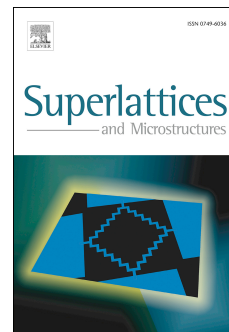


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PERTURBED DARK AND SINGULAR OPTICAL SOLITONS IN POLARIZATION PRESERVING FIBERS BY MODIFIED SIMPLE EQUATION METHOD

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Abstract

This paper obtains optical soliton solution to perturbed nonlinear Schrödinger's equation by modified simple equation method. There are four types of nonlinear fibers studied in this paper. They are Anti-cubic law, Quadratic-cubic law, Cubic-quintic-septic law and Triple-power law. Dark and singular soliton solutions are derived. Additional solutions such as singular periodic solutions also fall out of the integration scheme.

Keywords: Solitons, Perturbation, Modified simple equation method.

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