國立陽明交通大學應用數學系 學術演講公告

主講人:趙庭偉博士

- 講 題: Tight Bound on Joints Problem and Partial Shadow Problem
- 時 間:113年6月14日(星期五)上午11:00-12:00 地 點:(光復校區)科學一館223室

Abstract

Given a set of lines in R^d, a joint is a point contained in d linearly independent lines. Guth and Katz showed that N lines can determine at most $O(N^{3/2})$ joints in R³ via the polynomial method.

Yu and I proved a tight bound on this problem, which also solves a conjecture proposed by Bollob\'as and Eccles on the partial shadow problem. It is surprising to us that the only known proof to this purely extremal graph theoretic problem uses incidence geometry and the polynomial method.



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