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Optical Solutions in Fiber Bragg Gratings with Polynomial Law Nonlinearity and Cubic-Quartic Dispersive Reflectivity*

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Optical solitons with ber Bragg gratings and polynomial law of nonlinear refractive index are addressed in the paper. The auxiliary equation approach together with an addendum to Kudryashov's method identify soliton solutions to the model. Singular periodic solutions emerge from these integration schemes as a byproduct.

Keywords: solitons; cubic-quartic; Bragg gratings.