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Jayadev S Athreya* (jathreya@illinois.edu), Department of Mathematics, University of Illinois, 1409 W. Green Street, Urbana, IL 61801. *Cusp Excursions for Horocycles*. Preliminary report.

Let $G = SL(2, \mathbb{R})$ and $\Gamma \subset G$ be a non-uniform lattice. It is well known that any non-closed horocycle orbit on G/Γ is equidistributed. We describe a method to distinguish the behavior of horocycles based on cusp excursions. Some results are based on joint work with G. Margulis. (Received August 22, 2010)