Topology Seminar

Ben Spitz

of The University of Virginia will be speaking on

The Tambara Affine Line

on February 10 at 4:30 in MIT Room 2-131

In equivariant stable homotopy theory, objects called "Tambara functors" play the role of commutative rings. Tambara functors are abstract algebraic objects: they consist of sets with certain operations satisfying certain axioms; however, the theory of Tambara functors is much less developed than the theory of commutative rings, in part because it is not clear exactly how to define the "Tambara analogs" of many classical notions. Nonetheless, we expect that Tambara functors admit a theory of commutative algebra and algebraic geometry, akin to the story for ordinary commutative rings. In this talk, I will discuss recent progress in developing such a theory for Tambara functors – in particular, we prove a version of the going-up theorem, which allows for the first computation of the "affine line" in Tambara algebraic geometry. This is joint work with David Chan, David Mehrle, J.D. Quigley, and Danika Van Niel.