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Sami H. Assaf* (shassaf@usc.edu) and **David E. Speyer**. *Specht modules decompose as alternating sums of restrictions of Schur modules.*

Schur modules give the irreducible polynomial representations of the general linear group GL_t . Since the symmetric group \mathfrak{S}_t is a subgroup of GL_t , we may restrict Schur modules to \mathfrak{S}_t and decompose the result into Specht modules, the irreducible representations of \mathfrak{S}_t . In this talk, I present joint work with David Speyer in which we show that when we invert the above expansion in the representation ring for \mathfrak{S}_t for t large, the coefficients that appear are alternatingly positive by degree. In particular, this allows us to define a new basis of symmetric functions whose structure constants are stable Kronecker coefficients and which expand alternatingly into Schur functions. (Received August 19, 2018)