

Controllability results on KdV equation

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Abstract

In this talk, we will present some results on the boundary controllability of the Korteweg-de Vries equation. We will consider first the case of controllability on a bounded domain. In that case the controllability of the linearized equation depends on the length of the domain. We will prove the local exact controllability of the nonlinear problem. Then we will study the equation on a star shaped network with control on external nodes. The results will also depend on the lengths of the branches.