

1046-05-1065

Bill Kay* (kayw@mailbox.sc.edu), 1400 Greene Street, PO Box 80941, Columbia, SC 29225, and
Greg Brockman (gbrockm@fas.harvard.edu). *Elementary Techniques for Erdos-Ko-Rado-like Theorems.*

The well-known Erdos-Ko-Rado Theorem states that if F is a family of k -element subsets of $1, 2, \dots, n$ ($n \leq 2k - 1$) such that every pair of elements in F has a nonempty intersection, then the size of F is at most $\binom{n-1}{k-1}$. The theorem also provides necessary and sufficient conditions for attaining the maximum. We present elementary methods for deriving generalizations of the Erdos-Ko-Rado Theorem on several classes of combinatorial objects. We also extend our results to systems under Hamming intersection. (Received September 14, 2008)