Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On *Thursday, July ,18 2024*

At *11:10 – 12:00*

In *101-*

Adam Dor-On (Hafia University)

will talk about

Space-time Martin boundary and ratio-limit boundaries

Abstract: Ratio-limit boundaries were first studied for their applications to Toeplitz C*-algebras of random walk, but are also interesting in their own right for measuring new types of behavior at infinity. For the purpose of describing Toeplitz C*-algebras of random walks, new boundaries need to be identfiied in more precise terms. One such boundary is the so-called space-time Martin boundary, as studied by Lalley for random walks on the free group.

In this talk we will discuss ratio-limit boundaries and some work in progress on space-time Martin boundaries of random walks on discrete groups. The space-time Martin boundary is related to the notion of stability studied by Picardello and Woess, which elucidates potential descriptions of the space-time Martin boundaries for random walks on \mathbb{Z}^d and on hyperbolic groups.