

Title: Asymptotic properties of spectral measures

Abstract Let X be a Riemannian manifold and dx its volume form. The quantum ergodicity theorem–conjecture of Shnirelman–Zelditch–Colin de Verdière asserts that if the geodesics flow on T^*X is ergodic, then the spectral measures, $|f_n|^2 dx$, tend to dx as n tends to infinity, the f_n 's being the eigenfunctions of the Laplace operator. In this talk we will discuss some equivariant versions of this result involving “packets” of eigenfunctions and some analogues of this result in Kähler geometry.