

Graphical Transpositions

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A transposition can be simply understood as swapping two entries of a permutation written in one-line notation. If, instead, we consider the inversion graph of a permutation, a transposition can be viewed as the application of some graph operation. We investigate this operation and generalize it to the setting of arbitrary simple graphs. We then look to answer questions concerning the minimum number of these operations required to empty a graph of all its edges, the analog of absolute length in permutations.