

1116-57-2963 **Rosemary K Guzman*** (rguzma1@illinois.edu), Mathematics Department, 1409 W Green St, Urbana, IL 61801. *Special subgroups of hyperbolic 3-manifold groups.*

lower bounds on the vol M , ≥ 3.44 . In the context of hyperbolic geometry, this volume bound tells more than the volume of M alone, since an implication of Mostow Rigidity is that the volume of a hyperbolic manifold is a topological invariant. In this talk, I will explain how implications of previous work along with a special rank-2 subgroup Ξ of the fundamental group of M gotten from the 5-free Theorem (G.) noted, reveal information about M by examining new bounds (gotten by topological data) on the displacement of points in Ξ . (Received September 23, 2015)