in Experiments on Networks. <i>Susan Athey (Stanford University).</i> Harnessing Web Search Data for Pharmacovigilance. <i>Eric Horvitz (Microsoft).</i>	
10:45-11:15am	Coffee Break	
11:15-1:00pm	Plenary Session B (Salon IV) <i>Session Chair: Erik Brynjolfsson</i> Causal Reasoning and Learning Systems. <i>Leon Bottou (Facebook).</i> Bringing It All Together: Matching The Most Impactful Creative With The Appropriate Audience for Offline Purchases. <i>Claudia Perlich (Dstillery).</i> An Experimental Study of Team Size and Performance on a Complex Task. <i>Duncan Watts (Microsoft).</i>	
1:00-2:00pm	Lunch (Foyer and Salon IV)	
2:00-3:45pm	Parallel Session C: "Mobile Experiments" (Salons I & II) <i>Session Chair: Leon Bottou</i> Mobile Advertising and Real-Time Group Dynamics: Evidence from a Field Experiment. <i>Anindya Ghose (NYU), Beibei Li (Carnegie Mellon University), and Siyuan Liu (Pennsylvania State University).</i> Measuring the Impact of Crowdsourcing on Mobile App User Engagement and Retention: A Randomized Field Experiment. <i>Zhuojun Gu (University of Minnesota), Ravi Bapna (University of Minnesota), Jason Chan (University of Minnesota), and Alok Gupta (University of Minnesota).</i> Experimental Design, Estimation, and Mid-flight Campaign Optimization: Online Display Advertising Attribution in Marketplaces. <i>Ram Akella (UC Berkeley), Joel Barajas (UC Santa Cruz), Marius Holtan (AOL), and Aaron Flores (AOL).</i> The Impact of Large Scale Promotions on the Sales and Ratings of Mobile Apps: Evidence from Apple's App Store. <i>Georgios Askalidis (Northwestern University).</i> A 10-Million-User Field Study of Weather Conditions and Mobile Ad Responses. <i>Chenxi Li (Fudan University), Andy Reinaker (Temple University), Cheng Zhang (Fudan University), and Xueming Luo (Temple University).</i>	Parallel Session D: "Experimental Design & Methods" (Salon IV) <i>Session Chair: Sinan Aral</i> Peer Encouragement Designs. <i>Rene Kizilcec (Stanford University), Dean Eckles (MIT), and Eytan Bakshy (Facebook).</i> Long-term Causal Effects of Interventions in Multi-agent Economic Mechanisms. <i>Panos Toulis (Harvard University) and David C. Parkes (Harvard University).</i> Estimation of Attributable Treatment Effects in Network Experiments. <i>David Choi (Carnegie Mellon University).</i> Design-based Adaptive Experimentation. <i>Eytan Bakshy (Facebook), Maximilian Balandat (UC Berkeley), Drew Dimmery (NYU), Nan Li (Facebook), and John Myles White (Facebook).</i> Contextual Adaptive Design for Heterogeneous Survey Response. <i>Eytan Bakshy (Facebook) and Drew Dimmery (NYU).</i>
3:45-4:00pm	Coffee Break	
4:00-5:45pm	Parallel Session E: "Pro-Social Behavior and Pricing" (Salons I & II) <i>Session Chair: Bin Yu</i> Hassle Costs and Charitable Giving: A Field Experiment with Google Employees. <i>Jessan Hutchison-Quilliam (Google), David Reiley (Pandora Media and UC Berkeley), and Anya Samek (USC).</i> Self-Signaling and Pro-Social Behavior: Big Data Mobile Field Experiments. <i>Jean-Pierre Dube (University of Chicago and NBER), Xueming Luo (Temple University), and Zheng Fang (Sichuan University).</i> Using Mobile Messaging to Leverage Social Connections for the Social Good: Evidence from a Large-scale Randomized Field Experiment. <i>Tianshu Sun (University of Maryland), Guodong (Gordon) Gao (University of Maryland), and Ginger Zhe Jin (University of Maryland and NBER).</i> The Hidden Cost of Efficiency: Fairness and Discrimination in Predictive Modeling. <i>Julius Adebayo (MIT), Lalana Kagal (MIT), and Sandy Pentland (MIT).</i> Recommender Systems and Consumer Welfare: Results from a Randomized Experiment in Video-on-Demand. <i>Rodrigo Belo (Carnegie Mellon University), Pedro Ferreira (Carnegie Mellon University), Miguel Godinho de Matos (Catolica-Lisbon), and Xiaochen Zhang (Carnegie Mellon University).</i>	Parallel Session F: "Natural Experiments" (Salon IV) <i>Session Chair: Susan Athey</i> The Impact of the Sharing Economy on the Hotel Industry: Evidence from Airbnb's Entry in Texas. <i>Georgios Zervas (Boston University), Davide Proserpio (Boston University), and John W. Byers (Boston University).</i> Is Exercise Contagious? Evidence from a Global Natural Experiment. <i>Christos Nicolaides (MIT) and Sinan Aral (MIT).</i> Natural Experiments at Scale. <i>Robert Moakler (NYU), Ekaterina Eliseeva (Integral Ad Science), and Kiril Tsemekhman (Integral Ad Science).</i> Dissecting the Digital Paywall: Cross-channel Spillovers. <i>Paramveer S. Dhillon (MIT) and Sinan Aral (MIT).</i> When Online Engagement Gets in the Way of Offline Sales - A Natural Experiment. <i>Sagit Bar-Gill (MIT) and Shachar Reichman (MIT).</i>
5:45-6:00pm	Coffee Break	
6:00-7:30pm	Fireside Panel on "Machine Learning and Experimentation in the Pursuit of Causal Inference" (Salon IV) <i>Moderator: Erik Brynjolfsson</i> <i>Susan Athey (Stanford University)</i> <i>Bin Yu (UC Berkeley)</i> <i>Donald Rubin (Harvard University)</i> <i>Leon Bottou (Facebook)</i>	
7:30-8:30pm	Reception (Foyer and Salon IV)	

Saturday, October 17th

8:30-9:30am **Registration and Breakfast (Foyer and Salon IV)**

9:30-11:00am **Plenary Session G (Salon IV)**
Session Chair: Sinan Aral
Challenging Problems in Online Controlled Experiments. *Ron Kohavi (Microsoft).*
Incentive-Compatible Experimental Design. *David Parkes (Harvard University).*
Lasso Adjustments of Treatment Effect Estimates in Randomized Experiments. *Bin Yu (UC Berkeley).*
Coffee Break

11:00-11:30am

11:30am-1:15p **Parallel Session H: "Virtual Labs" (Salons I & II)**
Session Chair: David Parkes
Cohort Size and Students Engagement in MOOCs. *Jiye Baek (Boston University) and Jesse Shore (Boston University).*
Mobility Effect on the Emergence of Altruistic Punishment in the Ultimatum Game. *Abeer Yehia (Cairo University) and Mohammed El-Beltagy (Cairo University).*
Long-run Behavior in Repeated Prisoner's Dilemma. *Lili Dworkin (University of Pennsylvania and Microsoft), Andrew Mao (Microsoft), Siddharth Suri (Microsoft), and Duncan Watts (Microsoft)*
Blank Screens and Peepholes: Crowd-based Methods of Designing and Evaluating Geometric Spaces. *Daniel S. Soper (California State University, Fullerton).*
Improving the Comprehension of Numbers in the News. *Pablo J. Barrio (Columbia University), Daniel G. Goldstein (Microsoft), and Jake M. Hofman (Microsoft).*
Parallel Session I: "User Generated Content and The Crowd" (Salon IV)
Session Chair: Erik Brynjolfsson
The Effects of Comment Quality on Comment Production. *George Berry (Cornell University), Sean J. Taylor (Facebook), Ashoat Tevosyan (Facebook), and Erich Owens (Facebook).*
The Independent and Combined Effects of External Endorsements: Evidence from a Randomized Field Experiment in the Context of Equity Crowdfunding. *Sofia Bapna (University of Minnesota).*
Consumption and Participation on Social Media: Estimates from Meta-analysis with Instrumental Variables. *Alexander Peysakhovich (Facebook) and Dean Eckles (MIT).*
Popularity and Quality in Social News Aggregators. *Greg Stoddard (Northwestern University).*
Estimating the Causal Impact of Recommendation Systems from Observational Data. *Amit Sharma (Microsoft), Jake M. Hofman (Microsoft), and Duncan Watts (Microsoft).*

1:15-2:30pm

Lunch and Poster Slam (Foyer and Salon IV)

2:30-4:15pm

Parallel Session J: "Advertising, Marketing, and Demand" (Salons I & II)
Session Chair: Bin Yu
Ghost Ads: Improving the Economics of Measuring Ad Effectiveness. *Garrett A. Johnson (University of Rochester), Randall A. Lewis (Google), and Elmar I. Nubbemeyer (Google).*
Competitive Price Targeting: A Mobile Field Experiment. *Jean-Pierre Dube (University of Chicago and NBER), Zheng Fang (Sichuan University), Nathan Fong (Temple University), and Xueming Luo (Temple University).*
Estimating the Effect of Exposure Level in Online Display Advertising. *Ana Calabrese (Integral Ad Science), Gijs Joost Brouwer (Integral Ad Science), and Kiril Tsemekhman (Integral Ad Science).*
Target the Ego or Target the Group: Evidence from a Randomized Experiment in Pro-active Churn Management. *Miguel Godinho de Matos (Catolica-Lisbon), Pedro Ferreira (Carnegie Mellon University), and Rodrigo Belo (Carnegie Mellon University).*
Converting Online Customers To Offline Shoppers With Channel-targeted Coupons: Evidence from a Field Experiment. *Yuchi Zhang (Temple University), Fue Zeng (Wuhan University), and Xueming Luo (Temple University).*
Parallel Session K: "Incentive Systems, Design, and Signaling" (Salon IV)
Session Chair: Claudia Perlich
Monetizing Sharing Traffic through Incentive Design: Evidence from a Randomized Field Experiment. *Tianshu Sun (University of Maryland), Siva Viswanathan (University of Maryland), and Elena Zheleva (LivingSocial).*
Incentivizing High Quality Crowdfork. *Chien-Ju Ho (UCLA), Aleksandrs Sliokins (Microsoft), Siddharth Suri (Microsoft) and Jennifer Wortman Vaughan (Microsoft).*
What are Social Incentives Worth? Randomized Experiments in User Content Generation. *Ravi Bapna (University of Minnesota), Gord Burtch (University of Minnesota), Vlaslas Griskevicius (University of Minnesota), and Yili Hong (Arizona State University).*
At What Quality and What Price?: Eliciting Buyer Preferences as a Market Design Problem. *John J. Horton (NYU) and Ramesh Johari (Stanford University).*
The Impact of Convergence Technologies on the Substitution Between TV and Internet: Evidence from a Randomized Field Experiment. *Filipa Reis (Carnegie Mellon University and Catolica-Lisbon), Miguel Godinho de Matos (Carnegie Mellon University and Catolica-Lisbon), and Pedro Ferreira (Carnegie Mellon University).*

4:15-5:00pm

Coffee Break

5:00-6:30pm

Plenary Session L (Foyer and Salon IV)
Session Chair: Sandy Pentland
Balanced 2^K Factorial Experiments and ReRandomization for Increased Precision. *Donald Rubin (Harvard University).*
Should We Go to the Crowd First? *Karim R. Lakhani (Harvard University).*

6:30-7:30pm

Poster Session and Reception (Foyer and Salon IV)
Formal Verification and Automated Causal Inference of Internet-scale Experiments. *Eytan Bakshy (Facebook) and Emma Tosch (University of Massachusetts Amherst).*
Does Data Drive Discovery? Evidence from the Landsat Satellite Mapping (Natural) Experiment. *Abhishek Nagaraj (MIT).*
Leaky Abstraction in Online Experimentation Platforms: A Conceptual Framework to Categorize Common Challenges. *Timo Kluck (Booking.com) and Lukas Vermeer (Booking.com).*
Using Experimentation to Measure Biases on Twitter. *Sandy Pentland (MIT), Peter Krafft (MIT), and Mubarik M. Mohamoud (MIT).*
The Ins and Outs of the New York City Subway System. *Eiman Ahmed (Pace University), Shamon Evans (NYU), Riva Tropp (Yeshiva University), and Steven Vazquez (Manhattan College).*
The Cost of Public School. *Glenda Ascencio (St. Joseph's College), Nikki Hanson (Queens College), Anastassiya Neznanova (Queens College), and Thomas Patino (Skidmore College).*
Factors Affecting Firms' Crises on Online Social Media and the Effectiveness of the Remedial Actions: A Mixed-Methods Research Program. *Hamed Qahri-Saremi (University of Illinois at Springfield), Sepideh Ebrahimi (McMaster University), Jeffrey James Pittaway (Imperial College London), and Ali Reza Montazemi (McMaster University).*
Heterogeneity and Diffusion of the Digital Economy: Spain's Case. *Javier Alonso Meseguer (BBVA Research) and Alfonso Arellano (BBVA Research and Complutense University, Madrid).*
Form Auto-Completion Tools Designed For Elaboration: Overcoming the Deleterious Effects of Decisional Heuristics on Users' Privacy. *Burcu Bulgurcu (Boston College) and Bart Knijnenburg (UC Irvine).*
The Uptick Rule. *Yaneer Bar-Yam (MIT and New England Complex Systems Institute) and Alfredo Morales (New England Complex Systems Institute).*
Mapping Urban Change Using Street View. *Nikhil Maik (MIT), Scott Duke Kominers (Harvard University), Ramesh Raskar (MIT), Edward L. Glaeser (Harvard University), and Cesar A. Hidalgo (MIT).*

8:00pm

Workshop Dinner and Social @ Commonwealth Cambridge (11 Broad Canal Way)