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Nashville, TN 37209-1561. *Stochastic perturbation of dispersion-managed optical solitons.*

The soliton perturbation theory is used to study and analyze the stochastic perturbation of optical solitons with dispersion-management. The super-Gaussian pulses are considered here and the corresponding Langevin equations are derived and analysed. The deterministic perturbations that are considered, in addition to the stochastic perturbation, are attenuation and bandpass filtering. (Received July 23, 2005)