

Lyapunov 'non-typical' points for partially hyperbolic dynamics

PAULO CÉSAR RODRIGUES PINTO VARANDAS *

Abstract

The celebrated Birkhoff's ergodic theorem asserts that from a probabilistic viewpoint the times averages of "almost all" points converge to a space average. Motivated by the application of iterated function systems (IFS) to model central dynamics of partially hyperbolic diffeomorphisms, we will describe mild conditions that ensure that Birkhoff non-typical points form a full entropy and Baire generic set on the ambient space. If time permits we will provide some applications for the study of the Lyapunov spectrum of partially hyperbolic diffeomorphisms and linear cocycles. This is a joint work with G. Ferreira (UFMA).

References

- [1] G. Ferreira and P. Varandas, Lyapunov 'non-typical' points for partially hyperbolic dynamics (in preparation)
- [2] X. Tian, Nonexistence of Lyapunov exponents for matrix cocycles. *Ann. Inst. Henri Poincaré Probab. Stat.* 53 (2017), no. 1, 493–502.

*e-mail: pcvarand@gmail.com