BLOW UP IN FINITE TIME OF SOLUTIONS FOR A COUPLED KLEIN-GORDON EQUATIONS WITH NONLINEAR DAMPING TERM

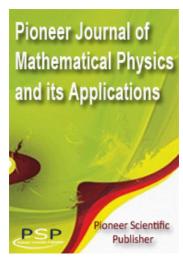
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Abstract

In this paper, we consider the Cauchy problem for a class of coupled Klein-Gordon equations with nonlinear damped term at low initial energy level. By using Sobolev inequality and potential wells and introducing a new unstable set, we derive the result that certain solutions with sub-critical initial energy blow up in finite time.

Keywords and phrases: potential well, blow up, Klein-Gordon equations, nonlinear damped, Cauchy problem.



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