Department of Mathematics, BGU

Operator Algebras and Operator Theory

On *Monday, February ,19 2024*

At *14:00 – 15:00*

In *201*

Sibaprasad Barik (Technion)

will talk about

Isometric dilations for representations of product systems

Abstract: In this talk, I will discuss isometric dilations of completely contractive representations (in short c.c. representation) of product systems (of W^*-correspondences) over the semigroup $\mathbb{Z}_+^n$. It is known that for $n = 1, 2$, c.c. representations of such product systems always have isometric dilations and the result fails for $n > 2$, in general. We will see that under certain positivity and pureness conditions c.c. representations of product systems over $\mathbb{Z}_+^n$ have isometric dilations, also we will see an explicit form of the dilations. If time permits, I will discuss some applications of it.

This talk is based on joint work with Monojit Bhattacharjee and Baruch Solel.