

Localization for the Random Displacement Model

M. Loss

Georgia Tech

Consider a quantum mechanical particle interacting with a potential consisting of an array of potential wells randomly displaced from a periodic configuration. One expects that for low energies such a particle should display localization. In this talk I will explain the main ingredients of a proof of localization, i.e., characterizing the minimal energy configurations, the Lifshitz - tail estimate and the Wegner estimate. This is joint work with J. Baker, F. Klopp, S. Nakamura and G. Stolz.