Geometry Seminar
September 19, 2006, Tuesday, 6:00 p.m.
Room 613, Courant Institute
251 Mercer Street, New York

Ramsey-type results for intersection graphs of geometric objects

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Abstract

In this talk, we will discuss results and conjectures for intersection patterns of convex bodies, semi-algebraic sets, x-monotone curves, pseudosegments, and general arcs in the plane. For example, we will prove that there is a positive constant c such that for every collection C of $n > 1$ convex bodies in the plane, there are necessarily two subcollections A and B of C, each of cardinality at least cn, such that either every convex body in A intersects every convex body in B, or every convex body in A is disjoint from every convex body in B. This talk is based on joint work with János Pach and Csaba Tóth.

For further information contact {pach,pollack}@cims.nyu.edu, or visit our website: http://www.math.nyu.edu/seminars/geometry_seminar.html