8 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 \((0, \ldots, 0, 1, 0, \ldots, 0, 1, 0, \ldots, 0) = e_{ij}\), 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?