Yash Kanoria

Updated Sep 2023

CONTACT

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FIELD OF SPECIALIZATION

Marketplace design and analytics including for matching markets, dynamic resource allocation including for supply chains. Drawing on an interdisciplinary background in operations research and operations management, engineering, computer science and economics.

EDUCATION

Stanford University, Stanford, CA — Sep 2007 - Aug 2012
PhD, Electrical Engineering, 2012
Advisor: Andrea Montanari
Dissertation title: Learning in social and economic networks (unpublished)

Indian Institute of Technology Bombay, India (CPI 10.00/10.00) — Jul 2003 - May 2007
Bachelor of Technology in Electrical Engineering, 2007

ACADEMIC APPOINTMENTS

Associate Professor of Business (with tenure) — 2021 - present
Sidney Taurel Associate Professor of Business — 2017 - 2021
Assistant Professor of Business — 2013 - 2017
Decision, Risk and Operations Division,
Columbia University, Graduate School of Business

Schramm postdoctoral fellow — Aug 2012 - June 2013
Microsoft Research New England, Cambridge, MA.

PROFESSIONAL EXPERIENCE

Visiting Academic — Apr 2022 - present
Supply Chain Optimization Technologies, Amazon Inc., USA

Schramm postdoctoral fellow — Aug 2012 - Jun 2013
Microsoft Research New England, Cambridge, MA

Summer Intern — Summer 2010 and Summer 2011
Microsoft Research New England, Cambridge, MA

Summer Intern (high-frequency algorithmic trading) — Summer 2008
D.E. Shaw & Co, Cupertino, CA

Summer Intern (algorithmic trading) — Summer 2007
Goldman Sachs Group, Inc., Bangalore, India & New York, NY

TEACHING EXPERIENCE

B9122-001: (PhD/MS) Computing For Business Research, Columbia GSB — Fall 2013
B9122-002: (PhD) Computing For Business Research, Columbia GSB

B9122-001: (MS/PhD) Computing For Business Research, Columbia GSB — Fall 2014

B6101-001: Business Analytics, Columbia GSB — Spring 2015
B6101-002: Business Analytics, Columbia GSB
B6101-003: Business Analytics, Columbia GSB

B6101-001: Business Analytics, Columbia GSB — Spring 2016

B6101-002: Business Analytics, Columbia GSB
B6101-003: Business Analytics, Columbia GSB

B6101-001: Business Analytics, Columbia GSB — Spring 2017
B6101-002: Business Analytics, Columbia GSB
B6101-003: Business Analytics, Columbia GSB
B9135-001: (PhD) Engineering Online Matching Markets, Columbia GSB

B6101-001: Business Analytics, Columbia GSB — Fall 2017
B6101-003: Business Analytics, Columbia GSB
B6101-006: Business Analytics, Columbia GSB
B6101-007: Business Analytics, Columbia GSB

B9137-001: (PhD) DRO Topics Seminar — Fall 2018

B5101-001: Business Analytics, Columbia GSB — Spring 2019
B5101-002: Business Analytics, Columbia GSB
B5101-003: Business Analytics, Columbia GSB

B9144-001: (PhD) Statistical Physics, Markets and Algorithms, Columbia GSB — Fall 2019

B5101-003: Business Analytics, Columbia GSB — Spring 2020
B5101-004: Business Analytics, Columbia GSB
B9137-001: (PhD) DRO Topics Seminar

B9148-001: (PhD) Frontiers in Online & Random Optimization — Fall 2021

B5101(4 sections): Business Analytics, Columbia GSB — Spring 2022

Doctoral Dissertation Committee Service

Judy Gan, Quant Researcher at Two Sigma, (PhD advisor.)
- Dissertation: *Essays on Dynamic Optimization for Markets and Networks.* (2023).

Jacob Bergquist. (Dissertation Committee Member.)
- Dissertation: *Three Works in Queueing Theory.* (2022).

Pengyu Qian, Assistant Professor at Purdue Krannert School of Business, (PhD advisor.)
- Dissertation: *Online Decision Making in Networked Marketplaces.* (2021).

Jiaqi Lu, Assistant Professor at CUHK Shenzen School of Data Science, (PhD advisor.)
- Dissertation: *Managing Stochastic Uncertainty in Dynamic Marketplaces.* (2021).

Amine Allouah, Research Scientist at Facebook Research, Core Data Science team. (Dissertation Committee Member.)
- Dissertation: *Optimal Auctions and Pricing with Limited Information.* (2019).

Francisco Castro, Assistant Professor, Anderson School of Management, UCLA (from Fall 2020, currently postdoc at Uber). (Dissertation Committee Member.)
- Dissertation: *The Operations and design of markets with spatial and incentive considerations.* (2019).

Irene Lo, Assistant Professor, Management Science & Engineering, Stanford University (from Fall 2019, currently postdoc in Stanford Economics with Al Roth). (Mentor and coauthor on job market paper).
- Dissertation: *Designing and Optimizing Matching Markets.* (2018).
- Received faculty job offers from Cornell Tech, MIT Sloan OR, Georgiatech, and other places,

besides Stanford.

Vashist Avanadhula, Research Scientist, Core Data Science, Facebook. (Dissertation Committee Member.)

- Dissertation: *The MNL-Bandit Problem: Theory and Applications.* (2018).

Itai Feigenbaum, Assistant Professor of Mathematics and Computer Science, City University of New York, Lehman College. (Coauthor and Dissertation committee member.)

- Dissertation: *Optimization in strategic environments.* (2016).

Doctoral Student Mentorship

Past PhD students: Pengyu Qian, Jiaqi Lu

Past postdocs: Abhinav Sinha, Yilun Chen

Current PhD students: Judy Gan, Akshit Kumar (co-advised with Omar Besbes), Matias Alvo (co-advised with Dan Russo), Allen Sirolly (co-advised with Hongyao Ma).

I have previously worked with DRO PhD student Utkarsh Patange, and with the following academics/researchers when they were PhD students: Nick Arnosti (Stanford MS&E), Itai Feigenbaum (Columbia IEOR), Vijay Kamble (postdoc at Stanford MS&E), Irene Lo (Columbia IEOR), Seungki Min (Columbia DRO), Daniela Saban (Columbia DRO), Peng Shi (MIT Sloan), Xuan Zhang (Columbia IEOR).

Publications

Authorship order in operations management and related fields including economics, computer science and operations research, is conventionally alphabetic by last name.

Journal Papers (Peer reviewed)

17. Y. Kanoria, I. Lobel, J. Lu, "Managing Customer Churn via Service Mode Control," to appear in *Mathematics of Operations Research*, 2023.

16. Y. Kanoria and P. Qian, "Blind Dynamic Resource Allocation in Closed Networks via Mirror Backpressure," to appear in *Management Science*, 2023.

15. Y. Kanoria and D. Saban, "Facilitating the Search for Partners on Matching Platforms," *Management Science*, 67(10), 2021.

14. R. Johari, V. Kamble, and Y. Kanoria, "Matching while Learning," *Operations Research*, 69(2), 2021.

13. Y. Kanoria and H. Nazerzadeh, "Incentive-compatible Learning of Reserve Prices For Repeated Auctions," *Operations Research*, 69(2), 2021.

12. I. Feigenbaum, Y. Kanoria, I. Lo and J. Sethuraman, "Dynamic Matching in School Choice: Efficient Seat Reallocation After Late Cancellations," *Management Science*, 66(11), 4921-5484, 2020.

11. I. Ashlagi, M. Braverman, Y. Kanoria and P. Shi, "Clearing matching markets efficiently: informative signals and match recommendations," *Management Science*, 66(5), 2163–2193, 2020.

10. N. Arnosti, R. Johari and Y. Kanoria, "Managing congestion in matching markets," *Manufacturing and Service Operations Management*, special issue on Sharing Economy and Innovative Marketplaces, 23(3), 2021.

9. S. Baswana, P. P. Chakrabarti, S. Chandran, Y. Kanoria and U. Patange, "Centralized admissions for engineering colleges in India," *INFORMS Journal on Applied Analytics*, 49(5), pp. 338-354, special issue for finalists for the 2018 Daniel H. Wagner Prize for Excellence in Operations Research Practice.

8. Y. Kanoria, D. Saban and J. Sethuraman, "The size of the core in random assignment markets," *Operations Research*, 66(3):597-892, 2018.

7. R. Anderson, I. Ashlagi, D. Gamarnik, and Y. Kanoria, "Efficient dynamic barter exchange," *Operations Research*, 65(6), 1446-1459, 2017.

6. I. Ashlagi, Y. Kanoria and J. Leshno, "Unbalanced random matching markets: the stark effect of competition," *Journal of Political Economy*, 125(1), Feb 2017.

5. M. Bayati, C. Borgs, J. Chayes, Y. Kanoria, and A. Montanari, "Bargaining dynamics in exchange networks," *Journal of Economic Theory*, Vol. 156, pp. 417–454, March 2015.

4. M. Ibrahimi, Y. Kanoria, M. Kraning and A. Montanari, "The Set of Solutions of Random XORSAT Formulae," *Annals of Applied Probability*, Vol. 25, No. 5, Sep 2015.

3. Y. Kanoria and A. Montanari, "Majority dynamics on trees and the dynamic cavity method," *Annals of Applied Probability*, Vol. 21, No. 5, Oct 2011.

2. Y. Kanoria and A. Montanari, "Optimal coding for the deletion channel with small deletion probability," *IEEE Transactions on Information Theory*, Vol. 59, No. 10, pp. 6192-6219, Oct. 2013.

1. Y. Kanoria and O. Tamuz, "Tractable Bayesian Social Learning," *IEEE Journal on Selected Areas in Communication*, Vol. 31, No. 4, pp. 756-765, April 2013.

Working papers

Y. Kanoria, S. Min and P. Qian, "Which random matching markets exhibit a stark effect of competition?" minor revision at *Management Science*.

O. Besbes, Y. Kanoria, and A. Kumar, "The multisecretary problem with many types," minor revision at *Operations Research*.

S. Banerjee, Y. Kanoria and P. Qian, "Large Deviations Optimal Scheduling of Closed Queueing Networks," major revision at *Mathematics of Operations Research*.

N. Immorlica, Y. Kanoria, and J. Lu, "When does competition and costly information acquisition lead to a deadlock?" major revision at *Operations Research*.

Y. Kanoria, "Dynamic Spatial Matching," major revision at *Annals of Applied Probability*.

Y. Kanoria, J. Gan, and X. Zhang, "Local algorithms for dynamic optimization in networks," submitted.

Y. Lin, J. Gan, G. Qu, Y. Kanoria, and A. Wierman. "Decentralized Online Convex Optimization in Networked Systems".

M. Alvo, Y. Kanoria, and D. Russo, "Neural Inventory Control in Networks via Hindsight Differentiable Policy Optimization."

Peer reviewed conference Papers

O. Besbes, Y. Kanoria, and A. Kumar, "The multisecretary problem with many types," *ACM Conference on Economics and Computation (EC)*, 2023.

Y. Lin, J. Gan, G. Qu, Y. Kanoria, and A. Wierman. "Decentralized Online Convex Optimization in Networked Systems." *Intl. Conference on Machine Learning (ICML)*, 2022.

Y. Kanoria, "Dynamic Spatial Matching," *ACM Conference on Economics and Computation (EC)*, 2022.

O. Besbes, Y. Kanoria, and Akshit Kumar, "The multisecretary problem with many types," *ACM Conference on Economics and Computation (EC)*, 2022.

Y. Kanoria, S. Min and P. Qian, "Which random matching markets exhibit a stark effect of competition?" *ACM-SIAM Symp. on Discrete Algorithms (SODA)*, 2020.

Y. Kanoria and P. Qian, "Blind Dynamic Resource Allocation in Closed Networks via Mirror Backpressure," *ACM Conference on Economics and Computation (EC)*, 2020.

S. Baswana, P. P. Chakrabarti, S. Chandran, Y. Kanoria and U. Patange, "Centralized admissions for engineering colleges in India," *ACM Conference on Economics and Computation (EC)*, 2019.

S. Banerjee, Y. Kanoria and P. Qian (2017), "State Dependent Control of Closed Queueing Networks," *ACM SIGMETRICS*, 2018.

R. Johari, V. Kamble, and Y. Kanoria, "Matching while Learning," *ACM Conference on Economics and Computation (EC)*, 2017.

I. Ashlagi, M. Braverman, Y. Kanoria and P. Shi, "Communication Requirements and Informative Signaling in Matching Markets," *ACM Conference on Economics and Computation (EC)*, 2017.

Y. Kanoria and D. Saban, "Facilitating the search for partners on matching platforms: restricting agent actions," *ACM Conference on Economics and Computation (EC)*, 2017.

Itai Feigenbaum, Yash Kanoria, Irene Lo and Jay Sethuraman, "Dynamic Matching in School Choice: Efficient Seat Reallocation After Late Cancellations," *Conference on Web and Internet Economics (WINE)*, 2016.

Y. Kanoria, D. Saban and J. Sethuraman, "The size of the core in random assignment markets." *ACM-SIAM Symp. on Discrete Algorithms (SODA)*, 2015.

Y. Kanoria and H. Nazerzadeh, "Dynamic Reserves For Repeated Auctions: Learning from Bids," *Conference on Web and Internet Economics (WINE)*, 2014.

N. Arnosti, R. Johari and Y. Kanoria, "Managing search in decentralized matching markets," *ACM Conference on Economics and Computation (EC)*, 2014.

I. Ashlagi, Y. Kanoria and J. D. Leshno, "Unbalanced random matching markets," *ACM Conference on Economics and Computation (EC)*, 2013.

Y. Kanoria and O. Tamuz, "Tractable Bayesian Social Learning on Trees," *IEEE Intl. Symposium on Information Theory (ISIT)*, 2012.

M. Ibrahimi, Y. Kanoria, M. Kraning and A. Montanari, "The Set of Solutions of Random XORSAT Formulae," *ACM-SIAM Symp. on Discrete Algorithms (SODA)*, 2012.

Y. Kanoria, A. Montanari, D. Tse and B. Zhang, "Distributed Storage for Intermittent Energy Sources: Control Design and Performance Limits," *Annual Allerton Conf. on Communication, Control and Computing*, 2011.

Y. Kanoria and A. Montanari, "Subexponential convergence for information aggregation on regular trees," *IEEE Conf. on Decision and Control and European Control Conf. (CDC-ECC)*, 2011.

Y. Kanoria, "A FPTAS for Bargaining Networks with Unequal Bargaining Powers," *Conference on Web and Internet Economics (WINE)*, 2010.

Y. Kanoria, M. Bayati, C. Borgs, J. Chayes and A. Montanari, "Fast Convergence of Natural

Bargaining Dynamics in Exchange Networks," *ACM-SIAM Symp. on Discrete Algorithms (SODA)*, 2011.

Y. Kanoria and A. Montanari, "On the deletion channel with small deletion probability," *IEEE Intl. Symposium on Information Theory (ISIT)*, 2010, Student Paper Award.

Y. Kanoria, S. Mitra and A. Montanari, "Statistical Static Timing analysis using Markov chain Monte Carlo," *Design, Automation and Test in Europe (DATE)*, 2010.

C. Dutta, Y. Kanoria, D. Manjunath and J. Radhakrishnan, "A Tight Lower Bound for Parity in Noisy Communication Networks," *ACM-SIAM Symposium on Discrete Algorithms (SODA)*, 2008.

Y. Kanoria and D. Manjunath, "On Distributed Computation in Noisy Random Planar Networks," *IEEE Intl. Symp. on Information Theory (ISIT)*, 2007.

Grants and Funding

"Design of Matching Markets" NSF CAREER Award, National Science Foundation, USA. 2017-2022. Principal Investigator. Award amount: $500,000.

"Centralized seat allocation for engineering colleges in India" Jerome A. Chazen Institute of International Business grant. 2015-16. Principal Investigator. Award amount: $10,000.

Honors and Awards

Consumer Science Summit Operations Research Best Paper award, Amazon	2023
ACM Sigecom Test of Time award	2023
Young Alumni Achiever Award, IIT Bombay	2021
Finalist for the Wagner Prize for Excellence in OR Practice	2018
National Science Foundation CAREER Award	2017
Simons-Berkeley Research Fellowship	Fall 2015
INFORMS JFIG Junior Faculty Paper Award (second prize)	2014
Student Paper Award at IEEE Intl. Symposium on Information Theory	2010
Numerical Technologies Founders' Prize for top score on the EE PhD Qualifying Examination at Stanford	2008
President of India Gold Medal at IIT Bombay for standing first in the institute	2007
Gold Medal and second overall at the International Physics Olympiad	2003
Gold Medal and second overall at the International Chemistry Olympiad	2003
Ranked 2nd at the All India IIT Joint Entrance Examination	2003

Professional Service & Activities

Associate Editor (since Aug 2016), Operations Research.

Senior Program Committee member for ACM Conference on Economics and Computation (EC), in 2019 and again in 2020. Area Chair for ACM EC in 2021. PC member for ACM EC in 2022.

Meritorious Service Award, 2013, Operations Research.

Program Committee member for the World Wide Web conference (WWW), 2013, and ACM Conference on Economics and Computation, 2016, 2017 and 2018. Reviewer for the MSOM conference in 2016 and 2018.

Reviewer for Management Science, Operations Research, Mathematics of Operations Research, Manufacturing and Service Operations Management, Econometrica, Review of Economic Studies, Probability Theory and Related Fields, Random Structures and Algorithms, Stochastic Systems, Annals of Applied Probability, Economic Theory, Games and Economic Behavior, Theoretical Economics,

American Economic Journal: Microeconomics, Automatica, SIAM Journal on Discrete Mathematics, IEEE Trans. on Information Theory, IEEE Trans. on Automatic Control, ACM Transactions on Algorithms, Electronic Journal of Probability, Internet Mathematics, IEEE Trans. on Computers and IEEE Trans. on Communications. ACM-SIAM Symp. on Economics and Computation, ACM Symp. on Theory of Computing, ACM-SIAM Symp. on Discrete Algorithms, Conference on Web and Internet Economics, Symp. on Algorithmic Game Theory, IEEE Intl. Symp. on Information Theory, Information Theory Workshop, Performance, IEEE Conf. on Decision and Control, Intl. Conf. on VLSI design, and Intl. Workshop on Algorithms and Computation.

Organizer of "Marketplace Algorithms and Design," a weekly online seminar along with Gagan Goel and Daniela Saban, during June-August 2020.

Co-organized a workshop on "Platform Markets" with Steve Tadelis at the Simons Institute for the Theory of Computing in UC Berkeley, September 2019. The workshop was part of the "Online and Matching-Based Market Design" program in Fall 2019.

Organized a tutorial entitled "Backpressure: A Network Control Approach to Running Marketplaces" at the ACM Conference on Economics and Computation 2019.

Coordinator of the DRO division's PhD program 2018-2022.

Served on school-wide committees on Data Science, and on the RA and summer internship programs, in 2018.

Co-organizer of weekly DRO-IEOR seminar at Columbia from Spring 2017 to Spring 2018.

Organized a weekly "Learning and market design" seminar series at Simons Institute, Fall 2015, as part of Economics and Computation program.

Organized a "Reverse Field Trip" involving speakers from local companies on Nov 9, 2015, at Simons Institute, as part of Economics and Computation program.

Professional Affiliations:

INFORMS	2011 - present
Association for Computing Machinery	2007 - present

Invited Talks & Presentations

Simulation is all you need

MIT Operations Research Center seminar 2023

Survey: Online matching markets

Dagstuhl Seminar on "Matching Under Preferences: Theory and Practice" 2021

Dynamic Spatial Matching and Applications

c3.ai DTI Workshop on Data, Learning, and Markets, UIUC	2022
Structure of Constraints in Sequential Decision-Making, Simons Institute UC Berkeley	2022
UIUC-USTC Marketing seminar series	2022
SNAPP seminar	2021
Columbia Econ theory seminar	2021
INFORMS Annual meeting	2021
Stanford Market Design seminar	2021

Competition and search frictions in (random) matching markets
(Co-authors: I. Ashlagi, J. Leshno, S. Min, & P. Qian)

MSO seminar, London Business School Oct 2020

Near Optimal Control of a Ride-Hailing Platform via Mirror Backpressure

(Co-author: P. Qian)

OIDD seminar, Wharton	Oct 2020
EE seminar, IIT Bombay	Aug 2019
Coauthor talks:	
Kellogg-Wharton OM Workshop	2020
INFORMS Annual meeting	2019
INFORMS Applied Probability Society conference	2019
MSOM Annual Conference	2019
Marketplace Innovation workshop	2019

State Dependent Control of Ride-Hailing Systems
(Co-authors: S. Banerjee & P. Qian)

Plenary: Marketplace Innovation workshop, Stanford, CA	June 2019
Workshop on Machine Learning and User Decision Making, Institut Henri Poincare, Paris, France	May 2019
Chicago Booth School of Business brown bag seminar, Chicago, IL	Feb 2019
Kellogg School of Management Operations seminar, Evanston, IL	Feb 2019
CMU Tepper School of Business OM seminar, Pittsburgh, PA	Jan 2019
Duke Fuqua School of Business Decision Sciences seminar, Durham, NC	Nov 2018
Yale School of Management, OM seminar, New Haven, CT	Nov 2018
GeorgiaTech ISyE seminar, Atlanta, GA	Oct 2018
Cornell ORIE seminar, Ithaca, NY	Sep 2018
Uber, Marketplace data science team, San Francisco, CA	Jun 2018
Lyft, Marketplace data science team, San Francisco, CA	Jun 2018
DiDi (visiting team including head of research), Columbia U, New York, NY	Jun 2018
Ola, Data science team, Bangalore, India & San Francisco, CA (via Google Hangout)	Apr 2018
Columbia University Math Finance seminar, New York, NY	Mar 2018
Microsoft Research, Theory lunch, Redmond, WA	Jan 2018
Coauthor talks (partial list):	
INFORMS Applied Probability Society conference	2019
INFORMS Annual meeting	2018
MSOM Annual Conference	2018
Marketplace Innovation Workshop	2018
ACM SIGMETRICS conference	2018
INFORMS Annual Meeting	2017

Centralized admissions for engineering colleges in India
(Co-authors: S. Baswana, P. P. Chakrabarti, S. Chandran, & U. Patange)

INFORMS Annual Meeting (session for Wagner prize finalists), Phoenix, AZ	Nov 2018
NBER Market Design workshop, Stanford, CA	Oct 2018
Revenue Management and Pricing section conference, Toronto, Canada	Jun 2018
Coauthor talks (partial list):	
Institute lecture, IIT Bombay	
IIT Kanpur	

Managing Customer Churn via Service Mode Control
(Co-authors: I. Lobel & J. Lu)

Coauthor talks:	
INFORMS Annual meeting	2019
INFORMS Annual Meeting	2018

MSOM Conference 2018
MSOM Conference 2017
INFORMS Annual Meeting 2017

Dynamic Matching in School Choice: Efficient Seat Reallocation After Late Cancellations
(Co-authors: I. Feigenbaum, I. Lo & J. Sethuraman)

INFORMS Annual Meeting, Phoenix, AZ Nov 2018
Revenue Management and Pricing section conference, Toronto, Canada Jun 2018
INFORMS Annual meeting, Philadelphia, PA Nov 2015

Coauthor talks:

Plenary, ACM Symposium on the Theory of Computing, TheoryFest (2018) POMS 29th Annual Conference (2018) Northwestern IEMS (2018) Stanford MS&E (2018) Cornell Tech (2018) Princeton ORFE (2018) JHU Carey (2018) Chicago Booth (2017) Duke Fuqua (2017) Yale SOM (2017) Microsoft Research (2017) Google Research (2017) Facebook (2017) Caltech SISL (2017) Purdue Krannert (2017) MIT Sloan (2017) Cornell ORIE (2017) Georgia Tech ISyE (2017) HKUST (2017) NUS (2017) Workshop for Young Researchers - Cornell ORIE (2017) INFORMS Annual Meeting (2017) INFORMS APS Meeting (2017) MSOM Conference (2017) Fourth International Workshop on Matching Under Preferences (2017) IFORS Conference (2017) Conference on Web and Internet Economics (2016) INFORMS Annual Meeting (2016) University of Montreal, Economics (2018) Workshop on the Internet and Network Economics (2014)

Incentive-compatible learning of reserve prices for repeated auctions
(Co-author: H. Nazerzadeh)

INFORMS Annual meeting, Phoenix, AZ Nov 2018
INFORMS Annual meeting, Houston, TX Oct 2017
Market Algorithms seminar, Google, NYC Jul 2017
Algorithmic Game Theory and Data Science workshop (in ACM EC), Cambridge, MA Jun 2017
Marketplace Innovation Workshop, Stanford, CA Jun 2017

Coauthor talks:

MDML workshop at WWW 2019 (2019) MSOM Conference (2015) INFORMS Applied Probability Society Conference (2015) Conference on Web and Internet Economics (2014) Ad Auction Workshop (2014)

Facilitating the search for partners on matching platforms
(Co-author: D. Saban)

IIM Ahmedabad seminar 2021
Foster School of Business, Univ of Washington, WA Feb 2020
Simons Institute for the Theory of Computing, UC Berkeley, CA Sep 2019
Semi-plenary: Stony Brook International Conference on Game Theory, NY July 2019
Winter OM Conference, Snowbird, UT Feb 2019
INFORMS Annual meeting, Houston, TX Oct 2017
INFORMS Applied Probability Society Conference, Northwestern U Jul 2017
MSOM Conference, UNC Chapel Hill Jun 2017
ACM conference on Economics and Computation Jun 2017
Chicago Booth Operations Workshop May 2017
Airbnb, Data Science team, San Francisco, CA Apr 2017
Market Design workshop, Columbia University Mar 2017
DRO Brown bag lunch, Columbia Business School Mar 2017
MIT ORC seminar Feb 2017
Networks, Matching, and Platforms workshop, Denver, CO Jan 2017
Operations Management Seminar, USC Marshall School of Business Oct 2016

Coauthor talks:

Cornell Johnson School of Business	2018
Caltech SSIL	2018
Harvard Business School, Technology and Operations Management	2018
Wharton School, Economics, UPenn	2017
Marketplace Innovation Workshop	2017
Stanford Graduate School of Business, Operations, Information and Technology	2017
Simons Institute, UC Berkeley	2017
Marketplace Innovation Workshop	2017
INFORMS Annual meeting	2016

Clearing matching markets efficiently: informative signals and match recommendations
(Co-authors: I. Ashlagi, M. Braverman & P. Shi)

INFORMS Annual Meeting, Phoenix, AZ	Nov 2018
INFORMS Applied Probability Society Conference, Northwestern U	Jul 2017
Rutgers/DIMACS theory seminar	Feb 2017
INFORMS Annual Meeting, Nashville, TN	Nov 2016

Coauthor talks:

ACM conference on Economics and Computation (2017) American Economic Association Annual meeting (2019) Marketplace Innovation Workshop (2017) Columbia University Economic Theory workshop (2017) CIREQ Montreal Microeconomic Theory Conference (2016) ACM Conference on Economics and Computation (EC) (2017) MATCH-UP Conference (2017) INFORMS Annual Meeting (2017)

Matching while Learning
(Co-authors: R. Johari and V. Kamble)

INFORMS Revenue Management and Pricing conference	Jun 2016
DRO Brown bag lunch, Columbia Business School	Mar 2016
Statistics student seminar, Columbia University	Mar 2016
Upwork, Data science team, Mountain View, CA	Oct 2015

Coauthor talks:

Army Research Lab (ARL) Workshop on Holistic Scene Understanding (2019) Workshop on Information Theory and Applications (ITA) Plenary (2018) Allerton Conference on Communication, Control, and Computing (2017) ISOM workshop, University of Florida (2018) Operations and Logistics research seminar, UBC Sauder School of Business (2017) IDS seminar, University of Illinois at Chicago (2017) MSOM conference (2017) INFORMS Applied Probability Society Conference (2017) ACM Conference on Economics and Computation (2017) SOAL Seminar, Stanford University (2016)

Competition and choice in matching markets
(Co-authors: I. Ashlagi, M. Braverman, J. Leshno & P. Shi)

OR seminar, Stanford Graduate School of Business	Nov 2015

Matching markets: structure, dynamics and design (survey)

EconCS survey seminar, Simons Institute, UC Berkeley	Oct 2015

Unbalanced random matching markets
(Co-authors: I. Ashlagi & J. Leshno)

ACM Conference on Economics and Computation	Jun 2015
Workshop on Graphical Models, Statistical Inference, & Algorithms, IMA, Minnesota	May 2015
CS seminar, IIT Kharagpur, India	Jan 2015
OM seminar, Rotman School of Management	Oct 2014
CS-Econ seminar, Duke University	Oct 2014

CS Theory seminar, Columbia University	Sep 2014
OM seminar, NYU Stern School of Business	Sep 2014
NYC Market design workshop, Columbia University	Dec 2013
Google Algorithms seminar, Google, New York	Nov 2013
IIT Bombay, Mumbai, India	Aug 2013
Tata Institute of Fundamental Research, Mumbai, India	Jul 2013
Stochastics and Applications seminar, MIT	Apr 2013
Microsoft Research Theory Group Seminar, Redmond, WA	Mar 2013

Coauthor talks (partial list):

Matching in Practice, Paris, France (2016) Industrial Engineering, University of Chile (2016) Algorithmic Economics Seminar, CMU (2015) Operations Management, Yale SOM (2015) Computer Science, Theory seminar, Stanford (2015) Marketplace Innovation Workshop (2015) Advances in market design, Paris, France (2014) Market Design summer school, Institute for advanced studies, Hebrew University (2014) Decentralization Conference, Stanford (2014) NSF/CEME/NBER Mathematical Economics Conference, Columbia (2013)

Managing congestion in dynamic matching markets
(Co-authors: N. Arnosti & R. Johari)

Columbia Business School Alumni Club of the Bay Area, San Francisco	Sep 2015
Econometric Society World Congress, Montreal, Canada	Aug 2015
Tata Institute of Fundamental Research, Mumbai, India	Jul 2015
INFORMS Applied Probability Society Conference, Istanbul, Turkey	Jul 2015
NYCE (NY Computer Science and Economics) Day	Dec 2014
Theory seminar, USC Economics	Nov 2014
Bray Theory Workshop, Caltech HSS	Nov 2014

Coauthor talks (partial list):

ACM Conference on Economics and Computation (2016). Midway Market Design Workshop, University of Chicago, Plenary (2014) Mostly OM: Workshop on Advanced Topics in Operations Management, Plenary (2014) SIAM Conference on Financial Mathematics and Engineering (2014) Allerton Conference for Communication, Control, and Computing (2014) Stanford University; Department of Management Science and Engineering, Operations Research Seminar, and Graduate School of Business, Operations, Information, and Technology Seminar (joint seminar) (2014) University of Southern California, Marshall School of Business; Operations Management Seminar (2014) New York University, Stern School of Business; Information, Operations, and Management Sciences (IOMS) Seminar (2014)

Efficient dynamic barter exchange
(Co-authors: R. Anderson, I. Ashlagi & D. Gamarnik)

Market design seminar, Stanford Economics	Dec 2015
MSOM Conference, U Washington, Seattle	Jun 2014
Columbia Statistics student seminar	Nov 2013
Probability seminar, University of Chicago	Nov 2013
INFORMS Annual Meeting	Oct 2013
Workshop on Asymptotics of Large Scale Networks, BIRS, Banff, Canada	Mar 2013

Coauthor talks:

ACM-SIAM Symposium on Discrete Algorithms (SODA) (2015) INFORMS Annual Meeting (2014) Industrial Engineering, University of Pittsburgh (2013) Technology and Operations, Ross School of Business, University of Michigan (2013) Operations and Logistics Division, Sauder School of Business, The University of British Columbia (2013) MIT OR Seminar (Best student paper prize presentation) (2013) INFORMS Annual Meeting (2013) INFORMS Annual Meeting (2012) INFORMS APS (2013) Stochastic Networks Conference (Poster only) (2012) Google Research Seminar (2015) Graduate School of Business, Stanford (2015) Industrial Engineering and Management Sciences Seminar, North-Western University (2014) Industrial and Systems Engineering Seminar,

Penn State University (2014) Industrial and System Engineering Seminar, University of Illinois at Urbana-Champaign (2014)

Convergence of the core in assignment markets
(Co-authors: D. Saban & J. Sethuraman)

Coauthor talks:

ACM-SIAM Symp. on Discrete Algorithms (SODA) (2015)

The set of solutions of random XORSAT formulae
(Co-authors: M. Ibrahimi, M. Kraning & A. Montanari)

Probability seminar, Brown University	Feb 2013
Stanford probability seminar	Oct 2012
MIT probability seminar	Sep 2012

Coauthors talks:

Beyond Worst Case Analysis (BWCA) workshop, Stanford (2011) ACM-SIAM Symp. on Discrete Algorithms (SODA) (2012)

Bargaining dynamics in exchange networks
(Co-authors: M. Bayati, C. Borgs, J. Chayes & A. Montanari)

ECE seminar, UCSD	Mar 2012
ECE seminar, Cornell	Mar 2012
EE seminar, UIUC	Feb 2012
ELE/Applied Math seminar, Princeton	Feb 2012
ORIE, Cornell	Feb 2012
DRO seminar, Columbia GSB	Jan 2012
MSR Redmond	Jan 2012
MSR New England	Jan 2012
OR seminar, MIT Sloan	Jan 2012
NCD seminar, EECS, UC Berkeley	Jan 2012
Microsoft Research India	Jan 2012
ECE, University of Maryland	Nov 2011
Markets & Social Systems Engineering seminar, UPenn	Nov 2011
INFORMS Annual meeting, Charlotte, NC	Nov 2011
IEOR seminar, IIT Bombay, India	Jan 2011
Econ-CS seminar, UC Berkeley	Apr 2010
Algorithms and Complexity seminar, MIT	Mar 2010
CS Theory Lunch, Stanford	Jan 2010

Coauthor talks (partial list):

Several talks, including plenaries/keynotes

Distributed storage for intermittent energy sources
(Co-authors: A. Montanari, D. Tse & B. Zhang)

INFORMS Annual meeting, Phoenix, AZ	Oct 2012
Information, Decisions and Algorithms meeting, Stanford	Oct 2011
Allerton conference, UIUC	Sep 2011

Social learning and the dynamic cavity method
(Co-author: O. Tamuz)

INFORMS Applied Probability Society meeting, Stockholm, Sweden	Jul 2011
Research on Algorithms for the Internet (RAIN) seminar, Stanford	Feb 2011
Workshop on Recent Trends in Social Networks, TIFR, Mumbai, India	Jan 2011

Theory lunch, Microsoft Research Redmond, Redmond, WA — Dec 2010

Microsoft Research New England Colloquium, Cambridge, MA — Nov 2010

Majority dynamics on trees and the dynamic cavity method
(Co-author: A. Montanari)

Dept. of Electrical Engineering, IIT Bombay, India — Jun 2009

Tata Institute of Fundamental Research, Mumbai, India — Jun 2008

Workshop on Message Passing, Phase Transitions and Hard Combinatorial Problems, BIRS, Banff, Canada — Jun 2008

Outside activities

Visiting Academic in Supply Chain Optimization Technologies (SCOT), Amazon Inc. since Apr 2022.

Member of the Council of Advisors of the Platform Cooperativism Consortium (PCC) since Sep 2020.

Successfully proposed a new method for seat allocation in engineering colleges in India. Subsequently served as a member of the Technical committee, responsible for designing the mechanism and algorithm for joint seat allocation/admissions for over 30,000 seats at 88 centrally funded engineering colleges in India including the Indian Institutes of Technology, National Institutes of Technology etc. The mechanism was implemented successfully in summer 2015, and again, with further improvements suggested by me, in 2016, 2017, 2018 and 2019.

Regular conversations with data scientists at Airbnb, Upwork, Uber, Lyft, Ola, DiDi, Cubist, Fractal, and other companies. Seminar presentations (unpaid) to companies.

Research collaboration with Wayfair, Inc. (unpaid) from 2018-2020.