Department of Mathematics
University of Notre Dame

GRADUATE STUDENT TOPOLOGY SEMINAR

Guest Speaker: Hari Rau-Murthy

University of Notre Dame

Date: Friday, February 24, 2023
Time: 2:00 PM
Location: 258 Hurley Hall
Zoom URL: notredame.zoom.us/j/95833937181

Lecture Title:

Factorization homology motivated by the simplicial tensor and Poincaré duality

Abstract

We feel that the best way of introducing factorization homology is to define what the factorization homology of R over M is when R is a commutative ring or a module. The answer will be the tensor of A with the set of simplices of M. This construction ends up commuting with colimits in the space variable. It's then natural to ask that factorization homology should be excisive in the space variable. The reason for why to understand the factorization homology of rings that aren't commutative comes from Poincaré duality. We close with a computation of the factorization homology of a smooth commutative algebra which is the main result of my thesis.