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Rowan Killip, Jason Murphy* (murphy@math.berkeley.edu), **Monica Visan** and **Jiqiang Zheng**. *The focusing nonlinear Schrödinger equation with inverse square potential.*

For the focusing cubic nonlinear Schrödinger equation (NLS) in three space dimensions, Duyckaerts, Holmer, and Roudenko have established a sharp criterion for blowup versus scattering for solutions below the ground state. In this talk, we will adapt their approach to prove an analogous result for the case of NLS with an inverse square potential. To prove our result, we need to understand the sense in which the original equation embeds into the equation with potential in certain limiting regimes. This is joint work with R. Killip, M. Visan, and J. Zheng. (Received September 18, 2016)