عنوان مقاله:

A numerical approximation for the solution of a time-fractional telegraph equation based on the Crank-Nicolson method

نویسندگان:

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خلاصه مقاله:

In this paper, a two-dimensional time-fractional telegraph equation is considered with derivative in the sense of Caputo and $1<\beta<2$. The aim of this work is to extend the Crank--Nicolson method for this time-fractional telegraph equation. The stability and convergence of the numerical method are investigated. Also, the accuracy and efficiency of the proposed method are demonstrated by numerical experiments.

کلمات کلیدی:

Time-Fractional Telegraph Equation, Crank-Nicolson Method, Stability, Convergence

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