

Meeting: 1001, Evanston, Illinois, SS 19A, Special Session on Algebraic Representations and Deformations

1001-05-434 **Kathryn Nyman*** (knyman@math.luc.edu), Loyola University Chicago, **Marcelo Aguiar**, Texas A & M University, and **Rosa Orellana**, Dartmouth College. *Results on the peak algebra of the symmetric group algebra.*

The peak algebra P_n is a unital subalgebra of the symmetric group algebra linearly spanned by sums of permutations with a common set of peaks. We explore properties of the peak algebra including its relationship to the descent algebras of types B and D , and its Hopf algebra structure. (Received September 10, 2004)