

New Doubly Periodic Solutions for the Coupled Nonlinear Klein-Gordon Equations

LIU Chun-Ping

Institute of Mathematics, Yangzhou University, Yangzhou 225002, China
(Received: 2004-4-19; Revised:)

Abstract: By using the general solutions of a new coupled Riccati equations, a direct algebraic method is described to construct doubly periodic solutions (Jacobi elliptic function solution) for the coupled nonlinear Klein-Gordon equations. It is shown that more doubly periodic solutions and the corresponding solitary wave solutions and trigonometric function solutions can be obtained in a unified way by this method.

PACS: 02.90.+p, 02.30.Jr

Key words: nonlinear Klein-Gordon equation, coupled Riccati equations, doubly periodic solution, algebraic method

[\[Full text: PDF\]](#)

Close