Meeting on Nonlinear Control Theory and its Applications

May 5–6, 2004 Queen's University Kingston, ON

Short programme (last revised: 12/04/2004)

May 5:

8:59:45-9:00: Opening remarks

9:00-10:00: Manfredi Maggiore, A separation principle for nonlinear systems

10:00-10:30: Chris Nielsen, Maneuver regulation, transverse feedback linearization and zero dynamics

10:30-10:45: Break

10:45-11:45 Martin Guay, Observer linearization by generalized transformations

 $\textbf{11:45-12:15:} \ \, \text{Darryl DeHaan}, \ \, \textit{Extremum-seeking control of nonlinear}, \ \, \textit{state-constrained} \\ \quad \quad \textit{systems} \\$

12:15-1:30: Lunch

1:30-2:00: Meg Gao, Design of robust gain-scheduled model predictive controllers for non-linear processes

2:00-3:00: Ron Hirschorn, Hybrid sliding mode control for multi-input nonlinear systems

3:00-3:30: Dmitry Voytsekhovsky, Stabilization of single-input nonlinear systems with sliding mode control

3:30-4:00: Break

4:00-5:00: Daniel Miller, Nonlinear and linear approaches to adaptive control

5:00-6:00: Mireille Broucke, *Hybrid optimal synthesis and geometric time optimal control*

6:00-6:30 Gino Labinaz, Viability of hybrid systems

May 6:

9:00-10:00: Brian Ingalls, System biology: Control theoretic analysis of biochemical networks

10:00-10:30: Leonard Vu, IOSS for singularly perturbed systems

10:30-10:45: Break

10:45-11:45: Kirsten Morris, Dissipative controller design

11:45-1:15: Lunch

1:15-2:15: Andrew Lewis, Musings on controllability and stabilisability

2:15-2:45: David Tyner, Controllability and motion planning for mechanical systems

2:45-3:15: Joshua Marshall, Exploring the collective behaviour of wheeled-vehicles in cyclic pursuit

3:15-3:45: Zhiyun Lin, Feasibility for formation stabilization of multiple unicycles

3:45-4:15: Sehjung Kim, Stability of linear switching system with delayed feedback control