Department of Mathematics, BGU

Operator Algebras and Operator Theory

On *Wednesday, February ,28 2024*

At *16:00 − 17:00*

In *201*

Jurij Volcic (Drexel University)

will talk about

Sefl-testing: from quantum information theory to operator algebras

Abstract: Sefl-testing is the strongest form of quantum functionality verfiication, which allows one to deduce the quantum state and measurements of an entangled system from its classically observed statistics. From a mathematical perspective (which will be the perspective of this talk), sefl-testing is an intriguing uniqueness phenomenon, pertaining to functional analysis, moment problems, convexity and representation theory. This talk addresses basic motivation and ideas behind sefl-testing, and discusses which states and measurements can be sefl-tested. In particular, the talk focuses on how tuples of projections adding to a scalar multiple of identity, and Jordan algebras find its way into this corner of quantum information theory. Based on joint work with Ranyiliu Chen and Laura Mančinska.

Please Note the Unusual Day and Time!