AMS Special Session on Optimal Control, Calculus of Variations, and Nonsmooth Analysis

2001 Spring Central Section Meeting
Snow 554, University of Kansas, Lawrence, KS
March 30-1, 2001

Session Organizers:

Michael A. Malisoff*

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Friday, March 30th

8:30-9:00
Fernando Pereira(*), Geraldo da Silva
“Necessary Conditions of Optimality for Impulsive Control Problems with State Constraints”

9:00-9:30
Grant Galbraith
“Sub-Lipschitz Mappings and Connections to Optimal Control and the Hamilton-Jacobi Equation”

9:30-10:00
Michael Malisoff
“Recent Results on Viscosity Solutions of the Bellman Equation for Optimal Control Problems with Exit Times”

10:00-10:30
Daniel Ostrov
“Optimal Control and Hamilton-Jacobi Equations with Discontinuous Data Dependence”

10:30-11:00
Qiji Zhu
“Necessary Conditions for Constrained Optimization Problems, their Applications and a Variational Proof”

11:00-11:30
Discussion: George Avalos(*), Irena Lasiecka, Richard Rebarber
“Concerning the Well-Posedness and Optimal Control of a Structural Acoustics Model with Point Observations of the Acoustic Pressure”

3:00-3:45
Joseph Dunn
“Convergence Questions for Augmented Lagrangian Methods in an Optimal Control Setting”

4:00-4:30
Stephen Campbell(*), Neil Biehn, John T. Betts
“Direct Transcription Solution of Inequality Constrained Optimal Control Problems”

4:30-5:00
Brian Ingalls
“A Lyapunov Characterization of a Notion of Detectability for Nonlinear Systems”

5:00-5:30
MingQing Xiao(*), Arthur Krener
“Nonlinear Observer Design in the Siegel Domain”

5:30-6:00
Discussion: Peter Wolenski
“Nonsmooth Analysis and Control Theory”

Saturday, March 31st

8:30-9:00
Antonio Siconolfi
"Discontinuous Solutions and Comparison Results for a Class of Hamilton-Jacobi Equations"

9:00-10:00
William Hager
"Numerical Analysis in Optimal Control"

10:00-11:00
Andrzej Swiech(*), F. Gozzi, S.S. Sritharan
"Viscosity solutions of Hamilton-Jacobi-Bellman Equations for the Optimal Control of Navier-Stokes Equations"

11:00-11:30
Agnes Tourin(*), Thaleia Zariphopoulou
"Optimal Stochastic Control Applied to Mathematical Finance"

3:30-4:00
Thomas Ivey
"Minimal Curves of Constant Torsion"

4:00-4:30
Anthony Bloch(*), Peter Crouch, Jerrold Marsden, Tudor Ratiu
"Discrete Optimal Control and the Dynamics of Rigid Bodies"

4:30-5:00
Matthias Kawski
"High-Order Conditions for Optimality and High-Order Approximating Cones Using a Geometric Language"

5:00-5:45
Hector Sussmann
"Path-Integral Generalized Differentials and the Maximum Principle of Optimal Control Theory"