1163-35-1182 **Svetlana Roudenko***, Department of Mathematics and Statistics, Florida International University, Miami, FL 33199. *Behavior of solutions to the 1D focusing stochastic nonlinear Schrödinger equation.*

We discuss solutions behavior to the focusing stochastic nonlinear Schrödinger equation in 1D with perturbations driven by various noises in the L^2-critical and supercritical settings. We consider additive and multiplicative perturbations driven by space-time white noise and multiplicative noise driven by a Wiener process white in time and colored in space. While the Hamiltonian is no longer conserved in the stochastic setting, the mass is conserved in the multiplicative case due to the Stratonovich integral definition. We describe the influence of the noise on the global dynamics measuring the probability of blow-up versus scattering behavior depending on various parameters, e.g., correlation kernels. We then discuss the effect of the noise on the blow-up behavior: our numerical studies show that such random perturbations do not influence the blow-up dynamics, except for shifts of the blow-up center location being a Gaussian random variable. This is a joint work with Annie Millet, Alex D. Rodriguez and Kai Yang. (Received September 15, 2020)