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The geometry of purely loxodromic subgroups of right-angled Artin groups.

We prove that finitely generated *purely loxodromic* subgroups of a right-angled Artin group $A(\Gamma)$ fulfill equivalent conditions that parallel characterizations of convex cocompactness in mapping class groups $\text{Mod}(S)$. In particular, such subgroups are quasiconvex in $A(\Gamma)$. In addition, we identify a milder condition for a finitely generated subgroup of $A(\Gamma)$ that guarantees it is free, undistorted, and retains finite generation when intersected with $A(\Lambda)$ for subgraphs Λ of Γ . These results have applications to both the study of convex cocompactness in $\text{Mod}(S)$ and the way in which certain groups can embed in right-angled Artin groups. (Received January 27, 2015)