

abstract

COMPUTER SCIENCE/DISCRETE MATH II

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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 several lower bounds for the sizes of sample spaces with given properties.