

# Colloquium

University of Notre Dame  
Department of Mathematics

Robin Neumayer - Northwestern University

**Speaker:** Robin Neumayer

Northwestern University

**Will give a lecture entitled**  
Quantitative Stability in the Calculus of Variations



**Date:** Thursday, December 10, 2020

**Time:** 3:00 PM

**Location:** Zoom

**Zoom URL:** <https://notredame.zoom.us/j/94371140340?pwd=aDlyTVFtcWwvZDVJVmdnaVJ4T1FPdz09>

**Abstract:**

Among all subsets of Euclidean space with a fixed volume, balls have the smallest perimeter. Furthermore, any set with nearly minimal perimeter is geometrically close, in a quantitative sense, to a ball. This latter statement reflects the quantitative stability of balls with respect to the perimeter functional. We will discuss recent advances in quantitative stability and applications in various contexts. The talk includes joint work with several collaborators and will be accessible to a broad research audience.