Department of Mathematics, BGU

Operator Algebras

On *Thursday, May ,7 2020*

At *14:00 − 15:00*

In *Online*

Andrea Vaccaro (BGU)

will talk about

Finite Rokhlin dimension of finite group actions on Z-stable C*-algebras

Abstract: Finite Rokhlin dimension is one of the several ways in which the Rokhlin property, a concept originally generalized from ergodic theory to the framework of amenable actions on von Neumann algebras, has been adapted to $C^\ast$-dynamics. A nice feature of the notion of finite Rokhlin dimension is that, although it has weaker requirements compared to other adaptations of the Rokhlin property to actions on $C^\ast$-algebras, it still induces useful regularity properties on the actions satisfying it. For instance, finite nuclear dimension (a non-commutative generalization of the notion of topological covering dimension) and Z-stability (Z is the Jiang-Su algebra) are preserved when taking the crossed product of a separable unital $C^\ast$-algebra by an action of the integers which has finite Rokhlin dimension. In this talk I'll show that for a finite group action alpha on a separable, simple, unital, Z-stable, nuclear $C^\ast$-algebra A with non-empty trace space, the action alpha is strongly outer fi and

only fi alpha tensor the identity on Z has finite Rokhlin dimension. The novelty of this result is that we make no topological assumption on the trace space of A, in opposition to past works proving analogous statements, where the trace space is always assumed to be a Bauer simplex. This is a joint work with Ilan Hirshberg.

Please Note the Unusual Time!