

1052-05-122

Emmanuel Briand (ebriand@us.es), **Rosa C Orellana*** (rosa.c.orellana@dartmouth.edu)
and **Mercedes H. Rosas** (mrosas@us.es). *On the stability of the Kronecker product.*

In the late 1930's Murnaghan discovered the existence of a stabilization phenomenon for the Kronecker product of Schur functions. For n sufficiently large, the values of the Kronecker coefficients appearing in the product of two Schur functions of degree n do not depend on the first part of the indexing partitions, but only on the values of their remaining parts. We compute the exact value of n for which all the coefficients of a Kronecker product of Schur functions stabilize. We also compute two new bounds for the stabilization of a sequence of coefficients and show that they improve existing bounds of M. Brion and E. Vallejo. (Received August 24, 2009)