

Department of Mathematical Sciences welcomes

Aaron Brown University of Chicago



January 25, 2019

Hosted by:
Prof. Will Geller

Tea begins at 3:00
in LD 259

Research Topic
begins at 3:30
in LD 229

Actions of Lattices on Manifolds

ABSTRACT:

It is well known that linear representations of certain discrete groups, namely lattice subgroups of higher-rank simple Lie groups, are rather rigid. It is natural to ask to what extent such results extend to smooth group actions, or “nonlinear representations.” I will discuss a number of recent results due to myself and coauthors establishing such analogs of classical rigidity results in the setting of smooth group actions.

ABOUT THE SPEAKER:

Aaron Brown primarily works in smooth hyperbolic dynamics, nonuniform hyperbolicity, and smooth ergodic theory. His recent work focuses on smooth group actions. He often applies tools from smooth dynamics and smooth ergodic theory to study rigidity phenomena for actions of large groups. In particular, he is interested in measuring rigidity questions and problems related to the rigidity of lattice actions and the Zimmer Program, which, in its broadest form, seeks an understanding of actions of large groups of compact manifolds.

He received his PhD in mathematics from Tufts University. He also earned a bachelor of arts degree from Oberlin College. He held a National Science Foundation Postdoctoral Research Fellowship at Pennsylvania State University. Most recently, he was a L. E. Dickson Instructor in the Department of Mathematics at the University of Chicago.

