Non-resonant invariant manifolds in non-uniformly hyperbolic systems *

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Abstract

We present a theory of non-resonant manifolds for orbits that satisfy some rather weak notion of hyperbolicity based on the notion of rates of growth which generalizes at the same time the notion of exponential dichotomies and the notion of Lyapunov exponents of non-uniform hyperbolic theory.

The non-resonant manifolds include strong stable manifolds and slow manifods as particular cases. Under appropriate hypotheses we discuss the existence, regularity and uniqueness.

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*oral communication.