



Colloquium

Cooperative Control and Mobile Sensor Networks

PROF. NAOMI EHRICH LEONARD

*Mechanical and Aerospace Engineering
Princeton University*

The cooperative control of a network of mobile robotic systems serving as sensor platforms allows new opportunities in adaptive sampling of time-varying, spatially distributed fields. In this talk I will describe recent collaborative work on models for coordinated, collective motion based on moving particles with steering control. We extend phase models of coupled oscillators to include spatial dynamics and use these models for design and analysis of collective motion patterns. I will describe application to design of an adaptive ocean sampling network and present results from field experiments in Monterey Bay, California.

Wednesday, November 8, 2006

4:15 P.M. (Refreshments at 4:00 P.M.)

Lyman Spitzer Building, M. B. Gottlieb Auditorium