

Department of Mathematics **The Chinese University of Hong Kong**

數學系

香港中文大學

Phone: (852) 3943 7988 • Fax: (852) 2603 5154 • Email: dept@math.cuhk.edu.hk (Math. Dept.) Room 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

Mini-Course

Studying the Falconer distance problem using Fourier analysis

Ms. Hong Wang Massachusetts Institute of Technology

<u>Abstract</u>

We use new tools from Fourier analysis to study Falconer distance problem. We show that for any fractal set E in the plane with Hausdorff dimension s> 5/4, then its distance set has positive Lebesgue measure.

Date: 16 August 2018 (Thursday)

Time: 3:30pm - 4:30pm (Part I)

4:45pm – 5:45pm (Part II)

Venue: Room 222, Lady Shaw Building,

The Chinese University of Hong Kong, Shatin

All are Welcome