

Department of Mathematics, BGU

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# BGU Probability and Ergodic Theory (PET) seminar

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*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.