

APPLICATION OF REDUCED DIFFERENTIAL TRANSFORMATION METHOD FOR SOLVING SYSTEM OF NONLINEAR PARTIAL DIFFERENTIAL EQUATIONS (PDES)

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ABSTRACT

In this paper, the reduced differential transformation method is used to obtain the solution of systems of nonlinear partial differential equation. The exact solutions of three systems of nonlinear partial differential equations are calculated in the form of series with easily computable components.

A comparison of the technique with some other known techniques like Adomian Decomposition Method (ADM), Variation Iteration Method (VIM) shows the simplicity, effectiveness and efficiency of the present approach with less computational work.

KEYWORDS: ADM, Nonlinear system, Partial Differential Equations, RDTM, VIM