Seminar on Combinatorial Computing
November 16, Wednesday, 6:30 p.m.
Room 6417, Graduate Center
365 Fifth Avenue, New York

The Alternating Cone of a 2-colored Graph

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Abstract

Motivated by the long standing open problem to characterize the degree sequence of r-uniform hypergraphs ($r > 2$) the polytope of degree sequences, in particular the extreme points (threshold graphs) has been well studied.

With every graph one can associate a certain convex polyhedral cone, called its alternating cone. Integral vectors in the cone correspond to closed alternating walks (edge, nonedge, edge, nonedge,...) in the graph. This definition is motivated by the notion of threshold graphs.

In this talk we will describe the basic theory of the alternating cone of graphs, which is a kind of flow theory for undirected graphs.

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