Hamilton Institute

Input-to-State Stability of Differential Inclusions with
Application to Hysteretic Feedback Systems

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Input-to state stability is a concept that captures "nice" properties of dynamical systems with input (e.g.bounded input implies bounded state, input "eventually small" implies state "eventually small", input convergent to zero implies state convergent to zero). Input-to-state stability (ISS) of a class of differential inclusions is described. Every system in the class is of Lur'e-type: a feedback interconnection of a linear system and a (set-valued) nonlinearity. Applications of the ISS results, in the context of feedback interconnections with a hysteresis operator in the feedback path, are developed.

Venue: Seminar Room, Hamilton Institute, Science Building,
          NUI Maynooth

Time: 2.00 - 3.00pm (followed by tea/coffee)

Travel directions are available at www.hamilton.ie

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