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Solving the Task Assignment Problem with a Variable Neighborhood Search

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Abstract:

In this paper a variable neighborhood search (VNS) approach for the task assignment problem (TAP) is considered. An appropriate neighborhood scheme along with a shaking operator and local search procedure are constructed specifically for this problem. The computational results are presented for the instances from the literature, and compared to optimal solutions obtained by the CPLEX solver and heuristic solutions generated by the genetic algorithm. It can be seen that the proposed VNS approach reaches all optimal solutions in a quite short amount of computational time.

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