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Julianna Tymoczko* (jtymoczko@smith.edu), Department of Mathematics and Statistics,
Smith College, 44 College Lane, Northampton, MA 01063. *The Robinson-Schensted algorithm and
web bases.*

We describe joint work with Matthew Housley (Brigham Young University) and Heather Russell (Washington College) that compares two natural bases for the irreducible representation of the symmetric group associated to the partition $[n,n,n]$. The first basis is the web basis, associated to Kuperberg's combinatorial description of the spider category. The second is the left cell basis for Kazhdan-Lusztig's left cells. We consider the images of these bases under two classical combinatorial maps: the Robinson-Schensted algorithm and Khovanov-Kuperberg's bijection. We show that these maps preserve Vogan's generalized tau-invariant, which refines the data of the inversion set of a permutations. However, the two bases are not equivalent, in the sense that these classical combinatorial maps are not equivariant with respect to the permutation group. (Received August 20, 2013)