

Department of Mathematics, BGU

PRO (Presenting Results of Others) Seminar

On Thursday, May ,28 2026

At 10:00 – 11:00

In 101-

Nadav Kalma (BGU)

will talk about

Infinite volume and infinite injectivity radius (Mikolaj Fraczyk, Tsachik Gelander)

Abstract: In their paper, Fraczyk and Gelander prove a conjecture by Margulis: for a higher-rank simple Lie group G , a discrete subgroup has an infinite injectivity radius if and only if it has infinite covolume. The novel methods used to resolve this rely on ergodic theory—specifically, analyzing random walks on the space of discrete subgroups, alongside new stiffness and rigidity results for these stationary measures. In this talk, I will introduce the foundational definitions and present an outline of the main arguments used to prove the conjecture.

Link to paper¹

¹<https://arxiv.org/abs/2101.00640>