

Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On Thursday, February ,28 2019

At 11:10 – 12:00

In 101-

Dirk Frettlöh (Bielefeld university)

will talk about

Bounded distance equivalence of aperiodic Delone sets and bounded remainder sets

Abstract: Delone sets are generalizations of point lattices: uniformly discrete point sets with no large holes. In 1997 Gromov asked whether any Delone set in the Euclidean plane is bilipschitz equivalent to the integer lattice Z^2 . A simpler but stronger condition than bilipschitz equivalence is bounded distance equivalence. So it is natural to ask which Delone sets in R^d are bounded distance equivalent to (some scaled copy of) Z^d . This talk gives a gentle introduction to the problem and presents recent results in this context, mostly for cut-and-project sets on the line. In particular we show a connection between bounded remainder sets and cut-and-project sets that are bounded distance equivalent to some lattice.