

Department of Mathematics, BGU

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# AGNT

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*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  $\infty$ -)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  $\pi$ -finite  $\infty$ -groupoids.

There is another possible sequence of (stable  $\infty$ -)categories who can be considered as “monochromatic layers”, those are the  $T(n)$ -local  $\infty$ -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