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Jim Haglund, Kurt Luoto, Sarah Mason and Steph van Willigenburg*, Department of Mathematics, University of British Columbia, 1984 Mathematics Rd, Vancouver, BC V6T1Z2, Canada. *Schur quasisymmetric functions.*

In this talk we introduce a new basis for quasisymmetric functions that is obtained from a specialization of nonsymmetric Macdonald polynomials. We call this basis the basis of Schur quasisymmetric functions since the elements of the basis partition Schur functions in a natural way. Furthermore, we shall show how these Schur quasisymmetric functions exhibit a Pieri rule that reduces to the usual Pieri rule for symmetric functions, in addition to describing other combinatorial properties discovered to date. (Received March 06, 2008)