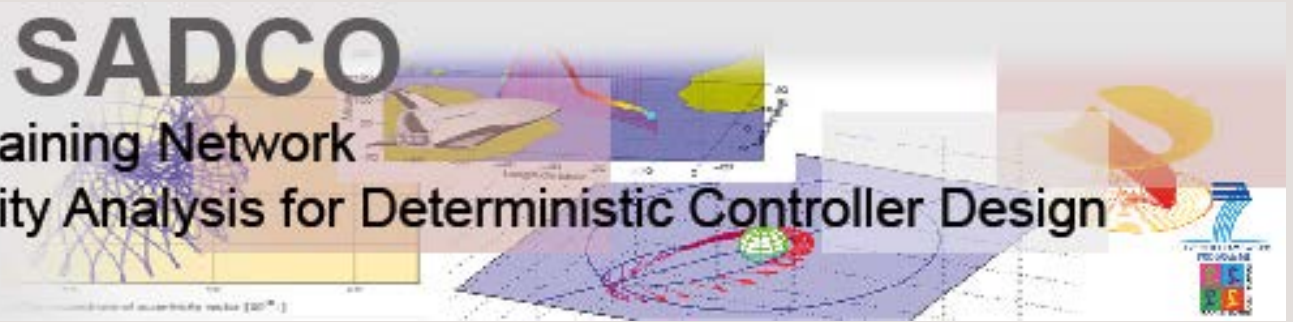# ITN SADCO
Initial Training Network
Sensitivity Analysis for Deterministic Controller Design

SADCO DOCTORAL DAYS 2012

PROGRAMME

14-15 June 2012, Ensta ParisTech

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   "Optimal control and differential games"
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   "Variational Integrators Applied to Optimal Control Problems",
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 SADCO network",
Hasnaa Zidani, SADCO Coordinator

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 "A SL/FV WENO scheme for HJB equations"

> **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