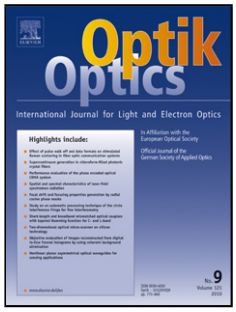

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RESONANT OPTICAL SOLITONS WITH QUADRATIC-CUBIC NONLINEARITY BY SEMI-INVERSE VARIATIONAL PRINCIPLE

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Abstract

This paper obtains resonant soliton solutions to the nonlinear Schrödinger's equation that is studied in quadratic-cubic nonlinear media. The semi-inverse variational principle is applied to retrieve the soliton solution. The soliton parameters appear with restrictions that are also presented.

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Key words: solitons; semi-inverse variation; quadratic-cubic law.