

**Well-posedness and strong stability of Timoshenko system
with past history and fractional derivative damping**

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Abstract

This study investigates the well-posedness and asymptotic behavior of a one-dimensional Timoshenko-type system with memory effects and fractional damping in a bounded domain. The existence and uniqueness of solutions are first established using semigroup theory. Furthermore, we demonstrate the strong stability of the system.

Mathematics Subject Classification : 35L05, 26A33, 74H35.

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