Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On *Thursday, October ,21 2021*

At *11:10 − 12:00*

In *Building ,34 room 14*

Tattwamasi Amrutam (Ben-Gurion University)

will talk about

Intermediate subalgebras of commutative crossed products of discrete group actions.

Abstract: In this talk, we shall focus our attention on intermediate subalgebras of $C(X) \rtimes_r \Gamma$ (and $L^\infty(X, \nu) \ltimes \Gamma$.(We begin by describing the construction of the commutative crossed product $C(X) \rtimes_r \Gamma$ and how the group contributes to its structure. We shall talk about various (generalized) averaging properties in this context. As a first application, we will show that every intermediate C^*-subalgebra $\mathcal{A}$ of the form $C(Y) \rtimes_r \Gamma \subseteq \mathcal{A} \subseteq C(X) \rtimes_r \Gamma$ is simple for an inclusion $C(Y) \subset C(X)$ of minimal Γ-spaces whenever $C(Y) \rtimes_r \Gamma$ is simple. We shall also show that, for a large class of actions of C^*-simple groups $\Gamma \curvearrowright X$, including non-faitfhul action of any hyperbolic group with trivial amenable radical, every intermediate C^*-algebra $\mathcal{A}$, $C_r^*(\Gamma) \subset \mathcal{A} \subset C(X) \rtimes_r \Gamma$ is a crossed product of the form $C(Y) \rtimes_r \Gamma$, $C(Y) \subset C(X)$ is an inclusion of Γ-C^*-algebras.

Please Note the Unusual Place!