

Controllability and Stabilization For a Family of Dispersive Systems

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In this talk we will present recent results of controllability and stabilization for a family of dispersive systems in a bounded domain. More precisely, we study the control properties of a class of dispersive systems, namely,

$$\begin{cases} u_t + u_{xxx} + f(u, v)_x = 0 \\ v_t + v_{xxx} + g(u, v)_x = 0, \end{cases} \quad (1)$$

with two sets of boundary conditions (Dirichlet–Neumann and Neumann boundary conditions). In some situations controllability and stabilization of the system (1) generates the existence of the so-called *critical length phenomenon*.

References

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