

Equivariant Structure on Smash Powers

Morten Brun

University of Bergen, Norway

Topological Hochschild homology is constructed from smash powers of a ring spectrum. This is a spectrum with an action of the circle group. Topological cyclic homology is constructed from fixed point spectra of topological Hochschild homology with respect to actions of finite cyclic groups. For commutative ring spectra it makes sense to iterate the topological Hochschild homology construction. This iterated topological Hochschild homology has an action of a torus group, and there exist 'higher' versions of topological cyclic homology constructed from fixed point spectra of iterated topological Hochschild homology with respect to various collections of finite subgroups of this torus group.

In the talk I will present an equivariant version of orthogonal spectra where it is convenient to construct 'higher' topological cyclic homology.