

MATHEMATICS DEPARTMENT
North Carolina State University

DIFFERENTIAL EQUATIONS SEMINAR

Wednesday, September 26, 2007
3:00 p.m. 330 Harrelson Hall

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**Controlled Lagrangians and Stabilization of
Mechanical Systems**

The method of controlled Lagrangians introduces a class of structure-preserving feedback control laws for mechanical systems with symmetry. The key feature of the method is that the closed-loop dynamics remains Lagrangian. Thus, stabilization can be established using energy-based Lyapunov functions. In this talk an overview of the method will be given. The some of the new developments of the method will be exposed.

Graduate students are invited to attend

For questions, comments, and offers to talk, contact Dmitry Zenkov, dvzenkov@math.ncsu.edu. Please visit the DE Seminar web page at <http://www.math.ncsu.edu/DE/>