

Cocycles over hyperbolic systems and random walks on manifolds

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In (uniformly) hyperbolic dynamics there is a general (and vague) idea that can be briefly summarized with the following sentence:

Most of the dynamically interesting information on a hyperbolic system is concentrated in its periodic orbits.

In this talk we shall deal with linear and diffeomorphism-valued cocycles, considering some scopes and limitations of this idea when dealing with Lyapunov exponents and invariant measures, two fundamental tools for the analysis of cohomology classes and random walks on manifolds.