

ADAPT Confidence Campaign

Generated (UTC): 2026-02-21T19:00:03.611458+00:00

Scope:

Methods: exact, HF, hardcoded VQE, Qiskit VQE, ADAPT-UCCSD(adapt/fixed), ADAPT-CSE

Sites: [2, 3]

Gates:

VQE: $L2 \leq 1.0e-08$, $L3 \leq 1.0e-06$

ADAPT-UCCSD fixed: $L2 \leq 1.0e-08$, $L3 \leq 1.0e-06$

ADAPT-UCCSD adapt: $L2 \leq 1.0e-07$, $L3 \leq 1.0e-05$

ADAPT-CSE: gap_closure ≥ 0.90

Run caps:

per_method_max_time_s=12.0

adapt_trial_max_time_s=2.0

adapt_fixed_trial_max_time_s=3.0

L=2 (n_up=1, n_down=1)

Exact=-0.836057118155 HF= 4.500000000000

Hardcoded VQE (UCCSD)	E=-0.836057054830	dE =6.333e-08	t=0.10s	gate_pass=False
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Qiskit VQE (UCCSD)	E=-0.836057117595	dE =5.600e-10	t=4.96s	gate_pass=True
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ADAPT-UCCSD (Fixed Sequence)	E=-0.020821263064	dE =8.152e-01	t=6.24s	gate_pass=False
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ADAPT-UCCSD (Adaptive)	E=-0.506312970694	dE =3.297e-01	t=5.51s	gate_pass=False
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ADAPT-CSE (Adaptive)	E=-0.506312970694	dE =3.297e-01	t=5.17s	gate_pass=True
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L=3 (n_up=2, n_down=1)

Exact=-1.236067977500 HF= 4.000000000000

Hardcoded VQE (UCCSD)	E=-1.236067844029	dE =1.335e-07	t=4.61s	gate_pass=True
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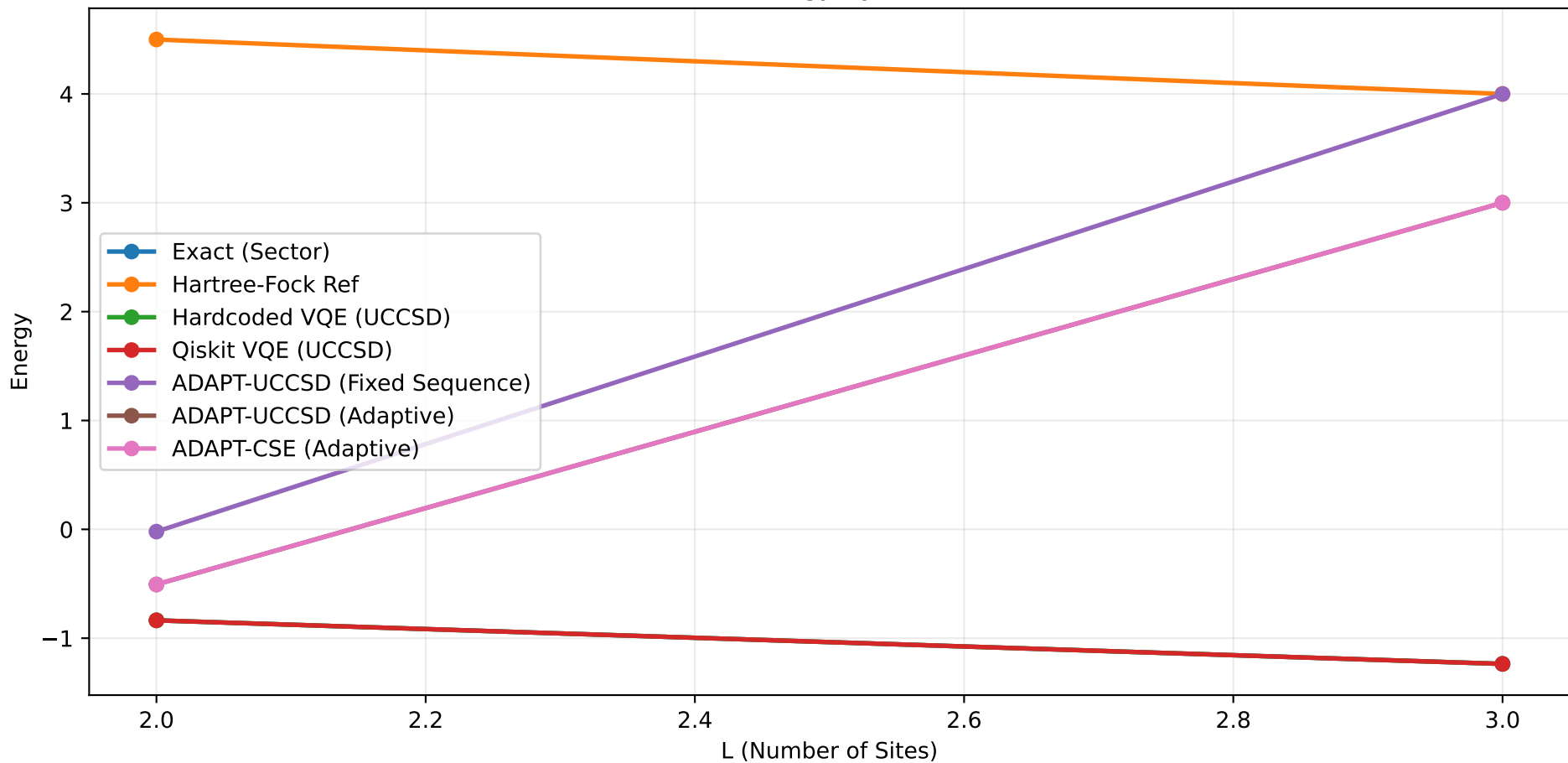
Qiskit VQE (UCCSD)	E=-1.236067939546	dE =3.795e-08	t=84.09s	gate_pass=True
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ADAPT-UCCSD (Fixed Sequence)	E= 4.000000000000	dE =5.236e+00	t=5.92s	gate_pass=False
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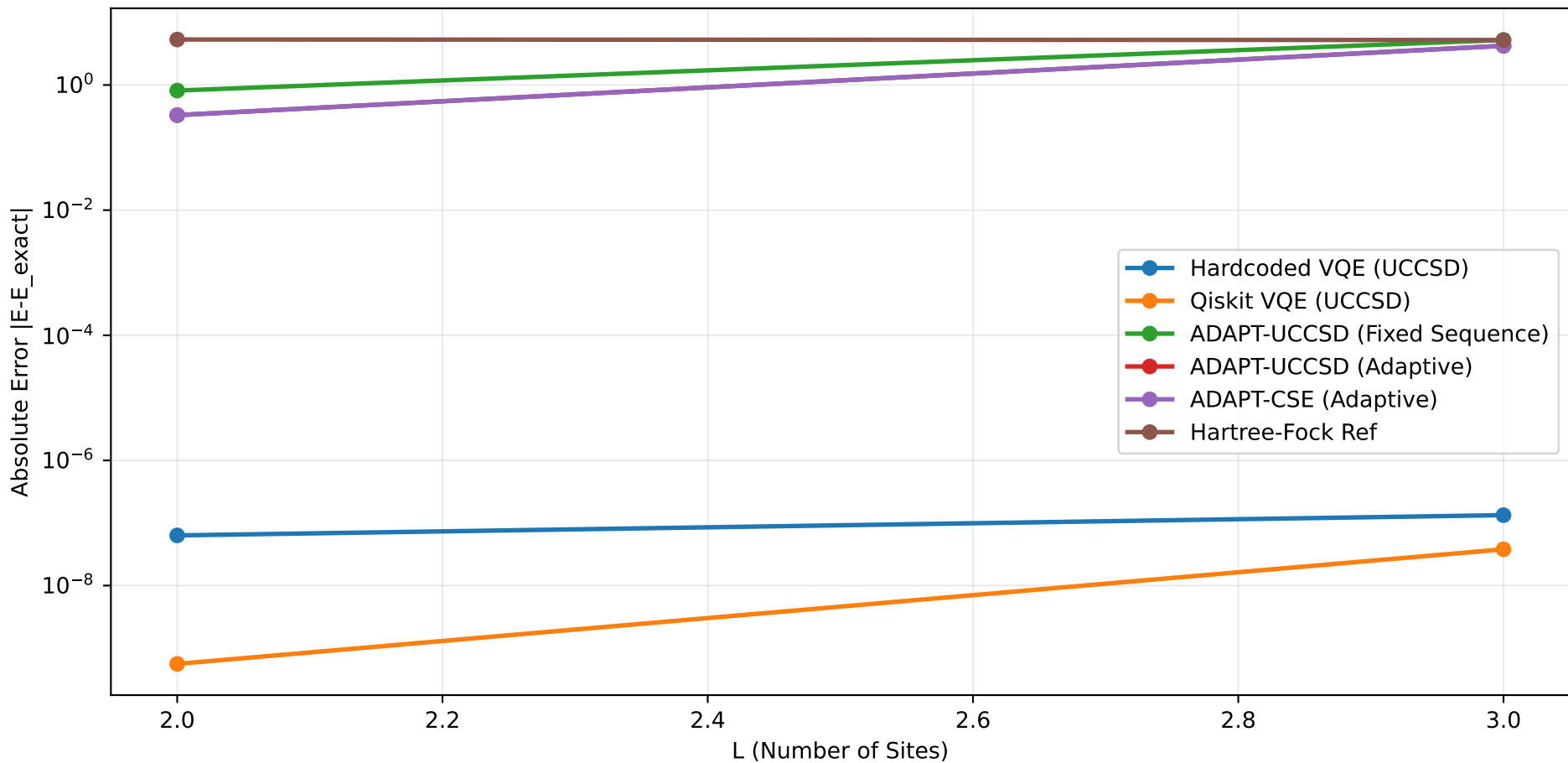
ADAPT-UCCSD (Adaptive)	E= 3.000000000000	dE =4.236e+00	t=2.05s	gate_pass=False
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ADAPT-CSE (Adaptive)	E= 3.000000000000	dE =4.236e+00	t=1.76s	gate_pass=False
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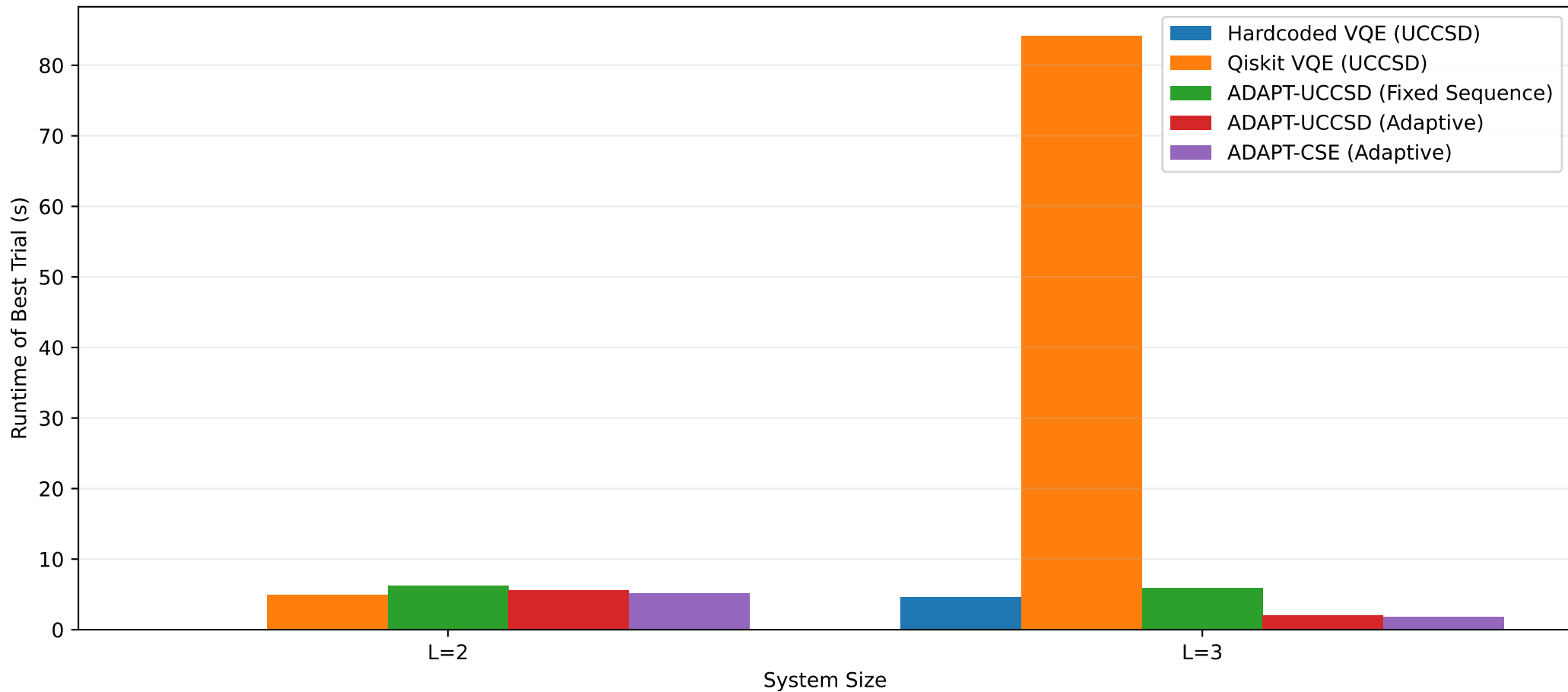
Best Energy by Method



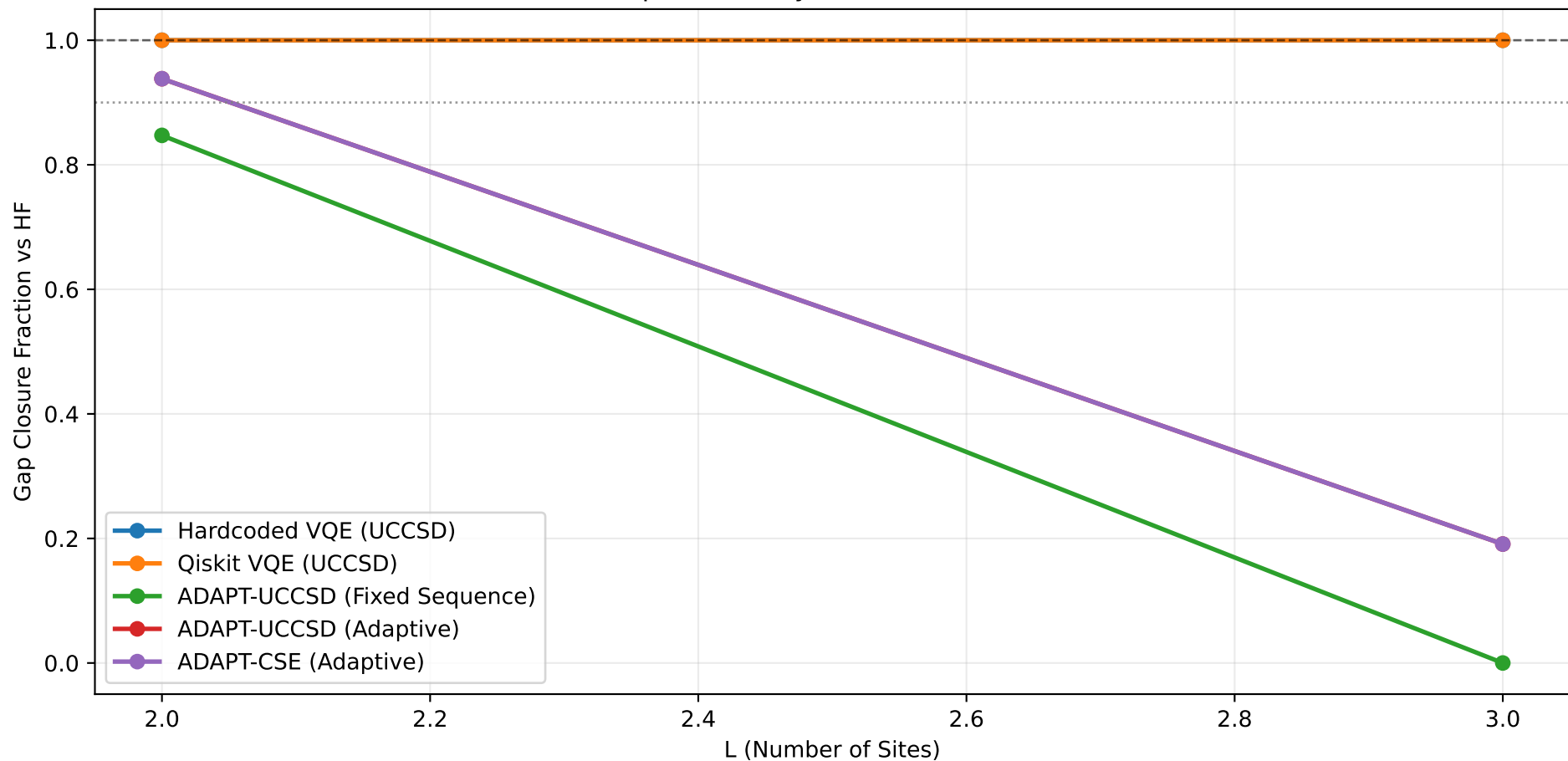
Best Absolute Error vs Exact



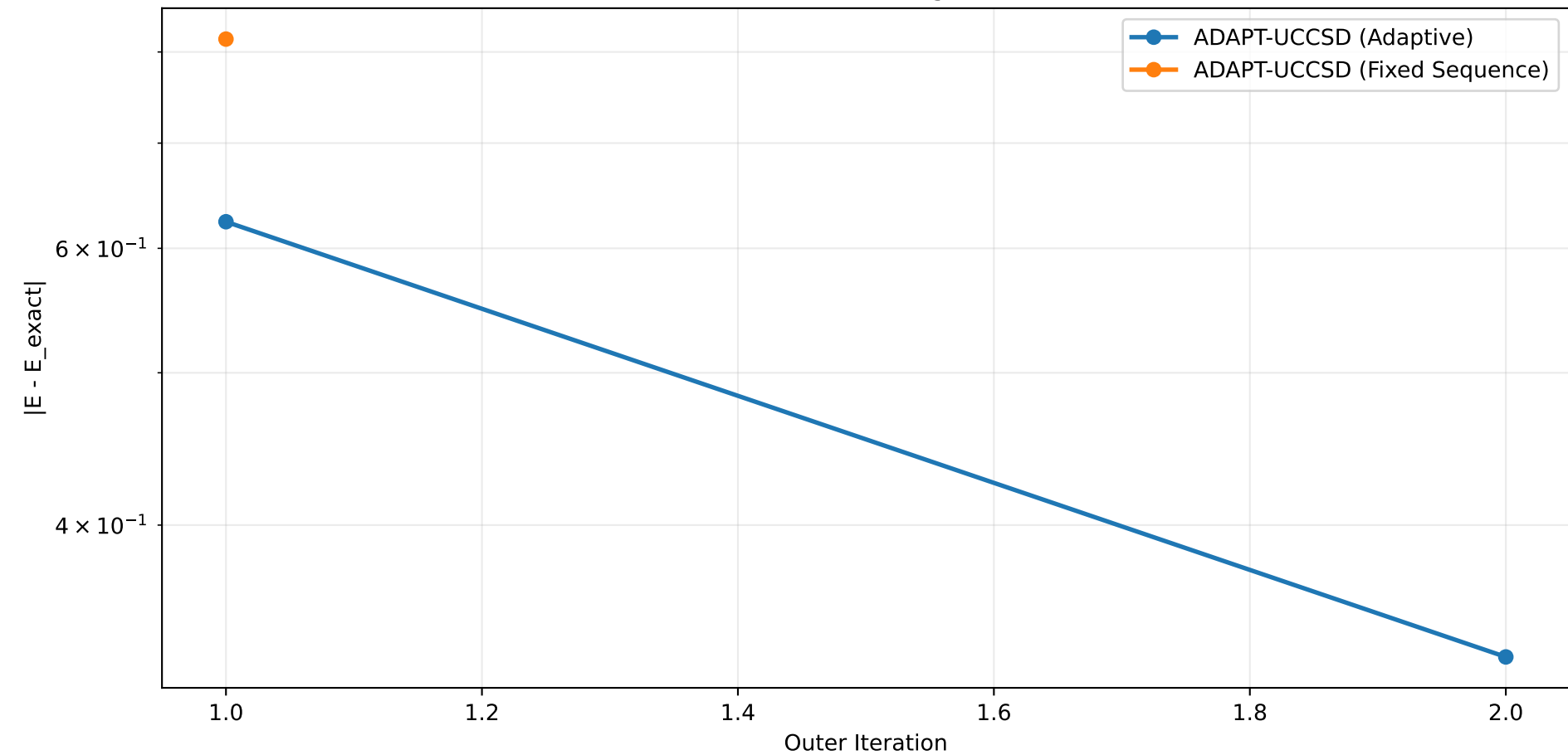
Best-Trial Runtime by Method



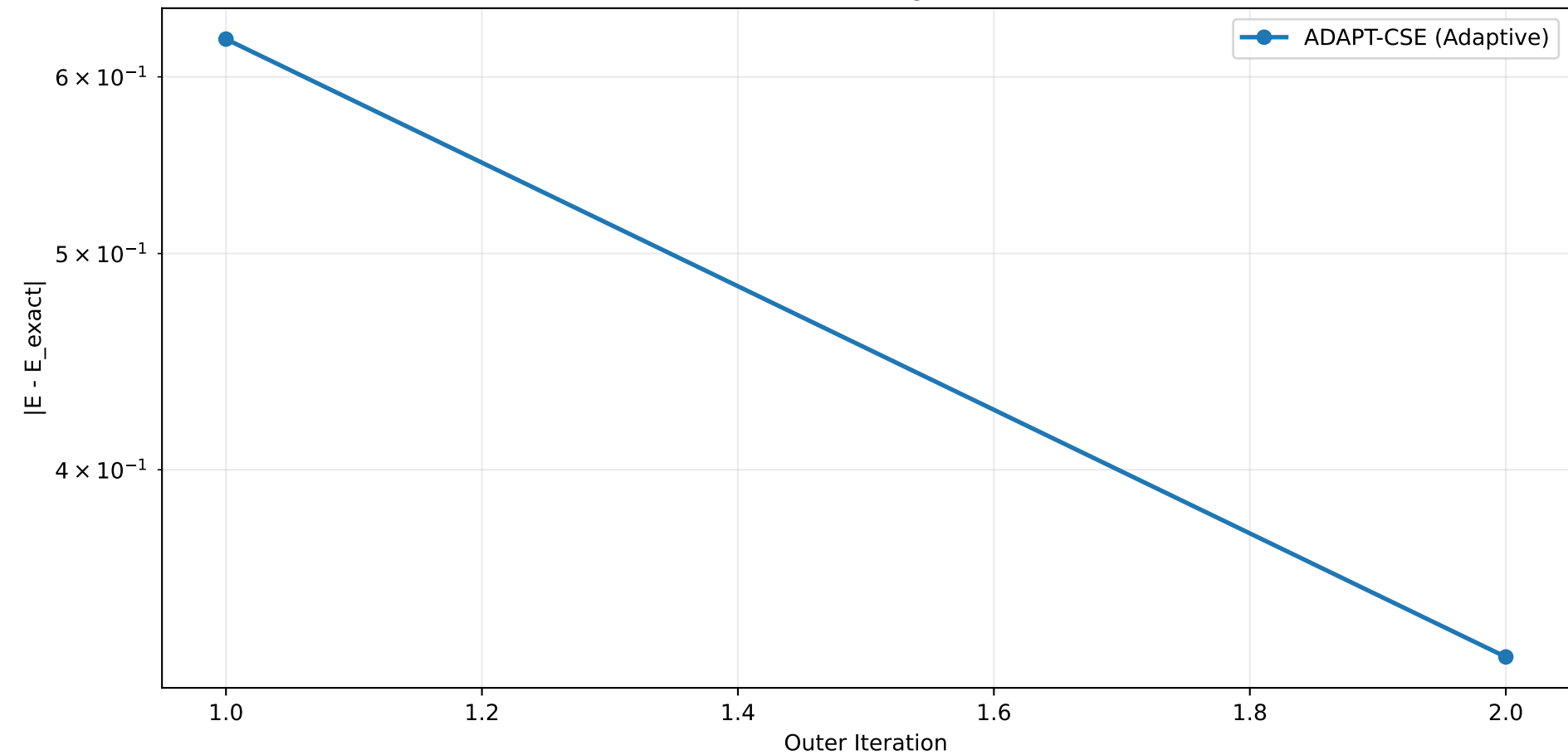
HF Gap-Closure by Method (1.0 = exact)



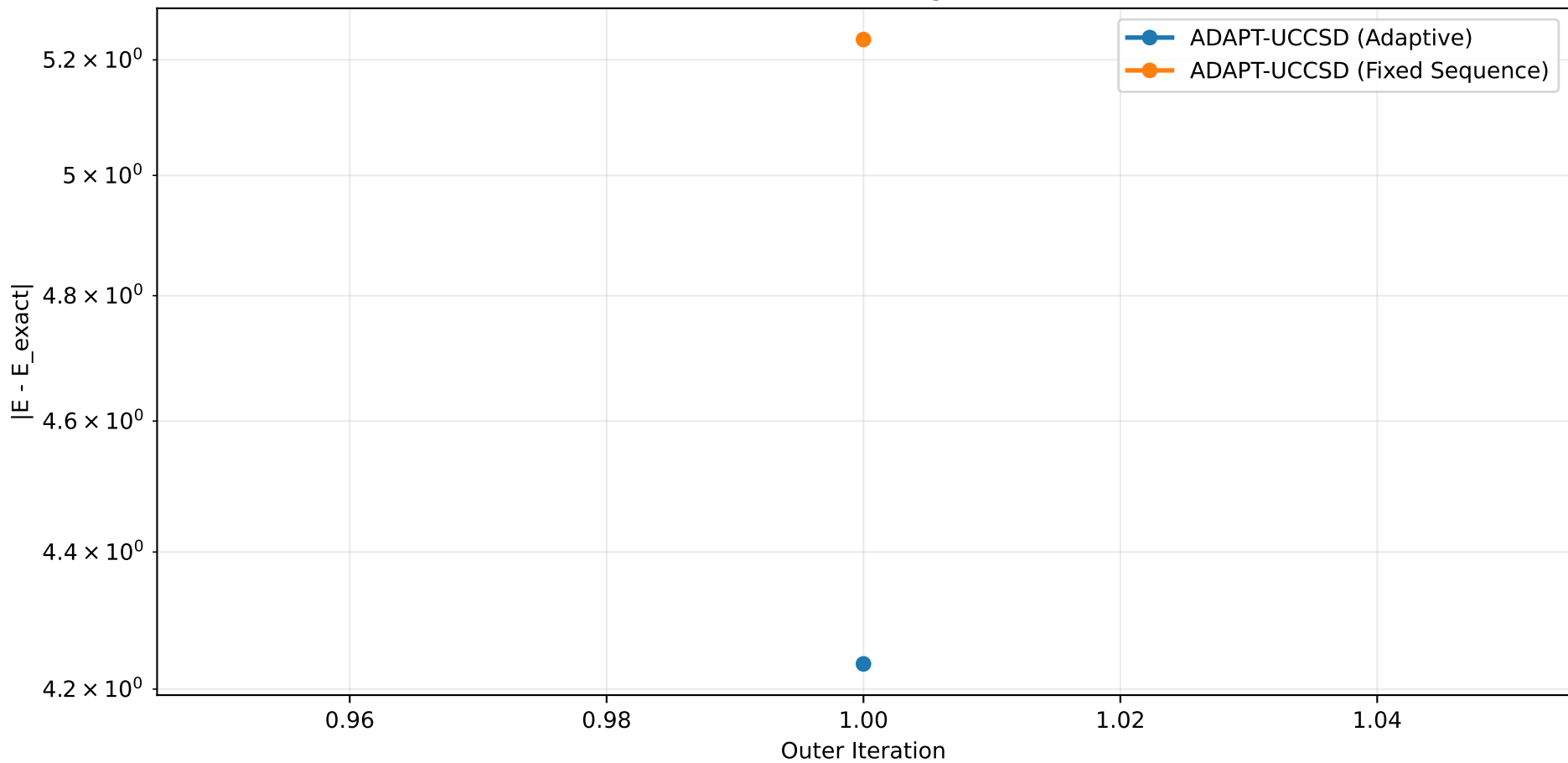
ADAPT-UCCSD Convergence (L=2)



ADAPT-CSE Convergence (L=2)



ADAPT-UCCSD Convergence (L=3)



ADAPT-CSE Convergence (L=3)

