

GRADUATE STUDENT GEOMETRY SEMINAR

Guest Speaker: Jason Mitrovich

University of Notre Dame

Date: Wednesday, September 27, 2023

Time: 12:00 PM

Location: 258 Hurley Bldg

Zoom URL: NA



Lecture Title:

An Introduction to Soap Films - Rado's Solution to the Plateau Problem

Abstract

This seminar will introduce the Plateau problem, whose name is derived from the physicist Plateau while trying to understand the properties of soap films. First, we will state the Plateau problem in generality and then narrow down to the special case of dimension 2, where Rado and Douglas independently solved this problem (Jesse Douglas was awarded the Field's Medal for this work). After, we will see a live demonstration of the Plateau problem's connection to soap films. Then, I will sketch an outline of Rado's proof. To close, we will discuss the strategies for solving the problem in other cases and other dimensions.