1047-20-468 **G Christopher Hruska*** (`chruska@uwm.edu`), Dept. of Mathematical Sciences, University of Wisconsin–Milwaukee, PO Box 413, Milwaukee, WI 53201, and **Daniel T Wise**. *Packing subgroups and relative hyperbolicity.*

A subgroup H of a countable group G has bounded packing if there is a finite upper bound on the number of left cosets that are pairwise close in G. Bounded packing has natural connections with actions on CAT(0) cube complexes. I will explain some basic properties of bounded packing and give many examples; for instance, every subgroup of a countable virtually nilpotent group has bounded packing.

Our main result establishes the bounded packing of quasiconvex subgroups of a relatively hyperbolic group, under mild hypotheses. As an application we prove that such subgroups have bounded height and width, properties that substantially restrict the way conjugates of the subgroup can intersect. (Received February 03, 2009)