

1129-37-139

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University of Maryland, College Park, MD 20742. *SRB measures for Banach space mappings.*

I will talk about the extension to the setting of Banach space mappings a concept which has proven highly useful in the study of finite dimensional dissipative dynamical systems, that of SRB measures. Our results apply to a large class of dissipative PDE which includes many dissipative parabolic and dispersive wave equations.

We generalize two results known in the finite-dimensional setting: the first is the characterization of the SRB property in terms of the relationship between Lyapunov exponents and metric entropy. The second is a technical result, absolute continuity of the stable foliation, which in particular implies that an SRB measure with no zero exponents is ‘visible’ to a ‘positive volume’ subset of phase space (where ‘positive volume’ must be suitably interpreted in the infinite-dimensional setting).

A major complication we address is that Banach spaces do not possess an a priori notion of  $k$ -dimensional volume element, whereas the finite dimensional theory heavily involves the notion of volume growth along unstable leaves. Another is that mappings in our setting are not differentiably invertible: maps may exhibit arbitrarily strong rates of contraction, and are not locally onto.

This work is joint with Lai-Sang Young. (Received March 11, 2017)