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Title: Hochschild Homology via homotopy-coherent Shadows

Abstract: This is joint work with Kathryn Hess. Topological Hochschild homology (THH) is a key invariant of ring spectra with relations to algebraic K-theory and fixed point methods. It has since been generalized to various enriched categories, such as spectrally enriched categories. Given the additional conceptual challenges that arise in such settings, Ponto introduced the bicategorical formalism of shadow functors to formally deduce key properties of THH, such as Morita invariance.

In this talk I show how to generalize THH to more general enriched higher categories and prove this results in new shadow functors. One would expect that these constructions are in fact homotopy coherent, meaning they lift to a homotopy coherent analogue of a shadow functor. However, this necessitates generalizing the original definition of shadows to the higher categorical setting. I will hence then proceed to show how such a definition can be obtained by presenting an alternative characterization of shadow functors that can be readily generalized.