

General decay for an axially moving viscoelastic beam

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Abstract

This paper deals with an axially moving viscoelastic beam with a boundary non- linear term. Our purpose is to extend the class of the relaxation functions Z that guaranteeing a general decay. For this, we consider the following general condition $Z'(\cdot) \leq -\psi(\cdot)Z(\cdot)$ where ψ is an increasing and convex function and Z is a non- increasing function on the whole $\mathbb{R}_+$, This type of functions was developed by Conti and Pata in 6 and improved by Kelleche and Feng in 11. The obtained result improves the previous ones 12,13.

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