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Structure of Rigidity Sequences for Substitution Dynamical Systems

A special class of dynamical systems that we will focus on are substitutions. This class of systems provides a variety of ergodic theoretic behavior and is connected to self-similar interval exchange transformations. During this talk we will explore rigidity sequences for these systems. A sequence (n_m) is a rigidity sequence for the dynamical system (X, T, μ) if $\mu(T^{n_m} A \cap A) \rightarrow \mu(A)$ for all positive measure sets A . We will discuss the structure of rigidity sequences for substitutions that are rank-one and substitutions that have constant length. This is joint work with Jon Fickenscher.