

Department of Mathematics, BGU

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# BGU Probability and Ergodic Theory (PET) seminar

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*On Thursday, December ,22 2022*

*At 11:10 – 12:00*

*In 101-*

Guy Blachar (Bar-Ilan University)

will talk about

## **Probabilistic Laws on Groups**

Abstract: Suppose a finite group satisfies the following property: If you take two random elements, then with probability bigger than  $5/8$  they commute. Then this group is commutative. Starting from this well-known result, it is natural to ask: Do similar results hold for other laws (p-groups, nilpotent groups...)? Are there analogous results for infinite groups? Are there phenomena specific to the infinite setup? We will survey known and new results in this area. New results are joint with Gideon Amir, Maria Gerasimova and Gady Kozma.