

Zlil Sela proved that, given a non-cyclic torsion-free hyperbolic group  $G$ , the groups  $G$  and  $G^*Z$  are elementarily equivalent. In my talk, I will present the following partial generalization of this result: if  $G$  is acylindrically hyperbolic, say with no non-trivial normal finite subgroup, then  $G$  and  $G^*Z$  have the same forallexists - theory. It is an open question whether  $G$  and  $G^*Z$  have the same elementary theory. Joint work with Jonathan Fruchter.