## Spring 2020 Grad Student Seminar

**Department of Mathematics** 



## The Margulis Superrigidity Theorem

## **Mark Fincher**

 ${\it Math PhD Student, University of Pittsburgh}$ 

Date: Monday, January 13

**Time:** 4:30 - 5:20 pm

Location: Room 703, Thackeray Hall

Mark is a grad student at Pitt working in Geometric Topology, in particular 3-dimensional hyperbolic manifolds. His advisor is Jason Deblois. Mark grew up in Texas and did his undergrad at the University of North Texas, studying math and french. He's currently the president of the Pitt math grad student organization.



A lattice is a special kind of discrete subgroup of a topological group. The Margulis superrigidity theorem says, roughly, that if the group satisfies certain conditions then the structure of the lattice has a surprising amount of influence on the structure of the group. For this and related work, Grigory Margulis won the Fields Medal in 1978. I'll try to present some of these ideas in a way understandable to grad students of all backgrounds.

## The Grad Student Seminar (GSS) is a bi-weekly seminar to which all grad students are invited to attend and give talks.

Organized by: Behnam Esmayli, Mark Fincher, Manu Jayadharan, Tongtong Li, and Derek Orr