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Contrôlabilité à zéro de l'équation linéaire de Kuramoto-Sivashinsky sur des arbres étoilés /Null-controllability results for the linear Kuramoto-Sivashinsky equation on star-shaped trees

mercredi 23 mai 2018 11:30 (1 heure)

In this talk we discuss null-controllability properties for the linear Kuramoto-Sivashinsky equation on a star-shaped tree with two types of boundary conditions, with boundary controls acting on the external vertices of the tree. Roughly speaking, we show that with few exceptions (when the so-called anti-diffusion parameter belongs to a countable critical set) at any positive time the system is null-controllable when acting with controls on a part of the external vertices. We point out that the critical set for which the null-controllability fails differs from the first model to the second one.

This is a joint work with Liviu Ignat ("Simion Stoilow" Institute of
Mathematics of the Romanian Academy, Romania) and Ademir Pazoto (Universidade Federal do Rio de Janeiro, Brasil).

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