Systems and Control Group Seminar

11 December, 2024, 2:00 pm

Mathematics Department, University of Aveiro

Room 11.2.21

On constructing Lyapunov functions for biochemical interaction networks (BIN) via graph methods, for mathematical epidemiology (ME) and chemical reaction network (CRN) models

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Abstract

We review different approaches to the problem raised in the title, provided recently by ME and CRN researchers (ME models are conjectured to be a subclass of CRN models in Avram, Adenane, Halanay and Johnston, but for now there exists no accepted rule for placing an essentially nonnegative ODE into the CRN or ME subclasses). Illustrative examples are provided using our new Mathematica package EpidCRN.