1090-05-19 **Jonathan E Beagley** (jbeagley@gmu.edu), Department of Mathematical Sciences, George Mason University, Fairfax, VA 22030, and **Walter D Morris*** (wmorris@gmu.edu), Department of Mathematical Sciences, George Mason University, Fairfax, VA 22030. *Chromatic Numbers of Copoint Graphs of Convex Geometries.*

We study the copoint graph of a convex geometry. We give a family of copoint graphs for which the ratio of the chromatic number to the clique number can be arbitrarily large. For any natural numbers $1 < d < k$, we study the existence of a number $K_d(k)$ so that the chromatic number of the copoint graph of a convex geometry on a set of at least $K_d(k)$ elements, with every d-element subset closed, has chromatic number at least k. Our results are analogues of results of Erdős and Szekeres for convex geometries realizable by point sets in $\mathbb{R}^m$, where cliques in the copoint graph correspond to subsets of points in convex position. (Received January 05, 2013)