

The Soliton Solution of (3+1)-Dimensional Kadomtsev-Petviashvili Equations

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(Received: 2001-12-24; Revised:)

Abstract: A simple algebraic transformation relation of a special type of solution between the (3+1)-dimensional Kadomtsev-Petviashvili (KP) equation and the cubic nonlinear Klein-Gordon equation (NKG) is established. Using known solutions of the NKG equation, we can obtain many soliton solutions and periodic solution of the (3+1)-dimensional KP equation.

PACS: 02.30.Jr, 03.40.Kf

Key words: (3+1)-dimensional KP equation, nonlinear Klein-Gordon equation, soliton solution

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