

Topology, Algebraic Geometry, & Dynamics Seminar

Battle Hymn of Discreteness

Caleb Ashley

Department of Mathematics
University of Michigan

In this talk we describe the discreteness problem; determining whether a group of isometries is discrete or not. Gilman-Maskit developed an discreteness algorithm for non-elementary subgroups of $\mathrm{PSL}(2, \mathbb{R})$ generated by 2 elements which codifies previous 2-generator algorithms. An algorithm for a non-elementary subgroup generated by 3 parabolic generators exists. We give basic examples and constructions to set the context of this problem. Equivalencies which exist among geometric structures and character varieties will be described, thereby loosening more geometric, algebraic, and dynamic tools, with which to pursue more general discreteness algorithms and parametrizations of discreteness.

Date: **Friday, November 16, 2018**

Time: **2:30-3:20 pm**

Place: **4106 Exploratory Hall**

For special accommodations, please contact Sean Lawton via email at slawton3@gmu.edu.