

# TEMPLE UNIVERSITY

Department of Mathematics

## Analysis Seminar

Room 617 Wachman Hall

Monday, November 6th, 2023, 2:30 p.m.

*Attaining the best constant in a Hardy-Morrey  
inequality*

by Ryan Hynd

University of Pennsylvania

**Abstract:** Morrey's inequality measures the Hölder continuity of a function whose gradient belongs to an appropriate Lebesgue space. There has been recent interest in understanding the extremals of Morrey's inequality, which are the functions which saturate the inequality. We present a natural variant of Morrey's inequality on a given domain and discuss the question of whether or not an extremal exists. This is joint work with Simon Larson (Chalmers) and Erik Lindgren (KTH).