N₂ / 6-31G (10e, 16o) bond length 1.2 Å UCJ LUCJ heavy-hex 10^{-2} Loss function Loss function 10^{-2} 10⁻³ 10^{-4} 10 2 8 2 10 6 6 8 Repetitions Repetitions 10^{1} 10^1 Energy error (Hartree) Energy error (Hartree) VQE **VQE** 10⁰ 10⁰ 10-1 10-1 10^{-2} 10^{-2} 10 10 2 2 8 8 6 6 Repetitions Repetitions 10⁰ 10^{0} Energy error (Hartree) Energy error (Hartree) **QSCI QSCI** 10^{-1} 10^{-2} 10⁻³ 10^{-3} 10 2 2 10 8 6 8 4 6 Repetitions Repetitions full compressed without multi-stage optimization