## Department of Mathematics, BGU

## BGU Probability and Ergodic Theory (PET) seminar

On Thursday, May ,6 2021

At 11:10 - 12:00

In Online

Tsachik Gelander (Weizmann Institute)

will talk about

## Infinite volume and infinite injectivity radius

Abstract: We prove the following conjecture of Margulis. Let  $M=\Lambda\backslash G/K$  be a locally symmetric space where G is a simple Lie group of real rank at least .2 If M has infinite volume then it admits injected contractible balls of any radius. This generalizes the celebrated normal subgroup theorem of Margulis to the context of arbitrary discrete subgroups of G and has various other applications. We prove this result by studying random walks on the space of discrete subgroups of G and analysing the possible stationary limits.

This is a joint work with Mikolaj Fraczyk.

## Please Note the Unusual Place!