Geometry Seminar
February 1, 2005, Tuesday, 6:00 p.m.
Room 613, Courant Institute
251 Mercer Street, New York

Discrete Isoperimetry and Fourier Analysis of Boolean functions

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Abstract

In this talk I will describe recent results and open problems concerning discrete isoperimetric inequalies and related issues concerning Fourier analysis of Boolean function. I will present a result with Friedgut and Naor on the "stability" of the edge-isoperimetric inequality (total influence) and some subsequent developments, and a conjecture of Jeff Kahn and myself on the total influence of sets with tiny measures. Some applications in combinatorics and probability will be described.

For further information contact {pach,pollack}@cims.nyu.edu, or visit our website: http://www.math.nyu.edu/seminars/geometry_seminar.html