

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research  
Department of Mathematics*

## **Analysis Seminar**

### **Extremal functions for Morrey's inequality**

**Professor Ryan Hynd**

University of Pennsylvania, USA

#### **Abstract**

Morrey's inequality quantifies the continuity of functions whose derivatives have high enough integrability. We study the functions for which Morrey's inequality is saturated. We will explain how various qualitative properties of these extremal functions can be deduced from the partial differential equation they satisfy. Finally, we will discuss numerical approximations of these functions and other applications in optimization theory.

Date: July 3, 2019 (Wednesday)

Time: 3:00 - 4:00pm

Venue: Room 210, Run Run Shaw Bldg., HKU

*All are welcome*