Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On *Thursday, November ,21 2024*

At *11:10 – 12:00*

In *101-*

Tom Meyerovitch (BGU)

will talk about

Kac's lemma revisited

Abstract: Kac's lemma is a classical result in ergodic theory. It asserts that the expected number of

iterates that it takes a point from a measurable set A to return to the set A under an ergodic

probability-preserving transformation is equal to the inverse of the measure of A. As we will discuss in this seminar, there is a natural generalization of Kac's lemma that applies to probability preserving actions of an arbitrary countable group (and beyond). As an application, we will show that that any ergodic action of a countable group admits a countable generator. The content of this work is based on a joint article with Benjamin Weiss

https://doi.org/10.48550/arXiv.2410.18488