Mês de: Janeiro 2010

SEMINÁRIO DE SISTEMAS DINÂMICOS

Dia 13 de Janeiro (quarta-feira), às 14h30, na Sala B1-01

"Expanding measures, equilibrium states and topological invariants"

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Abstract:

The study of thermodynamical formalism for uniformly hyperbolic dynamical systems, initiated in the mid seventies by the pioneering works of Sinai, Ruelle and Bowen, constitutes at the present time a well developed theory. However, in a context of nonuniform hyperbolicity, and despite the efforts of many authors, the theory is still far from complete and is very chalenging.

In this talk we will discuss the thermodynamical formalism of expanding measures, that is, invariant probability measures that admit only positive Lyapunov exponents. More precisely, first we will show that every Holder continuous potential admits a unique equilibrium state among expanding measures. Finally we prove that the supremum of metric entropies over expanding measures is a new topological invariant in a wide class of transformations.

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