Geometry Seminar
October 17, 2006, Tuesday, 6:00 p.m.
Room 613, Courant Institute
251 Mercer Street, New York

Delaunay graphs and conflict-free coloring

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Abstract

Does there exist a constant $c > 0$ such that every n-element point set P in the plane has a subset Q of size at least cn with the property that there is no axis-parallel rectangle that contains two elements of Q but no point from $P \setminus Q$? We answer this question of Smorodinsky et al. in the negative. The question is related to a frequency allocation problem in cellular networks.

Joint work with J. Pach, M. Szegedy, and G. Tardos.

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