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**Svetlana Roudenko\***, Department of Mathematics, Washington, DC 20052. *Scattering vs. blow-up in the focusing dispersive equations.* Preliminary report.

We study the focusing nonlinear Schrodinger equation in  $R^N$ , in the  $L^2$ -supercritical regime with finite energy and finite variance initial data and investigate solutions above the energy (or mass-energy) threshold. We extend the known scattering versus blow-up dichotomy above the mass-energy threshold for finite variance solutions in the energy-subcritical and energy-critical regimes, obtaining scattering and blow-up criteria for solutions with arbitrary large mass and energy. We also investigate other equations in a similar manner. (Received January 18, 2015)