

Speaker: Marcelo Viana (IMPA)

Title: Partially hyperbolic maps with 2-dimensional center

Abstract:

I will discuss a number of issues around the following result (joint with Artur Avila): Let A be a symplectic linear automorphism on the 4-torus, with exactly two eigenvalues on the unit circle, and assume that no eigenvalue is a root of unity. Then there exists a neighborhood U of A in the space of smooth symplectic diffeomorphisms on the 4-torus such that for every f in U , either f is non-uniformly hyperbolic (non-zero Lyapunov exponents almost everywhere), or f is conjugate to A by some volume preserving homeomorphism. In particular, A is stably Bernoulli.