

Department of Mathematics, BGU

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# Operator Algebras

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*On Tuesday, November ,22 2016*

*At 16:00 – 17:00*

*In Math 101-*

Joav Orovitz (BGU)

will talk about

## **Strict comparison and crossed products by amenable groups**

Abstract: In this talk I will describe joint work with Chris Phillips and Qingyun Wang. The weak tracial Rokhlin property for actions of discrete amenable groups on simple unital  $C$ -algebras is defined by Qingyun Wang [<https://arxiv.org/abs/1410.8170>]. We show that the class of simple separable unital exact  $C$ -algebras with strict comparison and almost divisible Cuntz semigroup is closed under taking crossed products by such actions. We use this to show that the class of simple separable unital nuclear  $\mathcal{Z}$ -stable  $C^*$ -algebras is also preserved.

Examples include the non-commutative Bernoulli shift of any discrete amenable group  $\Gamma$  on  $\bigotimes_{\Gamma} \mathcal{Z} \otimes \mathcal{Z}$  and others.