

Measures of maximal entropy for diffeomorphisms close to Anosov flow

Ali Tahzibi¹, Jérôme Buzzi², Todd Fisher³

¹ University of São Paulo at São Carlos

² University of Paris-Sud

³ Brigham Young University

We extend the construction of maximal entropy measure due to Margulis for Anosov flows to the diffeomorphisms which are C^1 -close to time one map of Anosov flows and have minimal strong foliations. We prove a dichotomy for the measures of maximal entropy of such diffeomorphisms: for the measures of maximal entropy of such diffeomorphisms: Either all maximal entropy measures have vanishing central Lyapunov exponent or there exist exactly two measures of maximal entropy, both are hyperbolic with opposite sign of central Lyapunov exponent.