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Title: Combinatorial computation of certain Kronecker coefficients

It is a long standing open problem in algebraic combinatorics to compute the Kronecker coefficients of the symmetric group using a combinatorial rule. In this talk I will discuss explicit combinatorial formulae (for 5 new cases) for Kronecker coefficients arising in the inner tensor product of two Schur functions indexed by near-rectangular partitions of small height. As an application of the description of Kronecker coefficients thus obtained, I will also also describe an enumerative formula for a specific case of counting Standard Young tableaux of bounded height in terms of Catalan and Motzkin numbers.