Controllability results for Kuramoto-Sivashinsky models on star-shaped trees

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Abstract

In this talk we present some recent results on the boundary controllability of the Kuramoto-Sivashinsky equation on star-shaped trees. Roughly speaking, we show that with few exceptions, at any positive time the system is null-controllable when acting with a control on some of the external vertices. This is a work in progress with Liviu Ignat (IMAR, Romania) and Ademir Pazoto (Rio de Janeiro, Brasil).