

Department of Mathematics, BGU

AGNT

On Wednesday, January 2, 2019

At 15:10 – 16:25

In 101-

Tomer Schlank (HUJI)

will talk about

Ambidexterity in the $T(n)$ -Local Stable Homotopy Theory

Abstract: The monochromatic layers of the chromatic filtration on spectra, that is the $K(n)$ -local (stable ∞ -)categories $\mathrm{Sp}_{\{K(n)\}}$ enjoy many remarkable properties. One example is the vanishing of the Tate construction due to Hovey-Greenlees-Sadofsky. The vanishing of the Tate construction can be considered as a natural equivalence between the colimits and limits in $\mathrm{Sp}_{\{K(n)\}}$ parametrized by finite groupoids. Hopkins and Lurie proved a generalization of this result where finite groupoids are replaced by arbitrary π -finite ∞ -groupoids.

There is another possible sequence of (stable ∞ -)categories who can be considered as “monochromatic layers”, those are the $T(n)$ -local ∞ -categories $\mathrm{Sp}_{\{T(n)\}}$. For the $\mathrm{Sp}_{\{T(n)\}}$ the vanishing of the Tate construction was proved by Kuhn. We shall prove that the analog of Hopkins and Lurie’s result in for $\mathrm{Sp}_{\{T(n)\}}$. Our proof will also give an alternative proof for the $K(n)$ -local case.

This is a joint work with Shachar Carmeli and Lior Yanovski