Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On *Thursday, December ,17 2020*

At *15:30 – 16:30*

In *Online*

Yotam Smilansky (Rutgers University)

will talk about

Multiscale substitution tilings

Abstract: Multiscale substitution tilings are a new family of tilings of Euclidean space that are generated by multiscale substitution rules. Unlike the standard setup of substitution tilings, which is a basic object of study within the aperiodic order community and includes examples such as the Penrose and the pinwheel tilings, multiple distinct scaling constants are allowed, and the defining process of inflation and subdivision is a continuous one. Under a certain irrationality assumption on the scaling constants, this construction gives rise to a new class of tilings, tiling spaces, and tiling dynamical systems, which are intrinsically dffierent from those that arise in the standard setup. In the talk, I will describe these new objects and discuss various structural, geometrical, statistical, and dynamical results. Based on joint work with Yaar Solomon.

Please Note the Unusual Time and Place!