



**TWO NEW NON-AUTO-BÄCKLUND TRANSFORMATIONS
AND EXACT SOLUTIONS TO $(2 + 1)$ -DIMENSIONAL
HIGH-ORDER BROER-KAUP EQUATIONS**

Caier Ye


Abstract

Two new non-auto-Bäcklund transformations to $(2 + 1)$ -dimensional high-order Broer-Kaup equations are derived by using the generalized $\left(\frac{G'}{G}\right)$ -expansion method.

Abundant exact solutions for the equations are obtained. These solutions contain single soliton solutions, multi-soliton solutions and three types of non-travelling wave solutions in terms of hyperbolic, trigonometric and rational functions.

Keywords and phrases: $(2 + 1)$ -dimensional high-order Broer-Kaup equations, generalized $\left(\frac{G'}{G}\right)$ -expansion method, exact solutions.

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