

Department of Mathematics, BGU

Operator Algebras Seminar

On Wednesday, November 5, 2025

At 13:00 – 14:00

In 201

Eli Shamovich (BGU)

will talk about

Localizations in noncommutative analysis

Abstract: In this talk, I will describe some ring theoretic properties of certain rings of noncommutative functions. In particular, I will show that these topological rings are good analogs of the classical rings of analytic functions on discs in the plane. Our rings turn out to be semi-free ideal rings. Namely, every finitely generated right (equivalently, left) ideal is free as a module. In turn, this implies that they admit an embedding into a division ring with a certain universal property (a universal localization). I will explain how this result is a blend of techniques from ring theory and operator algebras and show an application to free probability.

This talk is based on joint work with Meric Augat and Rob Martin.