Oberseminar Topologie: 6. Juli 2022

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"Polygonic spectra"

Abstract:
The purpose of this talk is to introduce the notion of a polygonic spectrum which is a multi-object version of the notion of a cyclotomic spectrum indexed by the n-polygons rather than the circle. This is designed to capture the structure on topological Hochschild homology of a ring with coefficients in a bimodule. We obtain the polygonic structure on topological Hochschild homology by studying THH as a trace theory on a category of cyclic graphs whose vertices are labelled by rings and whose edges are labelled by bimodules. This provides a convenient formalism for expressing the cyclic invariance of THH and HH. The polygonic structure on THH with coefficients allows us to introduce a version of TR with coefficients. This is joint work with Achim Krause and Thomas Nikolaus.