

Mathematics Student Colloquium

Karan Puri

**A Discreteness Condition
for Subgroups
of $\mathrm{PSL}(2, \Gamma_n)$**

Abstract: We will use the classification of Möbius transformations in $\hat{\mathbb{R}}^3$ developed in the first talk in conjunction with Gilman's discreteness condition for subgroups of $\mathrm{PSL}(2, \mathbb{C})$. To do this, we will need to extend some well understood definitions in \mathbb{H}^3 to \mathbb{H}^n ($n \geq 4$), which in turn will allow us to describe a new discreteness condition for subgroups of the Möbius group acting on \mathbb{H}^4 . We will also be able to construct discrete groups of isometries acting on \mathbb{H}^n ($n \geq 4$). If time permits, we will see how families of such discrete groups can be constructed.

Wednesday, October 15

4:00-5:00pm

204 Smith Hall