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