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Controllability properties for the one-dimensional heat equation under multiplicative or nonnegative additive controls with local mobile support. (English) [Zbl 1262.35119](#)
ESAIM, Control Optim. Calc. Var. 18, No. 4, 1207-1224 (2012).

Summary: We discuss several new results on nonnegative approximate controllability for the one-dimensional heat equation governed by either multiplicative or nonnegative additive control, acting within a proper subset of the space domain at every moment of time. Our methods allow us to link these two types of controls to some extent. The main results include approximate controllability properties both for the static and mobile control supports.

MSC:

[35K20](#) Initial-boundary value problems for second-order parabolic equations

[35K05](#) Heat equation

[93B05](#) Controllability

Cited in **5** Documents

Keywords:

approximate controllability; multiplicative controls; nonnegative locally distributed controls; static and mobile control supports

Full Text: [DOI](#)