

New Application of the (G'/G) -Expansion Method to Excite Soliton Structures for Nonlinear Equation

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Z. Naturforsch. **65a**, 518 – 524 (2010); received May 4, 2009 / revised October 16, 2009

The (G'/G) -expansion method is extended to construct non-travelling wave solutions for high-dimensional nonlinear equations and to explore special soliton structure excitations and evolutions. Taking an example, a new series of the non-travelling wave solutions are calculated for the (2+1)-dimensional asymmetrical Nizhnik-Novikov-Veselov system by using the (G'/G) -expansion method. By selecting appropriately the arbitrary functions in the solutions, special soliton-structure excitations and evolutions are studied.

Key words: (G'/G) -Expansion Method; (2+1)-Dimensional Asymmetrical Nihnik-Novikov-Veselov System; Non-Travelling Wave Solution; Soliton Structure Excitation.

PACS numbers: 02.30.Jr, 05.45.Yv, 03.65.Ge