Seminar on Combinatorial Computing
May 10, Wednesday, 6:20 p.m.
Room 3212, Graduate Center
365 Fifth Avenue, New York

Point Pattern Matching

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Abstract

Recently some classical problems by Erdős, like the maximum number of unit distances problem, as well as some nonclassical variants of these problems, found applications in complexity bounds for pattern matching algorithms. In this talk I will discuss this connection, give a new bound on the number of congruent triangles in a three-dimensional point set and show its application in three-dimensional point pattern matching. Also I will give a new algorithm for the higher dimensional congruence test problem and show relations to old problems on the classification of highly symmetric polyhedra.

For further information contact Janos Pach at pach@cims.nyu.edu,
or visit our website: http://math.gc.cuny.edu/Seminars/Combinatorics.html