Exact and Approximate Solutions of Fractional Partial Differential Equations Using Aboodh Transform Iterative Method.

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October 7, 2020

Abstract

In this article, we proposed a new iterative method for solving time-fractional partial differential equations. This method is a combination of Aboodh transform method and new iterative method which we termed Aboodh transform iterative method. The proposed method requires that the nonlinear term be decomposed using new iterative method without need for constructing homotopy and Adomian polynomial. Some illustrative examples are presented with there solution profiles to display the effect of the fractional order. The fractional derivative is described in Caputo sense.

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