

Review of: "Solving Pallet loading Problem with Real-World Constraints"

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The studied Pallet Loading Problem is NP-hard, as also stated by the authors, and in such a case it is common to use heuristic methods for large instances of the problem, which although do not guarantee finding the optimal solution, but the obtained solution is a good approximation of the optimum. The survey of papers related to heuristics is very brief, completely lacking references to the use of modern heuristics such as genetic algorithms, simulated annealing, ant colony optimization, particle swarm optimization and differential evolution. With one exception, the literature used is more than 10 years old and should be supplemented with more recent sources.

The branch-and-bound method is one of the exact integer programming methods, but its use is limited to smaller problem instances in terms of computation time. For a particular problem, it is then necessary to determine when we can still obtain an exact solution in a reasonable amount of time. However, no computational results are given in this paper, so it is not possible to give limits when using the proposed branch and bound method.

Although the equations for determining the upper bounds in the branch-and-bound method are given in the text, the mathematical formulation of the problem - the objective function and the constraint conditions from which the representation of the problem could be derived for the calculation by heuristic methods - is completely missing.

Thus, the paper can be evaluated as incomplete and needs to be supplemented with newer approaches and computational results in order to be published.