

**Title:** The Mizohata--Takeuchi conjecture: an overview

**Abstract:** We introduce the Mizohata--Takeuchi conjecture for the Fourier Extension operator, beginning with its origins, and continuing with a summary of partial progress that has been made on it over the years, together with some discussion of the links and interactions that it has with other topics in Fourier analysis and beyond. The talk also serves as an introduction to the talks of Marina Iliopoulou and Jon Bennett in this same workshop.