Department of Mathematics University of Notre Dame

FELIX KLEIN SEMINAR

Speaker: Nicki Magill Cornell University

Date: Tuesday, May 7, 2024 Time: 2:00 PM Location: 258 Hurley Bldg Zoom URL: NA



Lecture Title:

Infinite Staircases for Hirzebruch Surfaces

Abstract

This talk will give a classification of infinite staircases for the ellipsoid embedding functions of Hirzebruch surfaces. The ellipsoid embedding function is a generalization of symplectic ball packing problems. For a symplectic manifold, the function gives the smallest amount of which the symplectic form must be scaled in order for a standard ellipsoid of a given eccentricity to embed symplectically into the manifold. Generally, there are only finitely many obstructions other than the volume obstruction relevant to compute the function. If there are infinitely many obstructions, the function is said to have an infinite staircase.