Seminar on Combinatorial Computing
April 9, Wednesday, 6:30 p.m.
Room 6417, Graduate Center
365 Fifth Avenue, New York

Properly separated permutations

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Abstract

Two sequences are *(*hooked*)* if there is a symbol that appears in both, but in different positions in the two sequences. A set of sequences is *properly separated* if every pair is hooked.

In particular, we consider sets of properly separated k-permutations on an n-set. Write $P(n,k)$ for the size of the largest such set. For fixed n, it is easy to show that $P(n,k)$ is increasing and attains a maximum value $p_{n,k}$, but determination of the numbers $P(n,k)$ and $p_{n,k}$ turns out to be quite difficult. We shall present a few results and suggest an application in network design.

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