

New Soliton and Periodic Solutions for Two Nonlinear Physical Models

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In this paper, the exp-function method is applied by using symbolic computation to construct a variety of new generalized solitary and periodic solutions for the Burgers-Kadomtsev-Petviashvili and Vakhnenko equations with distinct physical structures. The results reveal that the exp-function method is very effective and powerful for solving nonlinear evolution equations in mathematical physics.

Key words: Burgers-Kadomtsev-Petviashvili Equation; Solitary Solutions; Vakhnenko Equation; Travelling Wave Solutions; Exp-Function Method.