

عنوان مقاله:

A numerical solution of two-dimensional hyperbolic telegraph equation based on moving least square meshless method and radial basis functions

محل انتشار:

مجله روشهای محاسباتی برای معادلات دیفرانسیل، دوره 10، شماره 4 (سال: 1401)

تعداد صفحات اصل مقاله: 17

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خلاصه مقاله:

In this research, a linear combination of moving least square (MLS) and local radial basis functions (LRBFs) is considered within the framework of the meshless method to solve the two-dimensional hyperbolic telegraph equation. Besides, the differential quadrature method (DQM) is employed to discretize temporal derivatives. Furthermore, a control parameter is introduced and optimized to achieve minimum errors via an experimental approach. Illustrative examples are provided to demonstrate the applicability and efficiency of the method. The results prove the superiority of this method over using MLS and LRBF individually.

کلمات کلیدی:

Meshless method, Moving least square, Local radial basis function, two-dimensional hyperbolic telegraph equation, Differential quadrature method

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