Hamsa Bastani

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Operations, Information & Decisions (OID) Group
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Employment

Assistant Professor, Wharton School, University of Pennsylvania
Operations, Information & Decisions (OID), 2018 – present

Herman Goldstine Postdoctoral Fellow, IBM Research
Math for AI, 2017-2018

Education

Stanford University
Ph.D. in Electrical Engineering, 2012-2017

Harvard University
A.M. in Physics, 2011-2012
A.B. *summa cum laude* in Physics and Mathematics, 2008-2012

Working Papers

The First Step is the Hardest: Certification Spillovers in Responsible Sourcing (with Pia Ramchandani and Ken Moon)

Adaptive Clinical Trial Designs with Surrogates: When Should We Bother? (with Arielle Anderer and John Silberholz)
1st Place, Pierskalla Award for Best Paper in Healthcare (2019)
Major Revision, ***Management Science***

Meta Dynamic Pricing: Learning Across Experiments
(with David Simchi-Levi and Ruihao Zhu)
Major Revision, ***Management Science***

Are Bans Effective despite Limited Enforcement? Evidence from the High Seas (with Joann de Zegher)
People's Choice Award, Early-Career Sustainable OM Workshop (2019)
Major Revision, ***Management Science***

Predicting with Proxies: Transfer Learning in High Dimension
Major Revision, ***Management Science***

Learning Personalized Product Recommendations with Customer Disengagement (with Pavithra Harsha, Georgia Perakis and Divya Singhvi)
2nd Place, Service Science Best Paper Award (2019)
Hon. Mention, POMS Best Student Paper in Supply Chain (D. Singhvi, 2019)

Major Revision, ***M&SOM***

Interpreting Predictive Models for Human-in-the-Loop Analytics
(with Osbert Bastani and Carolyn Kim)
Finalist, Pierskalla Award for Best Paper in Healthcare (2018)
Preliminary version in FATML Workshop (2017)

Analysis of Medicare Pay-for-Performance Contracts
(with Mohsen Bayati, Mark Braverman, Ramki Gummadi and Ramesh Johari)
Preliminary version in EC Mechanism Design for Social Good Workshop (2017)

Published Papers

Mostly Exploration-Free Algorithms for Contextual Bandits
(with Mohsen Bayati and Khashayar Khosravi)
Accepted in ***Management Science***

Online Decision-Making with High-Dimensional Covariates
(with Mohsen Bayati)
1st Place, Pierskalla Award for Best Paper in Healthcare (2016)
1st Place, George Nicholson Student Paper Competition (2016)
1st Place, MSOM Student Paper Competition (2016)
1st Place, IBM Service Science Best Student Paper Award (2016)
Operations Research (2019)

Evidence of Upcoding in Pay-for-Performance Programs
(with Joel Goh and Mohsen Bayati)
1st Place, Health Applications Society Best Student Paper Award (2015)
Management Science (2018)

Other Publications

Exploring the Causal Relationships between Initial Opioid Prescriptions and Outcomes
(with J. Zhang, V. Iyengar, D. Wei, B. Vinzamuri, A. Macalalad, A. Fischer, G. Yuen-Reed, A. Mojsilović, and K. Varshney)
AMIA Workshop on Data Mining for Medical Informatics (2017)

Multiplex coherent anti-Stokes Raman scattering (MCARS) for chemically sensitive, label-free flow cytometry
(with C. Camp, S. Yegnanarayanan, A. Eftekhar, and A. Adibi)
Optics Express (2009)

Creating Optical Vortex Modes with a Single Cylinder Lens
(with M. Cohen and J. Noe)
Proceedings of *SPIE* (2010)

Students

Arielle Anderer, Wharton OID
Pia Ramchandani, Wharton OID

Kan Xu, Penn Econ
Khashayar Khosravi, Stanford EE (co-author, advised by M. Bayati)
Park Sinchaisri, Wharton OID (co-author, advised by G. Allon)
Divya Singhvi, MIT ORC (co-author, advised by G. Perakis)
Ruihao Zhu, MIT IDSS (co-author, advised by D. Simchi-Levi)

Teaching

Wharton OID, University of Pennsylvania
Instructor, Introduction to Management Science (OIDD 321), 2018 – present
- Recipient of Wharton Teaching Excellence Award, 2019

Graduate School of Business, Stanford University
TA, Business Intelligence from Big Data (OIT 367), 2016
TA, Data for Action (OIT 536), 2015

Harvard College
TA, Quantum Mechanics (Phys 143a), 2011
TA, Linear Algebra & Real Analysis (Math 25), 2009-2010

Invited Talks

2020: Utah Operations Conference; Chicago Booth OM

2019: MIT IDSS Data Science Lab; NYU Stern OM; UC Irvine Operations & Decision Technologies; UC Irvine Algorithms, Combinatorics & Optimization Center; Wharton Empirical Research in OM Workshop; Information & Learning Workshop, IESE; ISOM Workshop, Emory; Healthcare SIG; CUHK Shenzhen Healthcare & Service Operations Workshop; UT Dallas Naveen Jindal OM; Wharton OID

2018: IMA Data-Driven Supply Chain Mgmt (Applied) Workshop; IMA Data-Driven Supply Chain Mgmt (Theory) Workshop; UPenn Warren Center for Network & Data Sciences; IBM Research Math for AI; IDinsight; MIT ORC IAP Seminar on OR for Social Impact

2017: MIT IDSS Data Science Lab; Judge Business School, University of Cambridge; IBM Research Applied Probability Seminar; Cornell Tech; Stanford-Berkeley Health Economics Workshop; UCLA Anderson; Duke Fuqua; USC Marshall; Northwestern IEMS; Yale School of Management; Harvard Business School; Columbia IEOR / DRO; Ross School of Business; INSEAD; Kellogg OM; Purdue Krannert IS; Chicago Booth OM

2016: Cornell ORIE; Wharton OID; Indiana Kelley; London Business School; Pittsburgh Katz; MIT Sloan OM; Stanford GSB OIT; Stanford Biostatistics Workshop; Stanford Medical School Med-X Conference; Healthcare SIG

2015 & earlier: Cornell ORIE; Cornell ORIE Young Scholars Workshop; Wharton Empirical Research in OM Workshop

Awards

1st Place, Pierskalla Award for Best Paper in Healthcare, 2019
2nd Place, Service Science Best Paper Award, 2019
People's Choice Award, Early-Career Sustainable OM Workshop, 2019
Wharton Teaching Excellence Award, 2019
Finalist, Pierskalla Award for Best Paper in Healthcare, 2018
1st Place, Pierskalla Award for Best Paper in Healthcare, 2016
1st Place, George Nicholson Student Paper Competition, 2016
1st Place, MSOM Student Paper Competition, 2016
1st Place, IBM Service Science Best Student Paper Award, 2016
1st Place, Health Applications Society Best Student Paper Award, 2015
National Science Foundation Fellow, 2012-2017
Stanford Department Fellowship in Electrical Engineering, 2012-2013
Finalist, Intel Science Talent Search, 2008

Professional Service

Co-Chair, George Nicholson Student Paper Competition, 2020
Co-Chair, Pierskalla Award for Best Paper in Healthcare, 2020
Program Committee, EC Conference, 2020
Program Committee, AAAI Conference on Artificial Intelligence, 2020
Wharton Dean's Advisory Council, 2019-2020
Judge, POMS Best Healthcare Ops Mgmt Paper Award, 2019
Judge, Elwood S. Buffa Doctoral Dissertation Award, 2019
Area Chair, Mechanism Design for Social Good Workshop, 2019
Committee Member, George Nicholson Student Paper Competition, 2019
Judge, MSOM Student Paper Competition, 2019
Committee Member, Revenue Management & Pricing Conference, 2019
Judge, Healthcare Applications Society Student Paper Competition, 2019
Program Committee, EC Mechanism Design for Social Good Workshop, 2018
Judge, Healthcare SIG in MSOM Conference, 2018-2019
Meritorious Service Award for *Management Science*, 2018
Judge, Service Science Best Cluster Paper Award, 2017
Co-Chair, Pierskalla Award for Best Paper in Healthcare, 2017
Speaker, CMU YinzOR Student Conference, 2017
Reviewer for *Management Science*, *Operations Research*, *M&SOM*, *Journal of the Royal Statistical Society: Series B*, *Annals of Statistics*, and *Nature*

Languages and Skills

English (native), Tamil (native), French (beginner)
R, Stata, LaTeX, Matlab