Abstract:

The coassembly map allows us to approximate any contravariant homotopy-invariant functor by an excisive functor, i.e. one that behaves like a cohomology theory. We apply this construction to a contravariant form of Waldhausen’s algebraic K-theory of spaces, and its corresponding THH functor. The results are somewhat surprising: a certain dual form of the A-theory Novikov conjecture is false, but when the space in question is the classifying space BG of a finite p-group, coassembly on THH is split surjective after p=completion. The method of proof suggests new conjectures about both the assembly and coassembly maps for the A-theory of BG. If there is time, we will also discuss related work on the equivariant structure of THH.