



Agenda for the 2005
Six Month Review of the
AFRL/VA and AFOSR



Collaborative Center of Control Science (CCCS)

The Ohio State University



Thursday, April 14, 2005

Rooms 259, 260, 267 Dreese Laboratories
(For directions, maps, and accommodations see web site:
<http://www.ece.osu.edu/~passino/cccs.html>)

Agenda for the 2005 Six-Month Review

Thursday, April 14, 2003

Cooperative Control for UAVs: Rm. 260 Dreese Laboratories

- 9:00am Mobile Sensor Agents
 Zhijun Tang and Ümit Özgüner
- 9:45am Stable Cooperative Surveillance
 Alvaro Gil, Kevin Passino, Joe Cruz
- 10:30am Break
- 11:00am Cooperative Search and Tracking for Mobile Targets
 Shreecharan Kanchanavally, Raúl Ordóñez, Alvaro Gil
- 11:45am Discussion
- 12:00pm Lunch (catered, on-site)
- 1:00pm Stable UAV Distributions for PAD
 Jorge Finke and Kevin Passino
- 1:45pm Distributed Balancing of UAVs for Uniform Surveillance Coverage
 Brandon Moore and Kevin Passino
- 2:30pm Break
- 3:00pm Cellular Structures and Spatial Grouping of Mobile Systems
 Ümit Özgüner and Yongling Zheng
- 3:15pm Strategies for Transitioning Theory to Implementations
 Qi Chen, Keith Redmill, and Ümit Özgüner
- 4:00pm Discussion (formulations, testbed, etc.)

Control of Reusable Launch Vehicles: Rm. 259 Dreese Laboratories

- 9:00am Maneuver Automaton-Based Trajectory Generation on Approach and
 Landing for RLVs
 Zhesheng Jiang Raúl Ordóñez

- 10:00am Anti-windup design for linearized models of air-breathing RLVs
Kevin Groves
- 10:45am Break
- 11:15am Robust tracking for overactuated systems: the constrained regulator
approach
David Sigthorsson
- 12:00pm Updates on nonlinear robust control of air-breathing RLVs
Jason Parker
- 12:15pm Lunch (catered, on-site)**
- 1:00pm Discussion

**Aerodynamic Flow Control:
Rm. 267 Dreese Laboratories**

- 12:00pm Lunch (catered, on-site)
- 1:00pm Introduction
Mo Samimy
- 1:15pm Cavity Flow Simulations Update
Jim DeBonis and Jim Malone
- 1:30pm Subsonic Cavity Simulations at AFRL/VACA
John Casey
- 1:45pm Experimental work update
Marco Debiasi and Jesse Little
- 2:10pm Low Dimensional Modeling
Edgar Caraballo
- 2:30pm Feedback-Oriented Model Reduction for Flow Control
Chris Camphouse
- 3:00pm Break
- 3:15pm Overview of the controller design activities
Andrea Serrani

- 3:30pm Controller design updates
Peng Yan and Xin Yuan
- 4:10pm Modeling of the acoustic actuator
Ryan Schultz
- 4:25pm Towards a very-low dimensional modeling of cavity flow dynamics
Cosku Kasnakoglu