Variational Iteration Method for Burgers' and Coupled Burgers' Equations Using He's Polynomials

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In this paper, we apply a modified version of the variational iteration method (MVIM) for solving Burgers' and coupled Burgers' equations. The proposed modification is made by introducing He's polynomials in the correction functional of the variational iteration method (VIM). The use of Lagrange multiplier coupled with He's polynomials are the clear advantages of this technique over the decomposition method.

Key words: Modified Variational Iteration Method; He's Polynomials; Burgers' Equations.