1116-20-558   **Matthew Zaremsky*** (`zaremsky@math.binghamton.edu`). *Finiteness properties of infinite groups, and examples in pure braid groups.*

An infinite group is, of course, not finite, but might still possess interesting "finiteness properties". For instance, it could be finitely generated, or even finitely presented. Sometimes it is surprisingly difficult to tell whether or not a group has these and other finiteness properties. One tool in this field is the so called *Bieri–Neumann–Strebel–Renz invariants* of a group, which reveal the finiteness properties of certain of its subgroups. I will discuss the (hard, open) problem of computing these invariants for the pure braid groups, for which I have some partial results, as do Koban-McCammond-Meier. In particular I will explain how these results reveal the finiteness properties of some interesting and natural subgroups of the pure braid groups. (Received September 07, 2015)