

Non-uniform hyperbolicity and symbolic dynamics

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Symbolic dynamics is a tool that simplifies the study of dynamical systems in various aspects, e.g. counting of closed orbits and classification of equilibrium measures. It is known for almost fifty years that uniformly hyperbolic systems have “good” codings. For non-uniformly hyperbolic systems, Sarig constructed in 2013 “good” codings for surface diffeomorphisms. In this talk we will discuss some recent developments on Sarig’s theory, treating the cases of three dimensional flows, Bunimovich billiards, and multimodal maps of the interval.