

Dynamics Seminar

A non-Euclidean "Linnik type" problem and statistics of orthogonal grids

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Abstract: A classical work of Linnik shows that the directions of primitive integer vectors on a "large" sphere are "equidistributed". I will discuss a joint work with Uri Shapira in which we consider an analogue of Linnik's problem inside the special linear group. The motivation behind our study is an extension of a previous work of Uri Shapira, Menny Aka and Manfred Einsiedler concerning the statistics of orthogonal grids of primitive integral vectors. I will present our results and a sketch of the main ideas in the proof – there's a natural way to use the p-adics to generate integer points from a given integral point and to study those new points by looking on a certain periodic orbit in a homogeneous space.

Wednesday, October 4 at 4:00 PM in 636 SEO