

Exact Travelling Wave Solutions of Toda Lattice Equations Obtained via the Exp-Function Method

Chao-Qing Dai and Yue-Yue Wang

School of Sciences, Zhejiang Forestry University, Lin'an 311300, People's Republic of China

Reprint requests to C.-Q. D.; E-mail: dcq424@126.com

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We generalize the exp-function method, which was used to find new exact travelling wave solutions of nonlinear partial differential equations or coupled nonlinear partial differential equations, to nonlinear differential-difference equations. As illustration, we study two Toda lattices and obtain some new travelling wave solutions by means of the exp-function method. As some special examples, some new exact travelling wave solutions can degenerate into the kink-type solitary wave solutions reported in open literatures.

Key words: Toda Lattices; Exact Travelling Wave Solution; Exp-Function Approach.

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