



universität
wien



DK Seminar

November 5, 2014
TU, SEM 101C, 13:45 - 15:00

Dominik Stürzer

Vienna University of Technology

Asymptotic stability of an Euler-Bernoulli beam attached to a nonlinear damper and a nonlinear spring

Abstract: In this talk I will discuss an Euler-Bernoulli beam with a tip mass, coupled to a simple nonlinear controller. It consists of a damper and a spring attached to the tip, both nonlinear. The total energy is a Lyapunov function, since the system dissipates energy via the damper. I will present a new, direct proof of the precompactness of the (solution-)trajectories, and then discuss the possible long-time behaviour.