

**ESCAPE OF MASS FOR HIGHER RANK DIAGONAL
ACTIONS**

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Time: Wednesday, November 12th; 14:00

Venue: Room 102, SCMS

Abstract:

We discuss the escape of mass for higher-rank diagonal actions on the space of lattices and its applications to the inhomogeneous version of the Littlewood conjecture. We first show that the Hausdorff dimension of the set of points that are A -divergent on average in the $(d-1)$ -dimensional closed horosphere in the space of d -dimensional Euclidean lattices, where A is the group of positive diagonal matrices, is at most $(d-1)/2$. Using these dimension estimates on mass and entropy escape for higher-rank diagonal actions, we then compute the Hausdorff dimension of the exceptional set for the inhomogeneous uniform version of the Littlewood conjecture.