1023-06-428 **Rebecca Garcia*** (rgarcia@shsu.edu), Department of Mathematics, P.O. Box 2206, Huntsville, TX 77341-2206. *The Coadunation of Generalized Crowns.*

The order dimension of a partially ordered set (poset) is an invariant on posets introduced by Dushnik and Miller in 1941. To compute the order dimension for a general poset is equivalent to finding the minimal coloring of an associated hypergraph. However, for a special family of posets known as generalized crowns, W. Trotter (1976) shows that order dimension is determined easily. We will discuss generalized crowns, multipartite posets and introduce an operation on the class of multipartite posets called β-coadunation. This operation extends the class of posets for which order dimension is computable and has the potential to provide a more robust algorithm for computing order dimension in general. (Received September 12, 2006)