CCSD initial parameters n2 sto-6g (10e, 8o) R=1.0 Å all-to-all square Energy error (Hartree) error (Hartree) 10^{-3} Energy (10 12 14 16 18 20 22 24 10 12 16 18 20 22 24 8 8 14 Repetitions Repetitions 0.100 0.100 **UCCSD** init o.075 dnared 0.050 o.075 o.050 LUCJ full (30 reps) LUCJ truncated LUCJ Compressed-t2 truncated uid 0.025 uids 0.025 0.000 0.000 22 10 16 18 20 24 10 12 16 18 20 22 24 8 12 8 Repetitions Repetitions 0.006 -0.010 0.004 - ' SO 0.005 0.002

0.000

20

16

Repetitions

22

0.000

10

12

14

Repetitions

16

18

20