

New Exact Travelling Wave Solutions for Fractional Differential Equations in a Shallow Water Waves

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Abstract

In this article, the modified simple equation method is proposed to solve nonlinear space-time fractional differential equations. This method is applied to solve space-time fractional modified Benjamin-Bona-Mahony (mBBM) equation, the space-time fractional generalized reaction duffing model and the space-time fractional potential Kadomtsev-Petviashvili (pKP) equation. The solutions found are hyperbolic and trigonometric function solutions. Some of these solutions are new solutions that are not available in the literature.

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