

Wavelet Method for Numerical Solution of Fourth Order Wave Equation

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Abstract : In this paper, a highly accurate numerical method for the solution of one-dimensional fourth-order wave equation is derived. This hyperbolic problem is solved by using semidiscrete approximations. The space direction is discretized by wavelet-Galerkin method, and the time variable is discretized by using Newmark schemes.

Keywords : hyperbolic problem, semidiscrete approximations, stability, Wavelet-Galerkin Method

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