

Geometry Seminar
April 15, 2008, Tuesday, 6:00 p.m.
Room 613, Courant Institute
251 Mercer Street, New York

Nearly diagonally dominant matrices and their applications

Noga Alon
Tel Aviv University and IAS, Princeton

Abstract

I will describe a lower bound for the rank of any real matrix in which all diagonal entries are significantly larger in absolute value than all other entries. This simple result has a surprising number of applications in Geometry, Coding Theory, Extremal Finite Set Theory, and the investigation of small sample spaces supporting nearly independent random variables. I will discuss some of these, focusing on the geometric applications.

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