

A Formula for Counting Affine Type C Pieri Factors

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Abstract

The affine Weyl groups are groups which are generated by simple reflections that satisfy relations dependent on type. These groups have a subset of elements called Pieri factors which are of interest for their combinatorial properties and which were used by T. Lam to understand the homology and cohomology of the affine Grassmanian. Tom Denton showed that type A affine elements decompose uniquely into a sequence of Pieri factors weakly decreasing in length [2012, “Canonical Decompositions of Affine Permutations, Affine Codes, and Split k -Schur Functions”]. I present a result enumerating type C Pieri factors and conjecture a type C analog of Denton’s result.