

Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On Thursday, December ,10 2020

At 11:10 – 12:00

In Online

Erez Nesharim (The Hebrew University)

will talk about

Approximation by algebraic numbers and homogeneous dynamics

Abstract: Diophantine approximation quantifies the density of the rational numbers in the real line. The extension of this theory to algebraic numbers raises many natural questions. I will focus on a dynamical resolution to Davenport's problem and show that there are uncountably many badly approximable pairs on the parabola. The proof uses the Kleinbock–Margulis uniform estimate for nondivergence of nondegenerate curves in the space of lattices and a variant of Schmidt's game. The same ideas applied to Ahlfors-regular measures show the existence of real numbers which are badly approximable by algebraic numbers. This talk is based on joint works with Victor Beresnevich and Lei Yang.

Please Note the Unusual Place!