

Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On Thursday, June ,22 2023

At 11:10 – 12:00

In 101-

Amir Algom (University of Hafia)

will talk about

Fourier decay for smooth images of self-similar measures

Abstract: Kaufman (1984) and later Mosquera-Shmerkin (2018) showed that Bernoulli convolutions exhibit fast Fourier decay when perturbed by a smooth non-linear map. This is remarkable, since by a classical Theorem of Erdos (1939) many Bernoulli convolutions don't have Fourier decay at all. We will present an extension of this result to all self-similar measures: Any smooth non-linear perturbation of a self-similar measure enjoys fast (polynomial) Fourier decay. Joint with Yuanyang Chang, Meng Wu, and Yu-Liang Wu.