

Bildik, Necdet; Konuralp, Ali**The use of variational iteration method, differential transform method and Adomian decomposition method for solving different types of nonlinear partial differential equations.**(English) [Zbl 1401.35010](#)

Int. J. Nonlinear Sci. Numer. Simul. 7, No. 1, 65-70 (2006).

Summary: In this paper, the Variational Iteration Method (VIM), Differential Transform Method (DTM) and Adomian's Decomposition Method (ADM) are implemented to investigate different types of partial differential equations. The analytical solutions of nonlinear partial differential equations are obtained. On the other hand, comparison of the three methods shows that the variational iteration method is more powerful, reliable and effective than the other twos. Some examples are presented to further show the ability of the variational iteration method for nonlinear partial differential equations.

MSC:[35C05](#) Solutions to PDEs in closed form[35A25](#) Other special methods applied to PDEsCited in **60** Documents**Keywords:**

variational iteration method; differential transform method; Adomian's decomposition method; self cancelling noise terms

Full Text: [DOI](#)