

# Arash Asadpour

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Born: 1984, Iran

- RESEARCH INTERESTS
- ◇ Applications: Online Advertising, Online Retailing, Advertising in Social Networks, Matching and Search Markets, Revenue Management
  - ◇ Methodologies: Mathematical Programming, Stochastic Optimization, Online Optimization
- EDUCATION
- ◇ **Stanford University**, Stanford, CA  
**Ph.D.** in Management Science and Engineering, September 2005–July 2010.  
Major: *Operations Research*. Thesis Title: *Rounding by Sampling*. Advisor: Amin Saberi.
  - ◇ **Sharif University of Technology**, Tehran, Iran  
**B.Sc.** in Computer Engineering, September 2001–July 2005.
- PROFESSIONAL EXPERIENCE
- ◇ **Assistant Professor of Information, Operations & Management Sciences**
    - **New York University - Stern School of Business** September 2011–present.
  - ◇ **Teaching Experience:**
    - **NYU Stern:** *Decision Models & Analytics*, Undergraduate, 2011–present.
    - **NYU Stern:** *Decision Models & Analytics*, MBA, 2011–present.
    - **NYU Stern:** *Linear and Non-linear Optimization*, Ph.D., 2011–present.
    - **Sharif University of Technology:** *Randomized Algorithms*, M.Sc. and Ph.D., 2011.
- HONORS AND AWARDS
- ◇ Best Paper Award, 21<sup>st</sup> ACM-SIAM Symposium on Discrete Algorithms (SODA), 2010.
  - ◇ Dantzig-Lieberman Operations Research Fellowship, Stanford University, 2008 and 2009.
  - ◇ Stanford School of Engineering Fellowship, 2005–2006.
  - ◇ 1st Rank, Iran’s National Graduate Entrance Exam in Computer Engineering, Iran, Spring 2004.
  - ◇ Silver Medal, 9th and 10th Iranian National Olympiad in Informatics, Summer 1999 and 2000.
- PH.D. ADVISEES
- ◇ **Xuan Wang**, Ph.D. completion: 2016. Asst. Prof. of Operations Management, HKUST.
  - ◇ **Tarek Abdallah**, Ph.D. completion: 2018. Asst. Prof. of Operations Management, Kellogg School of Management (starting Fall 2018).
- ORGANIZER
- ◇ **NYCE 2014:** Seventh annual New York Computer Science and Economics Day.
- PATENTS
- ◇ **Layerable Auction Mechanisms**, with D. Abraham and K. Jain. US20090313126A1.
- SELECTED INVITED TALKS
- ◇ **Concise Bid Optimization.**
    - The University of Chicago Booth School of Business, November 2017.
    - Rutgers Business School, November 2017.
    - Northwestern University Kellogg School of Management, November 2017.
    - Columbia Business School, November 2017.
    - Princeton University Operations Research and Financial Engineering, October 2017.
    - Yale School of Management, September 2017.

- ◇ **Online Resource Allocation with Limited Flexibility.**  
Duke University's Fuqua School of Business, April 2016.  
Columbia Business School, April 2016.
- ◇ **Maximizing Stochastic Monotone Submodular Functions.**  
MIT Sloan School of Management, April 2013.
- ◇ **Rounding by sampling: an  $O(\log n/\log \log n)$ -approximation algorithm for ATSP.**  
21<sup>st</sup> International Symposium of Mathematical Programming (ISMP), Berlin, August 2012.  
Microsoft Research New England, January 2010.
- ◇ **The Inefficiency Ratio of Stable Equilibria in Congestion Games.**  
20<sup>th</sup> International Symposium of Mathematical Programming (ISMP), Chicago, August 2009.
- ◇ **Max-min Fair Allocation of Indivisible Goods.**  
IBM Almaden Research Center, May 2008.  
Microsoft Research Redmond, March 2007.

JOURNAL  
PUBLICATIONS  
(ACCEPTED  
AND UNDER  
REVIEW)

- ◇ **Gamma Analysis: A Study on Online Stochastic Optimization.** Under Review.
- ◇ **Large-Scale Bundle Size Pricing: A Theoretical Analysis,** with Tarek Abdallah and Josh Reed. Under Review.
- ◇ **Online Resource Allocation with Limited Flexibility,** with X. Wang and J. Zhang. Minor Revision in MANAGEMENT SCIENCE.
- ◇ **Concise Bid Optimization Strategies with Multiple Budget Constraints,** with M. Bateni, K. Bhawalkar, and V. Mirrokni. Forthcoming, MANAGEMENT SCIENCE.
- ◇ **An  $O(\log n/\log \log n)$ -Approximation Algorithm for the Asymmetric Traveling Salesman Problem,** with M. Goemans, A. Madry, S. Oveis Gharan, and A. Saberi. OPERATIONS RESEARCH, 2017.
- ◇ **Maximizing Stochastic Monotone Submodular Functions,** with H. Nazerzadeh, MANAGEMENT SCIENCE, 2016.
- ◇ **Santa Claus Meets Hypergraph Matchings,** with U. Feige and A. Saberi, in ACM TRANSACTIONS ON ALGORITHMS, 2012.
- ◇ **An Approximation Algorithm for Max-min Fair Allocation of Indivisible Goods,** with A. Saberi, in SIAM JOURNAL OF COMPUTING, 2010.

PEER-  
REVIEWED  
CONFERENCE  
PUBLICATIONS

- ◇ **Concise Bid Optimization Strategies with Multiple Budget Constraints,** with M. Bateni, K. Bhawalkar, and V. Mirrokni. In the 10<sup>th</sup> Conference on Web and Internet Economics [WINE], 2014.
- ◇ **An  $O(\log n/\log \log n)$ -Approximation Algorithm for the Asymmetric Traveling Salesman Problem,** with M. Goemans, A. Madry, S. Oveis Gharan, and A. Saberi. In the 21<sup>st</sup> ACM-SIAM Symposium on Discrete Algorithms [SODA], 2010. **Winner of the Best Paper Award.**
- ◇ **On the Inefficiency Ratio of Stable Equilibria,** with A. Saberi. In the 5<sup>th</sup> Conference on Web and Internet Economics [WINE], 2009.
- ◇ **Stochastic Submodular Maximization,** with H. Nazerzadeh and A. Saberi. Preliminary results appeared in the 4<sup>th</sup> Conference on Web and Internet Economics [WINE], 2008.
- ◇ **Santa Claus Meets Hypergraph Matchings,** with U. Feige and A. Saberi. In the 12<sup>th</sup> Conference on Approximation Algorithms for Combinatorial Optimization [APPROX], 2008.
- ◇ **An Approximation Algorithm for Max-Min Fair Allocation of Indivisible goods,** with A. Saberi. In the 39<sup>th</sup> ACM Symposium on Theory of Computing [STOC], 2007.

WORKING  
PAPERS

- ◇ **Ranking Assortment of Products: Optimization and Learning.**
- ◇ **Revenue Management with Bundles**, with T. Abdallah and J. Reed.
- ◇ **A New Approximation Algorithm for Online Stochastic Matching**, with A. Saberi.
- ◇ **Correlation Decay in Entropy Rounding of LP Relaxations.**
- ◇ **Two-sided Online Stochastic Matching**, with A. Saberi.
- ◇ **A Supply-Demand Framework for Matching Markets: Equilibrium, Homophily and Mixing**, with D. Acemoglu, C. Borgs, J. Chayes, and A. Saberi.