

KRESIMIR MIHIC

School of Mathematics
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Research interest

Mathematical Programming
Optimization Algorithm Design and Analysis
Computational Complexity
Operations Research and Its Applications

Education

- 2018– SCHOOL OF MATHEMATICS, UNIVERSITY OF EDINBURGH
Ph.D. program in Optimization and Operational Research
Research topic: Fast Methods for Very Large Scale Constrained Optimization
Adviser: Jacek Gondzio
- 2011 STANFORD UNIVERSITY
Degree of Engineer in Electrical Engineering
Thesis: "Computational Methods for Energy Efficient and Reliable Stochastic Scheduling and Resource Allocation in Heterogeneous Multiprocessor Systems"
Adviser: Robert M. Gray
- 2000 UNIVERSITY OF LOUISIANA AT LAFAYETTE
M.S. in Computer Engineering
Thesis: "Semi-Systolic Architectures for 2-D Discrete Wavelet Transform"
- 1997 UNIVERSITY OF KENTUCKY
B.S. in Electrical Engineering

Professional experience

- 2010– *Principal Member of Technical Staff*, Modeling, Simulation and Optimization Group, Oracle Labs, Belmont, California, USA
- 2005–07 *Senior Product Engineer*, Magma Design Automation, San Jose, California, USA
- 2001–05 *Staff CAD Engineer*, Cypress Semiconductor, San Jose, California, USA

Academic experience

- Fall '09 *Visiting Scholar*, Department of Computer Science and Engineering UC San Diego, USA
- Spring '09 *Teaching Fellow*, Stanford Japan Center, Kyoto, Japan
- 2007–10 *Teaching and Research Assistant*, Stanford University, USA

Refereed journal publications and pre-prints

- 2019 K. Mihic, M. Zhu and Y. Ye , "Managing Randomization in the Multi-Block Alternating Direction Method of Multipliers for Quadratic Optimization" *arXiv preprint arXiv:1903.01786*
- 2018 J. Carlsson, M. Behroozi and K. Mihic, "Wasserstein distance and the distributionally robust TSP" *Operations Research*, 66(6), pp.1603-1624, December 2018
- 2018 K. Mihic, K. Ryan and A. Wood, "Randomized decomposition solver with the quadratic assignment problem as a case study", *INFORMS Journal on Computing*, , 30(2), pp. 295-308, April 2018
- 2007 T. Simunic, K. Mihic, G. De Micheli, "Power and reliability management of SoCs" *IEEE Transactions on VLSI Systems*, Vol. 15, Issue 4, pp. 391 - 403, April 2007

- 2006 A.K. Coskun, T.Simunic, K. Mihic, G. De Micheli, "Analysis and Optimization of MPSoc Reliability" *Journal of Low Power Electronics*, Vol. 2, No. 1, pp. 56-69, April 2006

Refereed conference proceedings and presentations

- 2014 K. Mihic and A. Wood, "Generalized decomposition for non-linear problems", INFORMS Annual Meeting, San Francisco, CA, November 2014
- 2012 K. Mihic, D. Vengerov and A. Vakhutinsky, "RSSolver: A tool for solving large non-linear, non-convex discrete optimization problems", INFORMS Annual Meeting, Phoenix, AZ, October 2012
- 2012 A. Vakhutinsky, K. Mihic and D. Vengerov, "A Tractable approach to solving store-level retail space optimization with business constraints", 2012 INFORMS Manufacturing & Service Operations Management (MSOM) Conference, New York, NY, 2012
- 2012 K. Mihic, D. Vengerov and A. Vakhutinsky, "Solving retail space optimization problem using the randomized search algorithm", 23rd Annual POMS Conference, Chicago, Illinois, April 2012
- 2012 K. Mihic, D. Vengerov and A. Vakhutinsky, "Solving non-linear non-convex combinatorial optimization problems using Randomized Search algorithm", 2012 INFORMS Conference on Business Analytics & Operations Research, Huntington Beach, CA, April 2012
- 2010 K. Mihic Stochastic scheduling of parallel applications on heterogeneous systems using GSPN, International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA), Las Vegas, NV, July 2010
- 2010 G. Dhiman, K. Mihic, and T. Rosing, A system for online power prediction in virtualized environments using Gaussian mixture models, Design Automation Conference (DAC), Anaheim, CA, June 2010
- 2005 T. Simunic, K. Mihic, G. De Micheli, Optimization of Reliability and Power Consumption in Systems on a Chip, Proc. the 15th Int. Workshop on Integrated Circuit and System Design: Power and Timing Modeling, Optimization and Simulation (PATMOS), Leuven, Belgium, September 2005
- 2004 K. Mihic, T. Simunic, G. De Micheli, Reliability and power management of integrated systems, Proc. of the Euromicro Symposium on Digital System Design, Rennes, France, September 2004

Patents

- 2015 K. Mihic, A. Vakhutinsky and D. Vengerov, Shelf space product placement optimizer, Patent number: 8930235
- 2013 K. Mihic, A. Vakhutinsky and D. Vengerov, Price optimization using randomized search, Publication number: 20130166353

Service

Referee for *Journal of Supercomputing* and *Journal of Heuristics*