## Colloquium

## University of Notre Dame Department of Mathematics

## Speaker: Matthew Gursky

University of Notre Dame

**Will give a lecture entitled** Einstein manifolds

Date: Wednesday, September 13, 2023 Time: 4:00 PM Location: 129 Hayes-Healy Hall

Zoom URL: NA

Departmental Tea: Tea in Room 257 (lounge in Hurley Hall) at 3:30 p.m.

## Abstract:

The study of Einstein manifolds arises in many areas of mathematics: the Yau-Tian-Donaldson conjecture in Kahler geometry, the Geometrization of 3-manifolds, and Mathematical General Relativity, to name just three. In this lecture I will give a very short (and necessarily inadequate) survey, starting with some basic definitions and motivations (why are they named after Einstein, anyway?), and ending with some open questions in four dimensions, which has a kind of 'unicorn' status in the subject.

