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Vasu Tewari* (vasu@math.ubc.ca), .. *A right Pieri rule for noncommutative Schur functions.*

The noncommutative Schur functions introduced by Bessenrodt, Luoto and van Willigenburg are a basis for the algebra of noncommutative symmetric functions. They are noncommutative lifts of the classical Schur functions and exhibit noncommutative analogues of many of their properties including a noncommutative Pieri rule, which due to the noncommutative product is a left noncommutative Pieri rule. In this talk, we will describe a right noncommutative Pieri rule for the noncommutative Schur functions. To do this, we will give a noncommutative analogue of the jeu de taquin slide that will be performed on semistandard reverse composition tableaux. These slides will give rise to an operator on composition shapes, that we call the jdt operator, which in turn can be used to endow the set of compositions with a new poset structure. We will enumerate the maximal chains in this poset, and see that the noncommutative Littlewood-Richardson coefficients turn up naturally in so doing. Finally we will use the jdt operator to give a right Pieri rule. (Received February 14, 2015)