

**TOWARD A DISCRETENESS ALGORITHM FOR  
NON-ELEMENTARY RANK 3 SUBGROUPS OF  $\mathrm{PSL}(2, \mathbb{R})$ .**

Let  $\Gamma$  be a rank 2 non-elementary subgroup of  $\mathrm{PSL}(2, \mathbb{R})$ . J. Gilman and B. Maskit developed a discreteness algorithm for  $\Gamma$  in the mid 90's. I intend to share some efforts to pursue sufficient conditions for a discreteness algorithm as above with  $\Gamma$  rank 3. A discreteness algorithm for  $\Gamma$  generated by 3 parabolic elements is presented.