

The Carry Over Effect in Round Robin Tournaments : An Exploration of Optimization Strategies

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ERRATA

**THE CARRY OVER EFFECT IN ROUND ROBIN
TOURNAMENTS :
AN EXPLORATION OF OPTIMIZATION
STRATEGIES**

JURY :
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Master thesis by
Marion HEINE
For a Master's degree in
Business Engineering with a
specialization in Supply Chain
Management and Business
Analytics
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- Cover page: the HEC Liège logo is missing above the title.
- For the entire document, consider no space before the colon mark “:” or semicolon “;”.
- Page ii (I. Acknowledgements): the text should be justified.
- Page ii (I. Acknowledgements, third line): read “First of all” instead of “First off all”.
- Page 1 (1. Introduction, in the second paragraph): read “NP problems” instead of “The set of NP problems”. Also, read “to solve that kind of problems” instead of “that solves the problem”.
- Page 2 (1.2 Research objectives, last sentence of second paragraph): read “do not” instead of “don’t”.
- Page 4 (2.2.1 Carry Over Effect, in the second paragraph): read “the obtained schedules in order to minimize” instead of “the obtained schedules, in order to minimize”
- Page 4 (2.2.1 Carry Over Effect, at the end of the third paragraph): read “best known value for $n = 12$ on an unweighted instance.” instead of “best known value for $n = 12.$ ”
- Page 11 (3.1 Context): read “the methodology consists in” instead of “the methodology consist in”.
- Page 20 (below Table 3, first sentence): read “As can be seen in **Table 3**, the use of symmetry breaking constraints (16) and (17) leads to a reduction in the running time except for constraint (17) when comparing the time to reach a COE value of 126 (which is the best value I could obtain for $n = 10$ during my trials).” instead of “As can be seen in **Table 3**, the use of symmetry breaking constraints (16) and (17) leads to a reduction in the running time when comparing the time to reach a COE value of 126 (which is the best value I could obtain for $n=10$ during my trials).
- Page 20 (3.5 Conclusions on results): read “As I do not have” instead of “As I don’t have”. Also read “fade” instead of “fades”.
- Page 24 (below **Parameters**:): read “Weights : $Wei_{i,j}$ = random value” instead of “Weights : $Wei_{i,j}$ = random value*”.
- Pages 31 to 35 (legends of the figures): read “Figure 3 - ”, “Figure 4 - ”, “Figure 5 - ”, “Figure 6 - ”, “Figure 7 - ”, “Figure 8 - ”, “Figure 9 - ”, “Figure 10 - ”, “Figure 11 - ” instead of “Figure X.1 - ”, “Figure X.2 - ”, “Figure X.3 - ”, “Figure X.4 - ”, “Figure X.5 - ”, “Figure X.6 - ”, “Figure X.7 - ”, “Figure X.8 - ”, “Figure X.9 - ”.
- Page 37: read “**Table 4**” instead of “Table 4”.
- Page 36, 37: consider no space break between “time limit as the one specified in” (p.35) and “**Table 4** is applied.”(p.36).
- Page 38 (fifth element of the list): read “This is the maximum number” instead of “Maximum number”.
- Page 41: read “**Table 4**” instead of “Table 4”.
- Page 40, 41: consider no space break between “solutions are consistent with” (p.40) and “**Table 4.**”(p.41).
- Page 42: (paragraph below **Table 6**): read “Results confirm that keeping the three types of weights matrices to generate the initial solutions was not a bad decision. The three of them resulted in a best final solution for at least one instance size. The best solution found for $n = 10$, a COE value of 108, corresponds to the best mentioned so far in the literature. The other solutions are not so good, except for $n = 14$, the COE value of 254 matches the one found by Guedes and Ribeiro with their hybrid ILS using the GR neighborhood on the unweighted instances. However, note that they subsequently managed to improve this result by ten points using their ILS with destruction neighborhoods, at the cost of a larger computation time though. Major part of the total running time for the results in the above table is because of the solver. Especially for $n = 20$ and 24 , for which the running time is way longer than for $n < 20.$ ” instead of “Results confirm that keeping the three types of weights matrices to generate the initial solutions was not a bad decision. The best solution found for $n = 10$, 108, corresponds to the best mentioned so far in the literature. The other solutions are not so good but they are still close to the ones obtained by Guedes and Ribeiro (2011), for $n = 10, ..., 16$. In

particular, for $n = 10$ and 14 , the best solutions found match theirs on the unweighted instances. Major part of the total running time is because of the solver. Especially for $n = 20$ and 24 , for which the running time is way longer than for $n < 20$."

- Page 42 (second paragraph): read "Results are satisfying for some instance sizes ($n = 10, 14$) when comparing" instead of "Results are satisfying when comparing".