Triangles in the Plane

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Time: Oct 22th, 15:00 - 16:00
Zoom meeting ID: 863 5190 6501 Password: 121323
Link: https://zoom.com.cn/j/86351906501
Venue: Room 102, SCMS

Abstract:

A classical problem in combinatorial geometry, posed by Erdős in 1946, asks to determine the maximum number of unit segments in a set of n points in the plane. Since then a great variety of extremal problems in finite planar point sets have been studied. Here, we look at such questions concerning triangles. Among others we answer the following question asked by Erdős and Purdy almost 50 years ago: Given n points in the plane, how many triangles can be approximate congruent to equilateral triangles? For our proofs we use hypergraph Turán theory. This is joint work with Balogh and Dumitrescu.