On the Conversion of Partial Differential Equations

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Z. Naturforsch. **65a,** 896 – 900 (2010); received June 11, 2009 / revised November 20, 2009

This paper outlines the conversion of partial differential equations (PDEs) into the corresponding ordinary differential equations (ODEs) by a complex transformation which is widely used in the exp-function method. The proposed homotopy perturbation method (HPM) is employed to solve the travelling wave solutions. Several examples are given to reveal the reliability and efficiency of the algorithm.

Key words: Homotopy Perturbation Method; Transformation; Partial Differential Equations.