

HIERARCHICAL CONTROL FOR THE WAVE EQUATION WITH A MOVING BOUNDARY

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ABSTRACT

This work addresses the study of the controllability for a one-dimensional wave equation in domains with moving boundary. This equation models the motion of a string where an endpoint is fixed and the other one is moving. When the speed of the moving endpoint is less than $1 - \frac{1}{\sqrt{e}}$ the controllability of this equation is established.