

Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On *Thursday, May, 23 2024*

At *11:10 – 12:00*

In *101-*

Adian Young (BGU)

will talk about

Random temporo-spatial differentiations

Abstract: Temporo-spatial differentiations are ergodic averages on a probabilistic dynamical system (X, μ, T) taking the form $\left(\frac{1}{\mu(C_k)} \int_{C_k} \frac{1}{k} \sum_{j=0}^{k-1} T^j f \, \mathrm{d}\mu \right)_{k=1}^{\infty}$ where $C_k \subseteq X$ are measurable sets of positive measure, and $f \in L^{\infty}(X, \mu)$. These averages combine both the dynamics of the transformation and the structure of the underlying probability space (X, μ) . We will discuss the motivations behind studying these averages, results concerning the limiting behavior of these averages and, time permitting, discuss generalizations to non-autonomous dynamical systems. Joint work with Idris Assani.