

1155-20-525

**Carolyn Abbott\*** ([abbott@math.columbia.edu](mailto:abbott@math.columbia.edu)) and **Michael Hull**. *Free products and random walks in acylindrically hyperbolic groups.*

The properties of a random walk on a group which acts on a hyperbolic metric space have been well-studied in recent years. In this talk, I will focus on random walks on acylindrically hyperbolic groups, a class of groups which includes mapping class groups,  $\text{Out}(F_n)$ , and right-angled Artin and Coxeter groups, among many others. I will discuss how a random element of such a group interacts with fixed subgroups, including convex cocompact subgroups of mapping class groups and  $\text{Out}(F_n)$ . In particular, I will discuss when the subgroup generated by a random element and a fixed subgroup is a free product, and I will also describe some of the geometric properties of that free product. This is joint work with Michael Hull. (Received January 21, 2020)