

1121-05-259

**Brendan Pawlowski\*** (pawlows@umich.edu). *A representation-theoretic interpretation of positroid classes.*

To any (affine) permutation one can associate its (affine) Stanley symmetric function, which encodes some combinatorial information about its reduced words. Upon removing the Schur terms whose shape is not contained in a fixed rectangle, the resulting symmetric function is Schur-nonnegative, and its Schur coefficients describe: (1) Schubert structure constants for the product of a Schur function and Schubert polynomial; (2) cohomology classes of positroid varieties in a Grassmannian; (3) three-point Gromov-Witten invariants for Grassmannians. We describe a representation of the symmetric group whose Frobenius characteristic is this symmetric function. As a special case, this includes Postnikov's conjecture that toric Schur functions are Frobenius characteristics of toric Specht modules. (Received July 19, 2016)