1125-57-463   **Samuel J Taylor*** (`s.taylor@yale.edu`). *Convex cocompactness and stability in mapping class groups.*

Convex cocompact subgroups of mapping class groups were introduced by Farb and Mosher and have important connections to the geometry of Teichmüller space, the curve complex, and surface group extensions. In this talk, I will discuss a characterization of such subgroups that involves only the geometry of the mapping class group. This characterization involves a strong notion of quasiconvexity, which we call stability, and captures the intuition that convex cocompact subgroups are "highly hyperbolic" subgroups of mapping class groups. I will also discuss stable subgroups of other finitely generated groups of geometric interest. (Received September 02, 2016)