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Title:

Input-to-state stability of distributed parameter systems: characterizations and counterexamples

Abstract:

In this talk we consider input-to-state stability (ISS) of nonlinear evolution equations in Banach spaces. For this class of systems we characterize local and global ISS properties in terms of Lyapunov functions and other stability properties. At the same time we show by means of counterexamples that some important criteria for ISS known for ordinary differential equations are no more valid in infinite dimensions.