

Department of Mathematics, BGU

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# BGU Probability and Ergodic Theory (PET) seminar

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*On Thursday, May ,20 2021*

*At 11:10 – 12:00*

*In Online*

Yfitach Dayan (Technion)

will talk about

## **Random walks on tori and an application to normality of numbers in self-similar sets.**

Abstract: We show that under certain conditions, random walks on a  $d$ -dim torus by affine expanding maps have a unique stationary measure. We then use this result to show that given an IFS of contracting similarity maps of the real line with a uniform contraction ratio  $1/D$ , where  $D$  is some integer  $> 1$  under some suitable condition, almost every point in the attractor of the given IFS (w.r.t. a natural measure) is normal to base  $D$ . (Joint work with Arijit Ganguly and Barak Weiss.)

**Please Note the Unusual Place!**