Mathematics, Statistics, and Computer Science   **@ UIC**

Geometry, Topology and Dynamics Seminar

Diophantine approximation problems for groups of torus automorphisms

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Abstract: We prove sharp estimates in a "shrinking target" problem for the action of an arbitrary subgroup Γ of $\mathrm{SL}(2, \mathsf{Z})$ on the torus T^2. This can also be viewed as a non-commutative Diophantine problem. The methods require to construct certain "spectrally optimal" random walks on groups acting properly cocompactly on Gromov hyperbolic spaces.

Monday, April 4 at 3:00 PM in SEO 636