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Petra Bonfert-Taylor* (pbonfert@wesleyan.edu), Department of Mathematics, Wesleyan University, 265 Church Street, Middletown, CT 06459, and **Edward Taylor**. *On the geometry of quasiconformally homogeneous domains.*

A set $A \subset \hat{\mathbb{C}}$ is K -quasiconformally homogeneous if for any two points $x, y \in A$ there exists a K -quasiconformal mapping $f : \hat{\mathbb{C}} \rightarrow \hat{\mathbb{C}}$ that keeps A setwise invariant and maps x to y . In particular, we will focus on planar domains such that (a) the domain itself is quasiconformally homogeneous, (b) the domain's boundary is quasiconformally homogeneous, or (c) both the domain and its boundary are quasiconformally homogeneous. We will describe recent progress towards geometric characterizations of such domains. (Received January 03, 2008)