1078-05-221 Greta Panova* (panova@math.ucla.edu). Tableaux and plane partitions of truncated shapes.
We consider a new kind of straight and shifted plane partitions/Young tableaux - ones whose diagrams are no longer of partition shape, but rather Young diagrams with boxes erased from their upper right ends. We find formulas for the number of standard tableaux in certain cases, namely a shifted staircase without the box in its upper right corner, i.e. truncated by a box, a rectangle truncated by a staircase and a rectangle truncated by a square minus a box. The proofs involve finding the generating function of the corresponding plane partitions using interpretations and formulas for sums of restricted Schur functions and their specializations. The number of standard tableaux is then found as a certain limit of this function. The techniques use, among others, polytope volumes, complex integration and RSK. (Received December 09, 2011)

