

Department of Mathematics, BGU

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# Operator Algebras

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*On Thursday, June ,11 2020*

*At 14:10 – 15:00*

*In Online*

Eli Shamovich (BGU)

will talk about

## **Noncommutative Choquet simplfies**

Abstract: In this talk, I will present joint work with Matt Kennedy. Choquet simplfies are infinite-dimensional versions of classical simplices. They arise naturally as the collections of all probability Borel measures on a compact Hausdorff space and as the collections of invariant measures of a dynamical system. Namioka and Phelps characterized Choquet simplices via nuclearity of the associated functions system. In the non commutative generalisation one replaces function systems with operator systems and non commutative convex sets with matrix/nc convex sets. In this talk, I will define nc Choquet simplices, as well as nc analogs of Bauer and Poulsen simplices. It turns out, that as in the classical case, every nc Bauer simplex is the nc state space of a  $C^*$ -algebra. Lastly, I will discuss dynamical applications, in particular a non commutative version of a theorem of Glasner and Weiss.