ERRATUM

Erratum to: A survey on offline scheduling with rejection

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Below, we list four oversights that were found in our paper.

1. The result appearing in Theorem 8 (page 10) was presented earlier (in a slightly different form) by Koulamas (2011). We overlooked this result, and want to give him the proper credit for it.
2. On page 4, we include the following statement: “if F_1 is indeed the dominant criterion then using the lexicographical approach will yield a non-balanced solution for which $A = \emptyset$ and $\bar{A} = J$.” However, this is not always the case. Consider, for example, an instance of the $1|rej|\epsilon(F_1, RC)$ problem with $F_1 \in \{T_{\max}, \Sigma T_j, \Sigma U_j\}$, where it is possible to schedule the entire set of jobs (J) such that all jobs are non-tardy, i.e., such that $T_{\max} = 0$. For such an instance, using the lexicographical approach with F_1 being the dominant criterion will yield a solution in which $A = J$ and $\bar{A} = \emptyset$, thereby contradicting our statement.
3. The value of the positional penalty for $\delta_1 \sum \sum |W_i - W_j| + \delta_2 \sum W_j$ in Table 4 (page 14) should be replaced by $\xi_j(k) = \delta_1(j-1)(k-j+1) + \delta_2(j-1)$.

4. On page 16, we mention that Steiner and Zhang (2011) present a pseudo-polynomial time optimization algorithm to solve the $1|rej|\sum_{j \in A} T_j + RC$ problem in $O(n^4(\sum_{j=1}^n p_j)^3)$ time, which further implies that this algorithm can serve as an $O(n^7)$ time algorithm to solve the special case of equal processing times. However, we failed to observe that Steiner and Zhang provided a faster $O(n^2)$ time optimization algorithm to solve this special case.

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References

- Koulamas, C. (2011). A unified solution approach for the due date assignment problem with tardy jobs. *International Journal of Production Economics*, 132, 292–295.
- Steiner, G., & Zhang, R. (2011). Revised delivery-time quotation in scheduling with tardiness penalties. *Operations Research*, 59, 1504–1511.

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