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*Transpositions on  $m$ -level rook placements.*

Briggs and Remmel developed a generalization of rook placements, called  $m$ -level rook placements. Transpositions play a key role in Foata and Schützenberger’s construction of explicit bijections between rook placements on rook equivalent Ferrers boards. We define an analogue of transposition, called the  $l$ -operator, which fulfills the same role, allowing us to give explicit bijections between  $m$ -level rook placements on  $m$ -level rook equivalent Ferrers boards. Furthermore, using the  $l$ -operator leads to an elegant factorization of the  $m$ -level rook polynomial of a Ferrers board, along the lines of the factorizations given by Goldman, Joichi, and White for the rook polynomial of a Ferrers board or by Briggs and Remmel for the  $m$ -level rook polynomial of a singleton board. (Received January 19, 2015)