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Han Peters* (peters@math.wisc.edu), University of Wisconsin-Madison, Mathematics Department, 480 Lincoln Drive, Madison, WI 53706-1388. *Attracting basins and Fatou-Bieberbach domains.*

Any basin of attraction of a holomorphic automorphism is biholomorphic to complex Euclidean space (Lattes, Sternberg, Rosay-Rudin). Instead of looking at a basin of attraction of a single automorphism one can look at the basin of a sequence of automorphisms. Depending on the sequence these basins may be biholomorphically equivalent to complex Euclidean space or not. I will present several restrictions on the sequence of automorphisms that lead to positive results, as well as weaker conditions for which the question is still open. This question is closely related to an open conjecture by Bedford, namely that any stable manifold of a hyperbolic automorphism is biholomorphic to complex Euclidean space.

If time permits (unlikely) we will look at how these results can be used for the construction of Fatou-Bieberbach domains whose boundaries have large Hausdorff dimensions. (Received February 10, 2006)