Department of Mathematics, BGU

# BGU Probability and Ergodic Theory (PET) seminar

**On** *Thursday, May ,28 2026*

**At** *11:10 – 12:00*

**In** *101-*

Tom Meyerovitch (BGU)

will talk about

## Rationality and computability of the covering radius for sofic shfits

Abstract: The covering radius of a shfit space is a quantity of interest for information-theoretic applications of data transmission over noisy channels. In this talk we will explain what is the covering radius of a sofic shfit and why people care about it. We will outline a proof that the covering radius of a primitive sofic shfit is always a rational number, and outline an algorithm to compute the covering radius from a labeled graph presentation. We will also briefly explain how these results relate to dynamics, to a certain zero-sum two-player game and to an old meta-conjecture about typical ground states in statistical mechanics. The notions will be defined, no specfiic background assumed. Based on joint work with Aidan Young as in https://arxiv.org/abs/2603.21449, and previous joint work with Dor Elimelech and Moshe Schwartz as in https://ieeexplore.ieee.org/document/10360