

Stability and Instability of Standing Waves for the Nonlinear Fractional Schrödinger Equation

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Abstract: In this talk, we consider the orbital stability of standing waves for the nonlinear fractional Schrödinger equation by the profile decomposition theory. We prove that when $0 < \gamma < 2s$, the standing waves are orbitally stable; when $\gamma = 2s$, the standing waves are strongly unstable to blow-up.