

Diffusion of wave packets in a Markov random potential

Yang Wook Kang, Dept. of Math, Michigan

Abstract: We consider the evolution of a tight binding wave packet propagating by the Schrödinger equation with a time dependent random potential. If the potential evolves according to a stationary Markov process, we show that the square amplitude of the wave packet converges, after diffusive rescaling, to a solution of a heat equation.