

Stanford



Mohsen Bayati

Associate Professor of Operations, Information and Technology at the Graduate School of Business and, by courtesy, of Electrical Engineering

Operations, Information & Technology

Bio

BIO

See Personal Homepage.

ACADEMIC APPOINTMENTS

- Associate Professor, Operations, Information & Technology
- Associate Professor (By courtesy), Electrical Engineering
- Member, Bio-X

HONORS AND AWARDS

- National Science Foundation CAREER Award, Stanford University (2016)
- Best paper award, INFORMS Applied Probability Society (2015)
- William Pierskalla best paper award, INFORMS Health Applications Society (2014)
- Gold Medal, International Mathematics Olympiad (1997)

LINKS

- Personal Homepage: <http://web.stanford.edu/~bayati>
- Department website: <http://www.gsb.stanford.edu/faculty-research/faculty/mohsen-bayati>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

For a full description of some of my current projects, please visit my Personal Homepage.

Teaching

COURSES

2019-20

- Business Intelligence from Big Data: OIT 367 (Win)
- Data, Learning, and Decision-Making: OIT 604 (Spr)
- Research in Operations, Information and Technology: OIT 644 (Win)

2018-19

- Business Intelligence from Big Data: OIT 367 (Win)

- Data, Learning, and Decision-Making: OIT 604 (Spr)

2017-18

- Business Intelligence from Big Data: OIT 367 (Win)
- Data, Learning, and Decision-Making: OIT 604 (Spr)

2016-17

- Business Intelligence from Big Data: OIT 367 (Win)
- Data for Action: From Insights to Applications: OIT 536 (Win)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Mona Azadkia, Ahmadreza Momeni, Ignacio Rios

Doctoral Dissertation Advisor (AC)

Nima Hamidi, Ali Sharafat

Doctoral Dissertation Co-Advisor (AC)

Danqi Luo

Doctoral (Program)

Wanning Chen, Carolyn Kim, Giacomo Mantegazza, Bryce McLaughlin, Ilan Morgenstern, Daniil Vishnev, Alper YILMAZ, Mingxi Zhu, abdullah coskun

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biomedical Informatics (Phd Program)

Publications

PUBLICATIONS

- **Accurate Emergency Department Wait Time Prediction** *M&SOM-MANUFACTURING & SERVICE OPERATIONS MANAGEMENT*
Ang, E., Kwasnick, S., Bayati, M., Plambeck, E. L., Aratow, M.
2016; 18 (1): 141-156
- **Active Postmarketing Drug Surveillance for Multiple Adverse Events** *OPERATIONS RESEARCH*
Goh, J., Bjarnadottir, M. V., Bayati, M., Zenios, S. A.
2015; 63 (6): 1528-1546
- **UNIVERSALITY IN POLYTOPE PHASE TRANSITIONS AND MESSAGE PASSING ALGORITHMS** *ANNALS OF APPLIED PROBABILITY*
Bayati, M., Lelarge, M., Montanari, A.
2015; 25 (2): 753-822
- **Bargaining dynamics in exchange networks** *JOURNAL OF ECONOMIC THEORY*
Bayati, M., Borgs, C., Chayes, J., Kanoria, Y., Montanari, A.
2015; 156: 417-454
- **A Low-Cost Method for Multiple Disease Prediction.** *AMIA ... Annual Symposium proceedings / AMIA Symposium. AMIA Symposium*
Bayati, M., Bhaskar, S., Montanari, A.
2015; 2015: 329-338
- **Data-Driven Decisions for Reducing Readmissions for Heart Failure: General Methodology and Case Study** *PLOS ONE*
Bayati, M., Braverman, M., Gillam, M., Mack, K. M., Ruiz, G., Smith, M. S., Horvitz, E.
2014; 9 (10)

- **COMBINATORIAL APPROACH TO THE INTERPOLATION METHOD AND SCALING LIMITS IN SPARSE RANDOM GRAPHS** *ANNALS OF PROBABILITY*
Bayati, M., Gamarnik, D., Tetali, P.
2013; 41 (6): 4080-4115
- **Simple Deterministic Approximation Algorithms for Counting Matchings** *STOC 07: PROCEEDINGS OF THE 39TH ANNUAL ACM SYMPOSIUM ON THEORY OF COMPUTING*
Bayati, M., Gamarnik, D., Katz, D., Nair, C., Tetali, P.
2007: 122-127
- **Iterative scheduling algorithms** *26th IEEE Conference on Computer Communications (INFOCOM 2007)*
Bayati, M., Prabhakar, B., Shah, D., Sharma, M.
IEEE.2007: 445-453
- **A sequential algorithm for generating random graphs** *10th Int Workshop on Approximation Algorithms for Combinatorial Optimization Problems/11th Int Workshop on Randomization and Computation*
Bayati, M., Kim, J. H., Saberi, A.
SPRINGER-VERLAG BERLIN.2007: 326-340
- **A simpler max-product Maximum Weight Matching algorithm and the auction algorithm** *IEEE International Symposium on Information Theory*
Bayati, M., Shah, D., Sharma, M.
IEEE.2006: 557-561
- **Maximum weight matching via max-product belief propagation** *IEEE International Symposium on Information Theory and Its Applications*
Bayati, M., Shah, D., Sharma, M.
IEEE.2005: 1763-1767
- **Achieving stability in networks of input-queued switches using a local online scheduling policy** *GLOBECOM '05: IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE, VOLS 1-6*
Nabar, S. U., Kumar, N., Bayati, M., Keshavarzian, A.
2005: 694-698