

Mohsen Bayati's Curriculum Vitae

Stanford University Graduate School of Business
655 Knight Way, Stanford, CA 94305
Phone: (650) 725-2285
Email: bayati@stanford.edu
Website: <https://web.stanford.edu/~bayati/>

ACADEMIC & INDUSTRY EXPERIENCE

Stanford University	Stanford, CA
<i>Professor of Operations, Information and Technology</i>	2022-Present
<i>Associate Prof. of Operations, Information and Technology</i>	
<i>With tenure</i>	2018-2022
<i>Without tenure</i>	2015-2018
<i>Assistant Prof. of Operations, Information and Technology</i>	2011- 2015
<i>Graduate School of Business</i>	
<i>Courtesy appointment in Electrical Engineering</i>	2013-Present
<i>Courtesy appointment in Radiation Oncology</i>	2022-Present
<i>Advising Faculty in Biomedical Informatics</i>	2011-Present
 <i>Postdoctoral Scholar in Electrical Engineering</i>	 2009- 2011
 Amazon Pharmacy	 2019-Present
<i>Amazon Scholar</i>	
 Microsoft Research	Redmond, WA, Cambridge, MA
<i>Postdoctoral Researcher</i>	2007- 2009
<i>Intern – theory group</i>	Summer 2006
 IBM Watson Research	Yorktown Heights, NY
<i>Intern</i>	Summer 2005

EDUCATION

Stanford University	Stanford, CA
<i>Ph.D. in Electrical Engineering</i>	2003-2007
 <i>M.Sc. and Ph.D. minor in Mathematics</i>	 2000-2003
 Sharif University of Technology	Tehran, Iran
<i>B.Sc. in Mathematics</i>	1997-2000

RESEARCH INTERESTS

Applied machine learning in healthcare, Mathematics of learning and decision-making,
Graphical models and message-passing algorithms

AWARDS & DISTINCTIONS

NSF CAREER award	2016
INFORMS Health Applications William Pierskalla best paper award	2014 & 2016
INFORMS Applied Probability best paper award	2015
Gold Medal in International Mathematics Olympiad (IMO)	1997

JOURNAL PAPERS

R. Xiong, S. Athey, M. Bayati, G. Imbens, “Optimal Experimental Design for Staggered Rollouts”, *Management Science*, 2023

- Finalist in 2020 MSOM best student paper competition (R. Xiong)

N. Hamidi and M. Bayati, “On Low-rank Trace Regression under General Sampling Distribution”, *Journal of Machine Learning Research*, 23(321):1–49, 2022

N. Hamidi and M. Bayati, “Technical Note— The Elliptical Potential Lemma for General Distributions with an Application to Linear Thompson Sampling”, *Operations Research*, 2022

S. Athey, M. Bayati, N. Doudchenko, G. Imbens, and K. Khosravi, “Matrix Completion Methods for Causal Panel Data Models”, *Journal of American Statistical Association (JASA)*, Vol 116 (536), 2021.

D. Tawfik, A. Sinha, M. Bayati, K. Adair, T. Shanfelt, B. Sexton, and J. Profit, “Frustration with technology and its relation to healthcare worker emotional exhaustion: A cross-sectional observational study”. *Journal of Medical Internet Research (JMIR)*, 23(7), 2021.

A. R. Sharafat, M. Bayati, “PatientFlowNet: A Deep Learning Approach to Patient Flow Prediction in Emergency Departments”, *IEEE Access*, 9, 2021.

H. Bastani, M. Bayati, and Khashayar Khosravi, “Mostly Exploration-Free Algorithms for Contextual Bandits”, *Management Science*, 67(3):1329-1992, 2021.

H. Bastani and M. Bayati, “Online Decision Making with High Dimensional Covariates”, *Operations Research*, 68(1):1-307, 2020.

- INFORMS Health Applications William Pierskalla best paper award in 2016
- Nicholson, MSOM, and IBM Service science best student (H. Bastani) paper in 2016

S. Athey, M. Bayati, G. Imbens, and Z. Qu, “Ensemble Methods for Causal Effects in Panel Data Settings”, *AEA Papers and Proceedings*, 109, 2019.

M.A. Erdogdu, M. Bayati and L.H. Dicker, “Scalable Approximations for Generalized Linear Problems”, *Journal of Machine Learning Research*, 20:1-45, 2019.

- Short version in 2016 Neural Information Processing Systems (NeurIPS) conference

H. Bastani, J. Goh, and M. Bayati, “Evidence of Upcoding in Pay-for-Performance Programs”, *Management Science*, 2018.

- INFORMS Health Applications Society best student (H. Bastani) paper in 2015

J. Goh, M. Bayati, S. Zenios, S. Singh, and D. Moore, “Data Uncertainty in Markov Chains: Application to Cost-effectiveness Analyses of Medical Innovations”, *Operations Research*, Vol. 66, No. 3, 2018.

- INFORMS Health Applications Society William Pierskalla best paper in 2014

M. Bayati, A. Montanari, and A. Saberi, “Generating Random Network without Short Cycles”, *Operations Research*, Vol. 66, No. 5, 2018.

M. Bayati, S. Bhaskar, and A. Montanari, “Statistical Analysis of a Low-cost Method for Multiple Disease Prediction”, *Statistical Methods for Medical Research*, Aug; 27(8):2312-2328, 2018.

E. Ang, S. Kwasnick, M. Bayati, and E. Plambeck, and M. Aratow, “Accurate ED Wait Time Prediction”, *Manufacturing and Service Operations Management*, 18(1), 141-156, 2016.

- [Implemented at San Mateo Medical Center](#)

J. Goh, M. Bjarnadottir, M. Bayati, and S. Zenios, “Active Postmarketing Drug Surveillance for Multiple Adverse Events”, *Operations Research*, 63(6), 1528-1546, 2015.

M. Bayati, C. Borgs, J. Chayes, Y. Kanoria, and A. Montanari, “Bargaining dynamics in exchange networks”, *Journal of Economic Theory*, 156, 417-454, 2015.

M. Bayati, M. Lelarge and A. Montanari, “Universality in polytope phase transitions and message passing algorithms”, *Annals of Applied Probability*, 25(2), 753-822, 2015.

- INFORMS Applied Probability best paper competition in 2015.
- Solved a [conjecture by David Donoho and Jared Tanner](#)

M. Bayati, M. Braverman, M. Gillam, K. Mack, G. Ruiz, M. Smith, and E. Horvitz, “Data-Driven Decisions for Reducing Readmissions for Heart Failure: General Methodology and Case Study”, *Public Library of Science (PLOS ONE)*, 9(10), 2014.

- Implemented in several hospitals (now part of [Microsoft Azure AI](#))

M. Bayati, D. Gamarnik, and P. Tetali, “Combinatorial approach to the interpolation method and scaling limits in sparse random graphs”, *Annals of Probability*, 41(6), 4080-4115, 2013.

- [Solved an open problem by David Aldous](#)

M. Bayati, D. F. Gleich, A. Saberi, Y. Wang, “Message-passing algorithms for sparse network alignment”, *ACM Transactions of Knowledge Discovery and Data mining*, 7, 3:1-3:31, 2013

M. Bayati, A. Montanari, “The LASSO risk for Gaussian matrices”, *IEEE Transactions on Information Theory*, 58(4), 1997-2017, 2012.

M. Bayati, C. Borgs, J. Chayes, and R. Zecchina, “Belief-Propagation for Weighted b-Matchings on Arbitrary Graphs and its Relation to Linear Programs with Integer Solutions”, *SIAM Journal in Discrete Mathematics*, 25, 989-1011, 2011.

M. Bayati, A. Montanari, “The dynamics of message passing on dense graphs, with applications to compressed sensing”, *IEEE Transactions on Information Theory*, 57(2), 764-785, 2011.

M. Bayati, J. H. Kim and A. Saberi, “A sequential algorithm for generating random graphs”, *Algorithmica*, 58(4), 860-910, 2010.

M. Bayati, A. Braunstein, and R. Zecchina, “A rigorous analysis of the cavity equations for the minimum spanning tree”, *Journal of Mathematical Physics*, 49, 125206, 2009.

M. Bayati, C. Borgs, J. Chayes, and R. Zecchina, “On the exactness of the cavity method for weighted b-matching on arbitrary graphs and its relation to linear programs”, *Journal of Statistical Physics*, L06001, 2008.

M. Bayati, C. Borgs, A. Braunstein, J. Chayes, A. Ramezanpour, and R. Zecchina, “Statistical Mechanics of Steiner Trees”, *Physical Review Letters*, 101, 037208, 2008.

M. Bayati, D. Shah and M. Sharma, “Max-product for maximum weight matching: convergence, correctness, and LP duality”, *IEEE Transactions on Information Theory*, 54(3), 1241-1251, 2008.

SUBMITTED & WORKING PAPERS

M. Bayati, J. Cao, and W. Chen, “Speed Up the Cold-Start Learning in Two-Sided Bandits with Many Arms”

- <https://arxiv.org/abs/2210.00340>

J. Vallon, N. Panjwani, X. Ling, S. Vij, S. Srinivas, J. Leppert, M. Bayati* M. Buyyounouski*, “Patient-Level Clinical Expertise Enhances Prostate Cancer Recurrence Predictions with Machine Learning”.

- <https://doi.org/10.1101/2022.03.22.22272635>
- * Served as equally contributing co-senior authors

M. Bayati, N. Hamidi, R. Johari, K. Khosravi, “The Unreasonable Effectiveness of Greedy Algorithms in Multi-Armed Bandit with Many Arms”.

- <https://arxiv.org/abs/2002.10121>
- [Short version](#) appeared as spotlight in Neural Information Processing Systems (NuerIPS), 2020.

N. Hamidi and M. Bayati, “A General Theory of the Stochastic Linear Bandit and Applications to Data-Driven Exploration”.

- <https://arxiv.org/abs/2002.05152>

M. K. Shirani Faradonbeh, M. S. Shirani Faradonbeh, Mohsen Bayati, “Thompson Sampling Efficiently Learns to Control Diffusion Processes”

- <https://arxiv.org/abs/2206.09977>
- [Short version](#) appeared in Neural Information Processing Systems (NuerIPS), 2022

J. Vallon, X. Ling, S. Vij, S. Srinivas, J. Leppert, M. Bayati*, M. Buyyounouski* “Clinically Consistent Prostate Cancer Outcome Prediction Models with Machine Learning”

- * Served as equally contributing co-senior authors
- [Short version](#) appeared in American Society for Radiation Oncology (ASTRO), 2022

W. Chen and M. Bayati, “Learning to Recommend Using Non-Uniform Data”.

- <https://arxiv.org/abs/2110.11248>

N. Hamidi and M. Bayati, “On Frequentist Regret of Linear Thompson Sampling”.

- <https://arxiv.org/abs/2006.06790>
- Solved an open problem on Thompson Sampling ([stated in page 82 of this monograph](#))

D. Luo, M. Bayati, E. Plambeck, and M. Aratow, “Low-Acuity Patients Delay High-Acuity Patients in the Emergency Department”.

- https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3095039

C. Kim and M. Bayati, “Recommendation on a Budget: Column Space Recovery from Partially Observed Entries with Random or Active Sampling”.

- <https://arxiv.org/abs/2002.11589>
- [Short version](#) appeared in 2020 International Conference on Artificial Intelligence and Statistics (AISTATS) conference

N. Hamidi, M. Bayati, and K. Gupta, “Personalizing Many Decisions with High-Dimensional Covariates”.

- [Short version](#) appeared in 2019 Neural Information Processing Systems (NeurIPS) conference

M. K. Shirani Faradonbeh, M. S. Shirani Faradonbeh, Mohsen Bayati, “Thompson Sampling Efficiently Learns to Control Diffusion Processes”, *Neural Information Processing Systems (NuerIPS)*, 2022.

J. Vallon, X. Ling, S. Vij, S. Srinivas, J. Leppert, M. Bayati*, M. Buyyounouski* “Clinically Consistent Prostate Cancer Outcome Prediction Models with Machine Learning”, *American Society for Radiation Oncology (ASTRO)*, 2022.

M. Bayati, N. Hamidi, R. Johari, K. Khosravi, “The Unreasonable Effectiveness of Greedy Algorithms in Multi-Armed Bandit with Many Arms”, (spotlight paper) *Proceedings of Neural Information Processing Systems (NuerIPS)*, 2020.

C. Kim and M. Bayati, “Recommendation on a Budget: Column Space Recovery from Partially Observed Entries with Random or Active Sampling”, *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2020.

N. Hamidi, M. Bayati, and K. Gupta, “Personalizing Many Decisions with High-Dimensional Covariates”, *Proceedings of Neural Information Processing Systems (NuerIPS)*, 2019.

H. Bastani, M. Bayati, M. Braverman, R. Gummadi, and R. Johari, “Analysis of Medicare Pay-for-Performance Contracts”, *EC Workshop on Mechanism Design for Social Good*, 2017.

M.A. Erdogdu, M. Bayati and L.H. Dicker, “Scaled Least Squares Estimator for GLMs in Large-Scale Problems”, *Proceedings of Neural Information Processing Systems (NeurIPS)*, 2016.

M. Bayati, S. Bhaskar, and A. Montanari, “A Low-cost Method for Multiple Disease Prediction”, *Proceedings of American Medical Informatics Associations (AMIA)* 2015.

N.C. Baker, M. Bayati, R. Torguson, K. Mack, H. Rappaport, E. Horvitz, R. Waksman, “Identifying Patients at High Risk for Readmission following Treatment for Acute Myocardial Infarction: a Data-Centric Approach”, *American Heart Association Conference*, November 2014.

M. Bayati, M. A. Erdogdu, and A. Montanari, “Estimating LASSO risk and noise level”, *Proceedings of Neural Information Processing Systems (NeurIPS)*, 2013.

M. Bayati, M. Lelarge and A. Montanari, “Universality in Polytope Phase Transitions and Iterative Algorithms”, *Proceedings of IEEE International Symposium on Information Theory (ISIT)*, 2012

Y. Kanoria, M. Bayati, C. Borgs, J. Chayes, and A. Montanari, “Fast Convergence of Natural Bargaining Dynamics for Exchange Networks”, *Proceedings of ACM-SIAM Symposium on Discrete Algorithms (SODA)*, 2011.

M. Bayati, J. Bento, A. Montanari, “The LASSO risk for Gaussian matrices: asymptotic results and real world examples”, *Proceedings of Neural Information Processing Systems (NeurIPS)*, 2010.

M. Bayati, A. Montanari, “The dynamics of message passing on dense graphs, with applications to compressed sensing”, *Proceedings of IEEE International Symposium on Information Theory (ISIT)*, 2010.

M. Bayati, D. Gamarnik, and P. Tetali, “Combinatorial approach to the interpolation method and scaling limits in sparse random graphs”, *Proceedings of ACM Symposium on Theory of Computing (STOC)*, 2010.

M. Bayati, M. Gerritsen, D. Gleich, A. Saberi, and Y. Wang, “Algorithms for Large, Sparse Network Alignment”, *Proceedings of IEEE International Conference on Data Mining (ICDM)*, 2009.

M. Bayati, A. Montanari, and A. Saberi, “Generating random graphs with large girth”, *Proceedings of ACM-SIAM Symposium on Discrete Algorithms (SODA)*, 2009.

M. Bayati, J. H. Kim and A. Saberi, “A sequential algorithm for generating random graphs”, *International Workshop on Randomized Techniques in Computation (RANDOM)*, 2007.

M. Bayati, D. Gamarnik, D. Katz, C. Nair and P. Tetali, “Simple deterministic approximation algorithms for counting matchings”, *ACM Symposium on Theory of Computing (STOC)*, 2007.

M. Bayati, B. Prabhakar, D. Shah and M. Sharma, “Iterative Scheduling Algorithms”, *IEEE Conference on Computer Communications (INFOCOM)*, 2007.

M. Bayati, Chandra Nair, “A rigorous proof of the cavity method for counting matchings”, *(Allerton) conference on communication, control and computing*, 2006.

M. Bayati, D. Shah and M. Sharma, “A simpler max-product maximum weight matching algorithm and the auction algorithm”, *IEEE International Symposium on Information Theory (ISIT)*, 2006.

M. Bayati, M. Squillante and M. Sharma, “Optimal scheduling in multi-server queuing network”, *ACM (SIGMETRICS)*, 2006.

M. Bayati, D. Shah and M. Sharma, “Maximum weight matching via max-product belief propagation”, *IEEE International Symposium on Information Theory (ISIT)*, 2005.

N. Kumar, S. Nabar, M. Bayati, A. Keshavarzian, “Achieving stability in networks of input queued switches using a local online scheduling policy”, *IEEE (GLOBECOM)*, 2005.

M. Bayati, N. Beheshti, “Stability of the maximum size matching in input queued switches”, *(Allerton) conference on communication, control and computing*, 2004.

PATENTS

M. Bayati, M. Braverman, M. Gillam, and E. Horvitz, Health care policy development and execution, Filed 2010, Published 2012, Pub. number: US20120004925 A1.

M. Bayati, M. Braverman, S. Kale and Y. Makarychev, Predicting web advertisement click success by using head-to-head ratings, Filed & Published 2010, Pub. number: US20100198685 A1.

M. Bayati, C. Borgs, A. Braunstein, J. Chayes, and R. Zecchina, Network analysis with Steiner trees, Filed 2009, Granted 2011, Pub. Number: US20090222782 A1.

TEACHING

Winters 2013-2022, OIT 367: Business Intelligence from Big Data (MBA Core)

Designed a new Advanced Applications track for Data and Decisions that introduces students to real-world situations where significant competitive advantage can be obtained through large-scale data analysis, with special attention to what can be done with the data and where the potential pitfalls lie. Students will acquire a working knowledge of machine learning, Python, and SQL.*

**Switched from R to Python in 2020*

Spring 2015*, Springs 2018-2020, OIT 604: Data, Learning, and Decision-Making (PhD)

Designed this course to cover latest research topics at the intersection of machine learning and data-driven decision-making.

**Offered under a different number (OIT 637)*

Winters 2015-2017, Fall 2018, OIT 536: Data for Action: From Insights to Applications (MBA)

Co-designed (with Guido Imbens) a new course that covers a broad set of topics that managers of data-driven enterprises should know. It deals with the technical, legal, regulatory and business strategic decisions that must be considered when delivering solutions to customers.

Spring 2012, OIT 267: Data and Decisions – Accelerated (MBA Core)

PhD THESIS and POSTDOC SUPERVISION

Advising: Yuwei Luo (GSB)

Mohamad Sadegh Shirani Faradonbeh (GSB)

Jacqueline Vallon (Management Science and Engineering)

Advised: Primary department and first position

Erjie Ang (GSB, data scientist at Facebook), co-advised with E. Plambeck

Hamsa Bastani (Electrical Engineering, faculty at Wharton School after an IBM Goldstein postdoc)

Sonia Bhaskar (Electrical Engineering, data scientist at Netflix), co-advised with A. Montanari

Wanning Chen (GSB, University of Washington Foster School of Business)

Murat Erdogdu (Statistics, faculty at University of Toronto after a postdoc at Microsoft Research), co-advised with A. Montanari

Joel Goh (GSB, faculty at Harvard Business School), co-advised with S. Zenios

Nima Hamidi (Statistics, quant researcher at Jump Trading)

Khashayar Khosravi (Electrical Engineering, Google Research)

Carolyn Kim (Computer science, Research Scientist at Genesis Therapeutics)

Sara Kwasnick (GSB, data scientist at Airbnb), co-advised with E. Plambeck

D. Luo (GSB, faculty at UC San Diego Rady School of Business), co-advised with E. Plambeck

Sheng Qiang (GSB, AI researcher and engineer)

Ali Reza Sharafat (Electrical Engineering, data scientist at TikTok)

Erika Strandberg (Biomedical Informatics, Program Director of Data Science and AI Affiliates Programs at Stanford Data Science Institute)

R. Xiong (Management Science and Engineering and GSB, faculty at Emory University), Co-supervised with S. Athey

SERVICE

Co-PhD Liaison	OIT Group at Stanford GSB (2019-Present)
Associate Editor	Management Science (2018-Present), Mathematics of Operations Research (2018-2022), Operations Research (2016-Present), Stochastic Systems (2017-Present)

Program Co-chair	INFORMS Health Applications Pierskalla Competition (2015, 2017)
Cluster Chair	Personalized Medicine and Disease Modeling (INFORMS Healthcare 2019), Healthcare Data Analytics and Machine Learning (INFORMS Healthcare 2017)
Reviewer and Panelist	National Science Foundation (2014-2016)
Member of Program Committee	Nicholson Competition (2013-2015, 2022), American Medical Informatics Conference (2013), MSOM SIG Healthcare 2015.
Organizer & Session chair:	<p>Session on Data, Learning, and Decision-Making in Healthcare Management (INFORMS 2021, INFORMS Healthcare 2021)</p> <p>Session on Topics in Online Decision-Making (INFORMS 2020)</p> <p>Session on Matrix Estimation, Multi-armed Bandits, and Healthcare Applications (INFORMS 2019)</p> <p>Session on Examples of Machine Learning Applications in Healthcare Management (INFORMS Healthcare 2019)</p> <p>Session on Probabilistic Methods for Inference and Learning (INFORMS APS 2019)</p> <p>Session on Data, Learning, and Decision-Making (INFORMS 2018)</p> <p>Session on Dynamic Learning and Decision-Making (INFORMS APS 2017)</p> <p>Session on Statistical Decision-Making with Applications in Healthcare (INFORMS 2016)</p> <p>Session on High-dimensional Data Models in Operations (INFORMS 2015)</p> <p>Session on Data-Driven Decisions in Healthcare (INFORMS 2014, INFORMS HAS 2015, INFORMS APS 2015)</p> <p>Session on Applied Probability in Healthcare (INFORMS APS 2013)</p> <p>Session on Learning and Marketing in Social Networks (INFORMS 2011)</p> <p>Session on Message-passing Algorithms and Network Optimization (INFORMS 2008).</p>
Seminar Co-organizer:	OIT Seminar (2011-2016), Data Society and Inference Seminar (2013-2020).
Referee for journals:	Operations Research, Management Science, Manufacturing & Services Operations Management (MSOM), Annals of Probability, Annals of Applied Probability, Random Structures and Algorithms, IEEE/ACM Transactions on Networking, IEEE Transactions on Information Theory, SIAM Journal in Discrete Math (SIDMA)

INVITED TALKS

On Data, Learning, and Decision-Making

September 2022, Keynote talk at Analytics X Conference, Singapore

The Unreasonable Effectiveness of Greedy Algorithms in Multi-Armed Bandits,

February 2022, Stanford Human Centered Artificial Intelligence Seminar

A General Theory of the Stochastic Linear Bandit and Applications to Data-Driven Exploration

October 2021, INFORMS Annual meeting

October 2021, Facebook Operations Research workshop (virtual)

Toward Better Use of Data in Contextual and Linear Bandits

September 2020, MIT Data Science Lab (virtual)

August 2020, Stochastic Networks, Applied Probability, and Performance (SNAPP), (virtual)

April 2020, Stanford Statistics Seminar (virtual)

Data Models with Staggered Treatments: From Observational Data to Experimental Design

October 2020, UCLA Decisions, Operations & Technology Management (virtual)

September 2020, Yale Quantitative Research Methods Workshop (virtual)

December 2019, Cornell SC Johnson College of Business, Ithaca, NY.

October 2019, UBC Sauder School of Business, Vancouver, BC.

Machine Learning and Personalized Decision-Making in Healthcare

October 2019, HAS distinguished speaker at INFORMS Annual meeting

October 2019, Keynote at INFORMS Workshop on Data Mining and Decision Analytics

April 2019, Stanford GSB Spring Colloquium, Stanford, CA

Reducing Exploration in Personalized Decision-Making

July 2019, Joint Statistical Meeting, Denver, CO

April 2019, NYC Data Science Seminar, Cornet-Tech, New York, NY

April 2019, Google Research, New York, NY

February 2019, Stanford University workshop in biostatistics, Stanford, CA

December 2018, IMA Workshop "From Theory to Practice: Data-driven Supply Chain Management", Minneapolis, MI

November 2018, MIT Operation Research Center Seminar, Cambridge, MA

September 2018, University of Michigan Ross school of Business, Ann Arbor, MI

August 2018, Microsoft Research, Redmond, WA

November 2017, London Business School, Management Science and Operations Seminar, London, UK

September 2017, Yale SoM, Operations Management Seminar, New Haven, CT

May 2017, Stanford RAINS Seminar, Stanford, CA

May 2017, POMS Conference, Seattle, WA

March 2017, Duke Fuqua School of Business, Decision Sciences Seminar, Durham, NC

Online Decision-Making with High-Dimensional Covariates

August 2017, Joint Statistical Meeting, Baltimore, MD
October 2016, Workshop on Data-driven Management Science, Eindhoven, Netherlands
September 2016, NYU Stern IOMS Seminar, New York, NY
September 2016, Northwestern IEMS Seminar, Evanston, IL
June 2016, UNC Emerging Topics & Methods Workshop, Chapel Hill, NC
May 2016, Stanford Statistics Seminar, Stanford, CA
May 2016, INSEAD Technology and Management Seminar, Fontainebleau, France
June 2015, MSOM Conference, Toronto, ON
July 2015, INFORMS Applied Probability Conference, Istanbul, Turkey

Accurate ED Wait Time Prediction

September 2015, Wharton Empirical Workshop, Philadelphia, PA
July 2015, INFORMS Applied Probability Conference, Istanbul, Turkey

Optimizing Healthcare Decisions using High Dimensional Data

June 2015, Mostly OM workshop, Tsinghua University, Beijing, China

Statistical Analysis of a Low-cost Method for Multiple Disease Prediction

November 2014, Operations/Management Workshop, Chicago Booth, Chicago, IL
November 2015, INFORMS 2015, INFORMS Healthcare 2015

On Sequential Methods for Generating Random Graphs

June 2014, Stanford Probability Seminar, Stanford, CA

Estimation of LASSO Risk and Noise Level from Data

October 2013, INFORMS, Minneapolis, MN

Incentive Mechanisms in Healthcare

October 2013, INFORMS, Minneapolis, MN

Automated Risk Predictions for Clinical Decision Making

October 2013, USC Operations Management Seminar, Los Angeles, CA
April 2013, Columbia University DRO Seminar, New York, NY
October 2012, INFORMS, Phoenix, AZ

Machine Learning Methods from Statistical Physics Analysis and Applications

October 2012, INFORMS, Phoenix, AZ

Analysis of Approximate Message Passing and the Risk of LASSO

April 2013, Google Research, New York, NY
January 2012, Institute for Pure and Applied, Los Angeles, CA
November 2011, INFORMS, Charlotte, NC
July 2011, INFORMS Applied Probability Society conference, Stockholm, Sweden
February 2011, Berkeley Probability seminar, Berkeley, CA
November 2010, INFORMS, Austin, TX

Data-driven decision making with applications to healthcare systems

November 2011, INFORMS, Charlotte, NC

October 2011, Kellogg Operations Seminar Series, Evanston, IL

October 2011, UT Austin Seminar, Austin TX

September 2011, Microsoft Research 20th Anniversary, Cambridge, MA

July 2011, INFORMS Applied Probability Society conference, Stockholm, Sweden

February 2011, Information Theory and Applications workshop, UCSD, San Diego, CA

February 2011, Stanford GSB Operations, Information, and Technology seminar, Stanford, CA

December 2010, MIT Sloan School of Management, Cambridge, MA

November 2010, Berkeley Networking, Communications, and DSP seminar, Berkeley, CA

Analysis of Approximate Message Passing and the Risk of LASSO

November 2011, INFORMS, Charlotte, NC

July 2011, INFORMS Applied Probability Society conference, Stockholm, Sweden

February 2011, Berkeley Probability seminar, Berkeley, CA

November 2010, INFORMS, Austin, TX

Predicting and Minimizing Re-hospitalizations through Machine Learning

November 2010, INFORMS, Austin, TX

November 2010, Biomedical Informatics Colloquium, Stanford, CA

April 2010, Information Systems Colloquium, Stanford University, CA

Generating Random Graphs with Large-Girth

October 2009, Information Theory Workshop (ITW), Taormina, Italy

October 2008, DIMACS workshop on message-passing algorithms, Rutgers University, Piscataway, NJ

Algorithms for Large, Sparse Network Alignment

September 2009, Physics of Algorithms workshop, Santa Fe, NM

Graphical Models and Message Passing Algorithms: Theory and Applications

March 2009, Yahoo! Research, Sunnyvale, CA

May 2008, Google Research, Mountain View, CA

February 2007, Theory group at Microsoft research, Redmond, WA

A Sequential Algorithm for Generating Random Graphs

March 2009, MIT Stochastic Seminar, Cambridge, MA

October 2008, INFORMS, Washington, DC

July 2007, Common Concepts in Statistical Physics and Computer Science, Trieste, Italy

May 2006, Theory Seminar, University of Washington, Seattle, WA

Matching Wikipedia categories to the library of congress subject headings with network alignment

February 2009, Information Theory and Applications Workshop, San Diego, CA
November 2008, Microsoft Search Labs Tech Talk, Mountain View, CA

Belief Propagation and Linear Programming

October 2008, INFORMS, Washington, DC
June 2008, Workshop on: Phase Transitions, Hard Combinatorial Problems and Message Passing Algorithms, Banff, CA

Sequential Importance sampling and message-passing algorithms

February 2008, Theory Seminar, University of Washington, Seattle, WA

Message-passing scheduling algorithms

January 2008, Information Theory and Applications workshop, UCSD, San Diego, CA
July 2007, Applied Probability Society of INFORMS, Eindhoven, Netherlands

A rigorous analysis of the Cavity Method for counting matchings

May 2007, 1st Canadian Discrete and Algorithmic Mathematics Conference, Calgary, Canada
April 2007, 3rd Kailath Lecture and Colloquium, Stanford, CA
December 2006, Theory seminar, Berkeley, CA

Maxim Weight Matching via Max-Product Belief Propagation

January 2006, Stanford Theory Lunch, Stanford, CA
August 2005, Applied probability lunch, IBM Watson, Yorktown Heights, NY

Solving Switching Problem via Auction Algorithm

May 2005, Cisco systems, San Jose, CA