Geometry Seminar
March 22, 2005, Tuesday, 6:00 p.m.
Room 613, Courant Institute
251 Mercer Street, New York

On distinct distances from a vertex of a convex polygon

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Abstract

Given a set P of n points in convex position in the plane, we show that there exists a point $p \in P$ such that the number of distinct distances from p is at least $\lceil (13n-6)/36 \rceil$. The best previous bound, $\lceil n/3 \rceil$, from 1952, is due to Leo Moser, and Erdős conjectured that the right answer is $\lfloor n/2 \rfloor$.

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