



## 复旦大学数学科学学院 数学综合报告会

报告题目: The Mizohata-Takeuchi Conjecture for convex hypersurfaces

报告人: 张瑞祥 (University of California, Berkeley)

时间: 2026-04-28 星期二 11:00-12:00

地点: 光华楼东主楼1601

报告摘要:

The Mizohata-Takeuchi Conjecture predicts an  $L^2$  estimate of functions with Fourier support on a convex hypersurface. It looks deceptively simple but remains a difficult problem to understand. I will talk about a recently found counterexample with Cairo showing power blowups for this conjecture for many hypersurfaces in all dimensions. Our construction was inspired by intuitions from additive combinatorics and lattice point counting for curves.

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