Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On *Monday, April ,30 2018*

At *11:00 − 12:00*

In *101-*

Sebastián Donoso (Universidad de O'Higgins)

will talk about

Good lower bounds for multiple recurrence

Abstract: In ,2005 Bergelson, Host and Kra showed that fi (X,μ,T) is an ergodic measure preserving system and $A\subset X$, then for every $\epsilon>0$ there exists a syndetic set of $n\in\mathbb{N}$ such that $\mu(A\cap T^{-n}A\cap\dots\cap T^{-kn}A)>\mu^{k+1}(A)-\epsilon$ for $k\leq3$, extending Khintchine's theorem. This phenomenon is called multiple recurrence with good lower bounds. Good lower bounds for certain polynomial expressions was studied by Frantzikinakis but several questions remain open. In this talk I will survey this topic, and present some progress regarding polynomial expressions, commuting transformations, and configurations involving the prime numbers. This is work in progress with Joel Moreira, Ahn Le and Wenbo Sun.

Please Note the Unusual Day and Place!