

The George Washington University Combinatorics Seminar

Wednesday, March 26, 5:00 - 6:00 p.m.

Monroe Hall, Room 267
2115 G Street, N.W., Washington, D.C.

Simple vertices in Minkowski sums of simplices

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A vertex of a d -dimensional polytope is called simple if it is contained in exactly d facets of the polytope. A theorem of R. Shannon implies that a Minkowski sum of n line segments (a zonotope) has at least $2n$ simple vertices. We will review proofs of this result and consider generalizations to Minkowski sums of higher dimensional simplices.