

New Formal Solutions of Davey-Stewartson Equation via Combined tanh Function Method with Symmetry Method

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Abstract: We combine the tanh function method with the symmetry group method to construct new type of solutions of Davey-Stewartson equation and implement it in a computer algebraic system. As a result, some new types of solutions are obtained. This method is also applied to other differential equations if the nonlinear evolution equations admit nontrivial one-parameter group of transformation.

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Key words: tanh function method, symmetry group method, Davey-Stewartson equation, exact solution

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