Department of Mathematics
University of Notre Dame

TOPOLOGY SEMINAR

Guest Speaker: Guchuan Li
Northwestern Univeristy

Date: Tuesday, February 6, 2018
Time: 2:30 PM
Location: 258 Hurley Hall

Lecture Title:
Hurewicz Images of Real Johnson-Wilson Theories

Abstract

We show that the Hopf elements, the Kervaire classes, and the $\bar{\kappa}$ family in the stable homotopy groups of spheres are detected by the C_2-fixed points of the Real Brown-Peterson spectrum under the Hurewicz map. A subset of these families is detected by the C_2-fixed points of the Real Johnson-Wilson theories, depending on the height. As an application, we use the knowledge of the Hurewicz images and attaching maps in RP^∞ to give a recomputation of $ER(2)_* RP^\infty$, which is computed by Kitchloo and Wilson in their work of non immersions of RP^n. This is a joint work with Xiaolin Danny Shi, Guozhen Wang and Zhouli Xu.

Guchuan Li - Northwestern Univeristy