

Department of Mathematics, BGU

Colloquium

On Tuesday, November ,11 2025

At 14:30 – 15:30

In Math 101-

Dor Elboim (Stanford University)

will talk about

Self-interacting walks in high dimensions

Abstract: A self-interacting random walk is a random process evolving in an environment which depends on its history. In this talk, we will discuss a few examples of these walks including the Lorentz gas, the mirror walk, the once-reinforced walk and the cyclic walk in the interchange process. I will present methods to analyze these walks in high dimensions and prove that they behave diffusively.

The talk is based on joint works with Allan Sly, Felipe Hernandez, Antoine Gloria, Gady Kozma and Lenya Ryzhik.