## Combinatorics Seminar

Rigidity of Extremal Point-Line Arrangements

Hung-Hsun Hans Yu Princeton University

Abstract: It is a classical theorem by Szemerédi and Trotter that n points and m lines in the Euclidean plane form at most  $C(mn)^{2/3} + m + n$  incidences, and the bound is optimal up to the constant C. However, there is still no satisfactory description of configurations maximizing the number of incidences. As a small step toward such description, in this talk, I will show how to prove that the extremizers are rigid in some sense. This is based on joint work with Gabriel Currier and Jozsef Solymosi.

Friday, October 25, 2024, 10:00 am Mathematics and Science Center: MSC N306

> MATHEMATICS EMORY UNIVERSITY