Lower bound for the life span of the Kirchhoff equation] {A lower bound for the life span of solutions to the Kirchhoff equation with Gevrey data

Tokio Matsuyama¹ and Lenny Neyt²

¹Chuo University Faculty of Science and Engineering Graduate School of Science and Engineering

²Ghent University

January 25, 2022

Abstract

We provide a new lower bound for the life span of solutions to the Kirchhoff equation for which the initial data belongs to the Gevrey space. This lower bound strictly improves the classical one in the case when the frequency spectrum of the initial data is concentrated at the origin.

Hosted file

LowerBoundLifeSpanKirchhoffEqGevreyData.pdf available at https://authorea.com/users/457175/articles/554017-lower-bound-for-the-life-span-of-the-kirchhoff-equation-a-lower-bound-for-the-life-span-of-solutions-to-the-kirchhoff-equation-with-gevrey-data