

Department of Mathematics, BGU

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# BGU Probability and Ergodic Theory (PET) seminar

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*On Thursday, January 23 2020*

*At 11:10 – 12:00*

*In 101-*

Tom Gilat (Bar-Ilan University)

will talk about

## **Decomposition of random walk measures on the one-dimensional torus**

Abstract: The main result in this talk is a decomposition theorem for a measure on the one-dimensional torus. Given a sufficiently large subset  $S$  of the positive integers, an arbitrary measure on the torus is decomposed as the sum of two measures. The first one  $\mu_1$  has the property that the random walk with initial distribution  $\mu_1$  evolved by the action of  $S$  equidistributes very fast. The second measure  $\mu_2$  in the decomposition is concentrated on very small neighborhoods of a small number of points.