



WORKSHOP ON EMBEDDED OPTIMIZATION EMBOPT 2014

September 8-9, 2014

Cappella Guinigi – Complesso di San Francesco
Via della Quarquonia 1/a - Lucca

DAY 1 MONDAY, SEPTEMBER 8

- 9.00 – 10.00 am **Stephen Boyd**, *Stanford University*
A Splitting Method for Embedded Optimal Control
- 10.00 – 11.00 am **Pontus Giselsson**, *Stanford University*
Preconditioning in First Order Optimization Methods
- >>>Coffee break<<<
- 11.30 am – 12.30 pm **Panagiotis Patrinos**, *IMT Institute for Advanced Studies Lucca*
Splitting Envelopes: Accelerated Second-order Proximal Methods
- 12.30 – 01.00 pm **Andrea Suardi**, *Imperial College, London*
Fast FPGA Prototyping with Software Development Kit for FPGA (SDK4FPGA)
- >>>Lunch<<<
- 02.00 – 03.00 pm **Edward Hartley**, *University of Cambridge*
Model Predictive Control on an FPGA: Aerospace & Spacecraft Scenarios
- 03.00 – 04.00 pm **Arvind U. Raghunathan**, *MERL - Mitsubishi Electric Research Laboratories*
ADMM Algorithm for General Convex QP - Optimal Step-Size Selection, Infeasibility Detection and Convergence Acceleration
- >>>Coffee break<<<
- 04.30 – 05.30 pm **Alexander Domahidi**, *ETH Zürich*
Embedded Optimization for Mixed Logic Dynamical Systems



DAY 2 **TUESDAY, SEPTEMBER 9**

- 09.00 – 10.00 am **Yurii Nesterov**, *CORE/INMA, UCL*
Primal-dual Subgradient Method with Dual Coordinate Update
- 10.00 -11.00 am **Ion Necoara**, *Politehnica University of Bucharest*
Iteration Complexity Analysis of Dual Gradient Methods: Applications to Embedded and Distributed MPC

>>>Coffee break<<<
- 11.30 am -12.30 pm **Mikael Johansson**, *KTH Royal Institute of Technology*
Asynchronism and Convergence Rates in Distributed Optimization
- 12.30 – 01.00 pm **Milan Vukov**, *KU Leuven*
Fast Solvers for Nonlinear Optimal Control and Estimation

>>>Lunch<<<
- 02.00 – 03.00 pm **Alberto Bemporad**, *IMT Institute for Advanced Studies Lucca*
Embedded Convex Quadratic Optimization for Model Predictive Control
- 03.00 – 04.00 pm **Stefano Di Cairano**, *MERL - Mitsubishi Electric Research Laboratories*
Multiplicative fixpoints for convex quadratic programs

>>>Coffee break<<<
- 04.30 – 05.30 pm **Nikolaos Freris**, *NYU Abu Dhabi*
Optimal Data Mining on Compressed Data
- 05.30 – 06.30 pm **Giuseppe Notarstefano**, *University of Salento*
Constraint-exchange Methods for Distributed Optimization in Asynchronous Networks