

ITN SADCO

Initial Training Network

Sensitivity Analysis for Deterministic Controller Design

SECOND INDUSTRIAL WORKSHOP

AGENDA

2nd – 3rd February 2012

Astos Solutions GmbH

Stuttgart, Germany



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

08.15 - 09.15 *Registration*

09.15 - 09.30 Welcome

09.30 - 10.30 Optimal Control of Partial Differential Equations with Delay
John T. Betts

10.30 - 11.00 Industrial Applications of NLP Methods
Cristof Büskens, University of Bremen

11.00 - 11.30 *Coffee Break*

11.30 - 12.00 Large Scale Optimal Control Problems
Sven Schäff, Astos Solutions

12.00 - 12.30 Trajectory Planning and Collision Detection for Robotics Applications
Matthias Gerdts, University of the Federal Armed Forces at Munich

12.30 - 13.00 Multi-Mission Vehicle Design Optimization
Francesco Cremaschi, Astos Solutions

13.00 - 14.00 *Lunch*

14.00 - 14.30 BOCOP - An Open Source Toolbox for Optimal Control
Pierre Martinon, INRIA Saclay & CMAP

14.30 - 15.00 Hessian-Approximations for Sparse and Large-Scale Nonlinear Optimization
Sonja Rauski, Astos Solutions & University of Bremen

15.00 - 15.30 Collision Avoidance by Optimal Control Techniques
Ilaria Xausa, Volkswagen

15.30 - 16.00 *Coffee Break*

16.00 - 16.30 Distributed Multiple Shooting
Attila Kozma, Katholieke Universiteit Leuven

16.30 - 17.00 Sensitivity analysis for the outages of nuclear power plants
Laurent Pfeiffer, Inria Saclay & Ecole Polytechnique

17.00 - 17.30 A numerical scheme for mean-field games
Francisco Silva, Sapienza - University of Rome

19.00 - 20.00 *Sports and historical car museum 'Meilenwerk' in Böblingen*
From 20.00 *Dinner at the 'Meilenwerk'*

09.00 - 12.30 Tutorial on applied optimal control using ASTOS and the WORHP NLP solver

12.30 - 13.30 *Lunch*

13.30 - 16.30 Hands-on optimal control software training session