Department of Mathematics, BGU

Operator Algebras and Operator Theory

On *Monday, January ,16 2023*

At *16:00 – 17:00*

In *101- (basement)*

Jonathan Nurielyan (BGU)

will talk about

Projection distance on finite dimensional complete Pick kernels

Abstract: Recently, Ofek, Pandey, and Shalit have defined a version of Banach-Mazur distances on the space of isomorphism classes of finite-dimensional complete Pick spaces. By the universality theorem of Agler and McCarthy, every finite-dimensional complete Pick space on n points is equivalent to a subspace of the Drury-Arveson space spanned by n kernels at points of the unit ball of some C^d. We propose to study the space of projections on finite-dimensional multiplier coinvariant subspaces of the Drury-Arveson space. The metric on this space is induced by the norm. We show that fi we restrict ourselves to the subspace of projection on spaces spanned by distinct n kernels, then this space is homeomorphic to the symmetrized polyball. It then follows that the invariant distance obtained induces the same topology on the space of isomorphism classes of complete Pick space as the Banach-Mazur distance of Ofek, Pandey, and Shalit. Time permuting we will show a potential application of this idea