
* PROGRAMA DE VERÃO 2012 *

SISTEMAS DINÂMICOS

Uniqueness of the maximal entropy
measure and Hausdorff dimension of
the exceptional set of Hénon maps

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By the celebrated Benedicks-Carleson Theorem, for every b sufficiently small, there exists a Lebesgue positive set of parameters a such that the Hénon map

$$(x,y) \mapsto (x^2 + a + y, b x)$$

is nonuniformly hyperbolic. Benedicks-Young proved the existence of an ergodic SRB measure; Benedicks-Viana proved that its basin has total Lebesgue measure.

I gave a new proof of Benedicks-Carleson for which the parameters satisfy furthermore the following property: every ergodic invariant probability of f is either supported by an invariant set of small Hausdorff dimension (the exceptional set), or can be lifted to an invariant measure of a positive recurrent countable shift. A consequence is that the maximal entropy measure is unique, exponentially mixing and satisfies the central limit theorem.

Data: 12 de Janeiro, às 16:00

Local: Auditório Antônio Gilioli (247/262 -- A)