

GRADUATE STUDENT GEOMETRY SEMINAR

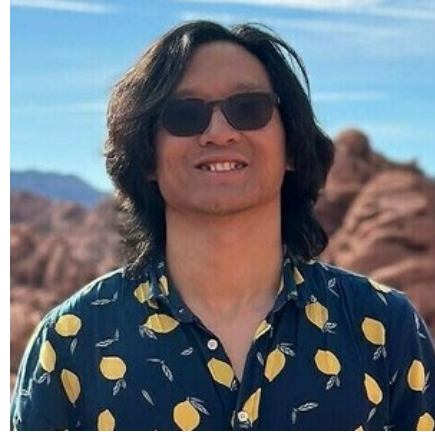
Guest Speaker: Brandon Fu
University of Notre Dame

Date: Friday, February 23, 2024

Time: 2:00 PM

Location: 117 Hayes-Healy Bldg

Zoom URL: NA



Lecture Title:
The Kac-Rice Formula and Applications

Abstract

In probability theory, Kac-Rice formula deals with the expectation of the level set measure for random fields. In the special case of nondegenerate Gaussian random fields, this formula can be conveniently used to count expected number of zeros for these fields. In this talk, we will overview Gaussian measures and random fields. With this set up, we will introduce Kac-Rice formula and its applications in geometric settings. Particularly, we will prove a conjecture proposed by Hugo Steinhaus in 1969.