

Preimage Mean Dimension

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In this talk, the mean dimension theory via the preimage structure for noninvertible infinite dimensional dynamical systems with infinite topological entropy is considered. Several invariants, such as the topological preimage mean dimensions, the metric preimage mean dimensions and the rate distortion preimage mean dimensions involving two variables (metrics and measures) are introduced and the relations among these quantities are considered. Particularly, for a non-invertible system with the backward marker property, a double variational principle relating rate distortion preimage mean dimensions and topological preimage mean dimension is established. This is a joint work with Weisheng Wu and Yujun Zhu.

报告人简介：王昕晟，汕头大学讲师，博士毕业于河北师范大学。主要研究领域为动力系统。目前的研究兴趣集中在光滑随机动力系统的不稳定熵与压、原像熵与压以及原像平均维数等方面。目前主持国家自然科学基金青年科学基金项目一项，在《Journal of Differentiable Equations》《Discrete and Continuous Dynamical Systems》等数学期刊上发表论文多篇。