Topology Seminar

Mike Hill

of University of Virginia will be speaking on

Flavors of equivariant commutativity

on February 23 at 4:30 in
MIT Room 2-131

Classically, there is essentially only one E_∞ operad, and it parameterizes multiplications commutative up to all higher homotopies. In the G-equivariant context, the situation is muddied by the possible ways the group can interact with the powers of a space or spectrum. In this talk, I'll discuss the notion of an N_∞ operad, an operad in G-space which just like the E_∞ operad parameterizes multiplications commutative up to all higher homotopies but which also allows G to permute factors. The use of these allows one to understand operadically the transfer map on equivariant infinite loop spaces, to see what structure is preserved by equivariant Bousfield localization, and to tease apart what sort of additional structure the category of modules over an equivariant commutative ring spectrum has.