Topology Seminar

Marco Varisco

of University at Albany, SUNY will be speaking on

Algebraic K-Theory of Group Rings and Topological Cyclic Homology

on May 13 at 4:30 in
MIT Room 2-131

The Farrell-Jones Conjecture predicts the structure of the algebraic K-theory K(ZG) of the integral group ring of an arbitrary discrete group G. It asserts that a so-called assembly map (whose target is the spectrum K(ZG) and whose source is the homotopy colimit of K(ZH) over all virtually cyclic subgroups H of G) is an equivalence. I will describe joint work with Wolfgang Lück, Holger Reich, and John Rognes, in which we prove partial injectivity results about the rationalized assembly map under finiteness assumptions on the group G, generalizing a theorem of Bökstedt-Hsiang-Madsen. The main tool is the cyclotomic trace map from algebraic K-theory to topological cyclic homology.