Department of Mathematics, BGU

Operator Algebras

On *Thursday, May ,14 2020*

At *14:00 − 15:00*

In *Online*

Shirly Geffen (BGU)

will talk about

Decomposable partial actions

Abstract: Joint work with Fernando Abadie and Eusebio Gardella.

We introduce and study a property, called "the decomposition property", for C^*-algebraic partial actions by discrete groups (we will focus on finite groups in this talk). Partial actions with this property ("decomposable partial actions") behave in many ways like global actions, which makes their study particularly accessible. We show that a decomposable partial action always admits a globalization, which we describe explicitly. Moreover, we carry out a complete description of crossed products by decomposable partial actions as a direct sum of crossed products by globally acting finite groups. Finally, we show that decomposable partial actions appear naturally in practice. For example, every partial action by a finite group is an iterated extension of decomposable partial actions. Using this, we derive (for finite groups) a full description of the partial group C^*-algebra as a direct sum of matrix algebras over (global) group C^*-algebras. This description (using dffierent machinery) appeared in a paper by Dockuchaev, Exel, and Piccione.

Please Note the Unusual Time!