

# GSEE Benchmark Standard Report

Report created on 2024-12-17-16-44

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

Input data: aggregated\_solver\_labels\_2024-12-10-07-10.csv, last modified Wed Dec 11 11:17:02 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

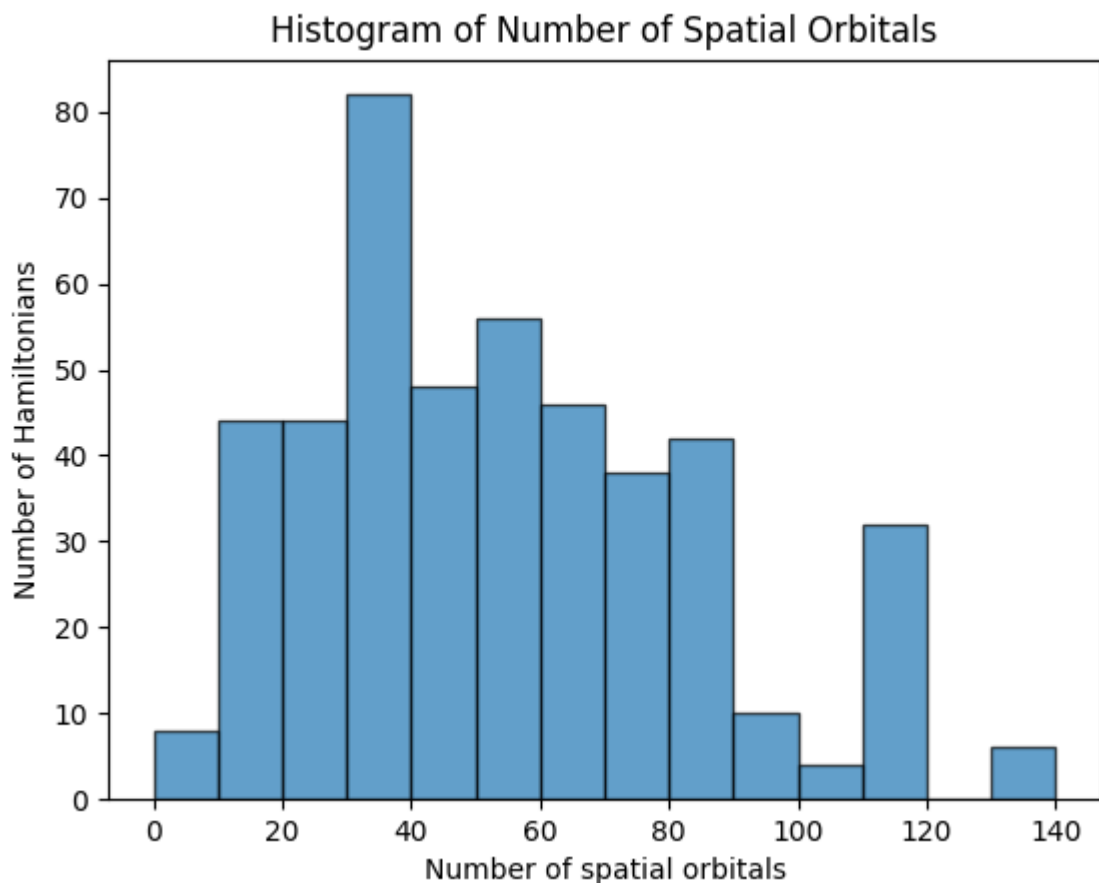
problem\_instance.json with the most tasks: 999999

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: 8297b0b2-d56c-4d49-98b4-b22f1caddbf2b

creation\_timestamp: 2024-12-10T12:17:57.033953Z

number\_of\_problem\_instances: 82

number\_of\_problem\_instances\_attempted: 82

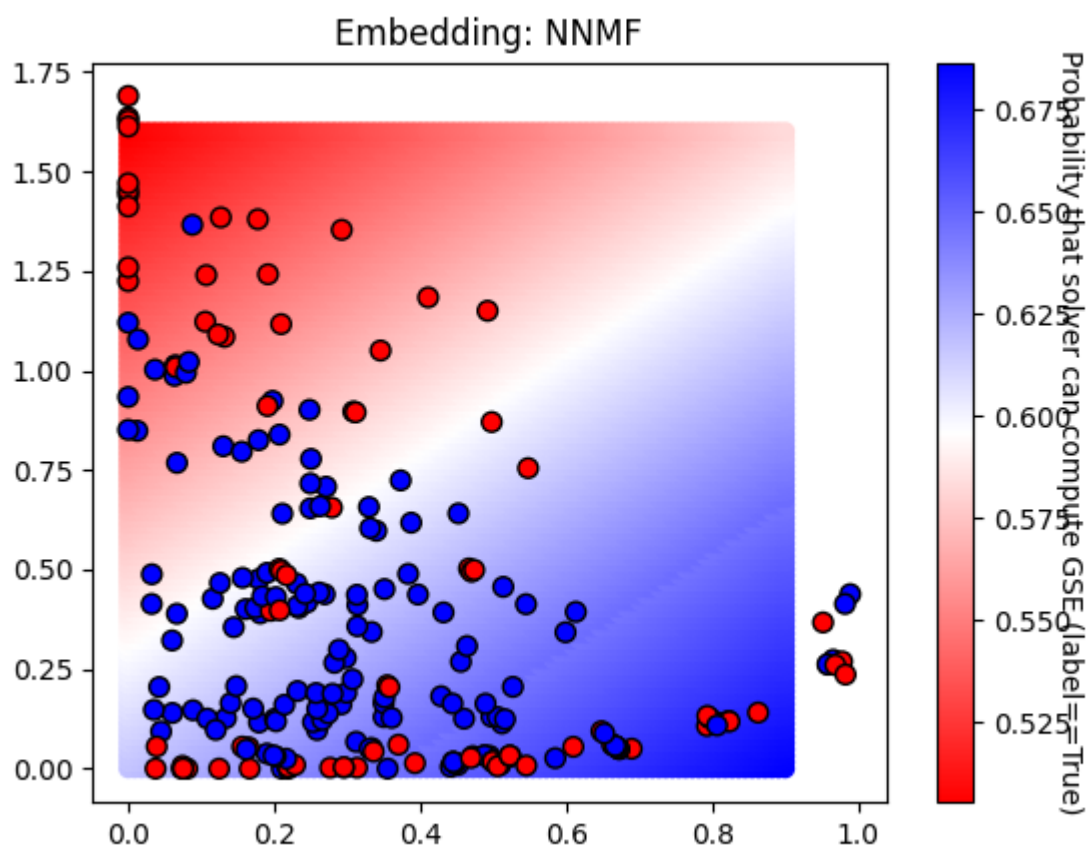
number\_of\_problem\_instances\_solved: 82

number\_of\_tasks: 230

number\_of\_tasks\_attempted: 230

number\_of\_tasks\_solved: 230

number\_of\_tasks\_solved\_within\_run\_time\_limit: 230  
number\_of\_tasks\_solved\_within\_accuracy\_threshold: 230  
max\_run\_time\_of\_attempted\_tasks: 80820.729907066  
sum\_of\_run\_time\_of\_attempted\_tasks: 1824772.0337238186  
solvability\_ratio: 0.7533  
f1\_score: [0.7638888888888888, 0.8776978417266187]  
ml\_metrics\_calculator\_version: 1



**Solver DF\_QPE, f2d73e1f-3058-43c4-a634-b6c267c84ff1**

solver\_short\_name: DF\_QPE  
performance\_metrics\_uuid: 32034c2e-2319-4da8-8d99-65d0a3807291  
creation\_timestamp: 2024-12-10T12:17:57.483531Z  
number\_of\_problem\_instances: 82  
number\_of\_problem\_instances\_attempted: 82

number\_of\_problem\_instances\_solved: 82

number\_of\_tasks: 230

number\_of\_tasks\_attempted: 230

number\_of\_tasks\_solved: 230

number\_of\_tasks\_solved\_within\_run\_time\_limit: 230

number\_of\_tasks\_solved\_within\_accuracy\_threshold: 230

max\_run\_time\_of\_attempted\_tasks: 696389950.5024

sum\_of\_run\_time\_of\_attempted\_tasks: 1091561520.6118402

solvability\_ratio: None

f1\_score: None

ml\_metrics\_calculator\_version: 1

