

Thursday Short Talks Timetable

2:30-2:55: C. Gonzalez Tokman, *Characterization and perturbations of the Lyapunov spectrum of a class of Perron-Frobenius operator cocycles*

The Lyapunov spectrum of Perron-Frobenius operator cocycles contains relevant information about dynamical properties of time-dependent (non-autonomous, random) dynamical systems. In this talk we characterize the Lyapunov spectrum of a class of analytic expanding maps of the circle, and discuss stability and instability properties of this spectrum under perturbations. (Joint work with Anthony Quas.)

3:00-3:25: D. Zubov *Deviation of the averages over the unstable leaves of Anosov diffeomorphisms*
For a C^3 smooth topologically mixing Anosov diffeomorphism with oriented invariant foliations, we show the qualitative equidistribution theorem for the averages of C^2 functions over the (iterated) unstable balls.

The key tool is the analysis of the spectrum of the pullback operator acting on a Gouezel-Liverani type Banach space. We show that the eigenfunctions with eigenvalues close to the spectral radius give rise to the families of holonomy invariant finitely additive measures (in the sense of Bufetov and Bufetov-Forni) on the unstable leaves; these finitely additive measures will be shown to control the asymptotics of the considered leafwise integrals.

3:30-3:55: Huyi Hu, *Hyperbolic behaviors in partially hyperbolic systems*

The difference between partially hyperbolic systems and hyperbolic systems is presence of the center directions. So if we "ignore" the center directions in a partially hyperbolic system, we should be able to see many properties similar to that of hyperbolic ones. In this talk, I will introduce the notions of quasi-stability, quasi-shadowing property, unstable entropy and unstable pressures for partially hyperbolic systems.