Sharp conditions for statistical stability

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Abstract

A family of dynamical systems, where each member has an SRB measure, is statistically stable if nearby members of the family have nearby (in the weak* sense) SRB measures. The class of non-uniformly hyperbolic interval maps displays a wide range of stability properties, from a breakdown of statistical stability, through statistical stability, and even through to satisfying the linear response formula. Ill give a few recent results in the area, including some of my own work with Neil Dobbs, indicating what can guarantee stability and what can destroy it.