

New Exact Solutions and Novel Localized Excitations for the (2+1)-Dimensional Broek-Kaup System with Variable Coefficients

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In this paper, a new projective equation ($\phi' = \sigma\phi + \phi^2$) is used to obtain the variable separation solutions with two arbitrary functions of the (2+1)-dimensional Broek-Kaup system with variable coefficients (VCBK). Based on the derived solutions and by selecting appropriate functions, some novel folded solitary wave evolutionary behaviours are investigated.

Key words: New Projective Equation ($\phi' = \sigma\phi + \phi^2$); Variable Separation Solutions;
(2+1)-Dimensional VCBK System; Folded Solitary Wave Evolutional Behaviours.

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