Available upon request.

1. P. Bonfert-Taylor, R. Canary, G. Martin and E. Taylor, "Quasiconformal homogeneity of hyperbolic manifolds," *Math. Ann.* **331** (2005), pp. 281–295.

   Abstract: We show that if a hyperbolic manifold is uniformly quasiconformally homogeneous, then there are considerable constraints on its geometry. If $n \geq 3$, a hyperbolic n-manifold is uniformly quasiconformally homogeneous if and only if it is a regular cover of a closed hyperbolic orbifold. Moreover, if $n \geq 3$, we show that there is a constant $K_n > 1$ such that if M is a hyperbolic n-manifold, other than $\mathbb{H}^n$, which is K–quasiconformally homogeneous, then $K \geq K_n$.

2. P. Bonfert-Taylor, M. Bridgeman, R. D. Canary, and E. Taylor, *Quasiconformal homogeneity of hyperbolic surfaces with fixed-point full automophisms, Math. Proc. Camb. Phil. Soc.* **143**(2007), pp. 71–74.

   We show that closed hyperbolic surfaces are uniformly quasiconformally homogeneous with constant uniformly bounded away from 1 provided that we restrict the automorphism classes of the quasiconformal mappings that realize the homogeneity. We also show that, without this restriction, hyperelliptic surfaces are uniformly quasiconformally homogeneous with a universal lower bound on the homogeneity. This result is then generalized to include the locus of c fixed-point full hyperbolic surfaces.

3. P. Bonfert-Taylor, G. Martin, A. Reid, and E. Taylor, "Teichmüller mappings, Quasiconformal Homogeneity, and non-amenable covers of Riemann Surfaces, " submitted.

   Abstract: We show that there exists a universal constant K_c so that every K-strongly quasiconformally homogeneous hyperbolic surface X (not equal to $\mathbb{H}^2$) has the property that $K > K_c > 1$. The constant K_c is the best possible, and is computed in terms of the diameter of the $(2, 3, 7)$-hyperbolic orbifold (which is the hyperbolic orbifold of smallest area.) We further show that the minimum strong homogeneity constant of a hyperbolic surface without conformal automorphisms decreases if one passes to a non-amenable regular cover.

4. P. Bonfert-Taylor, K. Falk, and E. Taylor, "Gaps in the exponent spectrum of subgroups of discrete quasiconformal groups," submitted.

   Abstract:Let G be a discrete quasiconformal group preserving $\mathbb{B}^3$ whose limit set $\Lambda(G)$ is purely conical and all of $\partial\mathbb{B}^3$. Let $\hat{G}$ be a non-elementary normal subgroup of G: we show that there exists a set $\mathcal{A}$ of full measure in $\Lambda(G)$ so that $\mathcal{A}$, regarded as a subset of $\Lambda(\hat{G})$, has "fat horospherical" dynamics relative to $\hat{G}$. As an application we will bound from below the exponent of convergence of $\hat{G}$ in terms of the Hausdorff dimension of $\mathcal{A}$.

5. M. Bridgeman and E. Taylor, "An extension of the Weil-Petersson metric to Quasi-Fuchsian space," submitted.

   Abstract: We establish a natural symmetric bilinear two-form on quasi-Fuchsian space, derived from the geodesic current length function, that extends the Weil-Petersson metric on the Teichmüller diagonal. The required smoothness properties of this length function are established in the process of constructing the bilinear symmetric two-form.