

عنوان مقاله:

On a novel modification of the Legendre collocation method for solving fractional diffusion equation

محل انتشار:

مجله روشهای محاسباتی برای معادلات دیفرانسیل, دوره 7, شماره 3 (سال: 1398)

تعداد صفحات اصل مقاله: 17

نویسندگان: Department of Mathematics, Central Tehran Branch, Islamic Azad University, Tehran, Iran - - -

Department of Applied Mathematics, Faculty of Mathematics and Computer Science, Amirkabir University Of - - -Technology, Tehran, Iran

خلاصه مقاله:

In this paper, a modification of the Legendre collocation method is used for solving the space fractional differential equations. The fractional derivative is considered in the Caputo sense along with the finite difference and Legendre collocation schemes. The numerical results obtained by this method have been compared with other methods. The .results show the capability and efficiency of the proposed method

کلمات کلیدی:

Fractional diffusion equation, Caputo derivative, Fractional Riccati differential equation, Finite difference, Collocation, Legendre polynomials

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/1598052

