ID de Contribution: **14** Type: **Non spécifié**

Null controllability of underactuated linear parabolic-transport system

mardi 20 juin 2023 11:30 (1 heure)

Many physical systems are modeled by parabolic-transport systems, the Navier-Stokes equations beeing a promeinent example. We will discuss the null-controllability of such 1D systems with constant coefficients and periodic boundary conditions, when we act only on a subdomain, and only on some components.

The null-controllability is then related to the propagation properties of the transport equations, and to the coupling between the equation.This study is done is two steps:
-treat the case where we can act on every component by computing the spectral projectors on parabolic eigenvalues and hyperbolic eigenvalues respectively
-transform this control into one that act only on some components by algebraic manipulations

This is a joint work with Karine Beauchard, Kévin Le Balc'h and Pierre Lissy.

Orateur: KOENIG, Armand (Université Toulouse III - Paul Sabatier)