

Abstract

In this talk, we will introduce quantitative almost reducibility of quasiperiodic cocycle, and its applications in spectral theory and number theory. As applications in spectral theory of quasiperiodic Schrodinger operator, we will emphasize its role in the solution of Aubre-Andre-Jitomirskaya conjecture, exponential dynamical localization of almost Mathieu operator, noncritical Dry Ten Martini problem and asymptotics of spectral gaps. As applications in number theory, we will introduce the recent advances in Sarnak's conjecture.