

Blow Up In A Nonlinearly Damped Wave Equation

Messaoudi, SA

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King Fahd University of Petroleum & Minerals

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Summary

In this paper we consider the nonlinearly damped semilinear wave equation $u_{tt} - \Delta u + a(u)|u|^{m-2} = b|u|^{p-2}$ associated with initial and Dirichlet boundary conditions. We prove that any strong solution, with negative initial energy, blows up in finite time if $p > m$. This result improves an earlier one in [2].

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