Competitive two-agent scheduling with deteriorating jobs on a single parallel-batching machine

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Highlights

- We study two-agent scheduling on a single batching machine with deteriorating jobs and release dates.
- We optimize one objective while ensuring the other objective under a fixed value.
- For the unbounded case, optimal algorithms are developed for the problems with identical release dates.
- For the bounded case, NP-hardness is proved for different problems.
- Several special cases of these NP-hard problems are analyzed, and optimal algorithms are developed for solving them, respectively.