A. Tahzibi

Title:

New criteria for ergodicity and non uniform hyperbolicity

Abstract:

In this talk we state new criterium for ergodicity and non uniform hyperbolicity evolving periodic points of the dynamics. For instance we get a characterization of Pesin's ergodic components as "homoclinic classes". In the context of partially hyperbolic volume preserving dynamics, it has been conjectures by Pugh-Shub that ergodicity is typical in Cr topology. We apply methods of heterodimensional cycles and prove their conjecture (C1 open and denseness of ergodicity) for a wide class of partially hyperbolic diffeomorphisms. In particular we treat the ergodicity of partially hyperbolic dynamics with mixed (signs) Lyapunov exponents in central bundle.
This is a joint work with F.Rodriguez Hertz, M.A. Rodriguez Hertz and R. Ures.