M.S. de Queiroz^{*} (dequeiroz^{@me.lsu.edu)}, Department of Mechanical Engineering, LSU; and B. Xian and D.M. Dawson ({xbin, ddawson}^{@ces.clemson.edu}), Department of Electrical and Computer Engineering, Clemson University, A Continuous Control Mechanism for Asymptotic Tracking of Uncertain Multi-Input Nonlinear Systems

In this talk, we present a novel continuous control mechanism that compensates for uncertainty in a class of multi-input nonlinear systems while ensuring semi-global asymptotic tracking. The control mechanism is based on limited assumptions on the structure of the system nonlinearities, and has the interesting feature of learning the unknown system dynamics. Simulation results illustrate the performance of the proposed control in comparison to a variable structure controller.