Yash Kanoria

| Updated Mar 20: | Uı | odated | Mar | 2025 |
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CONTACT 981 Kravis Hall Phone: (650) 353-0476
Columbia University ykanoria@columbia.edu

New York, NY 10027 http://www.columbia.edu/~yk2577

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Dissertation title: Learning in social and economic networks (unpublished)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 10/10)

Jul 2003 - May 2007

Bachelor of Technology in Electrical Engineering, 2007

ACADEMIC APPOINTMENTS Columbia Business School, Decision, Risk and Operations Division

Associate Professor of Business (with tenure)

Sidney Taurel Associate Professor of Business

2017 - 2021

Assistant Professor of Business

2013 - 2017

Industry Appointments Supply Chain Optimization Technologies, Amazon Inc.

Scholar Nov 2023 - present
Visiting Academic Apr 2022 - Oct 2023

Microsoft Research New England, Cambridge, MA

Schramm postdoctoral fellow Aug 2012 - Jun 2013

Honors and Awards Frederick W. Lanchester Prize 2024

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 2008

Examination at Stanford

President of India Gold Medal at IIT Bombay 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 HT Joint Entrance Exam 2003

TEACHING EXPERIENCE

I have taught several MBA, MS and PhD classes over the years at Columbia GSB.

| (PhD/MS) Computing For Business Research | 2013-14 |
|---|--------------|
| (MBA core) Business Analytics | 2015-present |
| (PhD) Engineering Online Matching Markets | Spring 2017 |
| (PhD) Statistical Physics, Markets and Algorithms | Fall 2019 |
| (PhD) Frontiers in Online & Random Optimization | Fall 2021 |

Spring 2024, Spring 2025

DOCTORAL STUDENT MENTORSHIP

Past PhD students: Pengyu Qian, Jiaqi Lu, Judy Gan

Past postdocs: Abhinav Sinha, Yilun Chen

(MS) Digital Marketplaces

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

Current postdoc: Prakirt Jhunjhunwala (co-advised with Jing Dong).

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)

- 21. Y. Kanoria, "Dynamic Spatial Matching," to appear in Annals of Applied Probability.
- 20. Y. Kanoria, J. Gan, and X. Zhang, "Global near-optimality of local algorithms for network dynamic optimization," minor revision at *Stochastic Systems*.
- 19. Y. Kanoria, S. Min and P. Qian, "The Competition for Partners in Matching Markets," to appear in *Management Science*.
- 18. O. Besbes, Y. Kanoria, and A. Kumar, "Dynamic Resource Allocation: Algorithmic Design Principles and Spectrum of Achievable Performances," to appear in *Operations Research*.
- 17. Y. Kanoria, I. Lobel, J. Lu, "Managing Customer Churn via Service Mode Control," *Mathematics of Operations Research*, 49(2), 2024.
- 16. Y. Kanoria and P. Qian, "Blind Dynamic Resource Allocation in Closed Networks via Mirror Backpressure," *Management Science*, 70(8), 2024.
- 15. Y. Kanoria and D. Saban, "Facilitating the Search for Partners on Matching Platforms," *Management Science*, 67(10), 2021.
- 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.
- 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.
- 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

- 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. Lin, J. Gan, G. Qu, Y. Kanoria, and A. Wierman. "Decentralized Online Convex Optimization using Predictions in Networked Systems," submitted.
- M. Alvo, Y. Kanoria, and D. Russo, "Neural Inventory Control in Networks via Hindsight Differentiable Policy Optimization."
- Y. Kanoria, H. Ma and A. Sirolly, "Estimating the Impact of Race-Blind and Test-Optional Admissions on Racial Diversity and Merit."
- O. Besbes, Y. Kanoria, and A. Kumar, "Impact of Rankings and Personalized Recommendations in Marketplaces."

PEER REVIEWED CONFERENCE PAPERS

- O. Besbes, Y. Kanoria, and A. Kumar. "The Fault in Our Recommendations: On the Perils of Optimizing the Measurable." ACM Conference on Recommender Systems (RecSys), 2024.
- A. Sirolly, Y. Kanoria, and H. Ma, "The Impact of Race-Blind and Test-Optional Admissions on Racial Diversity and Merit." *ACM Conference on Economics and Computation (EC)*, 2024.
- 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 Back-pressure," 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.

Professional Service & Activities

Associate Editor (since 2024), Management Science. Associate Editor (since 2016), Operations Research.

Senior Program Committee member for ACM Conference on Economics and Computation (EC), in 2019, 2020, 2024 and 2025. Area Chair for ACM EC in 2021.

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, 2018, and 2022. 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 Market-places" 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

Neural Inventory Control in Networks via Hindsight Differentiable Policy Optimization NYC Operations day 2025

In Which Matching Markets do Costly Compatibility Inspections Lead to a Deadlock? Dynamic Allocation and Matching workshop, Banff 2025

Design and Impact of Recommendation Systems

Information Systems seminar, NYU Stern

2025

The Impact of Race-Blind and Test-Optional Admissions on Racial Diversity and Merit Workshop on Market Design, Chile 2023

Simulation is all you need

| Online Stochastic Matching workshop, Toulouse | 2024 |
|---|------|
| Stanford RAIN (Research on Algorithms and Incentives in Networks) Seminar | 2024 |
| PDT | 2024 |
| Cubist | 2023 |
| 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, UT | UC 2022 |
|---|-----------------------------------|
| Structure of Constraints in Sequential Decision-Making, S | Simons Institute UC Berkeley 2022 |
| UIUC-USTC Marketing seminar series | 2022 |

| SNAPP seminar Columbia Econ theory seminar | 2021 2021 |
|---|-------------------|
| INFORMS Annual meeting | 2021 |
| Stanford Market Design seminar | 2021 |
| Stamord Warket 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 | ${\rm Oct}\ 2020$ |
| 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) | |
| · , | T 0010 |
| 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): | 2019 |
| INFORMS Applied Probability Society conference | |
| 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

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 |

Jun 2018

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 | $\mathrm{Jul}\ 2017$ |
| Algorithmic Game Theory and Data Science workshop (in ACM EC), Cambridge, MA | Jun 2017 |
| Marketplace Innovation Workshop, Stanford, CA | $\mathrm{Jun}\ 2017$ |
| | |

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 | $\mathrm{Jan}\ 2017$ |
| 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 Technolog | y 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)

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 | $\mathrm{Jun}\ 2015$ |
|---|----------------------|
| Workshop on Graphical Models, Statistical Inference, & Algorithms, IMA, Minnesota | May 2015 |
| CS seminar, IIT Kharagpur, India | $\mathrm{Jan}\ 2015$ |
| OM seminar, Rotman School of Management | Oct 2014 |
| CS-Econ seminar, Duke University | Oct 2014 |
| CS Theory seminar, Columbia University | $\mathrm{Sep}\ 2014$ |
| OM seminar, NYU Stern School of Business | $\mathrm{Sep}\ 2014$ |
| NYC Market design workshop, Columbia University | $\mathrm{Dec}\ 2013$ |
| 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 |

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 | $\mathrm{Sep}\ 2012$ |

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. from Apr 2022 to Oct 2023. Amazon Scholar in SCOT since Nov 2023.

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

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

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