Relative error of approximating the Casimir energy in different methods 10^{-2} 10⁻³ Relative error 10^{-4} 10^{-5} 10^{-6} 10^{-7} Inverse-free (recycle) 10^{-8} Arnoldi (recycle) 10^{-9} 2.0 2.5 0.5 0.75 1.0 1.25 1.5 1.75 2.25 2.75 3.0 Distance Z 2200 2035 Inverse-free (recycle) 1935 2000 Number of matvecs Arnoldi (recycle) 1800 1600 1527 1427 1400 1303 1203 1200 1099 927 1000 827 847 807 763 747 800 723 707 683 683 669 623 583 583 600 400

0.5

0.75

1.0

1.25

1.5

1.75

2.0

2.25

2.5

2.75

3.0