GLOBAL EXISTENCE AND BLOW UP OF SOLUTIONS FOR WAVE EQUATION WITH NONLINEAR BOUNDARY DAMPING AND SOURCE TERM UNDER CRITICAL ENERGY

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Abstract

In this paper, we study the initial boundary value problem of wave equations with nonlinear source and boundary damping terms. However, the classical methods used to study qualitative studies are no longer entirely applicable. We concern with the global existence and blow-up solution under critical initial energy. Then we prove all the results still hold in extended assumptions by potential well and Sobolev embedding theory.