COUNTING IN RELATIVELY ANOSOV GROUPS

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Abstract

Relatively Anosov subgroups of higher rank Lie groups are one generalization of geometrically finite subgroups of rank one Lie groups. An element of a higher rank Lie group has a vector-valued translation length function, which gives rise to more than one reasonable notion of the length of an element. In this talk, we describe asymptotic counting results for the number of (conjugacy classes of) elements of a relatively Anosov group with non-zero length less than T, for a large class of possible length functions.

These results are based on work with Zhang and Zimmer on Poincare series of relatively Anosov groups and a rather general formulation of Patterson-Sullivan theory which was developed with Blayac, Zhu and Zimmer.