

Meeting: 1002, Pittsburgh, Pennsylvania, SS 2A, Special Session on Convexity and Combinatorics

1002-52-56 **Karoly Bezdek, Marton Naszody** and **Deborah Oliveros*** (deborah@math.ucalgary.ca),
Department of Mathematics and Statistics, 2500 University Drive N.W., Calgary, Alberta
T2N-1N4, Canada. *Antipodality in Hyperbolic space.*

A set of points in the Euclidean n -space is called antipodal if through every pair of points in the set, there is a pair of parallel hyperplanes supporting the set. According to a well known result of Danzer and Grünbaum, conjectured independantly by Erdős and Klee, the cardinality of any antipodal set in E^n is at most 2^n . We will discuss variuos possible ways of define hyperbolic antipodality and present similar results to the ones above on the cardinality of an antipodal set in the hypebolic n -space. (Received September 14, 2004)