

Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On Thursday, June ,8 2023

At 11:10 – 12:00

In 101-

Itamar Vigdorovich (Weizmann Institute of Science)

will talk about

The simplex of Traces of a Group (or of a C^* -Algebra)

Abstract: To any group, and more generally a C^* -algebra, is associated its simplex of traces. The extreme points are called characters, which are a central notion in harmonic analysis. For a Kazhdan group, the simplex of traces is Bauer - the extreme points are closed. For the free group F_n the simplex of traces is Poulsen - the extreme points are dense. What about the simplex of $\text{Out}(F_n)$ -invariant traces on F_n ($n > 3$)? Is it Bauer, Poulsen or something in between? What about free products of finite groups, and free product of matrix algebras? Some answers and proofs will be provided, after an introduction on traces and characters. The talk is based on works with Levit, Orovitz and Slutsky.