Soliton Compton Mass from Auto-Parametric Wave-Soliton Coupling

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Abstract

In this paper a self-excited Rayleigh-type system models the
auto-parametric wave-soliton coupling via phase fluctuations. The parameter of dissipative terms determine not only the most likely quantum coupling between solitons and linear waves but also the most likely mass of the solitons. Phase fluctuations are mediated by virtual photons coupling at light-velocity in a permanent Compton scattering process. With a reference to the SI-units and
proper scaling relations in length and velocity, the final result shows a highly interesting sequence: the likely soliton Compton mass is about 1.00138 times the neutron and 1.00276 times the proton mass.

Keywords:	baryon, neutron, proton, auto-parametric, resonance, whispering, autonomous, gallery, modes, nonabelian, nonlinear, non-pertubative, supratransmission , supraconductivity, breather, nonpertubative, pseudosphere, phase, berry, Gordon, sine-Gordon, Baecklund, Thirring, Rayleigh, fine structure, iteration, iterative
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