عنوان مقاله:

Symmetries and exact solutions of KP equation with an arbitrary nonlinear term

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خلاصه مقاله:

The generalized KP (GKP) equations with anarbitrary nonlinear term model and characterize manynonlinear physical phenomena. The symmetries of GKPequation with an arbitrary nonlinear term are obtained. Thecondition that must satisfy for existence the symmetriesgroup of GKP is derived and also the obtained symmetriesare classified according to different forms of the nonlinearterm. The resulting similarity reductions are studied byperforming the bifurcation and the phase portrait of GKPand also the corresponding solitary wave solutions of GKPequation are constructed.

کلمات کلیدی:

Generalized KP equation Lie point symmetries Bifurcation Solitary solutions

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