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Continuity of convex hull boundaries. (English) Zbl 0838.30043

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Setting: Suppose that $\{G_\mu\}$ is a family of finitely generated Kleinian groups that depend holomorphically on a parameter μ which varies in an arbitrary connected domain in the complex plane \mathbb{C} , with the groups G_μ quasiconformally conjugate. The boundary of the convex hull of the limit set of G_μ is denoted by $\partial\mathbb{C}(G_\mu)$. The quotient $\partial\mathbb{C}(G_\mu)/G_\mu$ is a union of pleated surfaces, each carrying an intrinsic hyperbolic structure, a bending locus, and a bending measure.

Main results about these pleated surfaces, where continuity is in terms of the parameter μ : Geodesic length is continuous. Hyperbolic structure is continuous. Lamination length is continuous. Bending is continuous.

Results in this spirit were stated by Thurston and Sullivan. Weaker versions were proved by Canary, Epstein, Green, and Marden. The present paper relies heavily on this earlier work.

Reviewer: [J.W.Cannon \(Provo\)](#)

MSC:

30F40 Kleinian groups (aspects of compact Riemann surfaces and uniformization)

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Keywords:

[measured laminations](#); [hyperbolic structure](#); [Kleinian groups](#); [pleated surfaces](#)

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