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**The solution of coupled modified KdV system by the homotopy analysis method.** (English)

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Summary: The Homotopy Analysis Method (HAM) is presented for obtaining the approximate solution of new coupled modified Korteweg-de Vries (MKdV) system. The approximate analytical solution is obtained by using this method in the form of a convergent power series with components that are easily computable. For the problems considered, only a few terms are required to obtain an approximate solution that is accurate and efficient.

**MSC:**

**65M99** Numerical methods for partial differential equations, initial value and time-dependent initial-boundary value problems

**35Q53** KdV equations (Korteweg-de Vries equations)

**35A35** Theoretical approximation in context of PDEs

Cited in **3** Documents