ILSE FISCHER, University of Vienna Bijective proofs of (skew) Schur polynomial factorizations

Schur polynomials and their generalizations appear in various different contexts. They are the irreducible characters of polynomial representations of the general linear group and an important basis of the space of symmetric functions. They are accessible from a combinatorial point of view as they are multivariate generating functions of semistandard tableaux associated with a fixed integer partition. Recently, Ayyer and Behrend discovered for a wide class of partitions factorizations of Schur polynomials with an even number of variables where half of the variables are the reciprocals of the others into symplectic and/or orthogonal group characters, thereby generalizing results of Ciucu and Krattenthaler for rectangular shapes. We present bijective proofs of such identities. (Joint work with Arvind Ayyer.)