

Baharak Rastegari

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Most Recent Position

Research Associate in the School of Computing Science, University of Glasgow, June 2013 until June 2016

Research Interests

Game theory, multiagent systems, algorithm design, mechanism design, two-sided matching markets, computational complexity theory, artificial intelligence, bioinformatics

Education

- **Ph.D.** in *Computer Science*, 2013
University of British Columbia, Vancouver, BC, Canada
- **M.Sc.** in *Computer Science*, 2004
University of British Columbia, Vancouver, BC, Canada
- **B.Sc.** in *Computer Engineering (Software)*, 2002
Sharif University of Technology, Tehran, Iran

Journal Articles

- **Pareto Optimal Matchings in Many-to-Many Markets with Ties.** K. Cechlárová, P. Eirinakakis, T. Fleiner, D. Magos, D. Manlove, I. Mourtos, E. Oceláková and B. Rastegari. *Theory of Computing Systems*, 30 April 2016 (Open Access).
- **Revenue Monotonicity in Deterministic, Dominant-Strategy Combinatorial Auctions.** B. Rastegari, A. Condon and K. Leyton-Brown. *Artificial Intelligence Journal (AIJ)*, 175(2): 441—456, 2011.
- **Revenue Monotonicity in Combinatorial Auctions.** B. Rastegari, A. Condon and K. Leyton-Brown. *SIGecom Exchanges, Special issue on combinatorial auctions*, 7(1): 3 pages, December 2007 (by invitation and lightly refereed).
- **Parsing Nucleic Acid Pseudoknotted Secondary Structure: Algorithm and Applications.** B. Rastegari and A. Condon. *Journal of Computational Biology*, 14(1): 16—32, 2007.
- **HotKnots: Heuristic Prediction of RNA Secondary Structures Including Pseudoknots.** J. Ren, B. Rastegari, A. Condon and H. H. Hoos. *RNA*, 11(10): 1494—1504, 2005.
- **Classifying RNA Pseudoknotted Structures.** A. Condon, B. Davy, B. Rastegari, F. Tarrant and S. Zhao. *Theoretical Computer Science*, 320(1): 35—50, 2004.

Conference Proceedings

- **Stable Matching with Uncertain Linear Preferences.** H. Aziz, P. Bir, S. Gaspers, R. de Haan, N. Mattei and B. Rastegari. *International Symposium on Algorithmic Game Theory (SAGT'16)*, pages 195–206, 2016.
- **Preference Elicitation in Matching Markets via Interviews: A Study of Offline Benchmarks.** B. Rastegari, P. Goldberg and D. Manlove. *International Conference on Autonomous Agents and Multiagent Systems (AAMAS'16)*, pages 1393–1394, 2016.
- **Pareto Optimal Matchings in Many-to-Many Markets with Ties.** K. Cechlárová, P. Eirínakis, T. Fleiner, D. Magos, D. Manlove, I. Mourtos, E. Oceláková and B. Rastegari. *International Symposium on Algorithmic Game Theory (SAGT'15)*, pages 27–39, 2015.
- **Reasoning about Optimal Stable Matching under Partial Information.** B. Rastegari, A. Condon, N. Immorlica, R. Irving and K. Leyton-Brown. *ACM Conference on Economics and Computation (EC'14)*, pages 431–448, 2014.
- **Size versus Truthfulness in the House Allocation Problem.** P. Krysta, D. Manlove, B. Rastegari and J. Zhang. *ACM Conference on Economics and Computation (EC'14)*, pages 454–470, 2014.
- **Two-sided Matching with Partial Information.** B. Rastegari, A. Condon, N. Immorlica and K. Leyton-Brown. *ACM Conference on Electronic Commerce (EC'13)*, pages 733–750, 2013.
- **Stepwise Randomized Combinatorial Auctions Achieve Revenue Monotonicity.** B. Rastegari, A. Condon and K. Leyton-Brown. *ACM-SIAM Symposium on Discrete Algorithms (SODA'09)*, pages 738–747, 2009.
- **Revenue Monotonicity in Combinatorial Auctions.** B. Rastegari, A. Condon and K. Leyton-Brown. *Conference in Artificial Intelligence (AAAI'07)*, pages 122–127, 2007.
- **Linear Time Algorithm for Parsing RNA Secondary Structure.** B. Rastegari and A. Condon. *Workshop on Algorithms in Bioinformatics (WABI'05), Algorithms in Bioinformatics, Lecture Notes in Computer Science*, 3692: 341–352, 2005.

Working Papers

- **Stable Matching with Uncertain Pairwise Preferences,**
with Haris Aziz, Péter Biró, Tamás Fleiner, Serge Gaspers, Ronald de Haan, and Nicholas Mattei.

Invited Talks & Lightly Refereed Conference Presentations

- **Pareto Optimality in the Many-to-Many House Allocation Problem with Indifference.** K. Cechlárová, P. Eirínakis, T. Fleiner, D. Magos, D. Manlove, I. Mourtos, E. Oceláková and B. Rastegari. *Conference on Economic Design*, 2015, Istanbul, Turkey.
- **Size versus Truthfulness in the House Allocation Problem.** P. Krysta, D. Manlove, B. Rastegari and J. Zhang. *Cost Action IC1205 meeting on Computational Social Choice*, April 2014, Maastricht, The Netherlands.

- **Two-sided Matching with Partial Information.** B. Rastegari, A. Condon, N. Immorlica and K. Leyton-Brown. *The 4th World Congress of the Game Theory Society (GAMES 2012)*, July 2012, Istanbul, Turkey.
- **Revenue Monotonicity in Combinatorial Auctions.** B. Rastegari, A. Condon and K. Leyton-Brown. *INFORMS Annual Meeting*, November 2007, Seattle, Washington, USA.
- **Linear Time Algorithm for Parsing RNA Secondary Structure.** B. Rastegari and A. Condon. *First Annual Western Canada RNA Conference (RiboWest'05)*, 2005, Prince George, BC, Canada.
- **Understanding RNA Pseudoknotted Structures.** A. Condon, B. Davy, B. Rastegari, F. Tarrant and S. Zhao. Poster presentation and 2-page abstract in the Proceedings of the Eight Annual *International Conference on Research in Computational Molecular Biology (RECOMB'04)*, 2004, San Diego, CA, USA.

Awards and Honors

- **Student Service Award**, 2007 and 2013
Awarded to one student per year to recognize outstanding service, Department of CS, UBC
- **University Graduate Fellowship** (16000\$CAN), 2007—2008
Awarded to the best graduate students, UBC
- **Ranked 5th and won the best women team title**, 2001
ACM Programming Contest, Asia region, Tehran site
- **Silver Medal**, National Informatics Olympiad, Iran, 1997

Selected Teaching Experience & Training

- Co-supervised three Level-4 student projects, 2015—2016
School of Computing Science, University of Glasgow
- Co-supervised two Level-4 student projects, 2013—2014
School of Computing Science, University of Glasgow
- Delivered four lectures and two examples classes for “**Algorithmics II (H)**”, 2016
Level 4 / MSc elective course, School of Computing Science, University of Glasgow
- Delivered two lectures for “**Algorithmics II (H)**”, 2015
Level 4 / MSc elective course, School of Computing Science, University of Glasgow
- Delivered two lectures for “**Algorithmics II (H)**”, 2014
Level 4 / MSc elective course, School of Computing Science, University of Glasgow
- Assisted with the course design, held office hours and delivered one lecture for “**Computers and Society**”, 2012 (Sept—Dec) & 2012 (Jan—Apr)
4th year undergraduate course, Department of Computer Science, UBC
- Delivered two lectures for “**Foundations of Multiagent Systems**”, 2011 (Sept—Dec)
Graduate course, Department of Computer Science, UBC
- Attended **Instructional Skills Workshop (ISW)**, 2010 (December)
24 hours, UBC

- Delivered tutorials and held Q&A sessions for “**Intermediate Algorithm Design and Analysis**”, 2006 (June—July)
3rd year undergraduate course, Department of Computer Science, UBC
- Delivered two lectures and held Q&A sessions for “**Algorithms for Bioinformatics**”, 2006 (Jan—Apr)
4th year undergraduate course, Department of Computer Science, UBC
- Delivered six full-day lectures and tutorials for an “**Informatics Olympiad Preparation**” course, 2001 (April)
Karaj, Iran

Selected Professional Service

- **PC member** of IJCAI ('16) and EC ('16)
- **Co-organizer** of “*MATCH-UP 2015: 3rd International Workshop on Matching Under Preferences*” and the “*COST Action IC1205 meeting on Fair Division and Matching*”, Glasgow, UK, 2014 (April)
- **Representative** of the postdoctoral researchers of the school of computing science in the Postdoctoral Research Forum of the University of Glasgow, 2015—2016
- **Convener** for the *Formal Analysis, Theory, and Algorithms (FATA)* seminars, School of Computing Science, University of Glasgow, 2013—2016
- **Founder** and **convener** of the *Algorithmicists* discussion group, School of Computing Science, University of Glasgow, 2014—2016
- **Convener** of the *Game Theory and Decision Theory (GT-DT)* reading group, Department of Computer Science, UBC, 2007—2012
- **Secretary** and Webmaster for the UBC Persian Music Ensemble AMS club, Alma Mater Society club, UBC, 2010—2011
- **Elected representative** of the *Computer Science Graduate Student Association (CSGSA)*, UBC, in several committees, including
 - Faculty Affairs Committee, 2009—2010
 - Graduate Affairs Committee, 2007—2009
 - Focus on Women in Computer Science (FoWCS) Committee, 2005—2010
- **Co-organizer** of the *GIRLsmarts* workshop for 3 years (2006—2008) and an instructor for *GIRLsmarts* for 2 years (2004—2005). The workshop is affiliated with the Department of Computer Science, UBC, and aims to teach grade 6 girls about computer science.
- **Referee** of research articles for Operations Research, Discrete Applied Mathematics, Mathematics of Operations Research, Economic Theory Bulletin, Journal of Artificial Intelligence Research, Transactions on Economics and Computation, and Conferences including IJCAI, AAAI, AAMAS, EC, SODA, AMMA, FSTTCS, STACS, WINE, MATCH-UP.

Note: Different conventions were used in different papers (e.g. alphabetical, main author first) but I have made substantial contribution to each paper.