

1163-42-1525

Taryn C Flock* (tflock@macalester.edu). *Sharp inequalities for the X-ray Transform.*

Inequalities play a central role in harmonic analysis. However, in many cases the fundamental question "When and how can one achieve equality?" is left unanswered. Answering these questions opens the door to proving stronger versions of the inequality. In this talk, we'll consider this question in the context of L^p - L^q inequalities for the X-ray transform. I'll discuss how exploring the problem with undergraduate researchers Connor Bass and Arthur DressenWall has shaped my perspective. (Received September 15, 2020)