

Wednesday 8 July 2015

	Introduction	Wednesday (14:00-14:10) Room G.03 Chair: Julian Hall, Jacek Gondzio and Julius Zilinskas
Plenary	Wednesday (14:10-15:10) Room G.03 Chair: Julius Zilinskas	
	Panos Pardalos	Computational Models and Challenging Optimization Problems

Wednesday (15:10-15:30) Coffee/tea in Foyer

Wednesday-1 (15:30-17:30)	G.01	Chair: Maria Dolores Fajardo
	Maria Dolores Fajardo	Stable Strong Fenchel and Lagrange duality for evenly convex optimization problems
	Helmut Gfrerer	Complete Characterizations of Tilt Stability in Nonlinear Programming under Weakest Qualification Conditions
	Isai Lankoandé	An inexact proximal regularization method for unconstrained optimization
	Sebastian Stich	Accelerated Random Search
	G.02	Chair: Dmitri Kvasov
	Fernanda Costa	Theoretical and Practical Convergence of a Self-Adaptive Penalty Firefly Algorithm for Constrained Global Optimization
	Ana Rocha	On a smoothed penalty-based artificial fish swarm algorithm for global optimization
	Dmitri Kvasov	Black-box global optimization: deterministic and metaheuristic approaches
	João Lauro Facó	Global Mixed Integer Nonlinear Optimization by Metaheuristic Techniques
	G.03	Chair: Gabriele Eichfelder
	E. Alper Yildirim	Polyhedral Approximations of Completely Positive Optimization Problems
	Immanuel Bomze	New bounds for the cp-rank in copositive optimization
	Felix Lieder	Unifying Semidefinite and set-copositive relaxations of binary problems and randomization techniques
	Gabriele Eichfelder	Copositivity Tests based on the Linear Complementarity Problem
	G.05	Chair: Julian Hall
	Roger Fletcher	Augmented Lagrangians, non-negative QP and extensions
	Leandro Prudente	Augmented Lagrangian methods for nonlinear programming with possible infeasibility
	Lukas Pospisil	The simplification of Spectral Projected Gradient method for solving quadratic programs
	Jan Kuratko	Application of the Sequential Quadratic Programming Method to Finding Error Trajectories of Hybrid Dynamical Systems
	G.06	Chair: Domingos Cardoso
	Eligius Hendrix	Simplicial branch and bound based on the upper fitting, longest edge bisection
	Domingos Cardoso	Linear programming on graphs through star sets and star complements
	Joseane Macedo	A filter-based dynamically dimensioned search algorithm for constrained global optimization
Harald Günzel	Tangent cones of inverse Images of semi-algebraic sets	

Wednesday (19:00-21:00) Fellows Library of the Royal College of Surgeons of Edinburgh

Welcome reception

Thursday 9 July 2015

Thursday-1 (9:00-10:30)	G.01 Chair: Christian Günther	
	José Fernández	A tri-objective model for locating a semi-desirable facility in the plane
	Christian Günther	FLO - A tool for solving multi-objective location problems
	Dimitri Papadimitriou	Robust Multi-source multi-commodity capacitated Facility Location Problem (cFLP)
	G.02 Chair: Manuel Arana-Jimenez	
	Emrah Karaman	Nonconvex Vectorization Derived by an Extension of Gerstewitz's Function
	Nergiz Kasimbeyli	Characterization of efficient solutions in nonconvex vector optimization
	Manuel Arana-Jimenez	Pseudoinvexity in continuous vector optimization
	G.03 Chair: Diethard Klatte	
	Diethard Klatte	Pseudo-Smooth Functions and Newton-Type Methods for Nonlinear Optimization and Complementarity Problems
	Luca Bergamaschi	BFGS preconditioners for the normal equations arising in the Interior Point solution of constrained optimization problems
	Panos Parpas	A Multilevel Proximal Algorithm for Large Scale Composite Convex Optimization
	G.05 Chair: Michal Kocvara	
	Michal Kocvara	A first-order multigrid method for convex optimization
	Michael Stingl	A New Algorithm for the Optimal Design of Anisotropic Materials
	Satafa Sanogo	Shape Optimization Method for Designing Stationary Plasma Thrusters
	G.06 Chair: Gerhard-Wilhelm Weber	
	Goran Lesaja (Anna Oganian)	Risk-utility trade-off for a new method of statistical disclosure limitation based on a mixture model with constraints
Gerhard-Wilhelm Weber (Ayse Ozmen)	Precipitation Modeling by Polyhedral RCMARS and Comparison with MARS and CMARS	
Marius Rădulescu	Single period portfolio selection models with transaction costs and initial holdings	

Thursday (10:30-11:00) Coffee/tea in Foyer

Plenary	Thursday (11:00-12:00) Room G.03 Chair: Julian Hall	
	Serge Gratton	Multilevel algorithms for large scale nonlinear optimization problems

Thursday-2 (13:30-15:00)	G.01 Chair: Umberto Dellepiane	
	Umberto Dellepiane	A Black-Box algorithm to solve Simulation-Optimization problems with chance constraints: general framework and applications
	Sandra Pieraccini	An optimization based approach to large scale flow simulation in fractured media
	Sorin-Mihai Grad	About closedness-type regularity conditions in convex optimization
	G.02 Chair: Jose Herskovits	
	Shuanghua Bai	Constrained Best Euclidean Distance Embedding On A Sphere: A Matrix Optimization Approach
	Jose Herskovits	General Semidefinite Programming, Nonlinear Smooth Optimization
	Chee Khian Sim	On Finding a Generalized Lowest Rank Solution to a Linear Semidefinite Feasibility Problem
	G.03 Chair: Miguel Anjos	
	Miguel Anjos	Exact Separation of \mathbb{S}^k -Projection Polytope Constraints
	Stefania Renzi	A linesearch derivative-free method for bilevel minimization problems
	Andreas Löhne	Fülöp's equivalence between a linear bilevel programming problem and linear optimization over the efficient set revisited
	G.05 Chair: Philippe Mahey	
	Sebastian Banert	Backward penalty schemes for monotone inclusion problems
	Laura Carosi	Simplex-like sequential methods for a class of generalized fractional functions
	Philippe Mahey	Operator-splitting methods for a stochastic multizonal energy planning problem
	G.06 Chair: Houduo Qi	
	Houduo Qi	Convex Euclidean Distance Embedding for Collaborative Position Localization with NLOS Mitigation
Jordan Ninin	H^∞ control synthesis under structural constraints based on Global Optimization	
Zhening Li	On polynomial sized representations of Hilbert's identity and moments tensors	

Thursday (15:00-15:20) Coffee/tea in Foyer
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Plenary	Thursday (15:20-16:20) Room G.03 Chair: Jacek Gondzio	
	Lieven Vandenberghe	Chordal graphs and sparse semidefinite optimization

Thursday-3 (16:30-18:00)	G.01 Chair: Didier Aussel	
	Didier Aussel	Deregulated electricity markets with thermal losses and production bounds: models and variational reformulation
	Giorgia Oggioni	A variational inequalities approach for a closed-loop supply chain network under environmental regulations
	Marcus Hillmann	Application of nonconvex subdifferentials for solving semi-obnoxious facility location problems
	G.02 Chair: Refail Kasimbeyli	
	Gulcin Dinc Yalcin	Weak subgradient method in unconstrained optimization
	Robert Mohr	On the directional derivative of optimal value functions of nonsmooth convex problems
	Refail Kasimbeyli	Subgradient based solution method in nonconvex optimization
	G.03 Chair: Demian Goos	
	Demian Goos	Advances in some fractional variational problems with Caputo derivatives
	Albert Ferrer	A Comparative study of relaxation algorithms for the linear semi-infinite feasibility problem
	Lorenzo Lampariello	Distributed Methods for Constrained Nonconvex Optimization Problems
	G.05 Chair: Benjamin Heymann	
	Manuel Vieira	An Improved Two-Stage Optimization-Based Framework for Unequal-Areas Facility Layout Problem
	Cristian Pelizzari	Hedging the Risk of Renewable Energy Sources in Electricity Production
	Benjamin Heymann	Continuous Optimal Control Approaches to Microgrid Energy Management
	G.06 Chair: Gabriele Eichfelder	
	Gizem Sagol	Copositive Optimization Based Bounds on Box Constrained Quadratic Optimization
Julius Zilinskas	Interval arithmetic and copositivity detection	
Peter Dickinson	Considering Copositivity Locally	

Thursday (19:00-22:00) Playfair Library Hall in the University of Edinburgh's Old College	
Conference dinner	

Friday 10 July 2015

Friday-1 (9:00-10:30)	G.01 Chair: Kimon Fountoulakis	
	Kimon Fountoulakis	A problem generator and performance of methods for big data optimization
	Elina Mancinelli	Inexact restoration method to solve the demand adjustment problem
	Miten Mistry	Solving MINLP with Heat Exchangers: Special Structure Detection and Large-Scale Global Optimisation
	G.02 Chair: Aurelio Oliveira	
	Marta Velazco	Influence of matrix reordering on the performance of the iterative methods for solving linear systems arising from interior point methods
	Luciana Yoshie Tsuchiya	A New Proposal for the Approximate Solution of the Normal Equations in Primal-Dual Interior Point Methods
	Riadh Omheni	Two regularized primal-dual algorithms for nonlinear programming
	G.03 Chair: Didier Aussel	
	Luce Brotcorne	A Bilevel Approach to Determine New Energy Service Prices
	Rossana Riccardi	Strategic Gaming Analysis for Cement Industry: A Bilevel Approach
	Alain Zemkoho	Solving Ill-posed Bilevel Programs
	G.05 Chair: Claudio Estatico	
	Claudio Estatico	Minimization in Banach spaces by Conjugate Gradient method
	Clément Royer	From first to second-order quality measures in direct-search methods
	Andrzej Stachurski	On the relation between conjugate gradient and quasi-Newton algorithms
	G.06 Chair: Oliver Stein	
	Janez Povh	Constrained polynomial optimization on commutative and non-commutative variables
Oliver Stein	Coercive polynomials and their Newton polytopes	
Tomas Bajbar	Newton polytopes of stably coercive polynomials and related coercivity concepts	

Friday (10:30-11:00) Coffee/tea in Foyer

Plenary	Friday (11:00-12:00) Room G.03 Chair: Roger Fletcher	
	Sven Leyffer	Mixed-Integer PDE-Constrained Optimization

Friday-2 (13:00-14:30)	G.01 Chair: José Vicente-Pérez	
	Milos Kopa	Output analysis and stress testing for risk constrained portfolios
	Cristinca Fulga	Preferences in Mean-Risk Portfolio Optimization
	Ozan Kocadađlı	A Multi-Objective Programming Approach with Different Importance and Priorities for Optimum Investment Decisions
	José Vicente-Pérez	Robust Multiobjective Linear Optimization
	G.02 Chair: Alejandro Gutiérrez Alcoba	
	Alejandro Gutiérrez Alcoba	Perishable inventory control with a service level constraint and non stationary demand
	Adewoye Olabode	Value Iteration versus Policy Iteration on Markov and Semi Markov Decision problem
	Francisco Aragón	Global convergence of the Douglas-Rachford method for some nonconvex feasibility problems
	G.03 Chair: Giancarlo Bigi	
	Giancarlo Bigi	Gap functions and descent methods for quasi-equilibria
	Shunsuke Hayashi	Infinite or finite-dimensional complementarity reformulation for the departure-time choice equilibrium problem with discrete multiple bottlenecks
	Mauro Passacantando	Cutting surface methods for equilibria
	G.05 Chair: Goran Lesaja	
	Lilian Berti	Improving interior point methods with continued iteration
	Stanislaw Gawiejnowicz	Memory-efficient interior point method for solving a time-dependent scheduling problem
	Goran Lesaja	An Improved Full Nesterov-Todd Interior-Point Algorithm for Symmetric Optimization
	G.06 Chair: Nikolai Krivulin	
Joana Dias	Fluence Map Non-Linear Continuous Optimization for IMRT Treatment Planning	
Vyacheslav Kalashnikov	A Heuristic Algorithm to Solve Toll Optimization Problems	
Nikolai Krivulin	Tropical Optimization Problems: Solution Methods and Application Examples	

Friday (14:30-14:50) Coffee/tea in Foyer
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Friday-3 (14:50-16:50)

G.02	Chair: Belen Martin-Barragan
Mitja Echim	Robust Nonlinear Dynamic Parameter Identification using Decomposition of Nonlinearities
Andrea Manno	Decomposition Techniques for Multi Layer Perceptrons Training
Belen Martin-Barragan	A Projection Multi-objective SVM Method for Multi-class Classification
Simone Sagratella	A Class of Convergent Parallel Algorithms for SVMs Training
G.03	Chair: Tatiana Tchemisova
Maria Josefa Cánovas	Outer limit of subdifferentials and calmness moduli in linear and nonlinear programming
Francisco Javier Toledo	Critical objective size and calmness modulus in linear programming
Miguel Angel Goberna Torrent	Radii of robust feasibility and robust optimality for uncertain convex programs
Tatiana Tchemisova	CQ-free optimality conditions for convex SIP problems with finitely representable compact index
G.05	Chair: Robert Gower
Robert Gower	Preconditioning sequences of linear systems with generalizations of quasi-Newton formulas
Daniel Loghin	Parallel Adaptive Preconditioners for Sequences of KKT Systems
Fabio Durastante	The update of sequences of some incomplete decompositions matrices for preconditioning
Aurelio Oliveira	Improving the splitting preconditioner for linear systems from interior point methods
G.06	Chair: Sonia Cafieri
César Gutiérrez	Nonlinear scalarization mappings for set orderings
Andrew Conn	Inversion, history matching, clustering and linear algebra
Sonia Cafieri	Modularity maximization clustering with cohesion conditions