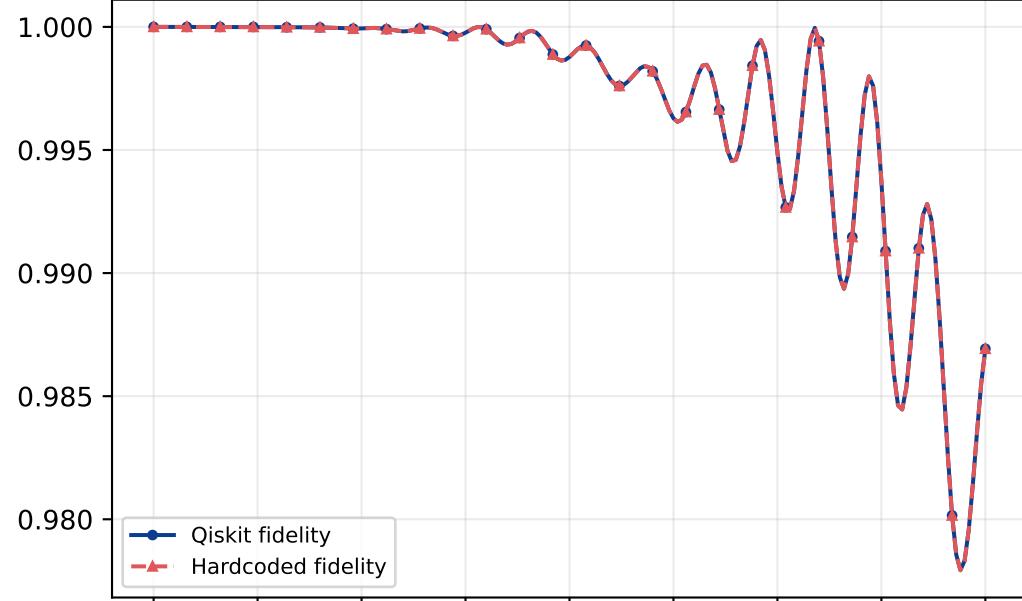
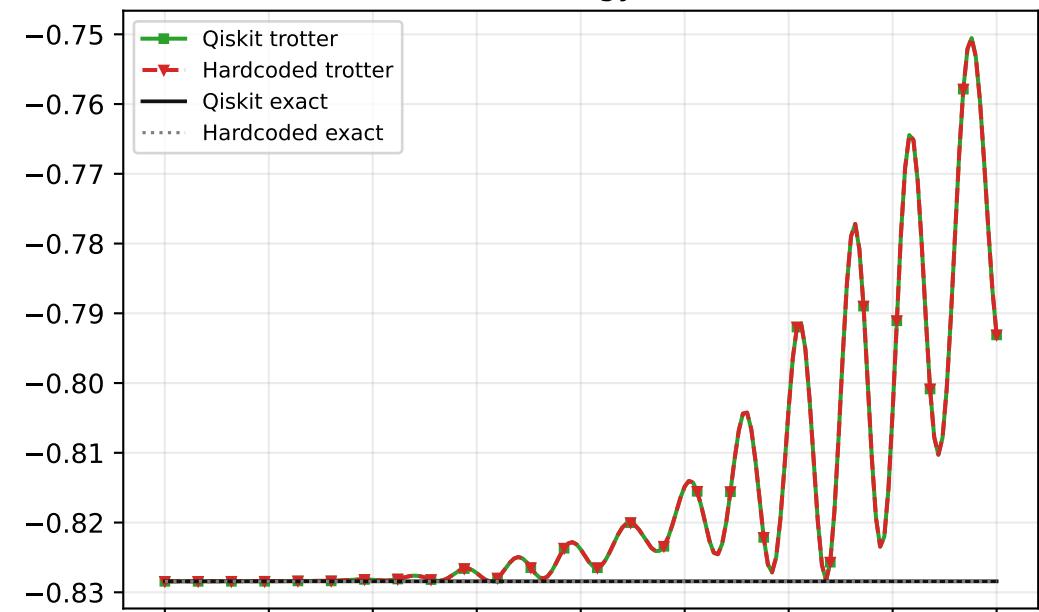


# Pipeline Comparison L=2: Hardcoded vs Qiskit

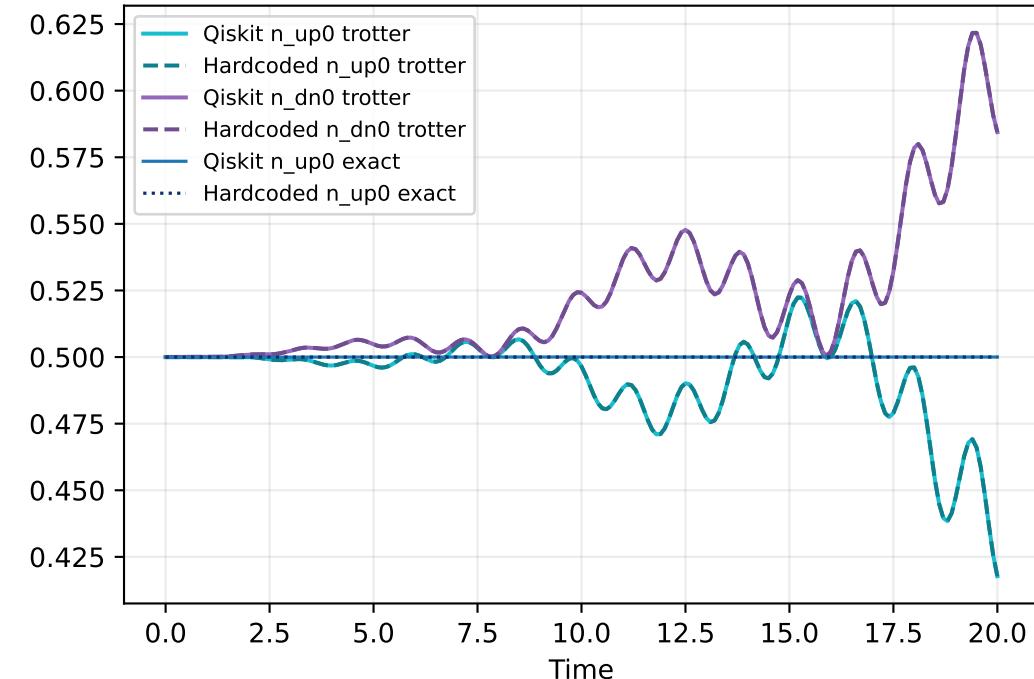
Fidelity



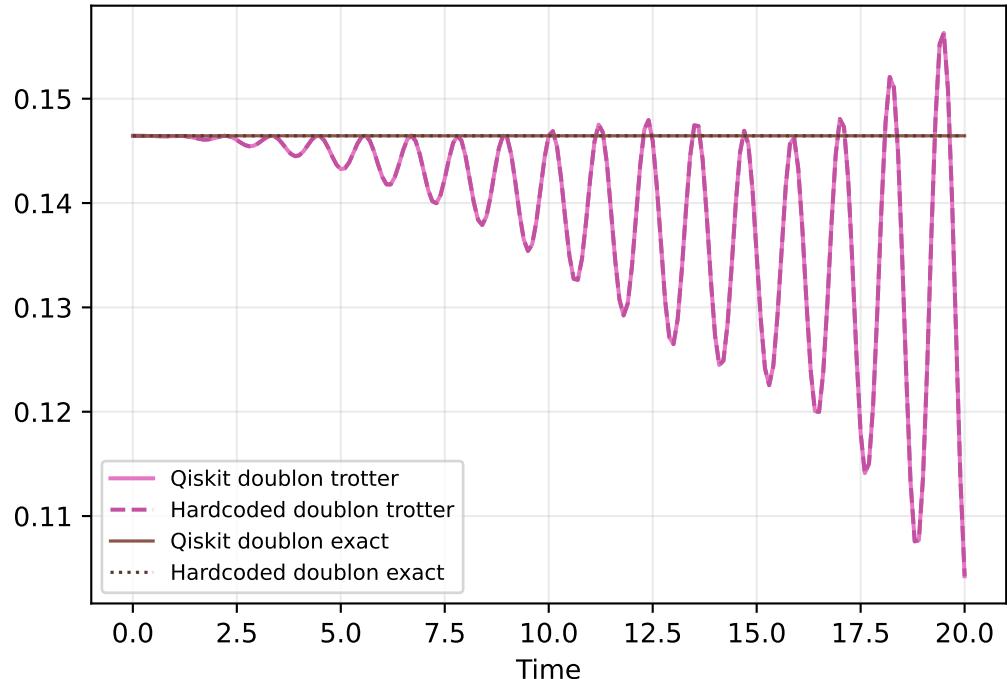
Energy



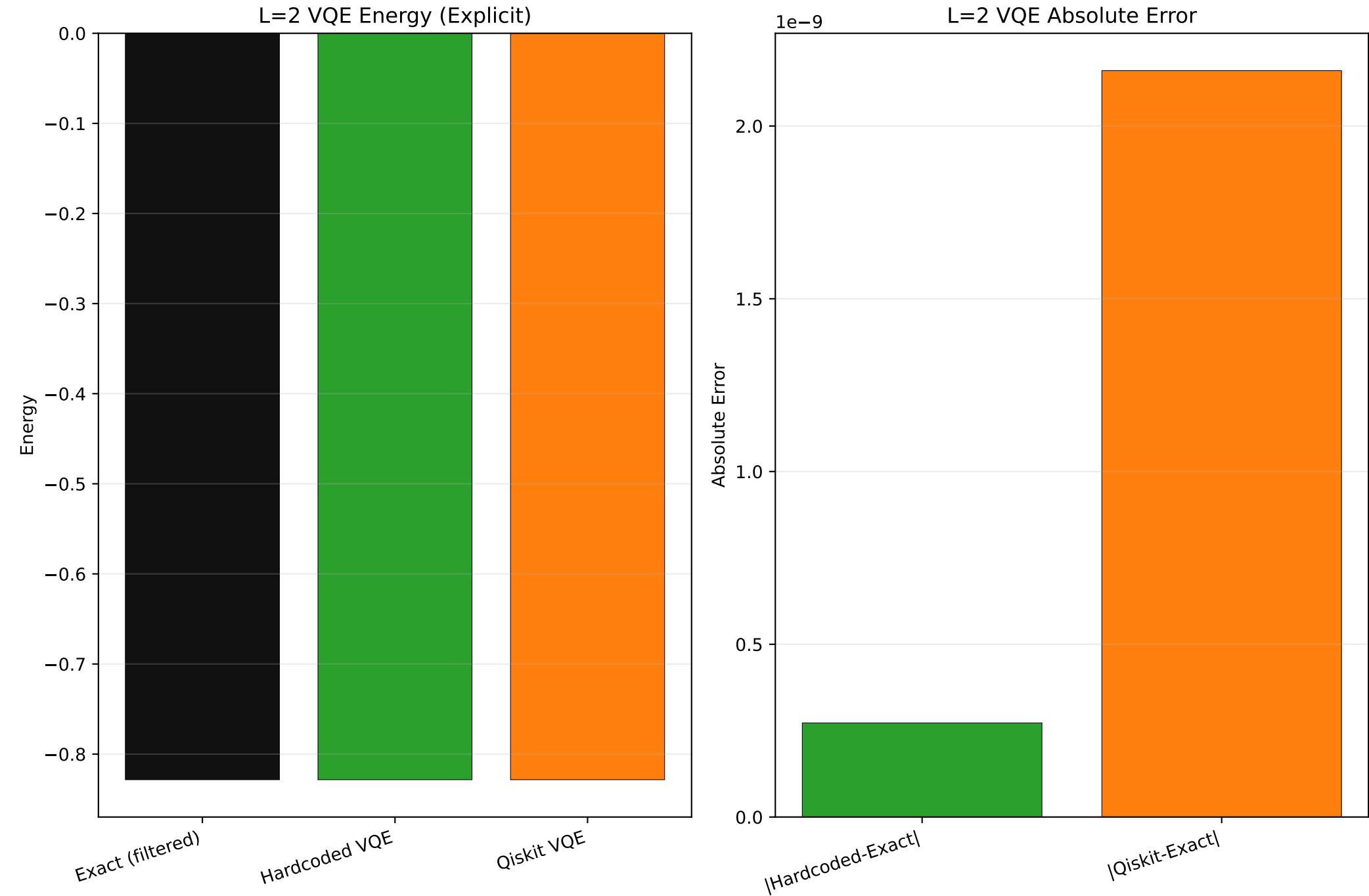
Site-0 Occupations



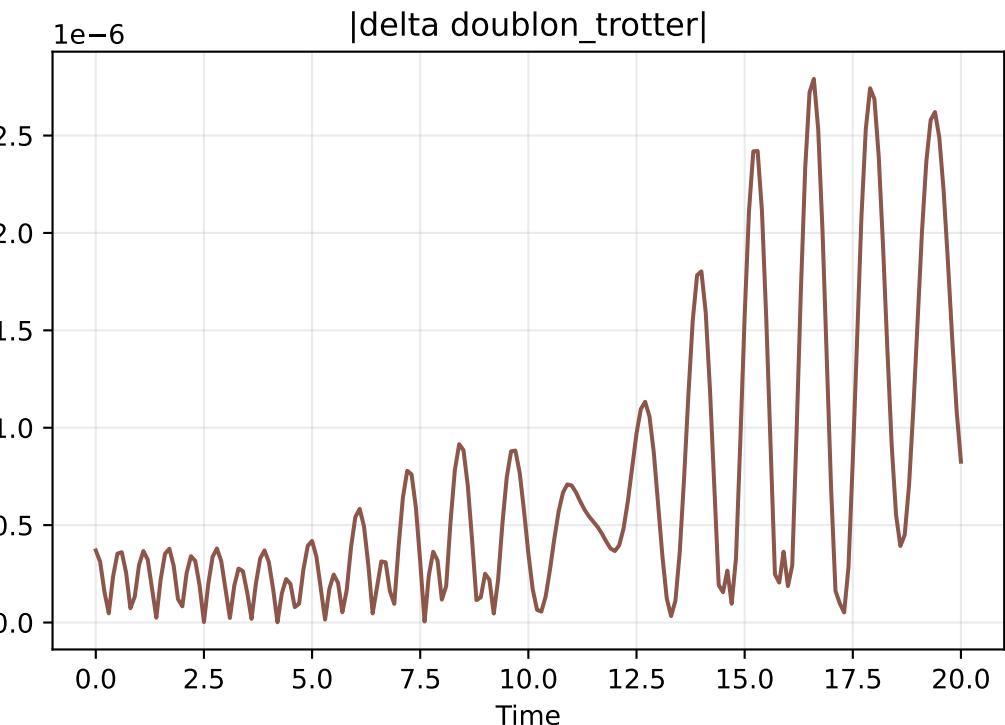
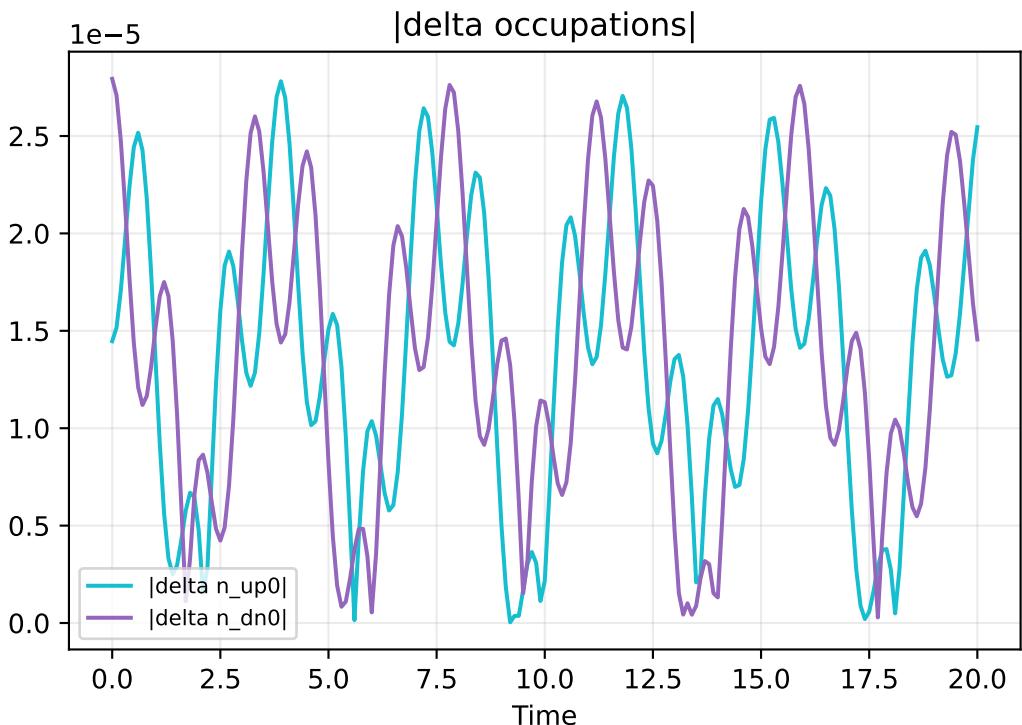
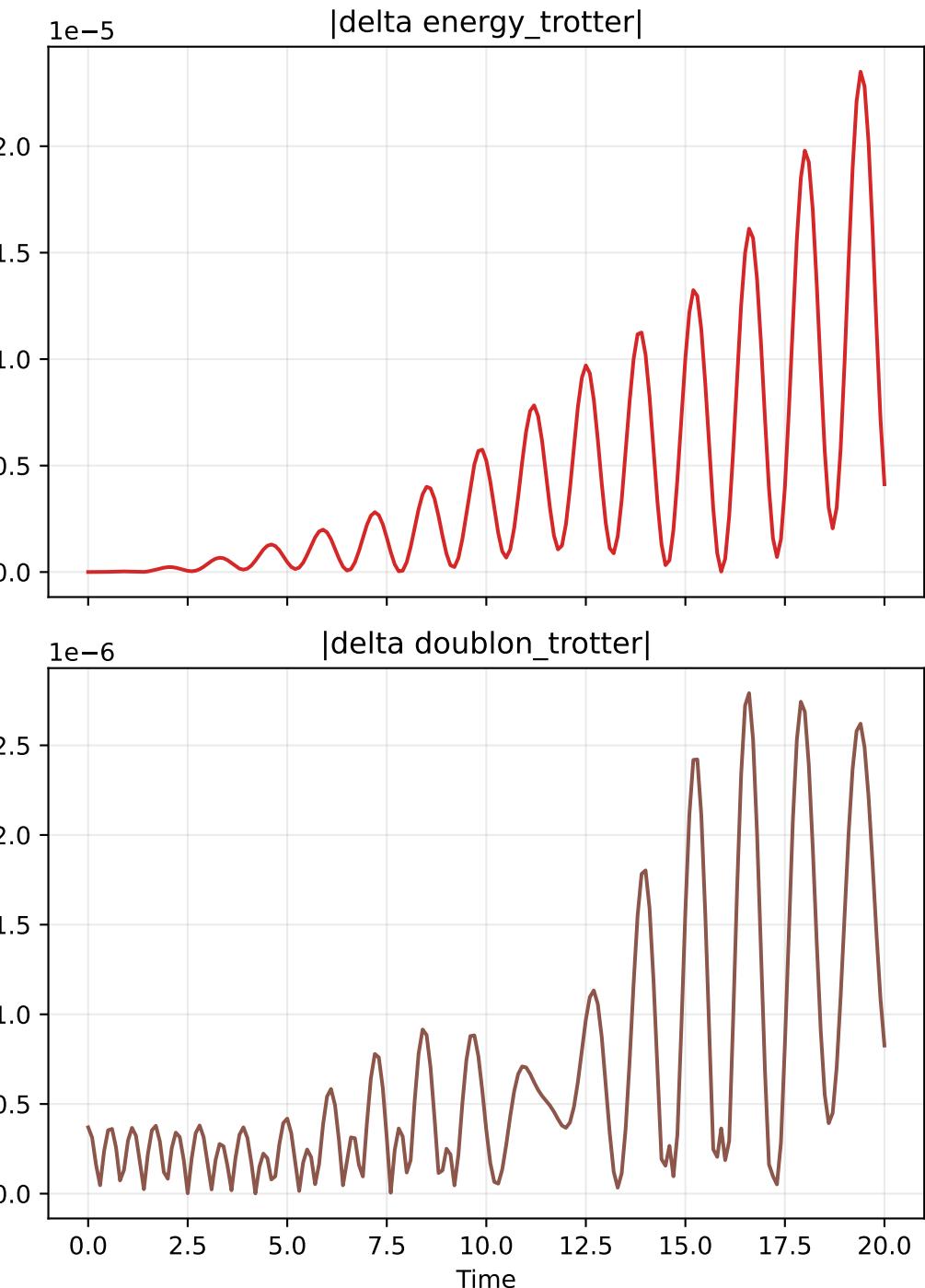
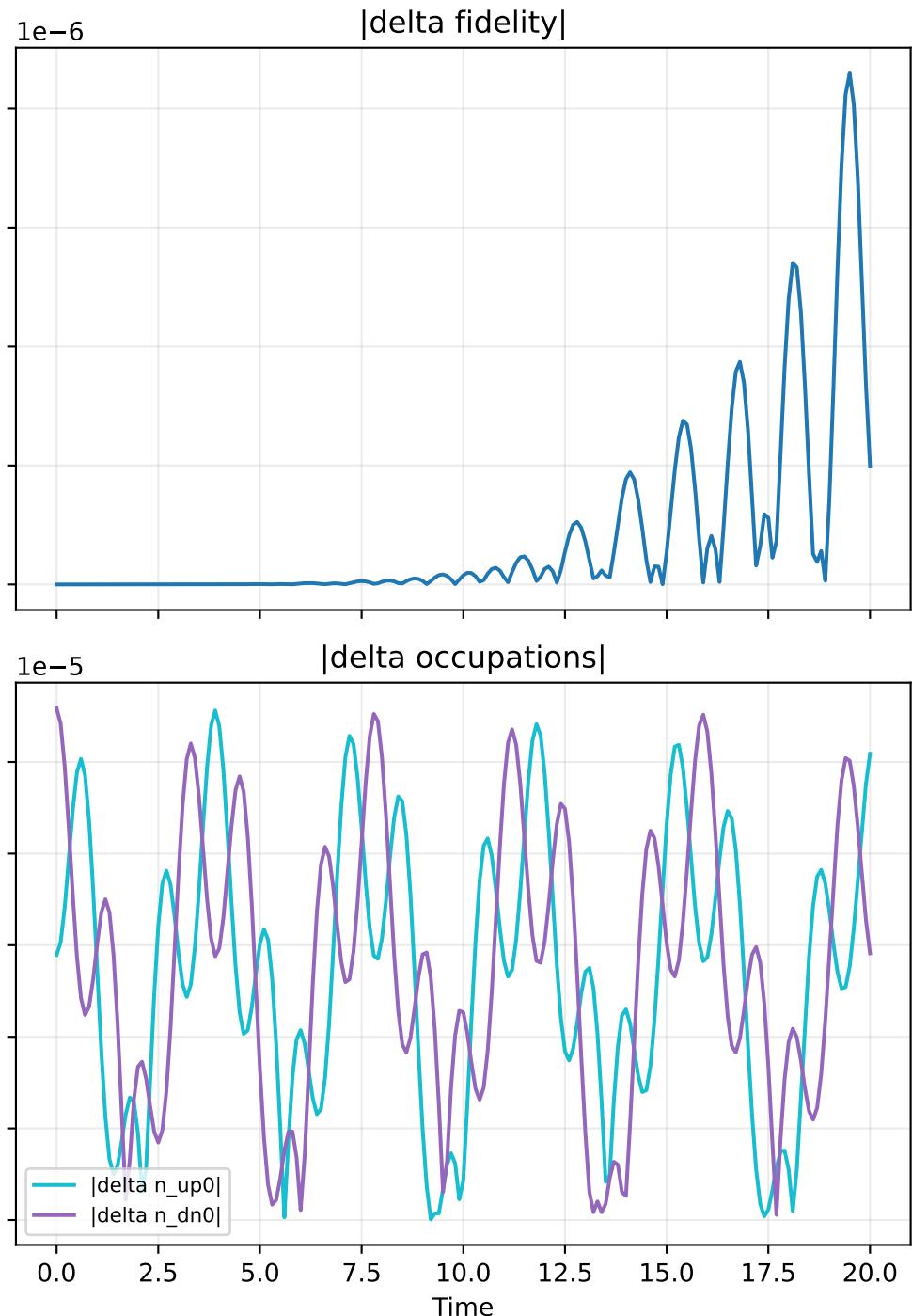
Doublon



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



# Delta Diagnostics L=2



```
L=2 metrics summary
```

```
ground_state_energy_abs_delta = 0.0
fidelity max/mean/final = 8.59377818263063e-06 / 8.005364268005184e-07 / 1.9968946775028584e-06
energy_trotter max/mean/final = 2.3499154368722408e-05 / 4.296069546226253e-06 / 4.121644446297701e-06
n_up_site0_trotter max/mean/final = 2.781282510533334e-05 / 1.3631273238300274e-05 / 2.545305309981094e-05
n_dn_site0_trotter max/mean/final = 2.7934482115687942e-05 / 1.3868963351504503e-05 / 1.4557018242267183e-05
doublon_trotter max/mean/final = 2.7910871213676636e-06 / 6.794619643993374e-07 / 8.256188262223407e-07

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