

## Exact Travelling Wave Solutions to a Coupled Nonlinear Evolution Equation

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(Received: 2003-11-4; Revised: )

**Abstract:** By using an improved hyperbola function method, several types of exact travelling wave solutions to a coupled nonlinear evolution equation are obtained, which include kink-shaped soliton solutions, bell-shaped soliton solutions, envelop solitary wave solutions, and new solitary waves. The method can be applied to other nonlinear evolution equations in mathematical physics.

PACS: 02.30.1k, 05.45.Yv,

**Key words:** nonlinear evolution equations, exact travelling wave solutions, envelop solitary wave solutions, hyperbola function method

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