

TOPOLOGY SEMINAR

Guest Speaker: Andrew Senger
M.I.T.

Date: Tuesday, September 15, 2020

Time: 2:30 PM

Location: Zoom

Zoom Link: notredame.zoom.us/j/97262637721

Lecture Title:

Artin-Tate R-motivic spectra

Abstract

In this talk, I will introduce the category of Artin-Tate R-motivic spectra, an enlargement of the category of cellular (or Tate) R-motivic spectra, and describe how its 2-completion may be viewed as a 1-parameter degeneration of the category of C_2 -equivariant spectra to a purely algebraic special fiber. As a consequence, we are able to give a completely topological description of the category of 2-completed Artin-Tate R-motivic spectra. This work generalizes and expands upon work of Isaksen, Dugger, Gheorghe, Wang, Xu, Pstrągowski, Krause and Ricka in the C-motivic case. Their work has ushered in a renaissance in the field of computational stable homotopy theory, greatly expanding our knowledge of the stable homotopy groups of spheres, and we hope that our work might prove useful in computational C_2 -equivariant homotopy theory. This is joint work with Robert Burklund and Jeremy Hahn.