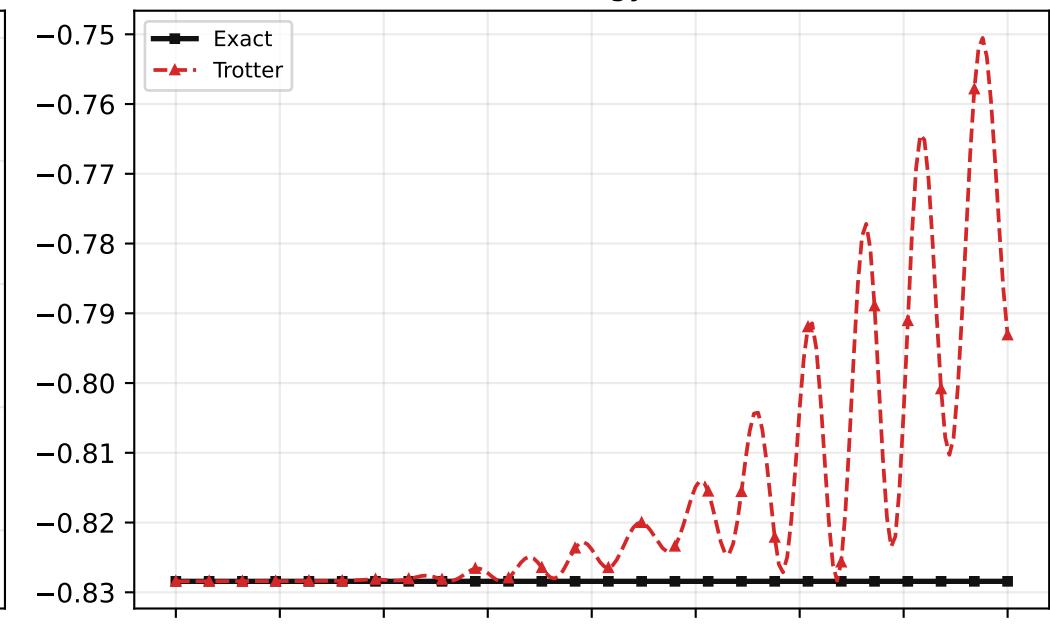
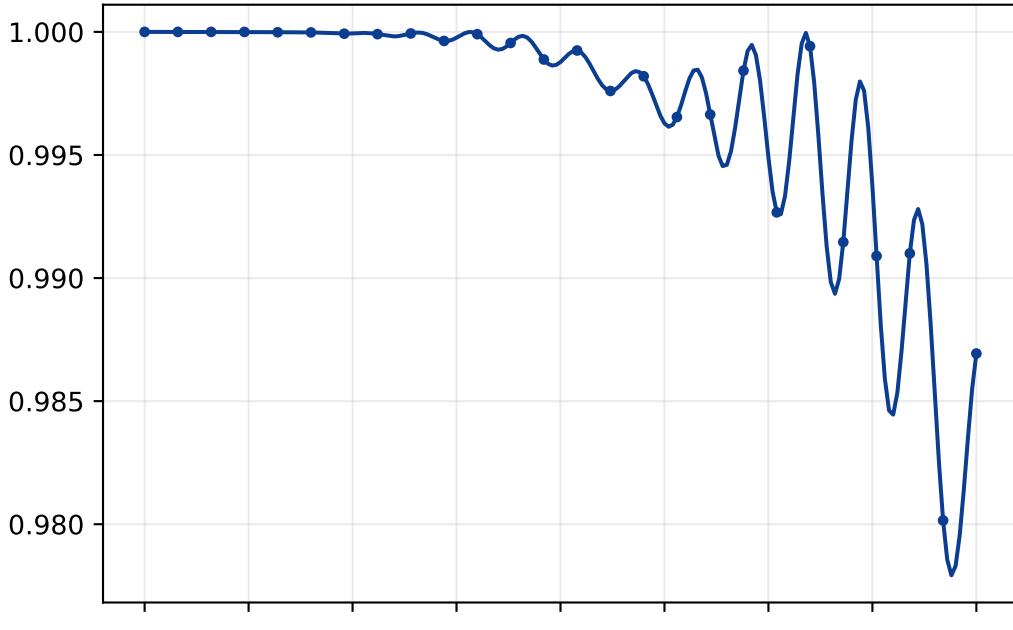


# Hardcoded Hubbard Pipeline: L=2

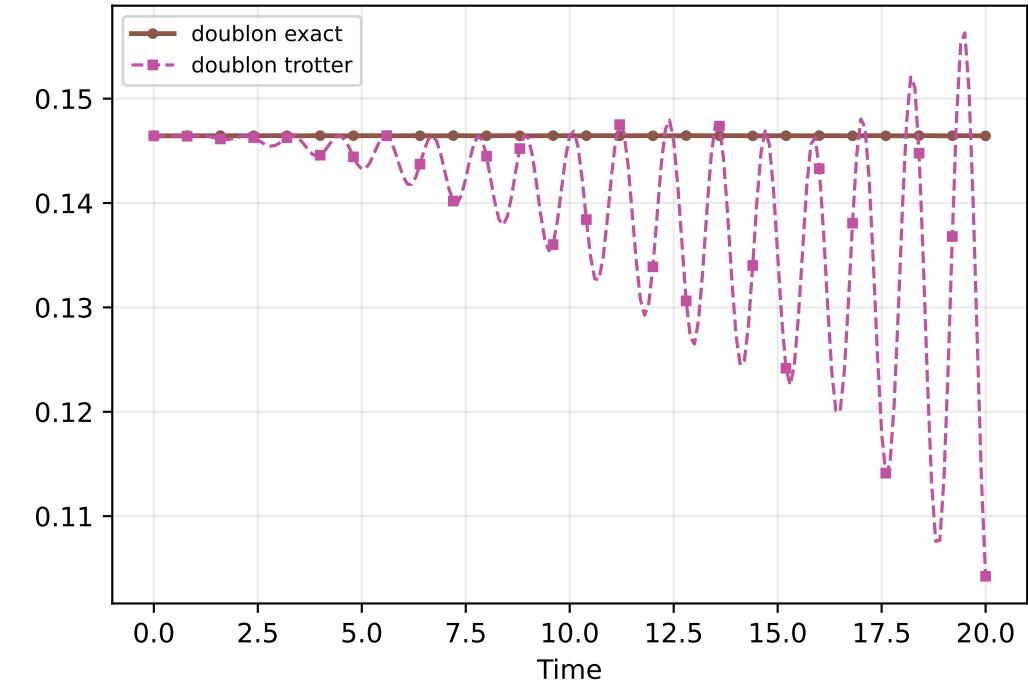
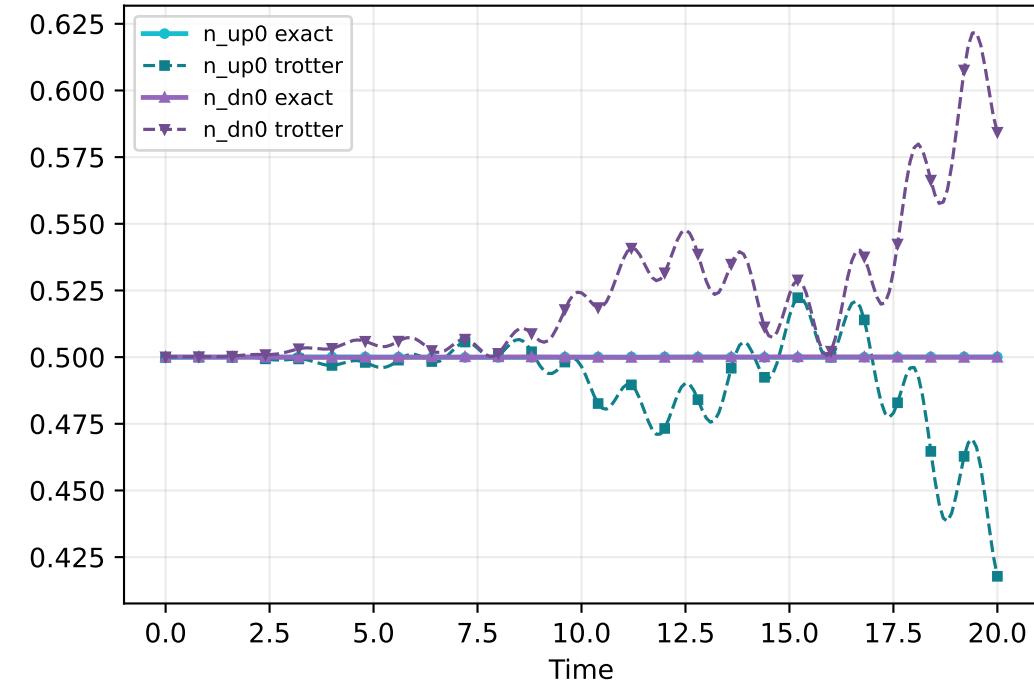
Fidelity( $t$ ) =  $| \langle \text{exact} | \text{trotter} \rangle |^2$

Energy



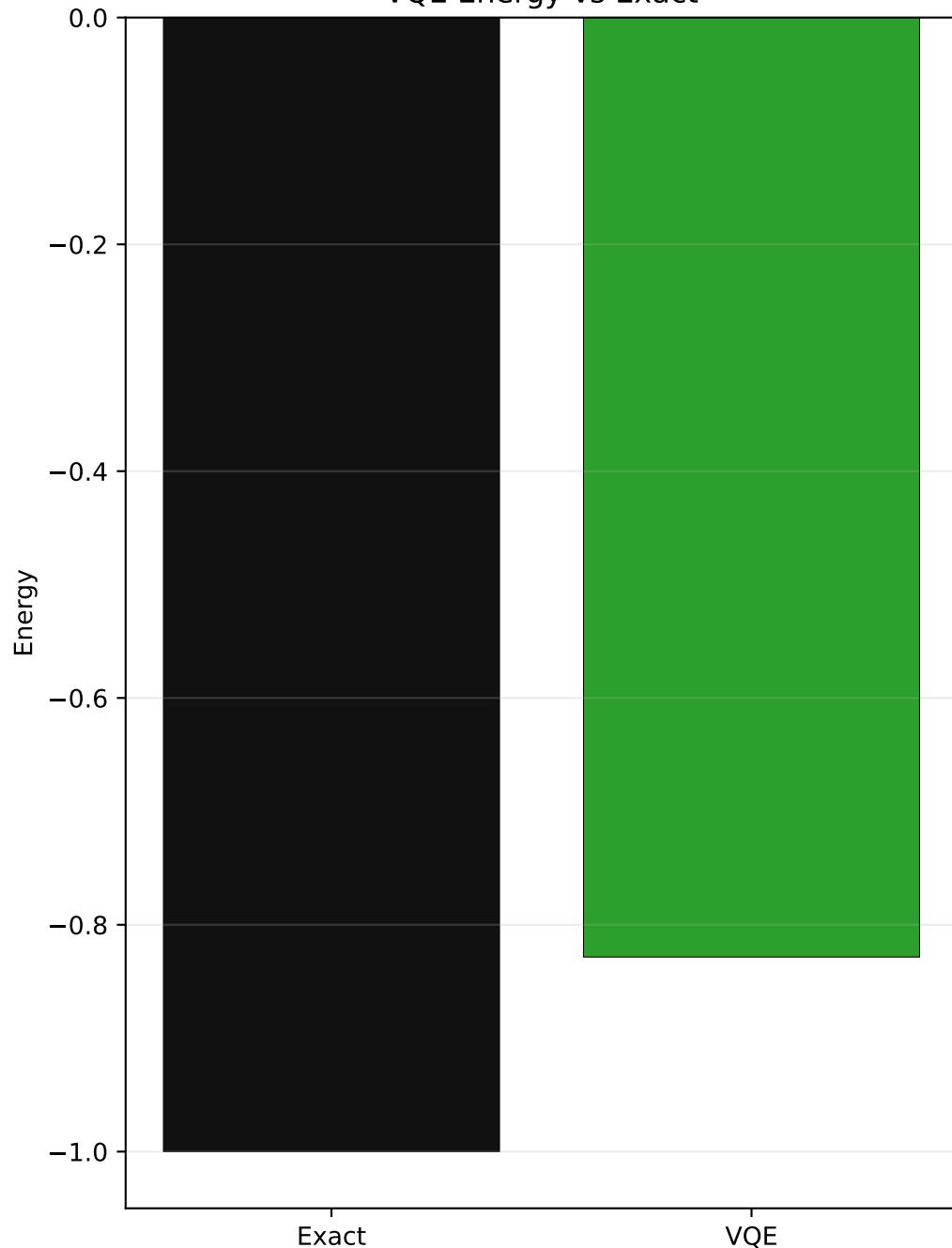
Site-0 Occupations

Total Doublon

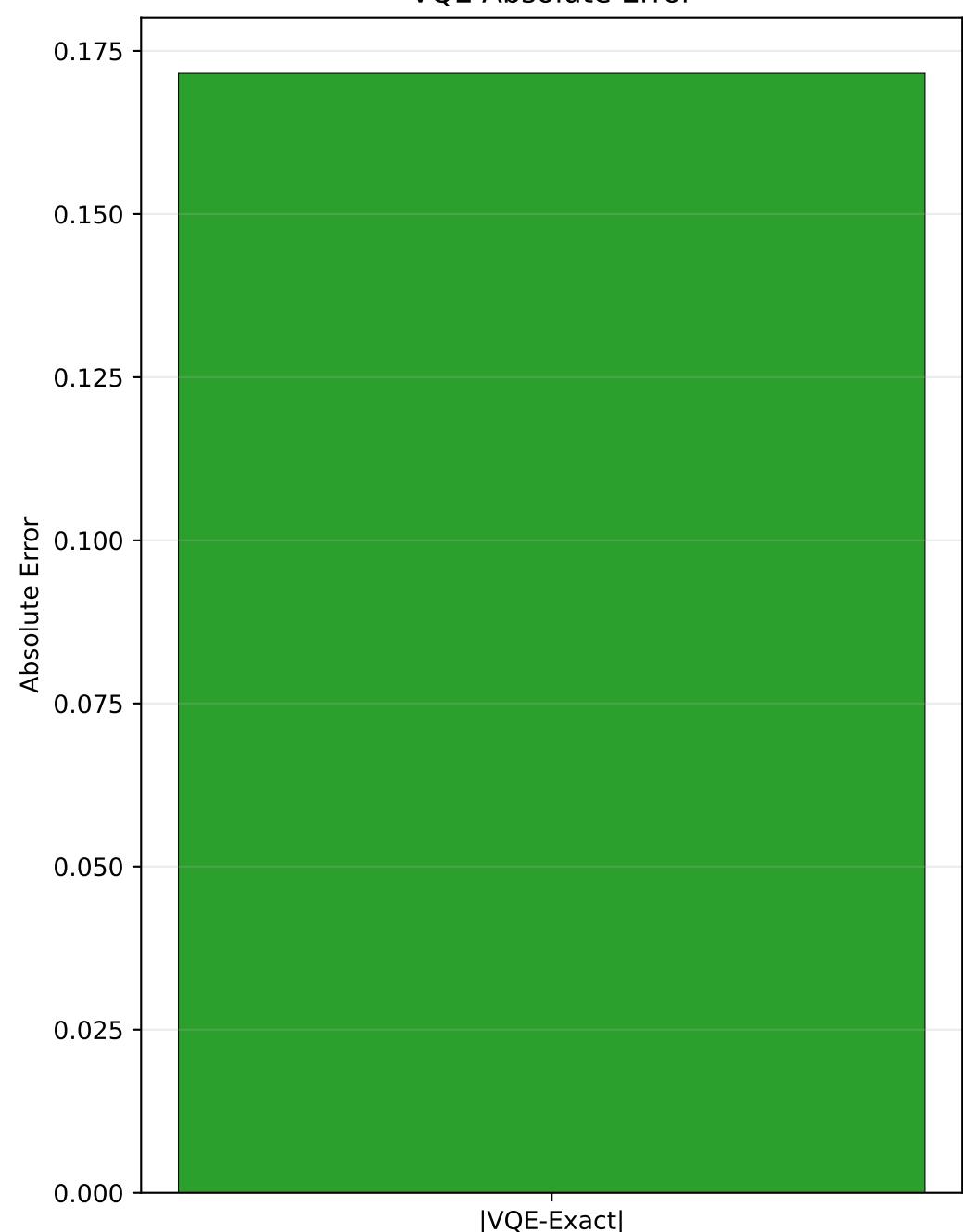


VQE energy is reported explicitly and is not inferred from Trotter t=0.

VQE Energy vs Exact



VQE Absolute Error



Hardcoded Hubbard pipeline summary

```
settings: {"L": 2, "t": 1.0, "u": 4.0, "dv": 0.0, "boundary": "periodic", "ordering": "blocked", "t_final": 20.0, "num_times": 1000, "ground_state_exact_energy": -1.0, "vqe_energy": -0.8284271093811701, "qpe_energy_estimate": -0.625, "initial_state_source": "vqe", "hamiltonian_terms": 11, "reference_sanity": {"checked": False, "reason": "no matching bundled reference for these settings'}}
```