

# Generalized Schur operators and Pieri's rule

Yasuhide Numata

*Division of Mathematics, Hokkaido University, Japan.*

nu@math.sci.hokudai.ac.jp

Young's lattice, the lattice of all Young diagrams, has the Robinson-Schensted-Knuth correspondence, the correspondence between certain matrices and pairs of semi-standard Young tableaux with the same shape. Fomin introduced generalized Schur operators to generalize the Robinson-Schensted-Knuth correspondence. In this sense, generalized Schur operators are generalizations of semi-standard Young tableaux. We define a generalization of Schur polynomials as expansion coefficients of generalized Schur operators. We show that the commuting relation of generalized Schur operators implies Pieri's formula to generalized Schur polynomials.