Existence and Uniqueness of Solutions of Strongly Damped Wave Equations with Integral Boundary Conditions

J. Dabas [1*] and D. Bahuguna [2]

[1] *Department of Paper Technology, Indian Institute of Technology Roorkee, Saharanpur Campus, Saharanpur – 247001, UP India.*
[2] *Department of Mathematics & Statistics Indian Institute of Technology, Kanpur – 208 016, UP India.*

Abstract: In this work, we consider a strongly damped wave equation with integral boundary conditions. We apply the method of semi-discretization in time, also known as the method of lines, to establish the existence and uniqueness of a weak solution.