

Title: Stabilization of Nonlinear PDE by Means of Nonlinear Boundary Controls

Abstract: In this presentation, the focus will be done on the design of boundary controls for distributed parameter systems, described by linear and nonlinear partial differential equations. Saturated controllers will be discussed in this talk as those modeling feedback laws in presence of amplitude constraints. We will review some techniques for the stability analysis and the derivations of design conditions for various PDEs as parabolic and hyperbolic ones. An application in nuclear fusion will conclude this lecture.