

Permutation Tableaux and the Dashed Permutation Pattern $32-1$

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Abstract: We give a solution to a problem posed by Corteel and Nadeau concerning permutation tableaux of length n and the number of occurrences of the dashed pattern $32-1$ in permutations on $[n]$. We introduce the inversion number of a permutation tableau. For a permutation tableau T and the permutation π obtained from T by the bijection of Corteel and Nadeau, we show that the inversion number of T equals the number of occurrences of the dashed pattern $32-1$ in the reverse complement of π . We also show that permutation tableaux without inversions coincide with L-Bell tableaux introduced by Corteel and Nadeau.

AMS Classification: 05A05, 05A19

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