

Consecutive Ones Problems

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Abstract: The standard Consecutive Ones Problem is the problem of converting a given 0/1-matrix by column permutations to a matrix having the consecutive ones property for rows, i.e., in every row all 1 entries occur consecutively. We consider the Weighted Consecutive Ones Problem and its solution with a branch-and-cut algorithm. Furthermore we address some complexity issues for a fixed number of rows or columns and also the extension where matrices have to be found which have the consecutive ones property simultaneously for rows as well as for columns. Possible applications are discussed.

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