

Samid Hoda

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Education

- 2010 **Tepper School of Business, Carnegie Mellon University, Pittsburgh PA**
PhD candidate Algorithms, Combinatorics & Optimization
- 2002 **University of Waterloo, Waterloo ON, Canada**
Master of Mathematics, Computer Science
- 2000 **University of Waterloo, Waterloo ON, Canada**
Bachelor of Mathematics, Joint Honors Computer Science & Combinatorics and Optimization

Research

- “Optimal movement of factory cranes”
(Submitted for publication in October 2008), Ionuț Aron, Latife Genç-Kaya, Iiro Harjunoski, Samid Hoda, and J. N. Hooker
- “Smoothing techniques for computing Nash equilibria of sequential games”
(Under revision for Mathematics of Operations Research), Samid Hoda, Andrew Gilpin, Javier Peña, and Tuomas Sandholm
- “Revisiting the constraint activating outer polar method for 0-1 programming”
Samid Hoda, Egon Balas, and François Margot
- “MDD-Based propagation of **among** constraints”
Samid Hoda, J. N. Hooker, and Willem-Jan van Hoeve
- “An algorithm for scheduling multiple factory cranes on a common track”
Ben Peterson, Iiro Harjunoski, Samid Hoda and J. N. Hooker
- “Gradient-based algorithms for finding Nash equilibria in extensive form games”
(International Workshop on Internet and Network Economics (WINE), San Diego, California, 2007), Andrew Gilpin, Samid Hoda, Javier Peña, and Tuomas Sandholm

Experience

- 2007 – 2009 **ABB Corporate Research, Sweden** **Consultant**
- Developed specialized algorithms for scheduling tasks on multiple track-mounted cranes with dynamic movement constraints.
 - Implemented efficient C++ code for creating factory operating schedules.
- 2003 – 2004 **CombineNet, Inc., Pittsburgh PA** **Research Scientist**
- Produced time critical technology for clearing combinatorial markets.
 - Improved the speed, accuracy and scalability of algorithms for clearing combinatorial exchanges.
 - Created algorithms and solution methods for several families of market clearing problems.
- 1999 – 2008 **Teaching Positions** **Instructor/Assistant**
- Instructor, “Mathematical Models in Consulting”, Tepper School of Business, Carnegie Mellon University (2008)
 - Instructor, “Mathematics for Business”, University of Windsor, ON Canada (2005)
 - Teaching Assistant, Tepper School of Business, Carnegie Mellon University (2007-2009)
 - Teaching Assistant, University of Waterloo, ON Canada (1999-2001)

Computer Skills

Programming C, C++, OCaml, Standard ML, Perl, Scheme, Modula-3, Fortran, Basic
Platforms UNIX (Linux, BSD, Solaris), Windows, Mac OS X
Libraries CPLEX, COIN-OR, Xpress, MPI
Packages Maple, Mathematica, Matlab, S-Plus/R, LATEX, Polymake, cdd, PORTA