

**Title:** Some small progress on the Mizohata-Takeuchi conjecture

**Abstract:** This is a conjecture on the classical Fourier extension operators of harmonic analysis. The restriction conjecture is about controlling the size of the level sets of extension operators. The Mizohata-Takeuchi conjecture is more about understanding the shape of these level sets, and specifically the extent to which they can avoid clustering along lines. In this talk we will discuss some small progress towards the conjecture. This is joint work with Anthony Carbery and Hong Wang.