

Department of Mathematics, BGU

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## BGU Probability and Ergodic Theory (PET) seminar

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*On Thursday, December ,31 2020*

*At 15:30 – 16:30*

*In Online*

Amir Algom (Penn State University)

will talk about

### **On the decay of the Fourier transform of sefl-conformal measures**

Abstract: Let  $P$  be a sefl-conformal measure with respect to an IFS consisting of finitely many smooth contractions of  $[0,1]$ . Assuming a mild and natural condition on the derivative cocycle, we prove that the Fourier transform of  $P$  decays to zero at infinity. This is related to the highly active study of the properties of the Fourier transform of dynamically defined measures, dating back to the important work of Erdos about Bernoulli convolutions in the late 1930's. This is joint work with Federico Rodriguez Hertz and Zhiren Wang.

**Please Note the Unusual Time and Place!**