Numerical Solution of Fractional Order Partial Differential Equation via Modified Laplace Method

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Abstract: In this study, numerical solutions of the fractional-order partial differential equations are investigated. The nonlinear partial equation has Caputo type fractional order. Numerical solutions are obtained by the modified Laplace decomposition method. Due to the ease of use of the mentioned method, significant and efficient results are obtained successfully. The solutions that have fractional order are compared with the behavior of the solutions that have integer order. 2D and 3D graphs express the results.

Keywords: Modified Laplace Decomposition Method, fractional nonlinear partial differential equations.
Mathematics Subject Classification: 35R11, 44A10.

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