

GRADUATE STUDENT SEMINAR

Guest Speaker: Jui-Yun Hung
University of Notre Dame

Date: Tuesday, April 25, 2023

Time: 4:00 PM

Location: 258 Hurley Hall

Zoom URL: notredame.zoom.us/j/93888654312



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Lecture Title:

Sobolev Spaces and Smooth Vector Bundles

Abstract

Sobolev spaces are important function spaces in the study of PDEs. In Euclidean space, we have the notion of weak derivatives and a Sobolev function is a measurable function that has weak derivatives up to certain order and with some control on the integral. In this talk, I will discuss one way to think about “weak derivatives” on smooth manifolds and more generally on smooth vector bundles, and use it to define Sobolev spaces on manifolds and vector bundles.