A Second Order Difference Scheme for the Numerical Processing of Source Identification Terms in Hyperbolic Equations

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Abstract: In the present study, a second order difference scheme for a one-dimensional hyperbolic equation is presented. Stability estimates for the solution of the difference scheme are established. This difference scheme is tested on an example and some numerical results are presented.

Keywords: Source identification, hyperbolic differential equations, difference schemes, stability.

2010 Mathematics Subject Classification: 35J05, 35J08, 35J25

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