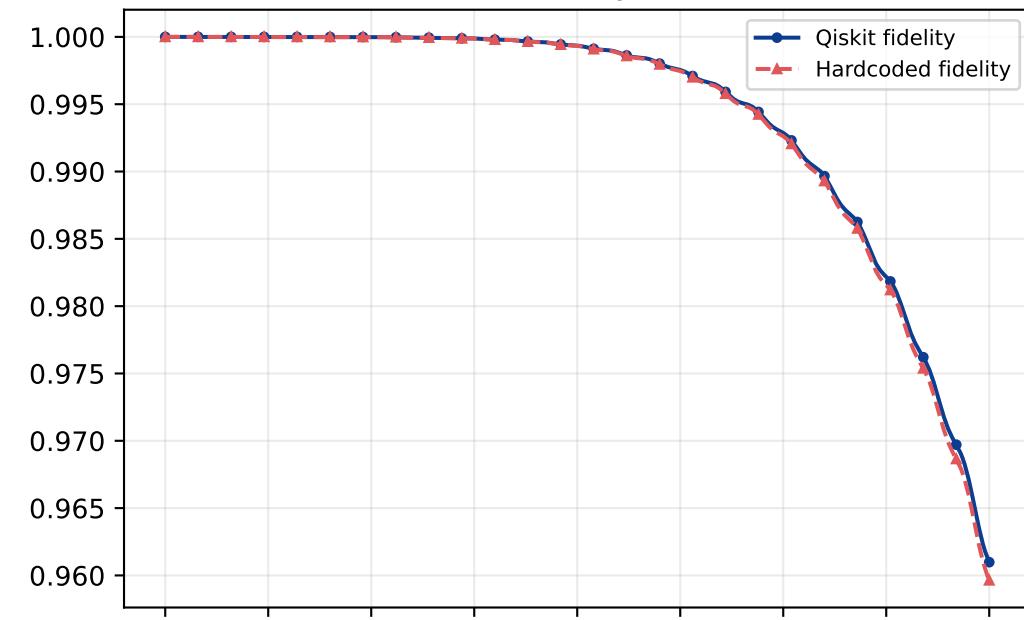
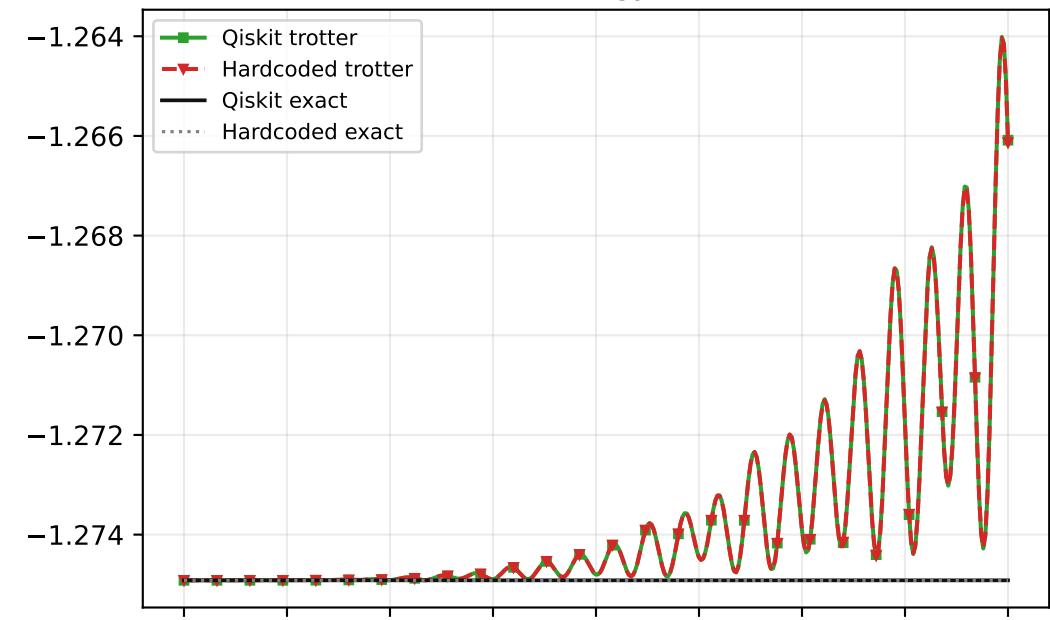


Pipeline Comparison L=3: Hardcoded vs Qiskit

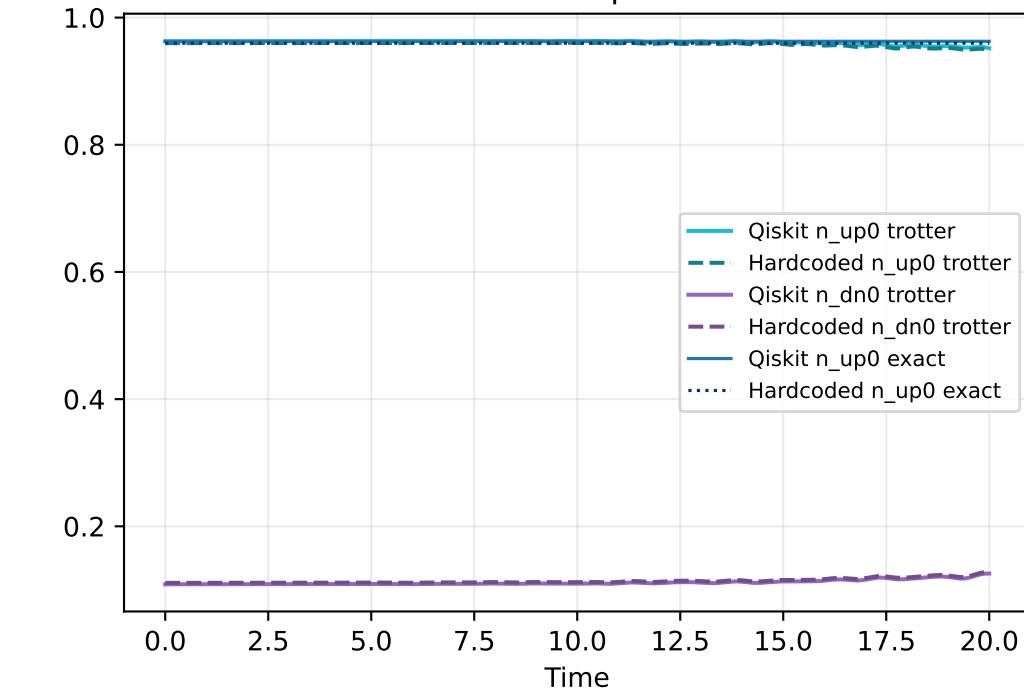
Fidelity



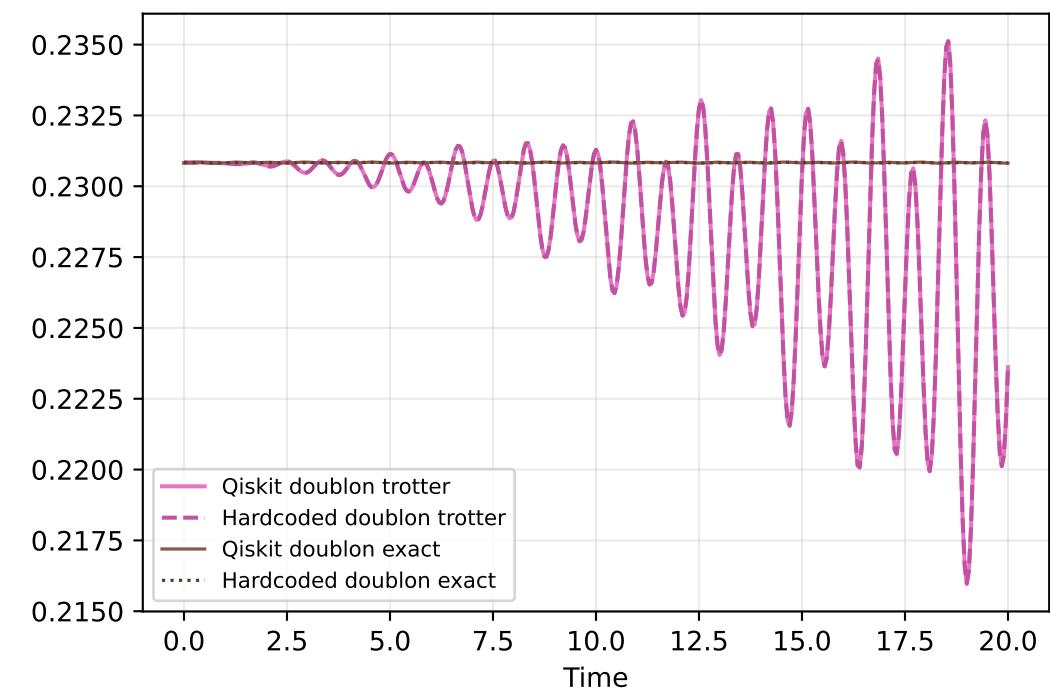
Energy



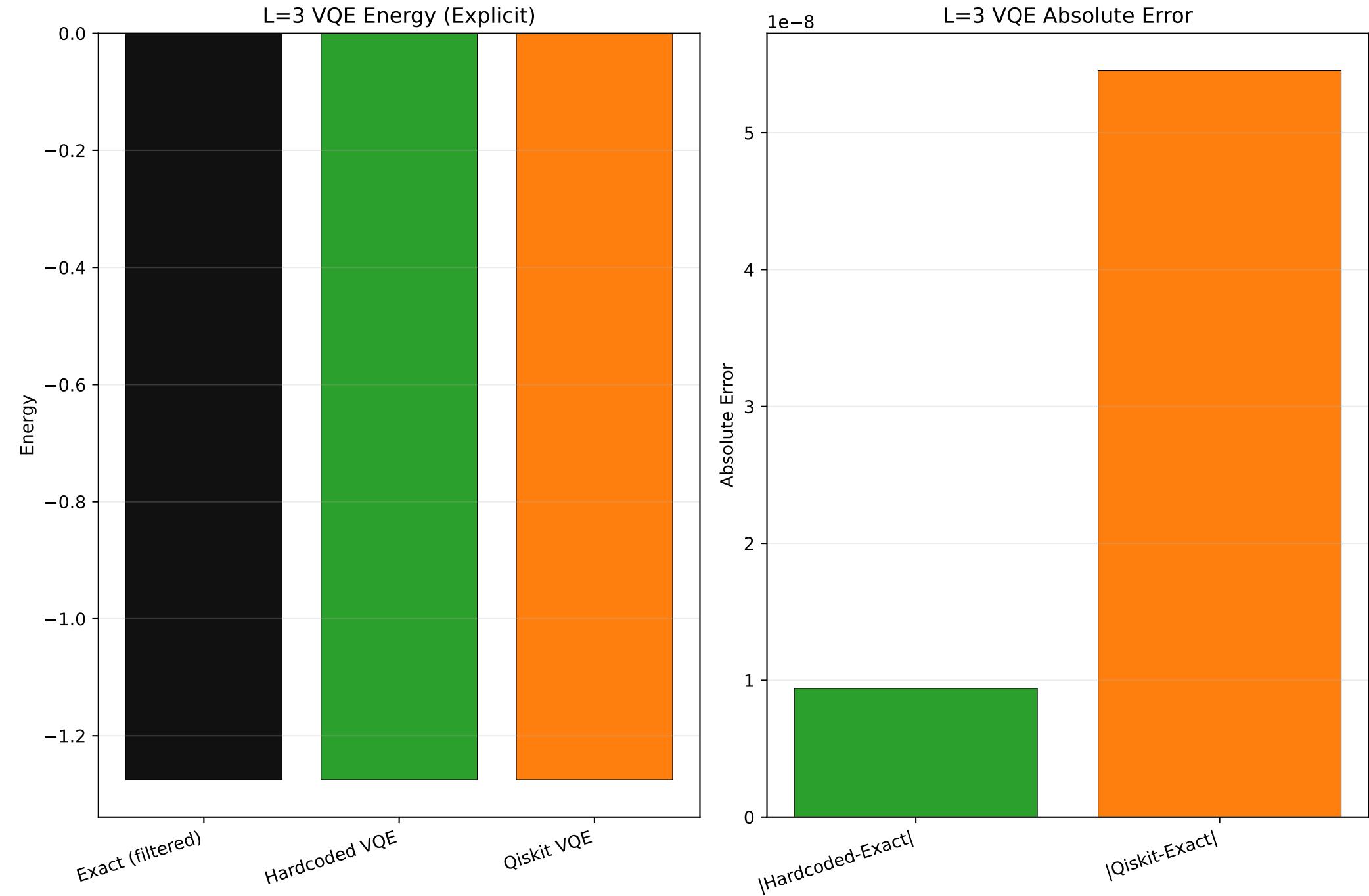
Site-0 Occupations



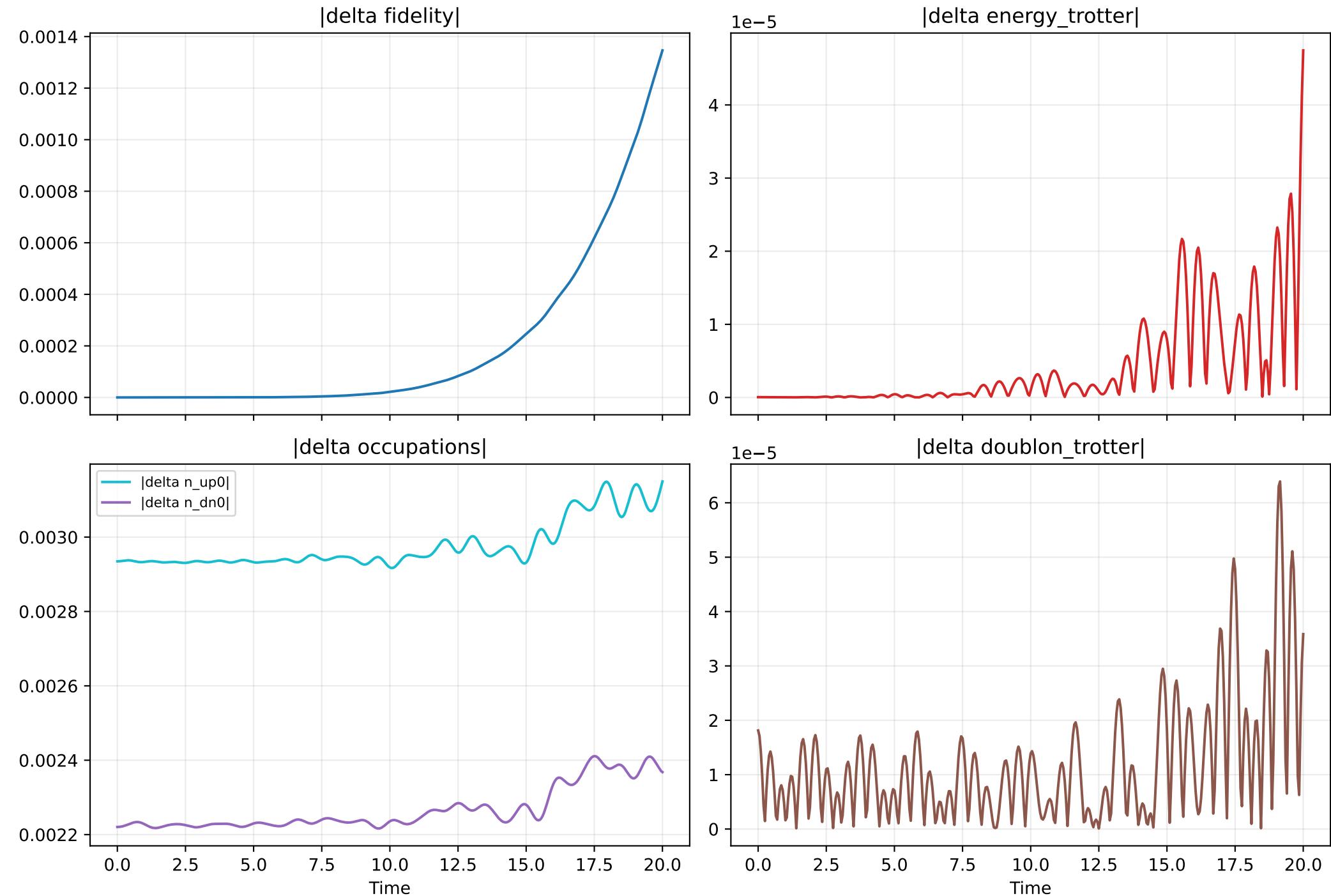
Doublon



VQE is a separate quantity from the Trotter t=0 value; do not infer VQE energy from trajectory plots.



Delta Diagnostics L=3



```
L=3 metrics summary
```

```
ground_state_energy_abs_delta = 0.0
fidelity max/mean/final = 0.0013464071626839713 / 0.00019665025721909328 / 0.0013464071626839713
energy_trotter max/mean/final = 4.7458908048580994e-05 / 3.99668035453194e-06 / 4.7458908048580994e-05
n_up_site0_trotter max/mean/final = 0.0031496651890847716 / 0.002975898354829075 / 0.0031496651890847716
n_dn_site0_trotter max/mean/final = 0.0024109550934178353 / 0.00226718670337712 / 0.002368035185029038
doublon_trotter max/mean/final = 6.39293585977807e-05 / 1.1616930205037722e-05 / 3.5848731140875056e-05

checks = {'ground_state_energy_abs_delta': True, 'fidelity_max_abs_delta': False, 'energy_trotter_max_abs_delta': True, 'n_up_
PASS = False
```