Compare evolution of additive Trotter error. 2.00 1.75 $\|e^{-iH_{ ext{Trotter}}t}-e^{-iH_{ ext{Heisenberg}}t}\|$ 1.50 1.25 1.00 0.75 0.50 0.25 First order Trotter Second order Trotter 0.00 2.5 5.0 7.5 12.5 15.0 17.5 0.0 10.0 20.0 Time