

1088-20-178

**Ashley Johnson\***, 203 Avery Hall, Lincoln, NE 68588-0130. *An Algorithmic and Geometric Property of Cayley Graphs.*

Autostackability is an algorithmic and geometric property of a Cayley graph of a group, which arose as a way to gain tractability on algorithmic problems in the class of 3-manifold groups. Autostackability generalizes the algorithmic structure of both almost convex groups and groups with rewriting systems, and includes all shortlex automatic groups. This talk will present an overview of autostackable groups, as well as show closure properties for this class of groups and show that not all such groups are of type  $FP_\infty$ . (Received February 09, 2013)