

On an Auto-Bäcklund Transformation for (2+1)-Dimensional Variable Coefficient Generalized KP Equations and Exact Solutions

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Abstract: By the application of the extended homogeneous balance method, we derive an auto-Bäcklund transformation (BT) for (2+1)-dimensional variable coefficient generalized KP equations. Based on the BT, in which there are two homogeneity equations to be solved, we obtain some exact solutions containing single solitary waves.

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Key words: extended homogeneous balance method, (2+1)-dimensional variable coefficient generalized KP equation, auto-Bäcklund transformation, exact solutions

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