

# GSEE Benchmark Standard Report

Report created on 2024-12-18-12-11

<https://github.com/isi-usc-edu/qb-gsee-benchmark>

Input data: aggregated\_solver\_labels\_2024-12-18-10-18.csv, last modified Wed Dec 18 11:19:33 2024

Input data: Hamiltonian\_features.csv, last modified Mon Dec 16 09:53:12 2024

WARNING! We only have features calculated for 229/230 Hamiltonians. This report is based on partial results!

## Problem Instance Summary Statistics

number of problem\_instances: 82

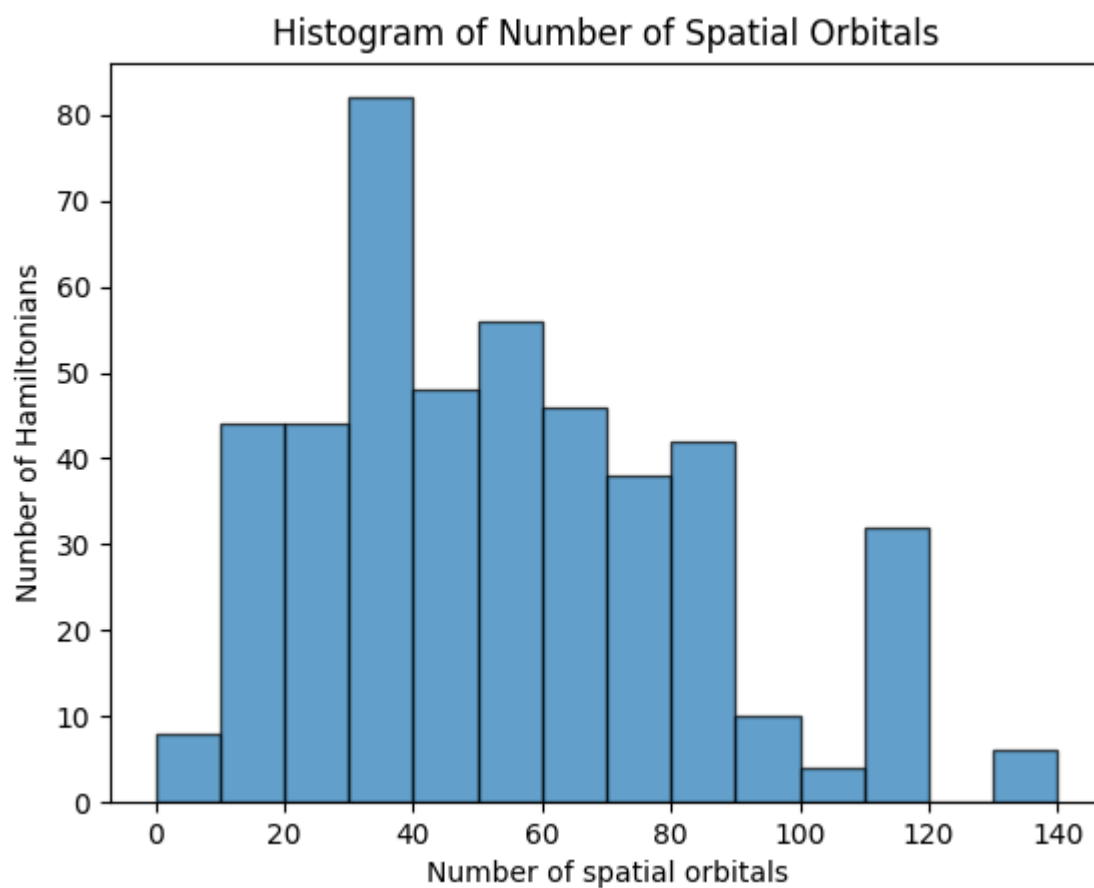
problem\_instance.json with the most tasks: 16 (mo\_n2\_pincer/8a3787cc-d3d0-42a8-d9a9-7de2aed45208)

number of Hamiltonians (i.e., tasks): 230

minimum number of orbitals: 6

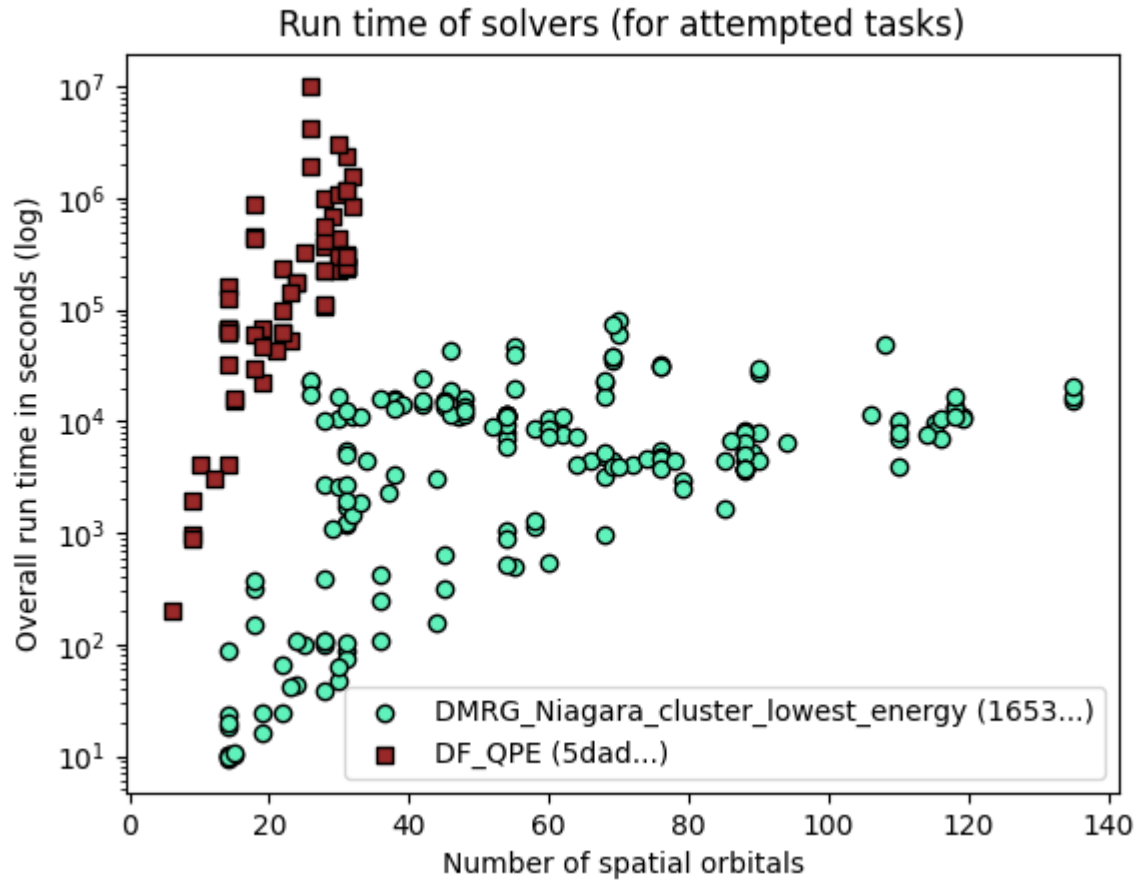
median number of orbitals: 53.5

maximum number of orbitals: 135



## Solver Summary Statistics

number of unique participating solvers: 2



**Solver DMRG\_Niagara\_cluster\_lowest\_energy,  
16537433-9f4c-4eae-a65d-787dc3b35b59**

solver\_short\_name: DMRG\_Niagara\_cluster\_lowest\_energy

performance\_metrics\_uuid: 9fa6c773-01b3-4723-afa0-5558e91fddaa

creation\_timestamp: 2024-12-18T15:38:21.126384+00:00

number\_of\_problem\_instances: 82

number\_of\_problem\_instances\_attempted: 76

number\_of\_problem\_instances\_solved: 43

number\_of\_tasks: 230

number\_of\_tasks\_attempted: 192

number\_of\_tasks\_solved: 142

number\_of\_tasks\_solved\_within\_run\_time\_limit: 192

number\_of\_tasks\_solved\_within\_accuracy\_threshold: 142

max\_run\_time\_of\_attempted\_tasks: 80820.729907066

sum\_of\_run\_time\_of\_attempted\_tasks: 1824772.0337238186

solvability\_ratio: 0.0

f1\_score: [0.7558139534883721, 0.8531468531468531]

ml\_metrics\_calculator\_version: 1

TODO: put some charts in here!

## **Solver DF\_QPE, 5dad4064-cd11-412f-85cb-d722afe3b3de**

solver\_short\_name: DF\_QPE

performance\_metrics\_uuid: e9459073-db4a-4ca5-a6c4-746a62762cb9

creation\_timestamp: 2024-12-18T15:38:21.799198+00:00

number\_of\_problem\_instances: 82

number\_of\_problem\_instances\_attempted: 9

number\_of\_problem\_instances\_solved: 3

number\_of\_tasks: 230

number\_of\_tasks\_attempted: 65

number\_of\_tasks\_solved: 26

number\_of\_tasks\_solved\_within\_run\_time\_limit: 26

number\_of\_tasks\_solved\_within\_accuracy\_threshold: 65

max\_run\_time\_of\_attempted\_tasks: 9900914.966049999

sum\_of\_run\_time\_of\_attempted\_tasks: 37957820.57215899

solvability\_ratio: 0.009

f1\_score: [0.995049504950495, 0.9629629629629629]

ml\_metrics\_calculator\_version: 1

TODO: put some charts in here!