

Decay of correlations in fast-slow partially hyperbolic systems

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We show existence of an open class of partially hyperbolic smooth local diffeomorphisms of the two-torus which admit a unique SRB measure satisfying exponential decay of correlations and we obtain nearly optimal estimates for the rate of decay of correlations. In this talk, we will focus on the more dynamical aspects of the proof and discuss some related questions which still remain open.

This is part of a joint project with Carlangelo Liverani.