Jia Huang, Brendon Rhoades* (bprhoades@math.ucsd.edu) and Travis Scrimshaw (tcscrims@gmail.com). Symmetric group and Hecke algebra actions on ordered set partitions.

The coinvariant algebra $R_n$ is a graded module for the symmetric group $S_n$ whose properties are governed by the combinatorics of permutations. Given two positive integers $k \leq n$, Haglund, Rhoades, and Shimozono have generalized $R_n$ to a ring $R_{n,k}$ whose properties are governed by the combinatorics of ordered set partitions. We study $R_{n,k}$, together with its 0-Hecke and full Hecke relatives, and describe a ‘quantum analog’ of the Garsia-Procesi machine for constructing graded modules. Joint with Jia Huang and Travis Scrimshaw. (Received February 20, 2018)