Seminar on Combinatorial Computing
January 31, Wednesday, 6:30 p.m.
Room 8405, Graduate Center
365 Fifth Avenue, New York

Set proportionality testing

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Abstract

Given two k element subsets S and T of an abelian group G, we design quasi-linear algorithms to test whether $\lambda S = T$ for some $\lambda \in G$. We also study this problem for subsets in residue rings. These questions are closely related to isomorphism testing of circulant graphs and has recently been studied in the literature.

Joint work with Don Coppersmith (IBM), Nick Howgrave-Graham (IBM), Bernard Mans (Macquarie Uni.), Phong Q. Nguyen (ENS, Paris)

For further information contact Janos Pach at pach@cims.nyu.edu, or visit our website: http://www.math.nyu.edu/ pach/combinatorics_seminar.html