

Application of the Laplace Decomposition Method to Nonlinear Homogeneous and Non-Homogenous Advection Equations

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In this paper, we apply the Laplace decomposition method to obtain series solutions of nonlinear advection equations. The equations are Laplace transformed and the nonlinear terms are represented by Adomian polynomials. The results are in good agreement with those obtained by the Adomian decomposition method and the variational iteration method but the convergence is faster.

Key words: Laplace Decomposition Method; Nonlinear Advection Equation; Adomian Polynomials.