Geometry, Topology and Dynamics Seminar

Discreteness Algorithm Advisoes

Caleb Ashley (University of Michigan)

Abstract: Determining whether a given finitely generated group of isometries is discrete is a formidable problem. Let Γ be a rank 2 non-elementary subgroup of PSL(2, \mathbb{R}); J. Gilman and B. Maskit developed a discreteness algorithm which codified previously existing algorithms for all such Γ . We intend to motivate the discreteness problem, give a synopsis of the Gilman-Maskit algorithm, and share some efforts toward developing discreteness algorithms for higher rank groups. In particular, a discreteness algorithm for Γ (as above) except generated by 3 parabolic isometries will be presented.

Monday, March 13 at 3:00 PM in SEO 636