

Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On Thursday, July, 2 2026

At 11:10 – 12:00

In 101-

Nachi Avraham (Technion)

will talk about

An unexpected asymmetry in the ℓ^2 -cohomology of amenable groups

Abstract: A function f on a countable group G forms a cocycle for the left regular representation of G if for every g in G , the difference between f and its left g -translate belongs to $\ell^2(G)$. I will show that although the left and right regular representations are unitarily equivalent in general, their corresponding spaces of cocycles can be genuinely different. Using special asymmetric cocycles, I will explain how to construct Bernoulli schemes over amenable groups whose left dynamics differ substantially from their right dynamics. This is joint work with Zemer Kosloff.