

MOPTA 03 - PROGRAM

Note: Only the presenting author is listed in the program schedule.

Wednesday, July 30

7:30-8:40	<i>Breakfast & Registration</i>	14:40	Trends in Space Mapping Technology for Engineering Optimization Sameh Dakroury, McMaster University, Canada
8:40-8:45	<i>Opening Remarks</i> Andy Hrymak, Acting Dean, Faculty of Engineering, McMaster University Tamás Terlaky, Conference Chair	13:40-15:10	<i>Parallel Session 3B - Scheduling</i> (Chair: Quoqing Zhang)
8:45-9:45	<i>Invited Talk</i> (Chair: Tamás Terlaky) A Guided Tour of Robust Optimization Laurent El Ghaoui, University of California at Berkeley, USA	13:40	One-operator, m-Machine Open Shop and Flow Shop Scheduling with Setup Times Mohammed Fazle Baki, University of Windsor, Canada
9:45-9:50	<i>Stretch break</i>	14:10	Computational Experience with Optimizing Simple Cyclic Scheduling for Printed-Circuit-Board Production Lines Guoqing Zhang, University of Windsor, Canada
9:50-10:50	<i>Session 1 - Semidefinite</i> (Chair: Lisa Fleischer)	14:40	School Bus Selection, Routing and Scheduling: A New Formulation Xiaowu Ke, University of Windsor, Canada
9:50	Properties of a Cutting Plane Method for Semidefinite Programming John E. Mitchell, Rensselaer (RPI), USA	15:10-15:15	<i>Stretch break</i>
10:20	A Non-Polyhedral Primal Active-Set Approach to SDP Kartik Krishnan, Rice University, USA	15:15-16:15	<i>Invited Talk</i> (Chair: Henry Wolkowicz) Flows over Time Lisa Fleischer, Carnegie Mellon University, USA
10:50-11:10	<i>Coffee break</i>	16:15-16:30	<i>Coffee break</i>
11:10-12:40	<i>Session 2 - IPM's</i> (Chair: Jiming Peng)	16:30-18:00	<i>Parallel Session 4A - Nonlinear Optimization</i> (Chair: Tamás Terlaky)
11:10	Comparison of Complexity of IPMs and the Ellipsoid Method for Conic Feasibility and Optimization Robert M. Freund, MIT Sloan School of Management, USA	16:30	How Serious Are Wets' et al "Serious Zeros Curves"? Ken O. Kortanek, University of Iowa, USA
11:40	Polynomial Optimization from an Algebraic Geometric Viewpoint Francois Glineur, CORE, Belgium	17:00	Hundal's Alternating Projections Counter-example and the Proximal Point Algorithm Heinz Bauschke, University of Guelph, Canada
12:10	A Self-Regular Proximity Based Dynamic Large-Update Primal-Dual Interior-Point Method for Linear Optimization Maziar Salahi, Sharif University of Technology, Iran & McMaster University, Canada	17:30	Optimal Curvature Formulas on S^2 and Two-Point Homogeneous Manifolds Alexander Kushpel, Ryerson University, Canada
12:40-13:40	<i>Lunch</i>	16:30-18:00	<i>Parallel Session 4B - Production Management</i> (Chair: Samir Elhedhli)
13:40-15:10	<i>Parallel Session 3A - Space Mapping</i> (Chair: Christopher Anand)	16:30	On the Simultaneous Improvement of Quality and Operational Efficiency József Vörös, University of Pécs, Hungary
13:40	Advances in Space Mapping Optimization Using Implicit and Output Mappings Qingsha Cheng, McMaster University, Canada	17:00	Sensitivity Analysis in Linear and Convex Quadratic Optimization; Invariancy Interval Alireza Ghaffari Hadigheh, University of Tabriz, Iran
14:10	Yield Optimization of Microwave Circuits Using Neural Space Mapping Methods José Ernesto Rayas Sánchez, Instituto Tecnológico y de Estudios Superiores de Occidente (ITESO)	17:30	Optimal Age-Replacement Policy of a System Subject to Shocks with Random Lead-Time Shey-Huei Sheu, National Taiwan University of Science and Technology, Taiwan

7:30-8:30	<i>Breakfast</i>
8:30-9:30	<i>Invited Talk</i> (Chair: Anthony Vannelli) A Branch-and-Cut Approach to Nonconvex Combinatorial Optimization George L. Nemhauser, School of Industrial and Systems Engineering, Georgia Institute of Technology, USA
9:30-9:35	<i>Stretch break</i>

9:35-11:05	<i>Session 5 - Large Scale Mixed Integer Optimization</i> (Chair: George Nemhauser)
9:35	Bender's Decomposition Approach to Product Location in Carousel Storage Systems Elkafi Hassini, McMaster University, Canada
10:05	Planning of the Petrochemical Industry under Environmental and Economic Considerations Ali Elkamel, University of Waterloo, Canada
10:35	Exact Solutions of Service System Design Problems Samir Elhedhli, University of Waterloo, Canada

11:05-11:20	<i>Coffee break</i>
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11:20-12:50	<i>Session 6 - Central Path</i> (Chair: Masakazu Kojima)
11:20	Uniqueness and Existence of search directions for semidefinite programming (SDP) Henry Wolkowicz, University of Waterloo, Canada
11:50	Error Bounds and Limiting Behavior of Weighted Paths Associated with the SDP Map $X^{1/2} SX^{1/2}$ Zhaosong Lu, Georgia Tech., USA
12:20	Remarks on the Analytic Centers of Convex Sets Wieslawa Obuchowska, Chowan College, USA

12:50-13:50	<i>Lunch</i>
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13:50-15:20	<i>Parallel Session 7A - Global Optimization</i> (Chair: Nezam Mahdavi-Amiri)
13:50	A Multistart Scatter Search Heuristic for Smooth NLP and MINLP Problems Leon Lasdon, University of Texas at Austin, USA
14:20	Using ANN for Chromosome Classification in GA Hooman Homayounfar, Univ. of Guelph, Canada
14:50	MathOptimizer Professional for General Non-linear Optimization: Introduction and Examples János D. Pintér, PCS Inc. & Dalhousie University, Canada

13:50-15:20	<i>Parallel Session 7B - Communications</i> (Chair: Christopher Anand)
13:50	An Algorithm for the Optimization of Broadband Wireless Distribution Point Location Vic Grout, University of Wales, UK
14:20	Median Location on a Network with Uncertain Parameters Under the Relative Robustness Criterion Igor Averbakh, University of Toronto, Canada
14:50	Game Theoretic Approach to Multiuser Power Control for Digital Subscriber Lines Nobuo Yamashita, McMaster University, Canada

15:20-15:25	<i>Stretch break</i>
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15:25-16:25	<i>Invited Talk</i> (Chair: Jiming Peng)
	Parallel Implementation of Primal-dual Interior-point Methods for Semidefinite Programs Masakazu Kojima, Tokyo Institute of Technology, Japan

16:25-16:45	<i>Coffee break</i>
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16:45-18:15	<i>Parallel Session 8A - Structural Design</i> (Chair: Richard Caron)
16:45	Structural Optimization in Aircraft Engineering using Support Vector Machines for Design Classification Andreas Fischer, Dresden University of Technology, Germany
17:15	Shape Optimization And Inverse Crack Problems Victor A. Kovtunenkov, University of Graz, Austria
17:45	Optimising Design Grammars using Shape Annealing Steven Corkey, Integrated Manufacturing Technologies Institute, National Research Council, Canada

16:45-18:15	<i>Parallel Session 8B - NLP</i> (Chair: Jiming Peng)
16:45	First and Second Order Conditions for Error Bounds of an Inequality System Jane Ye, University of Victoria, Canada
17:15	Some Results on the Complementarity Problem with Respect to a Nonconvex Cone in a Hilbert Space George Isac, Royal Military College of Canada
17:45	An Imbalance Problem as a Mixed-discrete Bilevel Programming Problem Slava Kalashnikov, Autonomous University of Nuevo Leon, Mexico

18:30	<i>Banquet, Dundas Valley Golf & Curling Club</i> <i>Club dress code: no jeans please</i>
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7:30-8:45	<i>Breakfast</i>
8:45-9:45	<i>Invited Talk</i> (Chair: Tom Marlin) On-line Optimization via Off-line Optimization!! A Guided Tour to Multi-parametric Mixed Integer and Continuous Programming Stratos Pistikopoulos, Imperial College London, UK
9:45-9:50	<i>Stretch break</i>

9:50-11:20	<i>Session 9 - MIP</i> (Chair: Laurent El Ghaoui)
9:50	Active-Constraint Variable Ordering for Faster MIP Feasibility John Chinneck, Carleton University, Canada
10:20	An Intersection Theorem for KKM Maps and Applications Kunquan Q. Lan, Ryerson University, Canada
10:50	Optimal Convexity Cut Generation for Mixed-Integer Programming Mikhail Nediak, McMaster University, Canada

11:20-11:35	<i>Coffee break</i>
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11:35-12:35	<i>Invited Talk</i> (Chair: Richard Caron) Direct Search Methods: What's the Fuss? Margaret H. Wright, New York University, USA
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12:35-13:30	<i>Lunch</i>
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13:30-15:00	<i>Session 10 - NLO</i> (Chair: Margaret H. Wright)
13:30	Rapid, Embeddable Design Method for Magnetic Resonance Image Reconstruction Resampling Kernels Christopher Anand, McMaster University, Canada
14:00	Broyden's Methods Belong to the ABS Class Nezam Mahdavi-Amiri, Sharif University of Technology, Tehran and York University, Canada
14:30	A New Indirect Method for Efficient Determination of Sparse Jacobian Matrices Shahadat Hossain, University of Lethbridge, Canada

15:00-15:15	<i>Coffee break</i>
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15:15-16:15	<i>Invited Talk</i> (Chair: John Bandler) Advanced Hypergraph Partitioning Heuristics with VLSI Layout Applications Anthony Vannelli, University of Waterloo, Canada
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16:15-16:30	<i>Closing Remarks</i>
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Poster Presentations

Posters will be on display through the duration of the conference.

Implementing the New Self-Regular Proximity Based IPMs
Xiaohang Zhu, McMaster University Canada

Conjugate Gradient, 3D MR Image Reconstruction
Christopher Anand, McMaster University, Canada

**Relating the Elements in a Grammar Defined Solution Space
to Facilitate Optimising over a Grammar Specified Function
Domain**
Joshua Hevenor, National Research Council, Canada

Optimal Geometric Design of Speed Control Humps
Emad Khorshid, Kuwait University, Kuwait

**On Generalizations of the Frank-Wolfe Theorem To Convex
and Quasi-Convex Programmes**
Wiesława T. Obuchowska, Chohan College, USA

**Non-convex Quadratic Farkas-like Theorems and the
S-procedure**
Imre Pólik, McMaster University, Canada