

Boundary observation of the KdV equation on graphs

mardi 1 juillet 2025 11:20 (20 minutes)

We investigate the exact controllability of a system of N linear KdV equations posed on a star-shaped graph. Using a combination of Dirichlet and Neumann boundary controls, we analyze observability properties. In certain configurations, observability holds for all lengths $L>$, while in others it fails on a specific set of critical lengths. This behavior is linked to the spectral properties of the associated linear operator.

This is joint work with R. A. Capistrano-Filho and J. S. da Silva.

Orateur: PARADA, Hugo (Toulouse, France)