

## New Exact Travelling Wave and Periodic Solutions of Discrete Nonlinear Schrödinger Equation

YANG Qin, DAI Chao-Qing, and ZHANG Jie-Fang

Institute of Nonlinear Physics, Zhejiang Normal University, Jinhua 321004, China  
(Received: 2004-5-12; Revised: )

Abstract: Some new exact travelling wave and period solutions of discrete nonlinear Schrödinger equation are found by using a hyperbolic tangent function approach, which was usually presented to find exact travelling wave solutions of certain nonlinear partial differential models. Now we can further extend the new algorithm to other nonlinear differential-difference models.

PACS: 05.45.Yv, 02.30.Jr, 02.30.Ik, 42.65.Tg

Key words: discrete nonlinear Schrödinger equation, hyperbolic tangent function approach, solitary wave solution, periodic wave solution

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

Close