

ITN SADCO

Initial Training Network

Sensitivity Analysis for Deterministic Controller Design

SADCO DOCTORAL DAYS 2012

PROGRAMME

14-15 June 2012, Ensta ParisTech



This event is co-funded by the European Union under the 7th Framework Programme «FP7-PEOPLE-2010-ITN» Grant agreement number 264735-SADCO

09.00 - 09.30 “Normality of the maximum principle for the Bolza problem under state and end points constraints”

Daniela Tonon, ER, UPMC

09.30 - 10.10 Talks & posters - Session 1

09.30 – 09.40 “Properties of Minimizers that are not also Relaxed minimizers”

Michele Palladino, ESR, Imperial College London

09.40 - 09.50 “Robust control and hybrid systems”

Joao Saude, ESR, Ensta ParisTech & EADS Astrium

09.50 – 10.10 “Necessary conditions for impulsive optimal control problems”

Maria Soledad Aronna, ER, University of Padova

10.10 - 11.00 *Coffee Break – Posters*

11.00 - 11.30 “Adjoint state of the maximum principle to the value function”

Marco Mazzola, ER, UPMC

11.30 - 12.00 “Minimum-time functions”

Nguyen Van Luong, ESR, University of Padova

12.00 - 12.30 “First order optimality conditions under state constraints”

Igor Kornienko, ESR, University of Porto

12.30 - 14.00 *Lunch*

14.00 - 14.30 “Robust nonlinear model predictive control”
Vryan Gil Palma, ESR, University of Bayreuth

14.30 - 15.10 Talks & posters - Session 2

14.30 – 14.40 “Multiscale optimal control and stochastic problems”
Joao Meireles, ESR, University of Padova

14.40 – 14.50 “Averaging and ergodic optimal control problems”
Hayk Sedrakyan, ESR, UPMC

14.50 – 15.10 “Differential Games that Decompose into a Family of Optimal Control”
Adriano Festa, ER, Imperial College London

15.00 - 15.45 *Coffee Break & Posters*

15.45 - 16.15 “Discrete mechanics and optimal control”,
Cédric Martinez Campos, ER, TUM & University of Bayreuth

16.15 - 16.45 “Large scale systems: sensitivity analysis and numerical methods”,
Sonja Rauski, ESR, Astos Solutions

17.00 - 17.45 “Key information on the SADC network”,
Estelle Bouzat, Inria

09.00 - 09.30 “Zubov's method for interconnected systems - a dissipative formulation”

Huijuan Li, ESR, University of Würzburg and University of Bayreuth

09.30 - 10.10 Talks & posters – Session 3

09.30 – 09.40 “Feedback controls and optimal trajectories”

Cristopher Hermosilla, ESR, Ensta ParisTech & Inria

09.40 – 09.50 “Coupled Numerical Schemes for Hamilton-Jacobi Bellman equations and Control Applications”,

Smita Sahu, ESR, University of Rome La Sapienza

09.50 – 10.10 “First and second order Hamilton-Jacobi equations for state-constrained control problems”

Athena Picarelli, ESR, Inria & Ensta ParisTech

10.10 - 11.00 *Coffee Break & Posters*

11.00 - 11.30 “Stratified optimality conditions for unbounded differential inclusions with state constraints”

Andrea Boccia, ESR, Imperial College London

11.30 - 12.00 “Numerical methods for differential games”

Dante Kalise, ER, University of Rome La Sapienza

12.00 - 12.30 “Convergence of discrete time games to continuous time games”

Juan Pablo Maldonado Lopez, ESR, UPMC

12.30 – 14.00 *Lunch*

14.00 – 17.45 Training on scientific communication

Laurent Dubourg, Kintail Communication