

ELSEVIER

Optik-International Journal for Light and Electron Optics

178, (2019) 1120-1124

<https://doi.org/10.1016/j.ijleo.2018.10.124>

Stochastic Perturbation of Optical Solitons having Anti-cubic Nonlinearity with Bandpass Filters and Multi-photon Absorption

Salam Khana , Anjan Biswasa, Qin Zhouc, Samuel Adesanya, Mohanad Alfirasf , Milivoj Belic

Abstract: This paper obtains mean free velocity of optical solitons having anti-cubic nonlinearity. The perturbation terms are from bandpass filters and multi-photon absorption as well as of stochastic type. The final analysis of Langevin equation leads to the desired result.

Keywords: Anti-cubic nonlinearity, Langevin equation , Mean free velocity