Topology Seminar

Tyler Lawson

of University of Minnesota will be speaking on

Realizing the action of the Dyer-Lashof algebra

on September 19 at 4:30 in
MIT Room 2-131

The Steenrod operations act on the cohomology of a space, but this algebraic data has a more refined lift. There is a ring spectrum A so that every space has an associated A-module, and on taking homotopy groups this recovers the action of the Steenrod algebra. The A-module structure, however, also contains the data of secondary and higher operations. In this talk we'll discuss the Dyer-Lashof operations which act on the homology of infinite loop spaces and E_∞ ring spectra, and how these operations can be realized by the action of a ring spectrum R with a concrete relationship to A.