1056-35-748   **Steve Zelditch*** (`zelditch@math.northwestern.edu`), Department of Mathematics, Northwestern University, Evanston, IL 60208. *Quantum ergodic restriction theorems.*

Quantum ergodicity is a property of almost the full sequence of eigenfunctions of a Riemannian manifold with ergodic geodesic flow: the eigenfunctions becomes uniformly distributed in phase space. By a quantum ergodic resctriction theorem we mean the question whether the restrictions of eigenfunctions to a hypersurface are quantum ergodic along the hypersurface. Simple examples show that this is sometimes not the case. In my talk, sufficient conditions will be given for restrictions of eigenfunctions to be quantum ergodic. Based on joint work with John Toth and work in progress with John Toth, Hamid Hezari and Hans Christianson (Received September 16, 2009)