



Seminar of the Work Group
Nonlinear Partial Differential Equations
SS 2021

Speaker: Dr. Yang Lan
May 21, 2021, 14:00 - 15:30
Zoom Link: <https://kit-lecture.zoom.us/j/7143665630>
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Dynamics of threshold solutions for energy-critical fourth order NLS

Abstract

Abstract: We consider the energy-critical fourth order non-linear focusing Schrödinger equation with radial data. An explicit stationary solution for this equation is known, which is also called the ground state. Its energy has been shown as a threshold for solutions of this equation, where the dynamical behavior of solutions with energy strictly below the ground state is known. In this talk, we will study the long time dynamical behavior of solutions with threshold energy, using the concentration compactness argument and modulation theory. This also provides a comprehensive dynamical characterization of the ground state.