Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On *Thursday, March ,18 2021*

At *11:10 – 12:00*

In *Online*

Yuqing Frank Lin (Ben-Gurion University)

will talk about

A multiplicative ergodic theorem for von Neumann algebra valued cocycles

Abstract: Oseledets' multiplicative ergodic theorem (MET) is an important tool in smooth ergodic theory. It may be viewed as a generalization of Birkhoff's pointwise ergodic theorem where numbers are replaced by matrices and arithmetic means are replaced by geometric means. Starting from Ruelle in ,1982 many infinite-dimensional generalizations of the MET have been produced; however, these results assume quasi-compactness conditions and so do not deal with continuous spectrum. In a dffierent direction Karlsson-Margulis obtained a geometric generalization of the MET, which we apply in our work to obtain an MET with operators in von Neumann algebras with semi-finite trace. We do not assume any compactness conditions on the operators. Joint work with Lewis Bowen and Ben Hayes.

Please Note the Unusual Place!