

Department of Mathematics, BGU

AGNT

On *Wednesday, June ,29 2022*

At *16:00 – 17:00*

In *101-*

Ishai Dan-Cohen (BGU)

will talk about

***p*-Adic periods and Selmer scheme images**

Abstract: The category of mixed Tate motives over an open integer ring or a number field possesses a notion of p -adic period which diverges somewhat from the complex paradigm: rather than comparing two different fiber functors, it compares two different structures both associated with the same cohomology theory. At first glance, it appears to be a peculiarity of the mixed Tate setting. Yet it plays a central role in the microcosm of mixed Tate Chabauty-Kim. It also connects the study of p -adic iterated integrals with Goncharov's theory of *motivic* iterated integrals, and allows us to investigate Goncharov's conjectures from a p -adic point of view. Lastly, it forms the basis for the so-called p -adic period conjecture. I'll report on our ongoing work devoted to the construction of p -adic periods beyond the mixed Tate setting, and discuss the possibility of generalizing all aspects of this picture. This is joint work with David Corwin.