

Complex Tanh-Function Expansion Method and Exact Solutions to Two Systems of Nonlinear Wave Equations

ZHANG Jin-Liang¹ and WANG Ming-Liang^{1,2}

¹ Department of Mathematics and Physics, Henan University of Science and Technology, Luoyang 471003, China

² Department of Mathematics, Lanzhou University, Lanzhou 730000, China

(Received: 2003-12-17; Revised:)

Abstract: The complex tanh-function expansion method was presented recently, and it can be applied to derive exact solutions to the Schrodinger-type nonlinear evolution equations directly without transformation. In this paper, the complex tanh-function expansion method is applied to derive the exact solutions to the general coupled nonlinear evolution equations. Zakharov system and a long-short-wave interaction system are considered as examples, and the new applications of the complex tanh-function expansion method are shown.

PACS: 123a, 32op

Key words: Zakharov system, long-short-wave interaction system, complex tanh-function expansion method, exact solution

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

Close