



北京理工大学

数学与统计学院学术报告

Threshold dynamics for the 3d radial cubic-quintic NLS

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摘要: We consider the nonlinear Schrödinger equation(NLS) with focusing quintic and defocusing cubic nonlinearity in three space dimensions. In [Miao-Xu-Zhao, CMP, 13] and [Xu-Zhao, JDE, 20], the authors classified the dynamics of solutions under the energy constraint $E(u) < E_c(W)$, where W is the quintic NLS ground state and E_c is the quintic NLS energy. In this work we classify the dynamics of H^1 solutions at the threshold $E(u) = E_c(W)$. This work is jointed with Alex H. Ardila and Jason Murphy.