

Uniform stability for a type III thermoelastic laminated beam with structural damping

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January 11, 2022

Abstract

In this work, we consider a thermoelastic laminated beam with structural damping, where the heat flux is given by Green and Naghdi theories. We establish the well-posedness of the system using semigroup theory. Moreover, under the condition of equal wave speeds, we prove an exponential stability result for the considered system. In the case of lack of exponential stability we show that the solution decays polynomially.

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