

Stability of Rayleigh-Jeans equilibria in the kinetic FPUT equation

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Abstract

In this talk we consider the four-waves spatially homogeneous kinetic equation arising in weak wave turbulence theory from the microscopic Fermi-Pasta-Ulam-Tsingou (FPUT) oscillator chains. This equation is sometimes referred to as the Phonon Boltzmann Equation. I will discuss the global existence and stability of solutions of the kinetic equation near the Rayleigh-Jeans (RJ) thermodynamic equilibrium solutions.

This is a joint work with Pierre Germain (Imperial College London) and Joonhyun La (KIAS).