

STABLE MANIFOLDS FOR HOLOMORPHIC AUTOMORPHISMS

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It is well known that the stable manifolds of a compact hyperbolic invariant (with respect to a holomorphic automorphism) subset of a complex manifold are smoothly diffeomorphic to a complex Euclidean space; in 2000, Bedford asked whether they also are biholomorphic to a complex Euclidean space. In this talk I shall describe a new technique for dealing with this problem, providing in particular a positive answer in all points where Lyapunov exponents exist, generalizing previous results by Jonsson, Varolin and Peters (Joint work with A. Abbondandolo and P. Majer).