

OPTICAL SOLITONS IN MONOMODE FIBERS

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The evolution of envelope solitons in the framework of generalized nonlinear Schroedinger equation including high-order dispersive effects and of nonlinearity saturation is considered. In terms of Lyapunov method it was shown that model equation have stable soliton solutions in the form of chirped solitons. New exact chirped soliton solution is presented. The dynamics of wave-packets in the vicinity of exact solution was studied using the direct variational approach.