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Leibniz  
Universität  
Hannover

# Oberseminar zur Algebra und Algebraischen Kombinatorik

Prof. Dr. Steph van Willigenburg  
(UBC, Vancouver)

## „Pieri rules for skew quasisymmetric Schur functions“

Quasisymmetric Schur functions form a basis for the algebra of quasisymmetric functions, and refine the renowned Schur functions in a natural way. So far they not only have been related to other areas such as the representation of the 0-Hecke algebra and the theory of diagonal harmonics via their quasisymmetry, but also have exhibited numerous quasisymmetric analogues of classical Schur function properties, such as quasisymmetric Kostka numbers, quasisymmetric Pieri rules, and a quasisymmetric Littlewood–Richardson rule. Furthermore the quasisymmetric Littlewood–Richardson rule gives rise to quasisymmetric skew Schur functions, special cases of which include quasisymmetric Schur functions, plus the classical Schur functions and skew Schur functions.

In this talk, using the box removing operators on composition diagrams, we will describe Pieri rules for skew quasisymmetric Schur functions, which contain the Pieri rules for quasisymmetric Schur functions of Haglund et al, the classical Pieri rules for Schur functions, and the Pieri rules for skew shapes of Assaf–McNamara as special cases.

This is joint work with Vasu Tewari.

**Donnerstag, 17.12.2015**  
**ab 13:00 Uhr, Raum g117**  
Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

Institut für Algebra, Zahlentheorie  
und Diskrete Mathematik