

Random Walks on Homogeneous Spaces

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Abstract

Observing the group action of the additive group \mathbb{Z}^n incorporated with a translation invariant probability measure on the set \mathbb{Z}^n starting from an element say x_0 , how often will it visit x_0 again? On a similar note, we will conclude with a result about the equidistribution of the random walk starting from an irrational point on a torus and sketch a brief proof of it.