Department of Mathematics
University of Notre Dame

GRADUATE STUDENT TOPOLOGY SEMINAR

Guest Speaker: Matt Scalamandre
University of Notre Dame

Date: Friday, March 31, 2023
Time: 2:00 PM
Location: 258 Hurley Hall
Zoom URL: notredame.zoom.us/j/95833937181

UNIVERSITY OF NOTRE DAME
Department of Mathematics

Lecture Title:
Poincaré Duality for Groups

Abstract

If a space with fundamental group G is aspherical, then its homology/cohomology are invariants of G alone (called the group (co)homology of G). If X is a closed oriented manifold, then the (co)homology satisfies Poincare duality. We will discuss a generalization of Poincare duality called Bieri-Eckmann duality, and discuss some geometric conditions for a group to satisfy it -- with several examples. No prior knowledge of group cohomology is assumed. This material was not covered in Andy's Fall topics course.

Matt Scalamandre - University of Notre Dame