Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On *Thursday, June ,1 2023*

At *11:10 − 12:00*

In *101-*

Yuval Yfirach (Technion - Israel Institute of Technology)

will talk about

Approximation of Diagonally Invariant measure by Tori Measures

Abstract: We consider the family of periodic measures for the full diagonal action on the space of unimodular lattices. This family is important and natural due to its tight relation to class groups in number fields. We show that many natural families of measures on the space of lattices can be approximated using this family (in the weak sense). E.g., we show that for any $0 < c \leq 1$ the measure cm_{X_n} can be approximated this way, where m_{X_n} denotes the Haar probability measure on X_n. Moreover, we show that non ergodic measures can be approximated. Our proof is based on the equidistribution of Hecke neighbors and on constructions of special number fields. We will discuss the results, alternative ways to attack the problem, and our method of proof. This talk is based on a joint work with Omri Solan.