1086-57-1013   **Priyam Patel*** (`priyamp@math.rutgers.edu`). *Quantifying Residual Finiteness in Terms of Geometric Data.*

This talk will begin by defining what it means for a group to be residually finite (RF) and locally extended residually finite (LERF), followed by a brief history of the results which proved that surface groups and particular 3-manifold groups are RF and LERF. We will then discuss what it means to quantify these group properties and explain the results that allow us to quantify RF-ness and LERF-ness of hyperbolic surface groups in terms of geometric data. We will conclude with an overview of the techniques used to obtain similar quantification results for particular 3-manifold groups. (Received September 17, 2012)