Geometry Seminar
February 8, 2005, Tuesday, 6:00 p.m.
Room 613, Courant Institute
251 Mercer Street, New York

Counting crossing-free configurations in the plane

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Abstract

We study several counting problems involving crossing-free configurations generated by a set of n points in the plane, including the number of crossing-free partial or perfect matchings, crossing-free partitions, simple paths, and partitions into simple paths. The number of such configurations is at most c^n, and the goal is to improve the constants c. For example, we show that the number of crossing-free matchings is at most 20.58^n.

Joint work with Emo Welzl.

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