

ADAPT Confidence Campaign

Generated (UTC): 2026-02-21T18:57:16.720409+00:00

Scope:

Methods: exact, HF, hardcoded VQE, Qiskit VQE, ADAPT-UCCSD(adapt/fixed), ADAPT-CSE  
Sites: [2, 3]

Gates:

VQE: L2<=1.0e-08, L3<=1.0e-06  
ADAPT-UCCSD fixed: L2<=1.0e-08, L3<=1.0e-06  
ADAPT-UCCSD adapt: L2<=1.0e-07, L3<=1.0e-05  
ADAPT-CSE: gap\_closure>=0.90

Run caps:

per\_method\_max\_time\_s=20.0  
adapt\_trial\_max\_time\_s=5.0  
adapt\_fixed\_trial\_max\_time\_s=8.0

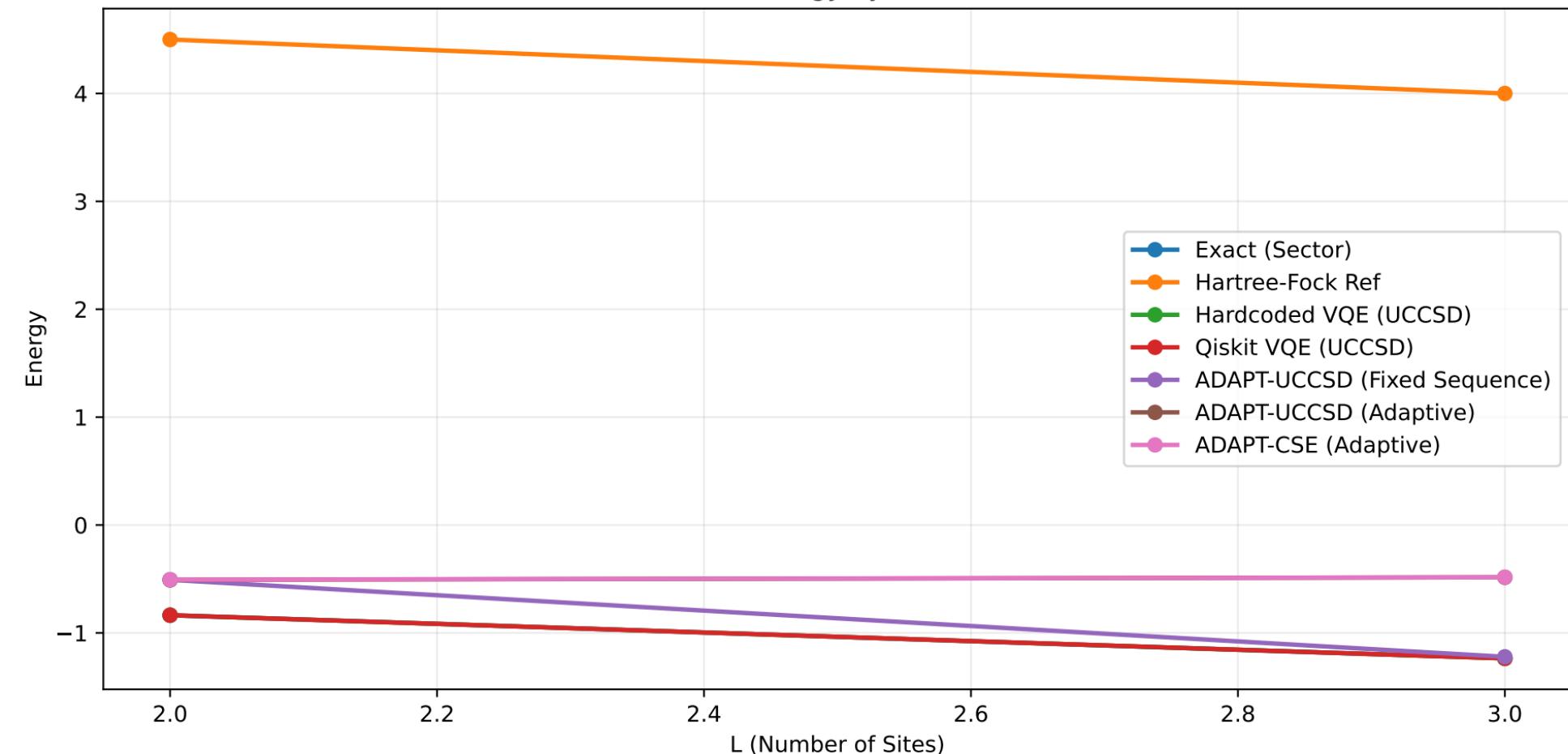
L=2 (n\_up=1, n\_down=1)

Exact=-0.836057118155	HF= 4.500000000000
Hardcoded VQE (UCCSD)	E=-0.836057110705  dE =7.450e-09 t=0.25s gate_pass=True
Qiskit VQE (UCCSD)	E=-0.836057117595  dE =5.600e-10 t=3.94s gate_pass=True
ADAPT-UCCSD (Fixed Sequence)	E=-0.507936507927  dE =3.281e-01 t=16.27s gate_pass=False
ADAPT-UCCSD (Adaptive)	E=-0.507936507935  dE =3.281e-01 t=6.43s gate_pass=False
ADAPT-CSE (Adaptive)	E=-0.506312970694  dE =3.297e-01 t=11.40s gate_pass=True

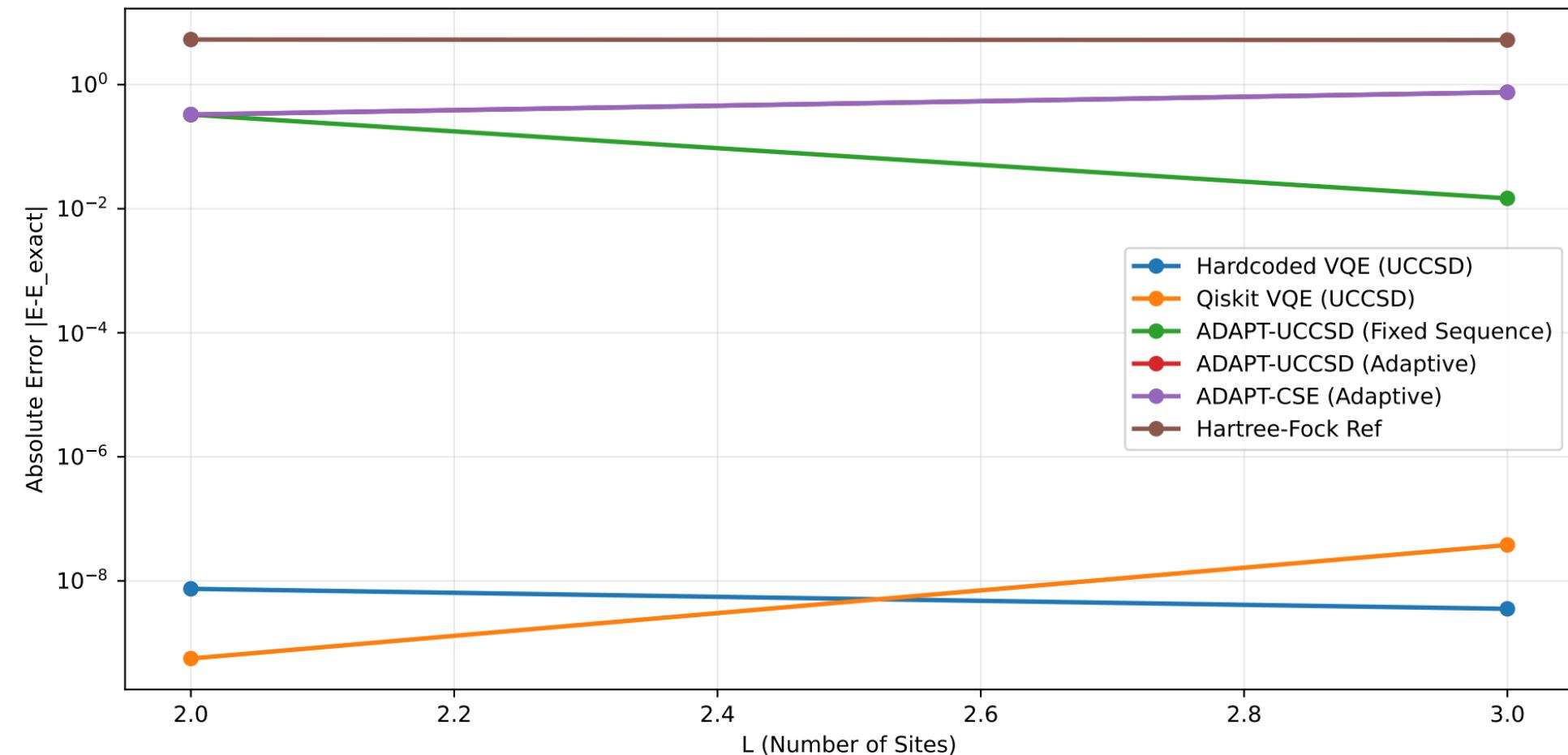
L=3 (n\_up=2, n\_down=1)

Exact=-1.236067977500	HF= 4.000000000000
Hardcoded VQE (UCCSD)	E=-1.236067973953  dE =3.547e-09 t=7.43s gate_pass=True
Qiskit VQE (UCCSD)	E=-1.236067939546  dE =3.795e-08 t=73.67s gate_pass=True
ADAPT-UCCSD (Fixed Sequence)	E=-1.221399776886  dE =1.467e-02 t=716.63s gate_pass=False
ADAPT-UCCSD (Adaptive)	E=-0.484435331766  dE =7.516e-01 t=6.76s gate_pass=False
ADAPT-CSE (Adaptive)	E=-0.484435331759  dE =7.516e-01 t=6.79s gate_pass=False

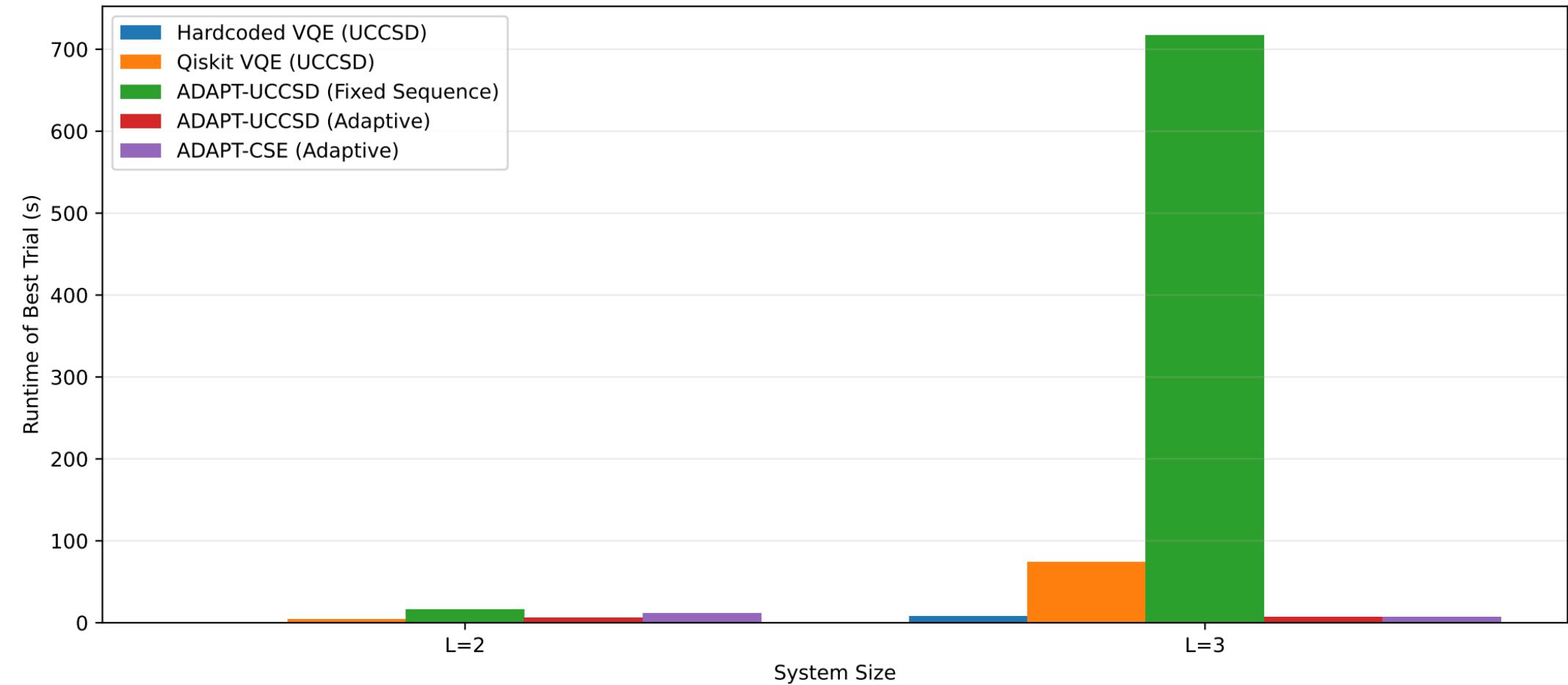
## Best Energy by Method



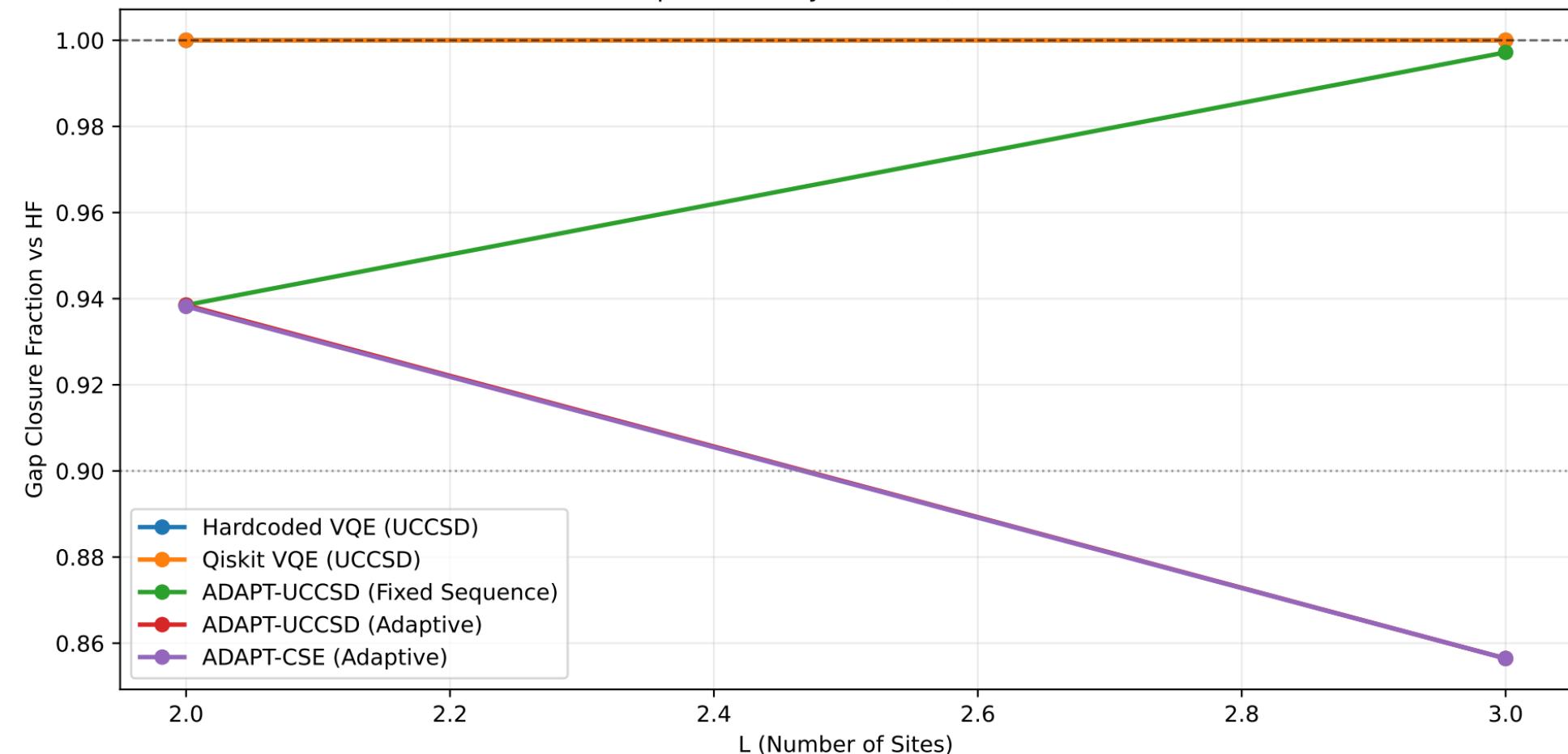
# Best Absolute Error vs Exact



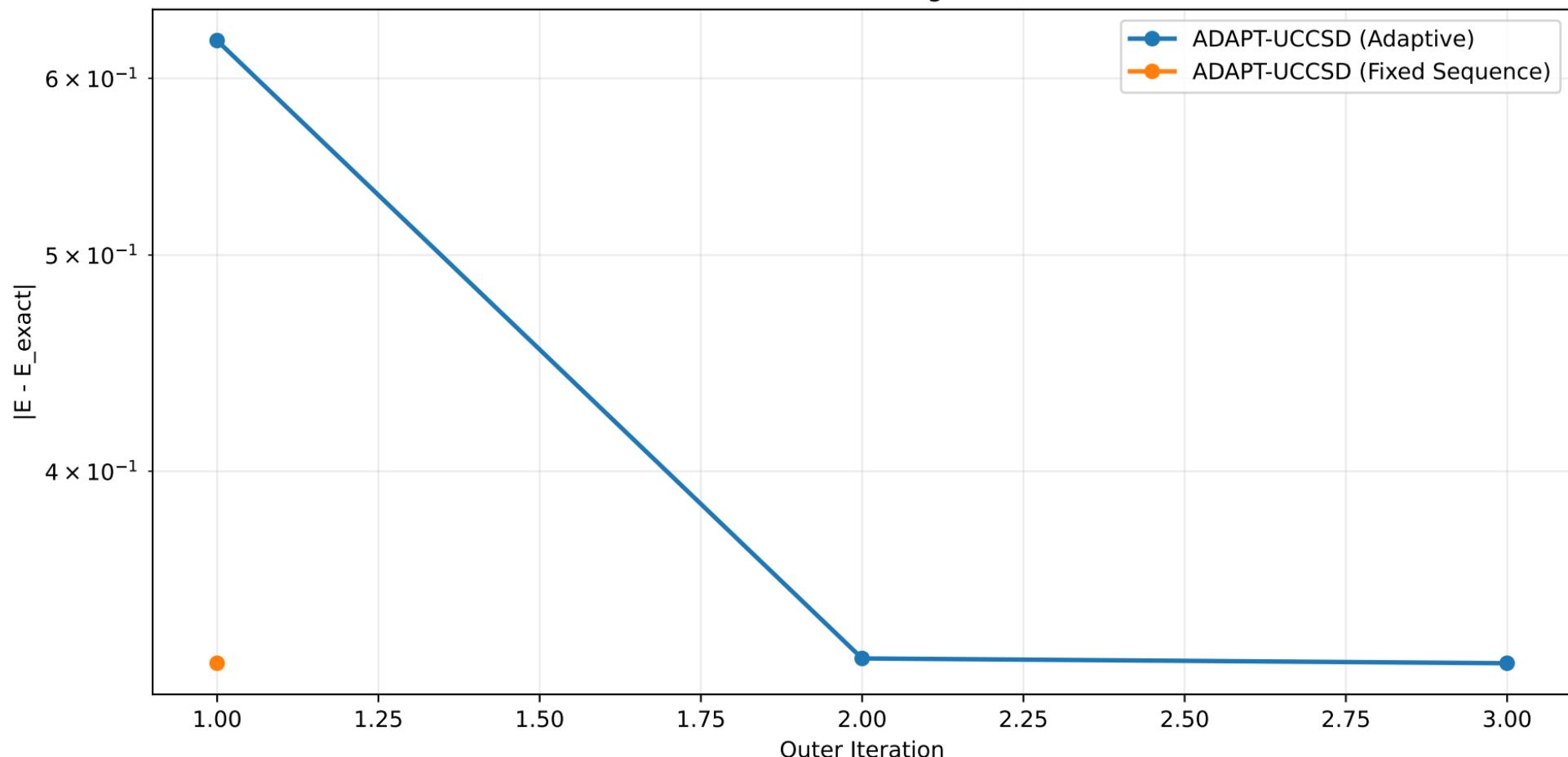
### Best-Trial Runtime by Method



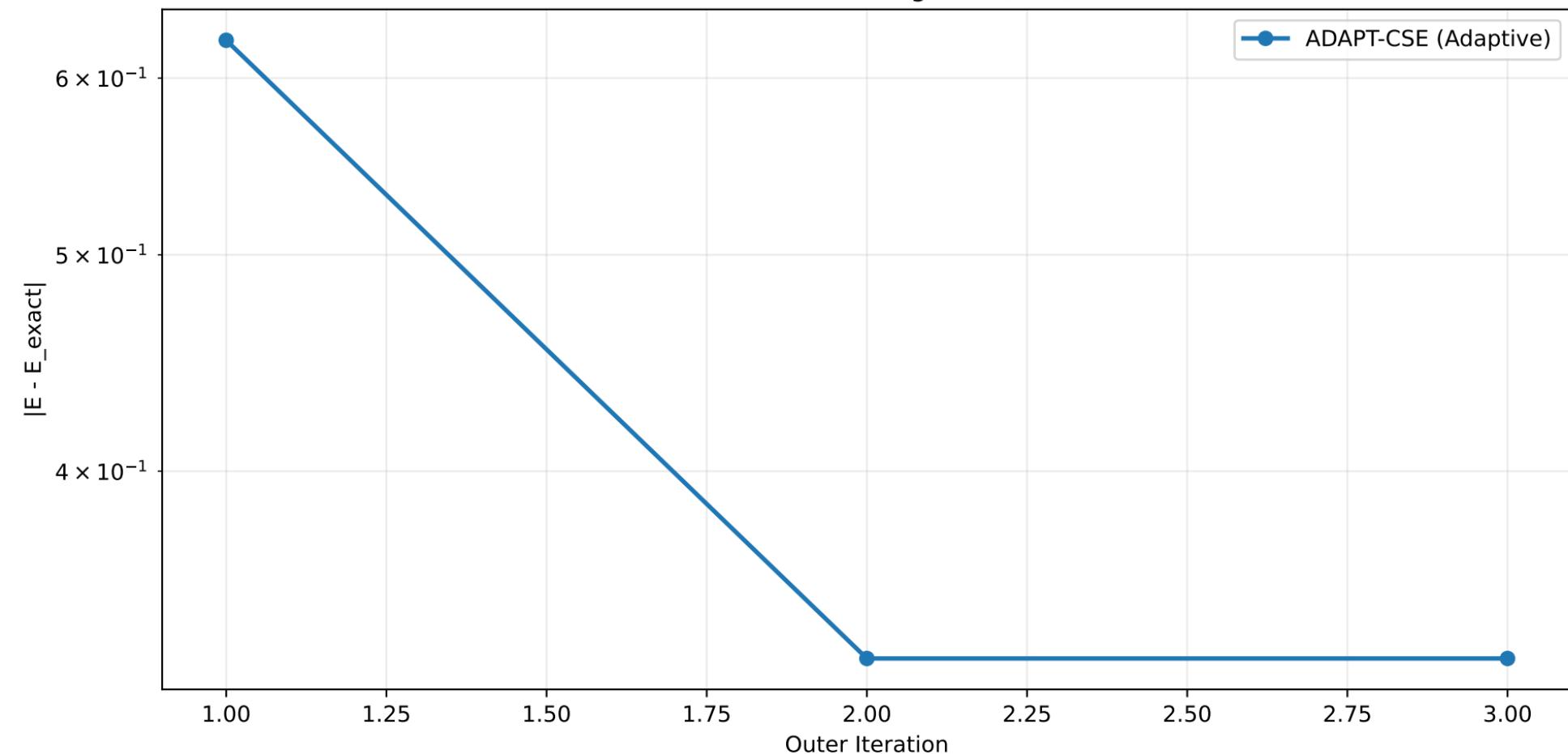
### HF Gap-Closure by Method (1.0 = exact)



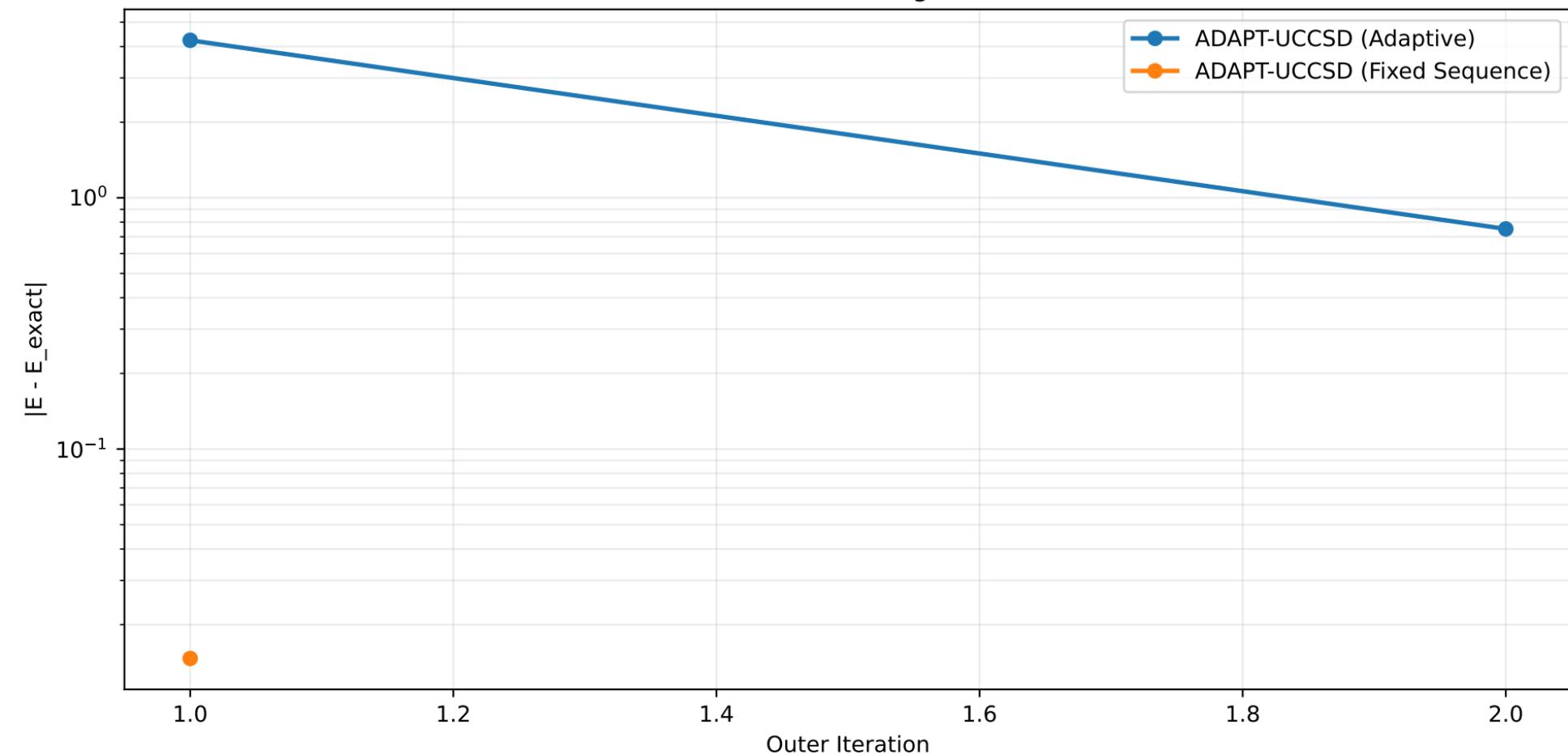
### ADAPT-UCCSD Convergence (L=2)



### ADAPT-CSE Convergence (L=2)



### ADAPT-UCCSD Convergence (L=3)



### ADAPT-CSE Convergence (L=3)

