

Topology Seminar

Stefan Schwede

of Universität Bonn will be speaking on

Equivariant properties of symmetric products

on February 21 at 4:30 in
MIT Room 2-131

The filtration on the infinite symmetric product of spheres by number of factors provides a sequence of spectra between the sphere spectrum and the integral Eilenberg-Mac Lane spectrum. This filtration has received a lot of attention and the subquotients are interesting stable homotopy types. In this talk I will discuss the equivariant stable homotopy types, for finite groups, obtained from this filtration for the infinite symmetric product of representation spheres. The filtration is more complicated than in the non-equivariant case, and already on the zeroth homotopy groups an interesting filtration of the augmentation ideal of the Burnside ring functor arises. Our method is by ‘global’ homotopy theory, i.e., we study the simultaneous behaviour for all finite groups at once. The equivariant subquotients are no longer rationally trivial, nor even concentrated in dimension 0.