BLOW-UP OF SOLUTIONS TO A NONLINEAR WAVE EQUATION WITH A TIME DELAY CONDITION OF FRACTIONAL TYPE AND LOGARITHMIC NONLINEARITY

Aounallah Radhouane¹, Benaissa Abbès², and Zarai Abderrahmane³

¹Djillali Liabès University , of Mathematics B. P 89 Sidi Bel Abbès 22000, Algeria ²Djillali Liabès University ³University of Larbi Tebessi, Tebessa, Algeria

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Abstract

In the present work, we consider a nonlinear wave equation with a time delay condition of fractional type and a logarithmic source. Using the semigroup theory, we get the existence of a local weak solution. Moreover, we show that this solution blows up in finite time with negative initial-energy.

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