STEVENS
Institute of Technology

Geometric and Asymptotic Group Theory with Applications 2016

Carolyn Abbott

University of Wisconsin-Madison

Universal acylindrical actions

Wednesday, June 15, 2016
Stevens Institute of Technology, Kidde 228
4:40 PM

Abstract:
The class of acylindrically hyperbolic groups, which are groups that admit a certain type of non-elementary action on a hyperbolic space, contains many interesting groups such as non-exceptional mapping class groups and $\mathrm{Out}(F_n)$ for $n > 1$. In such a group, a generalized loxodromic element is one that is loxodromic for some acylindrical action of the group on a hyperbolic space. Given a finitely generated group, one can look for an acylindrical action on a hyperbolic space in which all generalized loxodromic elements act loxodromically; such an action is called a universal acylindrical action. I will discuss recent results in the search for universal acylindrical actions, describing a class of groups for which it is always possible to construct such an action as well as an example of a group for which no such action exists.