## Department of Mathematics, BGU

## Noncommutative Analysis

**On** *Monday, May* ,23 2022

**At** 11:00 - 12:00

In Building, 32 room 114

Zhuang Niu (University of Wyoming)

will talk about

## Structure of crossed product $C^*$ -algebras

Abstract: Consider a dynamical system, and let us study the structure of the corresponding crossed product  $C^*$ -algebra, in particular on the classfiiability, comparison, and stable rank. More precisely, let us introduce a unflorm Rokhlin property and a relative comparison property (these two properties hold for all free and minimal  $Z^d$  actions). With these two properties, the crossed product  $C^*$ -algebra is shown to always have stable rank one, to satisfy the Toms-Winter conjecture, and that the comparison radius is dominated by hafl of the mean dimension of the dynamical system.

Please Note the Unusual Place!