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Svetlana Roudenko*, Department of Math & Stats, Florida International University, Miami, FL 33199. *Behavior of solutions in stochastic critical and supercritical NLS equation with additive or multiplicative noise.*

We study nonlinear Schrödinger (NLS) equation with focusing nonlinearity, subject to additive or multiplicative stochastic perturbations driven by an infinite dimensional Brownian motion. Under the appropriate assumptions on the space covariance of the driving noise, previously de Bouard and Debussche established the H^1 local well-posedness in a general case and global well-posedness in the mass-subcritical case. In our work we study the mass-critical, intercritical and energy-critical cases of NLS and obtain quantitative estimates on solutions under the so-called mass-energy threshold. This is joint work with Annie Millet. (Received September 17, 2019)