

1057-05-337

Russ Woodroffe* (russw@math.wustl.edu), Department of Mathematics, Campus Box 1146,
One Brookings Drive, St. Louis, MO 63130. *Erdős-Ko-Rado theorems for simplicial complexes.*

A well-known result of Erdős, Ko, and Rado states that the largest intersecting uniform family of sufficiently small sets is the family of all sets containing a fixed vertex. More recently Holroyd, Talbot, and Borg have conjectured an extension of the Erdős-Ko-Rado Theorem for intersecting families of faces in a simplicial complex. In this talk, I will show how to use algebraic shifting to prove significant special cases of the Holroyd-Talbot/Borg Conjectures. I will give several applications to independence complexes of graphs. (Received January 25, 2010)