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CORRECTION

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TO: *Transitive horocycles for Fuchsian groups*, Duke Math. J. **42** (1975), 307–312.

Let G be a Fuchsian group in the unit disc Δ with Ford fundamental region D and set $E = \{\xi \in \partial\Delta : \text{there exists } V \in G \text{ with } V(\xi) \in \bar{D}\}$. For $\xi \in \partial\Delta$ and r, $0 < r < 1$, we denote by $C(\xi, r)$ that horocycle with Euclidean radius r and point at infinity ξ. The following is Theorem 1 of [1].

THEOREM. *Let G be a Fuchsian group and $\xi \in \partial\Delta$ then the following statements are equivalent.*

(i) $\xi \notin E$

(ii) *For any $r > 0$ $C(\xi, r)$ contains an image of the origin in its interior.*

(iii) *There are images of $C(\xi, \frac{1}{2})$ with radii arbitrarily close to* 1.

(iv) *There exists a sequence of distinct transforms $\{V_n\}$ of G such that*

$$|\xi - c(V_n)| = o(r(V_n)) \text{ as } n \to \infty$$

where $c(V_n)$ and $r(V_n)$ denote respectively the center and radius of the isometric circle of V_n.

D. Sullivan has pointed out [3] that the proof of this theorem is invalid. The mistake occurs on p. 310 of [1]. It is asserted there that if, for some $r > 0$, $C(\xi, r)$ contains no equivalent of the origin in its interior, then there exists $R \geqslant r$ so that $C(\xi, R)$ contains an equivalent of the origin but its interior does not. There is another possibility which was overlooked by the author. It could happen that for some $R > 0$, $C(\xi, R)$ and its interior contain no equivalents of the origin but for any $s > R$, $C(\xi, s)$ has such an equivalent in its interior. In this case Sullivan says ξ is a *Garnett point* and we write $\xi \in g$.

A correct form of the theorem is obtained by replacing statement (i) by

$$\xi \notin E \cup g. \qquad \text{(i}'\text{)}$$

A similar correction must be made to Theorem 2 and its corollary.

The author has recently shown that, in general, $g \neq \emptyset$ [2] and Sullivan proves [3] that g has zero one dimensional Lebesgue measure.

REFERENCES

1. P. J. NICHOLLS, *Transitive horocycles for Fuchsian groups*, Duke Math. J. **42** (1975), 307–312.
2. P. J. NICHOLLS, *Garnett points for Fuchsian groups*, to appear in Bull. London Math. Soc.
3. D. SULLIVAN, *On the ergodic theory at infinity of an arbitrary discrete group of hyperbolic motions*, Proceedings of Stony Brook Conference on Riemann surfaces and Kleinian groups, June 1978, to appear.

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