

Meeting: 1004, Bowling Green, Kentucky, SS 2A, Special Session on Graph Theory

1004-05-136 **Darren B. Parker*** (dbparker@dayton.edu), Department of Mathematics, University of Dayton, 300 College Park, Dayton, OH 45469, **Randy F. Westhoff** (rwesthoff@bemidjistate.edu), Department of Mathematics & Computer Science, Bemidji State University, 1500 Birchmont Dr., Bemidji, MN 56601, and **Marty J. Wolf** (mjwolf@bemidjistate.edu), Department of Mathematics & Computer Science, Bemidji State University, 1500 Birchmont Dr., Bemidji, MN 56601. *Convexity-Related Independence in Multipartite Tournaments*. Preliminary report.

The most studied parameters in convexity spaces are the Helly, Radon, and Caratheodory numbers. For each of these numbers, there is a notion of independence in which the number is the maximum size of an independent set. In addition, there is the notion of convex independence in which the maximum size of an independent set is called the rank of the convexity space. In the context of two-path convexity in multipartite tournaments, we study these four convexity numbers, with an emphasis on conditions under which some or all of them are equal. (Received January 21, 2005)