

1050-05-110 **Chris D Godsil*** (cgodsil@uwaterloo.ca). *Cocliques and Polytopes*. Preliminary report.

A d -dimensional eigenspace of the adjacency matrix of a graph determines a convex polytope in \mathbb{R}^d . I will outline how this polytope can be used to prove analogs of the Erdős-Ko-Rado theorem for some graphs associated to the symmetric group. (Received March 01, 2009)