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Tobias B Schaefer* (tobias@math.csi.cuny.edu), Department of Mathematics 1S-208, 2800 Victory Blvd., Staten Island, NY 10314. *Impact of stochastic perturbations on ultra-short solitons in cubic nonlinear media.*

I present a general method to coarse-grain noise in weakly nonlinear systems with scale-separation and apply this method to derive a stochastic version of the Short-Pulse equation describing ultra-short pulses in optical media. Using this stochastic Short-Pulse equation, I will characterize the impact of the random variations on recently found ultra-short solitary waves. (Received January 08, 2008)