Mohsen Bayati
Associate Professor of Operations, Information and Technology at the Graduate School of Business
Operations, Information & Technology

Bio

BIO
See Personal Homepage.

ACADEMIC APPOINTMENTS
• Associate Professor, Operations, Information & Technology
• 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
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)

2015-16
Business Intelligence from Big Data: OIT 367 (Win)
Data for Action: From Insights to Applications: OIT 536 (Win)

STANFORD ADVISEES
Doctoral Dissertation Reader (AC)
Yuanyuan Shen

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

- **UNIVERSITY 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 I-6
Nabar, S. U., Kumar, N., Bayati, M., Keshavarzian, A.
2005: 694-698