

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^* -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^* -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^* -algebra by an action of the integers which has finite Rokhlin dimension. In this talk I'll show that for a finite group action α on a separable, simple, unital, Z -stable, nuclear C^* -algebra A with non-empty trace space, the action α is strongly outer fi and

only fi α 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!