1052-05-244   **J. Haglund*** (`jhaglund@math.upenn.edu`), 209 S. 33rd. St., Math. Dept., Univ. of Penn., Philadelphia, PA 19104-6395, and **K. Luoto**, **S. Mason** and **S. Van Willigenberg**. *Littlewood Richardson Rules, Quasisymmetric Funcions, and Demazure Characters.*

We show how the product of a Schur function and a Demazure Atom (called standard bases by Lascoux and Schutzenberger) is a positive sum of Atoms. We also show how this implies similar rules for the product of a Schur function and either a Demazure character or Quasisymmetric Schur function. Our results involve "inversion triples" which occur in the combinatorics of Macdonald polynomials, and imply the classical Littlewood-Richardson rule for the expansion of a product of Schur functions in the Schur basis. (Received August 28, 2009)