

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

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Potential competing interests: No potential competing interests to declare.

The paper proposes a novel method for solving the pallet loading problem using a branch and bound algorithm and a heuristic procedure to generate the potential positions of transport units on the pallet.

The transport units have a rectangular prism shape, the pallet is rectangular, the packing is orthogonal, the loading order of transport units is partially predetermined, and only skipping of the transport units is allowed.

English language editing is needed. The paper should be written in correct scientific English and should be free of grammatical, spelling, and other common errors.

Example:

Abstract line 5: favorable instead of favourable

Introduction line 6: distributor's instead of distributors'

Introduction line 8: a rectangular instead of the rectangular

Introduction line 13: to instead of in order to

LITERATURE REVIEW line 4: remove the comma "demanding, and can"

LITERATURE REVIEW line 7: The stability instead of stability

LITERATURE REVIEW line 10: concerning instead of with respect to

LITERATURE REVIEW line 21: In [6], a two-level tabu

LITERATURE REVIEW line 29: a mixed-integer linear programming problem is given in [9],

METHOD FOR SOLVING PALLET LOADING PROBLEM line 29: Analogously instead of the analogous manner

Page 4 line 21 favorable instead of favourable

Page 4 line 38 these conditions instead of this conditions

Conclusion: line 1 have instead of has

Conclusion line 3 favoring instead of favouring

Conclusion line 7 enhance logistics instead of enhance the logistics

Page 1 **the title of the article is not suitable**

I suggest :” A branch and bound algorithm for solving the pallet loading problem with Real-World Constraints”

Page 1: In the Abstract authors must mention the effectiveness and the performance of the used method to find good results.

Page 1: At the end of the introduction you must define the existing sections example:

The remainder of this paper is structured as follows. In Section 2, the problem statement and modeling is explained. Then, in Section 3.....

Introduction must include the objective of the article,

Authors used branch and bound algorithm to solve the problem, how do you justify your choice of this exact method?

Page 2 ;

LITERATURE REVIEW :

the references are insufficient and not recent

I suggest the following recent references:

Almasarwah, N., Abdelall, E., Suer, G., Egilmez, G., Singh, M., & Ramadan, S. (2023). Pallet loading optimization considering storage time and relative humidity. *Journal of Industrial Engineering and Management*, 16(2), 453-471.

Burduk, A., Balashov, A., Lapczyńska, D., & Musial, K. (2022, May). The pallet-loading problem solution with the use of heuristic algorithms. In *Journal of Physics: Conference Series* (Vol. 2198, No. 1, p. 012063). IOP Publishing.

Authors must cite all the reference example Burduk et al. (2023) and not in [7]

Cargo rotation and orientation constraints are not considered!!

I suggest considering the unloading phase also.

Page 5 : I suggest adding an algorithm or a general flowchart that explains all the proposed approaches.

in Section 4: Computational experiments: an important section is missing!!!!!!!

1. A table of Meta-tuning of the proposed Algorithm must be included.

How did you choose the parameters rate ?? It should be useful if the author gives more details about the parameter

setting.

2. I suggest using instances of literature or real cases to generate results with the proposed method

3. Your results must be compared with the existing results of the literature to improve the effectiveness of the used algorithm.

The conclusion is not well structured, it needs to be reworded, corrected, and restructured with more explanatory information,

Supply chain management, Logistic management

Pilgrimage, Saudi Arabia case study, Time Tabling, vehicle scheduling