

Department of Mathematics, BGU

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# Noncommutative Analysis

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*On Wednesday, September ,14 2022*

*At 15:00 – 16:00*

*In 101-*

Amit Bengiat (BGU)

will talk about

## **Taylor-Taylor expansion for higher order NC functions and applications**

Abstract: This lecture extends some standard results familiar from undergraduate calculus to the setting of higher order noncommutative functions. These extensions are accomplished using a difference-differential operator combining algebraic and topological properties. The results include the Taylor formula and an antiderivative. The Taylor formula is applied to obtain results about power series on nilpotent matrices and convergence in different topologies.

**Please Note the Unusual Day, Time and Place!**