Topology Seminar

Emanuele Dotto
of MIT will be speaking on

Equivariant calculus of functors

on May 11 at 4:30 in
MIT Room 2-131

Let $G$ be a finite group. There is a notion of “$J$-excision” of functors on pointed $G$-spaces, for every finite $G$-set $J$. When $J$ is the trivial $G$-set with $n$ elements it agrees with Goodwillie’s definition of $n$-excision. When $J = G$ it recovers Blumberg’s notion of equivariant excision.

The talk will focus on the $J$-excisive approximations of a homotopy functor, and how they fit together into a “Taylor tree”. We will discuss the convergence of the tree, as well as possible classifications of $J$-homogeneous functors. Finally, we will relate the layers of the “genuine” tower of the identity functor on pointed $G$-spaces to partition complexes, and discuss possible applications of $\mathbb{Z}/2$-calculus to Real algebraic $K$-theory.