Meeting: 1003, Atlanta, Georgia, SS 33A, AMS Special Session on Topics in Geometric Function Theory, I

1003-30-960Petra Bonfert-Taylor* (pbonfert@wesleyan.edu), Department of Mathematics, Wesleyan
University, 265 Church Street, Middletown, CT 06455, and Richard Canary, Gaven Martin
and Edward C Taylor. The quasiconformal homogeneity of hyperbolic manifolds.

An (orientable) hyperbolic manifold M is K-quasiconformally homogeneous if, given any two points $x, y \in M$, there exists a K-quasiconformal homeomorphism $f : M \to M$ such that f(x) = y. If M is K-quasiconformally homogeneous for some K, we say that it is uniformly quasiconformally homogeneous.

In this talk we will discuss the geometric and topological constraints on uniformly quasiconformally homogeneous hyperbolic manifolds. In dimensions $n \ge 3$ we will characterize such manifolds. The situation is dimension two is more mysterious. (Received October 01, 2004)