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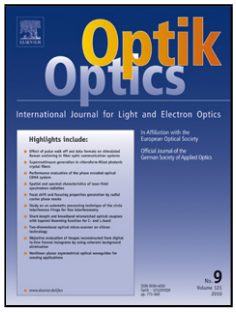

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Exact solitons of the coupled Sine-Gordon equation in nonlinear system

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Abstract

This main aim of this work is to study the coupled Sine-Gordon equation. This equation plays an important role in describing the propagation of nonlinear waves. There are two integration tools are applied to extract analytical solutions. They are the generalized Kudryashov method and extended trial equation method. Moreover, the soliton solutions to the coupled sine-Gordon equation are also reported.

Keywords: Soliton; Coupled Sine-Gordon equation; Generalized Kudryashov method; Extended trial equation method.

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