TOPOLOGY SEMINAR

THH and Shadows of Bicategories

By

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Abstract: Topological Hochschild homology (THH), first defined for ring spectra and then later dg-categories and spectrally enriched categories, is an important invariant with connections to algebraic K-theory and fixed point methods. The existence of THH in such diverse contexts motivated Ponto to introduce a notion that can encompass the various perspectives: a shadow of bicategories. On the other side, many versions of THH have been generalized to the homotopy coherent setting providing us with motivation to develop an analogous homotopy coherent notion of shadows.

The goal of this talk is to use an appropriate bicategorical notion of THH to prove that a shadow on a bicategory is equivalent to a functor out of THH of that bicategory. We then use this result to give an alternative conceptual understanding of shadows as well as an appropriate definition of a homotopy coherent shadow.

This is joint work with Kathryn Hess.

Date: 22 November, 2021
Time: 13:30 UTC+3
Place: Zoom

To request the event link, please send a message to cihan.okay@bilkent.edu.tr