

Seminar of the Work Group
Nonlinear Partial Differential Equations
Institute for Analysis
WS 25/26

Speaker: Louis Garénaux
November 19th, 2025, 11:30 - 13:00
Seminar room: SR 3.069

Orbital Stability for Monostable Fronts in Reaction-diffusion Equations

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Abstract

In this presentation, I will discuss the long-time asymptotic stability of a particular class of traveling waves. Monostable fronts are heteroclinic connections between linearly stable and linearly unstable constant equilibria. Until now, all known stability results assume additional localization of the initial perturbation. Following an idea developed in [Garenaux, Rodrigues: 2025] we will see how to remove this condition to show orbital stability with respect to phase shift. This is work in progress.