

FGP'13 Plan of the Conference

| | Bldg B2, room 100 | | Bldg B2, room 100 | | Bldg B2, room 100 | | Bldg B1, room H24 | | Bldg B1, room H24 | |
|-------|---------------------|---------------------|---------------------|--|--|---------------------|----------------------|---------------------|---------------------|---------------------|
| | Monday, 23.09.2013 | | Tuesday, 24.09.2013 | | Wednesday, 25.09.2013 | | Thursday, 26.09.2013 | | Friday, 27.09.2013 | |
| 8.50 | Opening | | | | | | | | | |
| 9.00 | J. Betts | | N. Osmolovskii | | Ph.Toint | | J. Renault | | P. Cannarsa | |
| 9.30 | | | | | | | | | | |
| 10.00 | J. Sokołowski | | H.-J. Pesch | | M. Burger | | K. Mombaur | | P. Kalita | |
| 10.30 | | | | | | | | | | |
| 11.00 | coffee break | | coffee break | | coffee break | | coffee break | | coffee break | |
| | Bldg B2 room 100 | Bldg B2 room 135 | Bldg B2 room 100 | Bldg B2 room 135 | Bldg B2 room 100 | Bldg B2 room 135 | Bldg B1 room H24 | Bldg B1 room 102 | Bldg B1 room H24 | Bldg B1 room 102 |
| 11.30 | OCG 1 | REG 1 | OCG 4 | REG 4 | REG 6 | REG 7 | IPIP 1 | REG 8 | REG 10 | REG 11 |
| 12.00 | | | | | | | | | | |
| 12.30 | | | | | lunch | | lunch | | lunch | |
| 13.00 | lunch | | lunch | | lunch | | lunch | | lunch | |
| 13.30 | lunch | | lunch | | lunch | | lunch | | lunch | |
| 14.00 | lunch | | lunch | | lunch | | lunch | | lunch | |
| 14.30 | OCG 2 | REG 2 | NOMA 1 | REG 5 | 15.00 - 18.00 Guided tour | | IPIP 2 | REG 9 | | |
| 15.00 | | | | | | | | | | |
| 15.30 | | | | | | | | | | |
| 16.00 | coffee break | | coffee break | | 15.00 - 18.00 Guided tour | | coffee break | | | |
| 16.30 | OCG 3 | REG 3 | NOMA 2 | 18.00 - Concert and conference dinner | | | IPIP 3 | | | |
| 17.00 | | | | | | | | | | |
| 17.30 | | | | | | | | | | |
| 18.00 | | | | | 18.00 - Concert and conference dinner | | | | | |
| 18.30 | | | | | | | | | | |
| 19.00 | | | | | | | | | | |

Monday, September 23

8.50 **Opening** **B2, room 100**

Plenary session **B2, room 100**

9.00 J.T. Betts
Optimal Low Thrust Orbit Transfers with Eclipsing

10.00 G. Leugering, J. Sokołowski, A. Żochowski
Nonsmooth Optimization Problems in Passive Control of Crack Propagation in Linear Elasticity

11.00 **Coffee break**

OCG1 Minisymposium on Optimal Control and Games **B2, room 100**

11.30 S. Sorin
On some links between discrete time and continuous time dynamic games

12.00 P. Bettiol, F. Rampazzo
 L^∞ Optimal Control Problems as Dynamic Differential Games

12.30 J.P. Maldonado-Lopez
Value of a Differential Game without Isaacs' condition

REG1 Optimal Control I: Optimality Conditions, Stability and Error Estimation **B2, room 135**

11.30 X. Dupuis, F. Bonnans, L. Pfeiffer
Second-Order Necessary Conditions in Pontryagin Form for Optimal Control Problems

12.00 A. Strelakovski
New Methods for Solving Nonconvex Optimal Control Problems

12.30 J. F. Bonnans, A. Festa
Error Bounds for a Discrete Optimal Control Problem with State Constraints

13.00 **Lunch** **Restaurant Polonez**

OCG2 Minisymposium on Optimal Control and Games **B2, room 100**

14.30 E.C. Kerrigan, J.L. Jerez, G.A. Constantinides, S. Richter, P.J. Goulart, M. Morari
Energy-efficient optimization solvers with sub-microsecond latencies

15.00 R. Epenoy
An Optimal Control Approach for the Design of Low-energy Low-thrust Trajectories Between Libration Point Orbits

15.30 M. R. de Pinho, M. H. A. Biswas, I. Kornienko, L. T. Paiva
Optimal Control of a SEIR Epidemic Model with Mixed and State Constraints

REG2 Optimization: Theoretical aspects **B2, room 135**

14.30 E. Szczepanik, A. Prusińska, A. Tret'yakov
High order optimality conditions for p-regular inequality constrained optimization problem

- 15.00 J-B. Hiriart-Urruty, H. Y. Le
From Eckart & Young Approximation to Moreau Envelopes and Vice Versa
- 15.30 A. Kruger
Error Bounds and Hoelder Metric Subregularity

16.00 **Coffee break**

OCG3 Minisymposium on Optimal Control and Games **B2, room 100**

- 16.30 M. Quincampoix, V. Veliov
Metric Regularity and Stability of Optimal Control Problems for Linear Systems
- 17.00 T. Scarinci
Proximal subdifferentiability and local regularity of the value function of Mayer's problem with differential inclusions
- 17.30 H. Sedrakyan
Stability of value functions for state constrained Bolza problems

REG3 Algorithms and Computational Aspects **B2, room 135**
of Optimization I

- 16.30 A. Walther, L.T. Biegler
An Inexact Trust-region Algorithm for Nonlinear Programming Problems with Dense Constraint Jacobians
- 17.00 J. Bolte, M. Teboulle, S. Sabach
Proximal alternating minimization methods
- 17.30 E. M. Bednarczuk
On the criticality for vector-valued functions

Tuesday, September 24

Plenary session **B2, room 100**

- 9.00 N. Osmolovskii
No-Gap Necessary and Sufficient Second Order Conditions in Optimal Control: Theory and Applications
- 10.00 H.J. Pesch, M. Frey, S. Bechmann, A.Rund
New Optimality Conditions and Methods for State-Constrained Elliptic Optimal Control Problems

11.00 **Coffee break**

OCG4 Minisymposium on Optimal Control and Games **B2, room 100**

- 11.30 D. Hoehener
Second-Order Necessary and Sufficient Optimality Conditions for Constrained Control Problems
- 12.00 D. Tonon, H. Frankowska
The Goh and the generalized Legendre-Clebsch conditions for closed control constraints
- 12.30 H. Frankowska, D. Hoehener, D. Tonon
A Second-Order Maximum Principle in Optimal Control under State Constraints

REG4 Optimal Control II: Computational Methods and Applications

B2, room 135

- 11.30 L. Göllmann, H. Maurer
Case Studies for Optimal Control Problems with Delays
- 12.00 A. Świerniak, J. Klamka
Stability, Controllability and Optimization of a Model of Treatment Response to Combined Anticancer Therapies
- 12.30 M. Szymkat, A. Korytowski
Penalty aided transitions to optimal control structures in the MSE

13.00 **Lunch**

Restaurant Polonez

NOMA1 Minisymposium on Nonsmooth Optimization, Methods and Applications

B2, room 100

- 14.30 J. Gwinner
Three-field Modeling of Nonlinear Non-smooth Boundary Value Problems and Differential Mixed Variational Inequalities
- 15.00 M. Schaefer, M. Ohlberger
Efficient Parameter Optimization for Elliptic Homogenization Problems via Model Reduction and Error Control
- 15.30 A. Rachah, D. Noll, F. Espitalier
Optimal control of crystallization of α -lactose monohydrate

REG5 Optimal Control III: Computational Methods and Applications

B2, room 135

- 14.30 Y. Kaya, H. Maurer
Numerical Methods for Multi-Objective Optimal Control Problems
- 15.00 U. Felgenhauer
Variational Inequalities in Bang-Singular-Bang Control Investigation
- 15.30 A. Pilat
Identification, Modelling and Optimization of Active Magnetic Levitation Electromagnet

16.00 **Coffee break**

NOMA2 Minisymposium on Nonsmooth Optimization, Methods and Applications

B2, room 100

- 16.30 A. Rondepierre
Convergence of Linesearch and Trust-Region Methods using the Kurdyka-Łojasiewicz Inequality
- 17.00 D. Noll
Convergence of non-smooth descent methods and the Kurdyka-Łojasiewicz inequality
- 17.30 N.M. Dao, D. Noll, P. Apkarian
Non-smooth Algorithm and Application to Eigenstructure Assignment

Wednesday, September 26

Plenary session

B2, room 100

- 9.00 Ph. Toint, C. Cartis, N. Gould
Evaluation complexity in nonlinear optimization
- 10.00 M. Burger
Bregman Iterations in Image Reconstruction

11.00 Coffee break

REG6 Optimum Design

B2, room 100

- 11.30 M.S. Mommer
On the robustification of optimum experimental design problems
- 12.00 M. Nowak, H. Hausa
Simultaneous Size, Shape and Topology Optimization in Parallel Numerical Environment

REG7 System Modeling, Identification and Estimation II

B2, room 135

- 11.30 A. Vanhems, M. Grasmair, O. Scherzer
Nonparametric Instrumental Regression with Non-Convex Constraints
- 12.00 W. Byrski, J. Byrski, D. Kmieciak, L. Kuśnierz
The application of advanced optimization techniques for fast identification of step changes in parameters of linear continuous system

12.30 Lunch

Restaurant Polonez

15.00 Guided tour

18.00 Concert and conference dinner

Galicia Jewish Museum, Krakow, ul. Dajwór 18

The event sponsored by ONT, the Polish distributor of MathWorks –the vendor of MATLAB and Simulink software

Thursday, September 26

Plenary session

B1, room H24

- 9.00 J. Renault, X. Venel
A distance for probability spaces, and long-term values in MDP and Repeated Games
- 10.00 K. Mombaur
Optimal control for medical applications - challenges and solutions

11.00 Coffee break

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|--|--|---------------------------|
| IPIP1 Minisymposium on Image Processing and Inverse Problems | | B1, room H24 |
| 11.30 | M. Breuß, Y. C. Ju Shape from Shading - Classic and Modern Methods in Computer Vision | |
| 12.00 | Ch. Brune, M. Burger, D. Vestweber Image Reconstruction and Wasserstein Transport Models for 4D Blood Cell Transmigration | |
| 12.30 | D. Lorenz Image denoising with Kantorovich-Rubinstein discrepancy | |
| REG8 Optimal Control IV: Infinite Horizon and Abstract Problems | | B1, room 102 |
| 11.30 | S. Pickenhain, V. Lykina Infinite Horizon Optimal Control Problems with Budget Constraints | |
| 12.00 | N. Tauchnitz Pontryagin's Maximum Principle for Infinite Horizon Optimal Control Problems with a nonlinear dynamical system | |
| 12.30 | P. Grabowski The LQ-problem for infinite-dimensional systems with bounded operators | |
| 13.00 | Lunch | Restaurant Polonez |
| IPIP2 Minisymposium on Image Processing and Inverse Problems | | B1, room H24 |
| 14.30 | M. Holler, K. Bredies TGV Based Image Reconstruction - Analytics | |
| 15.00 | C. H. Schönlieb Higher-Order Variational Techniques for Image Reconstruction and Enhancement | |
| 15.30 | P. Maréchal An entropy model for diffusion MRI | |
| REG9 Algorithms and Computational Aspects of Optimization II | | B1, room 102 |
| 14.30 | G. Vossen H_2 -norm Model Reduction for Time-Variant Systems and its Application to PDE Constrained Optimization | |
| 15.00 | R. Zalas, A. Cegielski Iterative methods for solving variational inequalities in Hilbert spaces | |
| 15.30 | A. Orlov On a Global Search in Operations Research Problems with a Bilinear Structure | |
| 16.00 | Coffee break | |

IPIP3 Minisymposium on Image Processing and Inverse Problems

B1, room H24

- 16.30 A. R. Patrone, O. Scherzer
Optical flow with oscillating pattern
- 17.00 S. Suhr, M. Burger, J. Modersitzki
Motion-Corrected PET Reconstruction
- 17.30 M. Wagner
Pontryagin's principle for multidimensional control problems with polyconvex data
- 18.00 A. Jezierska, E. Chouzenoux, J.C. Pesquet, H. Talbot
A Convex Variational Approach for Restoring Data Corrupted with Poisson-Gaussian Noise

Friday, September 27

Plenary session

B1, room H24

- 9.00 P. Cannarsa
Optimal control problems for differential inclusions
- 10.00 P. Kalita
Attractors for multivalued semiflows governed by subdifferential inclusions

11.00 **Coffee break**

REG10 Optimal Control V: PDE and Evolutionary Inclusions

B1, room H24

- 11.30 H. Bonnel
How to Deal with the Pareto set of a Multiobjective Optimal Control of Parabolic Systems
- 12.00 J. F. Han, S. Migórski
Optimal Control Problems for Systems Governed by Evolutionary Inclusions of Second Order

REG11 System Modeling, Identification and Estimation III

B1, room 102

- 11.30 K. Kulshreshtha, J. Rautenberg, C. Unverzagt
Maximising Sensitivity of Electrical Impedance of a Piezoelectric Ceramic to Material Parameters using Modified Electrode Configuration
- 12.00 A. Latocha
Optimal Discrete-Time Finite-Dimensional Inertial Filters

12.30 **Lunch**

Restaurant Polonez
