

1153-20-247

Michael Hull* (mhull@uncg.edu). *Random walks and quasi-convexity*. Preliminary report.

We study how the elements produced by random walks on a group G interact with some fixed subgroup H . In many situations where G acts on a hyperbolic metric space and H is a subgroup with quasi-convex orbits, we show that the subgroup generated by H and these random elements is a free product with quasi-convex orbits. In particular, this happens when H is a quasi-convex subgroup of a hyperbolic group, an elliptic subgroup of an acylindrically hyperbolic group, or a convex cocompact subgroup of the mapping class group of a surface. This is joint work with C. Abbott. (Received August 29, 2019)