1042-51-154   **Yvonne Lai*** (`yvonnexlai@gmail.com`), University of Michigan, Department of Mathematics, Ann Arbor, MI 48104. *An Effective Compactness Theorem for Coxeter Groups.*

Through highly non-constructive methods, works by Bestvina, Culler, Feighn, Morgan, Paulin, Rips, Shalen, and Thurston show that if a finitely presented group does not split over a small subgroup, then the space of its discrete and faithful actions on Hn, modulo conjugation, is compact for all dimensions. Although this implies that the space of hyperbolic structures of such groups has finite diameter, the known methods do not give an explicit bound. We establish such a bound for Coxeter groups. We find that either the group splits over a small subgroup or there is a constant C and a point in Hn that is moved no more than C by any generator. The constant C depends only on the number of generators of the group, and is independent of the relators. (Received August 17, 2008)