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## Conclusion and future work

Our code loses to Biq Mac Solver for big instances, in a single core environment, as it was expected due to the high number of nodes. But since we generate a very high number of nodes, it should run quickly in a parallel environment.

Possible directions of research includes:

- What can be done using different linear functions in 5.1 and 5.2? One such example would be  $(0, ..., 0, 1, 0, ..., 0, 1, 0, ..., 0) = e_{ij}$ , which combines the value of two different variables.
- What is the best vector set  $\Lambda$  to use?
- How to adapt this approach to other unconstrained binary convex programming?
- Can we assure the quality of the solution, both for the greedy heuristics and for the exact method?