

Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On Tuesday, December ,5 2017

At 11:00 – 12:00

In 201

Oliver Sargent

will talk about

Random walks on primitive lattice points

Abstract: Random walks on lattices have been studied for decades and are by now very well understood. In this talk we will define a random walk on the primitive points of a lattice and discuss its properties. The random walk is obtained in a similar manner to the classical one with the difference that one divides by the gcd at each step. Subject to suitable conditions on the measure generating the walk, we will see how these random walks correspond to positive recurrent Markov chains. In particular we will see that there is a unique stationary distribution for these random walks.