

Meeting: 1004, Bowling Green, Kentucky, SS 14A, Special Session on Geometric Topology and Group Theory

1004-20-129 **Ian J Leary*** (leary@math.ohio-state.edu), Department of Mathematics, The Ohio State University, 231 W 18th Avenue, Columbus, OH 43210-1174. *Elements of finite order in VF groups.*

A discrete group H is type F if it admits a finite classifying space. A discrete group G is type VF if it is virtually of type F, i.e., if it contains a finite index type F subgroup. A group of type F is necessarily torsion-free. Work of K. S. Brown shows that any group of type VF contains only finitely many conjugacy classes of subgroups of prime power order.

B. E. A. Nucinkis and I constructed groups of type VF containing infinitely many conjugacy classes of finite subgroups. Our construction used techniques introduced by M. Bestvina and N. Brady, together with actions of finite groups on finite contractible simplicial complexes.

I shall describe our construction and a recent modification of it which gives groups of type VF containing infinitely many conjugacy classes of elements of finite order, something which the original construction did not give. (Received January 21, 2005)