Hook formulas for skew shapes (extended abstract)

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Abstract

The celebrated hook-length formula gives a product formula for the number of standard Young tableaux of a straight shape. In 2014, Naruse announced a more general formula for the number of standard Young tableaux of skew shapes as a positive sum over excited diagrams of products of hook-lengths. We give two q-analogues of Naruse's formula for the skew Schur functions and for counting reverse plane partitions of skew shapes. We also apply our results to border strip shapes and their generalizations.

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