Exponential decay and blow-up results for a viscoelastic wave equation with strong damping and variable sources

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Abstract

This work deals with a class of nonlinear viscoelastic wave equations with strong damping and variable exponent sources. The main interest of this paper compared to many previous works in the literature is able to use the idea of potential well method to study both the finite time blow-up for solutions starting from the unstable sets and decay estimate for global solutions starting in the potential wells.

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