

**Meeting:** 1000, Albuquerque, New Mexico, SS 14A, Special Session on Braids and Knots

1000-57-112            **Nathan Darrell Broaddus\*** ([broadus@math.cornell.edu](mailto:broadus@math.cornell.edu)), 310 Malott Hall, Cornell University, Ithaca, NY 14850. *Noncyclic covers of knot complements.*

Hempel has shown that the fundamental groups of knot complements are residually finite. This implies that every nontrivial knot must have a finite-sheeted, noncyclic cover. We give an explicit bound,  $\Phi(c)$ , such that if  $K$  is a nontrivial knot in the three-sphere with a diagram with  $c$  crossings then the complement of  $K$  has a finite-sheeted, noncyclic cover with at most  $\Phi(c)$  sheets. (Received August 20, 2004)