Supplementary Material for:

Holstein polaron transport from numerically exact real-time quantum dynamics simulations

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I. STRUCTURE OF FILES

- `j_j_real_time.txt` contains data on the current–current correlation function $C_{jj}(t)$ in real time ($t \geq 0$); the first column is time measured in units of $\hbar/J$, where J is the electronic transfer integral, while $\hbar$ is the reduced Plack constant; the second and third columns are the real and imaginary parts of $C_{jj}(t)$, respectively, measured in units $e_0^2 a_l^2 J^2/\hbar^2$, where e_0 is the elementary charge, a_l is the lattice constant.

- `j_j_real_frequency.txt` contains data on the Fourier transformation $C_{jj}(\omega)$ of $C_{jj}(t)$; the first column is frequency measured in units $J/\hbar$; the second column is $C_{jj}(\omega)$ measured in units $e_0^2 a_l^2 J/\hbar$; the Fourier transformation is computed applying the appropriate routine of the FFTW3 package on $C_{jj}(t)$ that is continued to negative real time using $C_{jj}(-t) = C_{jj}(t)^*$.

- `dynamical_mobility.txt` contains the frequency profile of the dynamical mobility $\mathrm{Re}\,\mu_{\mathrm{ac}}(\omega)$ for $\omega \geq 0$; the first column is frequency measured in units $J/\hbar$; the second column is $\mathrm{Re}\,\mu_{\mathrm{ac}}(\omega)$ measured in units $e_0 a_l^2/\hbar$; the dc mobility is computed as

$$\mu_{\mathrm{dc}} = \lim_{\omega \to 0} \mathrm{Re}\,\mu_{\mathrm{ac}}(\omega) = \frac{1}{T} \int_0^{+\infty} dt\, \mathrm{Re}\, C_{jj}(t),$$

  while for $\omega > 0$ we use

$$\mathrm{Re}\,\mu_{\mathrm{ac}}(\omega) = \frac{1 - e^{-\omega/T}}{2\omega} C_{jj}(\omega);$$

  T is the temperature measured in units of J/k_B.

- `diffusion_constant.txt` contains data on the diffusion constant $\mathcal{D}(t)$ in real time ($t > 0$); the first column is time measured in units $\hbar/J$; the second column is the diffusion constant measured in units $a_l^2 J/\hbar$.

- `diffusion_exponent.txt` contains data on the diffusion exponent $\alpha(t)$ in real time ($t \geq 0$); the first column is time measured in units $\hbar/J$; the second column is the diffusion exponent (dimensionless).

- `delta_x.txt` contains data on the square root of the mean-square displacement $\sqrt{\Delta x^2(t)}$ of the electron in real time ($t \geq 0$); the first column is time measured in units $\hbar/J$; the second column is $\sqrt{\Delta x^2(t)}$ measured in units of the lattice constant a_l.

- in some cases (typically for $T/\omega_0 \gtrsim 3$), we provide HEOM results for two consecutive depths, in folders `Index.1` and `Index.2`; in such cases, $\mu_{\rm dc}$, Re $\mu_{\rm ac}(\omega)$, $\mathcal{D}(t)$, $\alpha(t)$, and $\Delta x(t)$ should be computed using $C_{jj}(t)$ that is obtained as the arithmetic average of the current–current correlation functions in folders `Index.1` and `Index.2`; the corresponding data for $\mu_{\rm dc}$ and Re $\mu_{\rm ac}(\omega)$ can be obtained by averaging the data contained in files `RegimeIndex/Index.1/dynamical_mobility.txt` and `RegimeIndex/Index.2/dynamical_mobility.txt`; for convenience, we provide $\mathcal{D}(t)$, $\alpha(t)$, and $\Delta x(t)$ that use the averaged HEOM data for $C_{jj}(t)$ in files
  `RegimeIndex/diffusion_constant.txt`,
  `RegimeIndex/diffusion_exponent.txt`, and
  `RegimeIndex/delta_x.txt`, respectively

- files `mu_vs_T_*.txt` report temperature dependence of $\mu_{\rm dc}$; the first column is the temperature in units J/k_B; the second column is $\mu_{\rm dc}$ in units $e_0 a_l^2/\hbar$

  - when only one set of HEOM data is reported, $\mu_{\rm dc}$ is obtained as the arithmetic average of dc mobilities computed using only Re $C_{jj}(t)$ or only Im $C_{jj}(t)$; in the latter case, the moving-average procedure is obtained to smooth out the oscillatory features of the integral $-2\int_0^t ds\, s\, \mathrm{Im}\, C_{jj}(s)$
  - when two sets of HEOM data are reported, $\mu_{\rm dc}$ is obtained by first averaging $C_{jj}(t)$ over two consecutive depths D, and then using the averaged $C_{jj}(t)$ in the same manner as described in the previous point

II. NOTATION

- $\langle H_{\rm e}\rangle$: the electron's kinetic energy
- 1st moment: $M_1 = \langle [j, H] j\rangle$
- 2nd moment: $M_2 = \langle [[j, H], H] j\rangle$
- $\delta_{\rm OSR} = \dfrac{\left| \int_0^{+\infty} d\omega\, {\rm Re}\, \mu_{\rm ac}(\omega) - \pi |\langle H_{\rm e}\rangle|/2 \right|}{\pi |\langle H_{\rm e}\rangle|/2}$, where $\int_0^{+\infty} d\omega\, {\rm Re}\, \mu_{\rm ac}(\omega)$ is computed numerically (frequency resolution is typically good and the trapezoid rule is sufficient)
- $\delta_n = \dfrac{\left| \int_{-\infty}^{+\infty} d\omega\, \omega^n C_{jj}(\omega) - M_n \right|}{|M_n|}$ for $n = 0, 1, 2$; $\int_{-\infty}^{+\infty} d\omega\, \omega^n C_{jj}(\omega)$ is computed numerically
- in some cases (typically for $T/\omega_0 \gtrsim 3$), we provide HEOM results for two consecutive depths, the indices of which are Index.1 and Index.2; in such cases, $\mu_{\rm dc}$, ${\rm Re}\, \mu_{\rm ac}(\omega)$, $\mathcal{D}(t)$, and $\alpha(t)$ should be computed using $C_{jj}(t)$ obtained as the arithmetic average of the correlation functions in regimes Index.1 and Index.2

III. PARAMETER REGIMES STUDIED

Index	ω_0/J	G/J	T/J	N	D	$\langle H_e \rangle/J$	1st moment	2nd moment
0	1	$\frac{\sqrt{2}}{10}$	1	160	2	-1.3905189049e+00	5.6113740051e-02	1.4912329841e-01
0a	1	$\frac{\sqrt{2}}{10}$	$10^{0.1}$	160	2	-1.2303265809e+00	6.2332926524e-02	1.9073806605e-01
0b	1	$\frac{\sqrt{2}}{10}$	$10^{0.2}$	160	2	-1.0597281605e+00	6.7481959494e-02	2.4397080716e-01
1	1	$\frac{\sqrt{2}}{10}$	2	96	2	-8.9031757673e-01	7.1467305022e-02	3.1196525090e-01
1a	1	$\frac{\sqrt{2}}{10}$	$10^{0.4}$	96	2	-7.3739761712e-01	7.4287329163e-02	3.9555582822e-01
1b	1	$\frac{\sqrt{2}}{10}$	$10^{0.5}$	96	2	-6.0163228198e-01	7.6260836521e-02	5.0125463818e-01
1c	1	$\frac{\sqrt{2}}{10}$	$10^{0.6}$	40	3	-4.8639232877e-01	7.7583823089e-02	6.3372669726e-01
2	1	$\frac{\sqrt{2}}{10}$	5	40	3	-3.9170164216e-01	7.8444459486e-02	7.9798405638e-01
2a	1	$\frac{\sqrt{2}}{10}$	$10^{0.8}$	40	3	-3.1273917734e-01	7.9013220051e-02	1.0085562142e+00
2b	1	$\frac{\sqrt{2}}{10}$	$10^{0.9}$	40	3	-2.4960379593e-01	7.9373375447e-02	1.2707885406e+00
3	1	$\frac{\sqrt{2}}{10}$	10	40	3	-1.9887507724e-01	7.9602996838e-02	1.6005403860e+00

TABLE I. $\omega_0/J = 1$ and $G/J = \sqrt{2}/10$.

REFERENCES

Index	δ_{OSR}	δ_0	δ_1	δ_2
0	1.8825149510e-06	4.4059141372e-07	5.0684645705e-07	2.2250606505e-06
0a	3.2387481405e-06	4.8748483051e-07	4.2203331944e-07	1.5404610697e-06
0b	3.7996092013e-06	4.1155518119e-07	4.7754700280e-07	2.6331951618e-06
1	3.7023497964e-06	5.6355939146e-08	1.1317477483e-08	2.0490631488e-06
1a	3.7576382002e-06	5.6360670234e-08	1.4530379430e-08	2.1443871875e-06
1b	3.6575115179e-06	3.3824591372e-07	2.6243500998e-07	1.9309697083e-06
1c	3.6374476962e-09	9.3784199541e-08	9.8567947226e-08	9.2195889331e-08
2	1.2934181992e-08	1.3922583120e-07	1.4441164304e-07	1.3754650862e-07
2a	2.7166252253e-09	1.3920601627e-07	1.4494207420e-07	1.3745143748e-07
2b	2.1388820000e-10	1.3921499721e-07	1.4568056119e-07	1.3723049159e-07
3	3.4289819690e-09	1.8519070062e-07	1.9268435133e-07	1.8291465658e-07

TABLE II. Relative accuracy with which different sum rules are satisfied. $\omega_0/J = 1$ and $G/J = \sqrt{2}/10$.

Index	ω_0/J	G/J	T/J	N	D	$\langle H_{\rm e}\rangle/J$	1st moment	2nd moment
4	1	0.5	1	56	3	-1.3332040298e+00	7.1638250111e-01	2.1848325977e+00
4a	1	0.5	$10^{0.1}$	56	3	-1.1819781290e+00	7.8966903391e-01	2.7423722383e+00
4b	1	0.5	$10^{0.2}$	56	6	-1.0218262420e+00	8.5027002784e-01	3.4379926485e+00
5	1	0.5	2	29	4	-8.6248188447e-01	8.9739894880e-01	4.3117114955e+00
5a	1	0.5	$10^{0.4}$	29	4	-7.1777859457e-01	9.3089702932e-01	5.3724636709e+00
5b	1	0.5	$10^{0.5}$	29	4	-5.8832374579e-01	9.5451328922e-01	6.7047497183e+00
5c	1	0.5	$10^{0.6}$	15	5	-4.7758111398e-01	9.7045605481e-01	8.3679541169e+00
6.1	1	0.5	5	10	7	-3.8593730116e-01	9.8089966026e-01	1.0426004054e+01
6.2	1	0.5	5	10	8	-3.8593730116e-01	9.8089966026e-01	1.0426004054e+01
6a.1	1	0.5	$10^{0.8}$	8	8	-3.0904232784e-01	9.8784037824e-01	1.3061357961e+01
6a.2	1	0.5	$10^{0.8}$	8	9	-3.0904232784e-01	9.8784037824e-01	1.3061357961e+01
6b.1	1	0.5	$10^{0.9}$	7	10	-2.4723926317e-01	9.9225623915e-01	1.6341293711e+01
6b.2	1	0.5	$10^{0.9}$	7	11	-2.4723926317e-01	9.9225623915e-01	1.6341293711e+01
7.1	1	0.5	10	7	11	-1.9736975089e-01	9.9508253470e-01	2.0464493214e+01
7.2	1	0.5	10	7	12	-1.9736975089e-01	9.9508253470e-01	2.0464493214e+01

TABLE III. $\omega_0/J = 1$ and $G/J = 0.5$.

Index	δ_{OSR}	δ_0	δ_1	δ_2
4	9.1836819679e-05	7.7612673901e-08	2.5876815801e-07	4.0023855954e-08
4a	7.8248286370e-05	1.3312316780e-07	7.5662472272e-08	1.5808749106e-07
4b	5.6472832492e-05	1.3314581466e-07	1.1661663476e-07	1.4432163412e-07
5	1.9605861324e-06	4.3158665735e-08	2.5236280189e-07	1.5655634446e-07
5a	2.8560416911e-06	9.7478917417e-08	2.7861119196e-07	2.3453211612e-07
5b	4.1530903421e-06	2.4245217324e-08	5.1895339447e-07	1.4872890109e-07
5c	7.0104707056e-06	2.3176240410e-07	9.0087203551e-07	1.8400352327e-09
6.1	1.0200766124e-05	1.3922833194e-07	1.9694369525e-07	1.1953276182e-07
6.2	1.1572147351e-05	1.3922824894e-07	1.9694755049e-07	1.1952694459e-07
6a.1	5.6044346634e-06	1.3919825304e-07	2.2124191362e-07	1.1195577915e-07
6a.2	7.4129892012e-06	1.3919821641e-07	2.2124913034e-07	1.1194865320e-07
6b.1	3.0064241233e-06	1.3919773588e-07	2.5760345918e-07	1.0047009175e-07
6b.2	5.9321807646e-06	1.3919849262e-07	2.5760987791e-07	1.0045953306e-07
7.1	1.9313067836e-06	1.5099860961e-07	2.6325092118e-06	1.0482535512e-06
7.2	6.8360067388e-07	1.5099847324e-07	2.6324914650e-06	1.0482083956e-06

TABLE IV. Relative accuracy with which different sum rules are satisfied. $\omega_0/J = 1$ and $G/J = 0.5$.

Index	ω_0/J	G/J	T/J	N	D	$\langle H_{\rm e}\rangle/J$	1st moment	2nd moment
10	1	1	1	13	6	-1.1546229149e+00	3.0539769058e+00	1.3368705634e+01
10a	1	1	$10^{0.1}$	10	6	-1.0340833387e+00	3.2883089000e+00	1.5947349411e+01
10b	1	1	$10^{0.2}$	10	6	-9.0662044619e-01	3.4837021570e+00	1.9013152433e+01
11	1	1	2	10	8	-7.7770607902e-01	3.6385183730e+00	2.2726226279e+01
11a	1	1	$10^{0.4}$	7	10	-6.5764074405e-01	3.7515390863e+00	2.7130404436e+01
11b.1	1	1	$10^{0.5}$	7	10	-5.4717954967e-01	3.8333794413e+00	3.2577024060e+01
11b.2	1	1	$10^{0.5}$	7	11	-5.4717954967e-01	3.8333794413e+00	3.2577024060e+01
11c.1	1	1	$10^{0.6}$	7	11	-4.5010364249e-01	3.8900023468e+00	3.9311359011e+01
11c.2	1	1	$10^{0.6}$	7	12	-4.5010364249e-01	3.8900023468e+00	3.9311359011e+01
12.1	1	1	5	7	11	-3.6781934855e-01	3.9279089576e+00	4.7598400840e+01
12.1	1	1	5	7	12	-3.6781934855e-01	3.9279089576e+00	4.7598400840e+01
12a.1	1	1	$10^{0.8}$	7	11	-2.9734141354e-01	3.9535733441e+00	5.8177140816e+01
12a.2	1	1	$10^{0.8}$	7	12	-2.9734141354e-01	3.9535733441e+00	5.8177140816e+01
12b.1	1	1	$10^{0.9}$	5	19	-2.3973068017e-01	3.9698513618e+00	7.1311312424e+01
12b.2	1	1	$10^{0.9}$	5	20	-2.3973068017e-01	3.9698513618e+00	7.1311312424e+01
13.1	1	1	10	5	20	-1.9256239280e-01	3.9807500071e+00	8.7823407685e+01
13.2	1	1	10	5	21	-1.9256239280e-01	3.9807500071e+00	8.7823407685e+01

TABLE V. $\omega_0/J = 1$ and $G/J = 1$.

Index	δ_{OSR}	δ_0	δ_1	δ_2
10	1.6036380825e-05	5.9979976426e-07	4.8560432118e-07	1.1567164309e-06
10a	4.5996653245e-05	8.3264512636e-07	7.4574557915e-07	8.7550565173e-07
10b	4.7684441034e-05	8.3264101069e-07	7.1762494436e-07	8.8693233835e-07
11	3.2082964632e-07	1.3311664260e-07	2.3849669782e-06	1.2661667450e-06
11a	7.6778148020e-05	3.3829399181e-07	3.1665155940e-06	1.8456957748e-06
11b.1	2.2976859693e-05	1.6077349009e-07	4.8433644391e-06	2.2194607919e-06
11b.2	2.4929681453e-05	1.6077309411e-07	4.8433683662e-06	2.2194674746e-06
11c.1	7.1599468839e-06	1.3311844913e-07	7.1479694272e-06	3.0058552571e-06
11c.2	5.3026978378e-06	1.3311806797e-07	7.1479652595e-06	3.0058451238e-06
12.1	4.6512888516e-07	1.5098845322e-07	1.0569646777e-05	4.2212905274e-06
12.2	6.7854629430e-07	1.5098825061e-07	1.0569645597e-05	4.2212878026e-06
12a.1	1.3864898871e-06	1.5099063354e-07	1.5978623124e-05	6.0672717077e-06
12a.2	9.4325310761e-07	1.5099207033e-07	1.5978616095e-05	6.0672621534e-06
12b.1	3.9430111124e-04	6.9692799582e-09	1.5127509267e-06	5.4957585754e-07
12b.2	3.9527948784e-04	6.9689141438e-09	1.5127477180e-06	5.4956812791e-07
13.1	1.9663862414e-04	5.3948690718e-08	3.7305557083e-05	1.3006389709e-05
13.2	1.9521492638e-04	5.3947931594e-08	3.7305566392e-05	1.3006411650e-05

TABLE VI. Relative accuracy with which different sum rules are satisfied. $\omega_0/J = 1$ and $G/J = 1$.

Index	ω_0/J	G/J	T/J	N	D	$\langle H_{\rm e}\rangle/J$	1st moment	2nd moment
15.1	1	$\sqrt{2}$	2	7	10	-6.7810727121e-01	7.3904137766e+00	6.0488230716e+01
15.2	1	$\sqrt{2}$	2	7	11	-6.7810727121e-01	7.3904137769e+00	6.0488230749e+01
15a.1	1	$\sqrt{2}$	$10^{0.4}$	7	10	-5.8595153335e-01	7.5691433688e+00	6.9551423817e+01
15a.2	1	$\sqrt{2}$	$10^{0.4}$	7	11	-5.8595153335e-01	7.5691433689e+00	6.9551423822e+01
15b.1	1	$\sqrt{2}$	$10^{0.5}$	7	10	-4.9733154367e-01	7.7036303753e+00	8.0647568207e+01
15b.2	1	$\sqrt{2}$	$10^{0.5}$	7	11	-4.9733154367e-01	7.7036303753e+00	8.0647568208e+01
15c.1	1	$\sqrt{2}$	$10^{0.6}$	7	11	-4.1628095148e-01	7.8000210080e+00	9.4270165317e+01
15c.2	1	$\sqrt{2}$	$10^{0.6}$	7	12	-4.1628095148e-01	7.8000210080e+00	9.4270165318e+01
16.1	1	$\sqrt{2}$	5	7	11	-3.4519845218e-01	7.8665302812e+00	1.1095549112e+02
16.2	1	$\sqrt{2}$	5	7	12	-3.4519845218e-01	7.8665302812e+00	1.1095549112e+02
16a.1	1	$\sqrt{2}$	$10^{0.8}$	7	11	-2.8254865169e-01	7.9127180099e+00	1.3219316115e+02
16a.2	1	$\sqrt{2}$	$10^{0.8}$	7	12	-2.8254865169e-01	7.9127180099e+00	1.3219316115e+02
16b.1	1	$\sqrt{2}$	$10^{0.9}$	7	11	-2.3009625952e-01	7.9431987469e+00	1.5853566803e+02
16b.2	1	$\sqrt{2}$	$10^{0.9}$	7	12	-2.3009625952e-01	7.9431987469e+00	1.5853566803e+02
17.1	1	$\sqrt{2}$	10	7	11	-1.8635146935e-01	7.9632929879e+00	1.9158961786e+02
17.2	1	$\sqrt{2}$	10	7	12	-1.8635146935e-01	7.9632929879e+00	1.9158961786e+02

TABLE VII. $\omega_0/J = 1$ and $G/J = \sqrt{2}$.

Index	δ_{OSR}	δ_0	δ_1	δ_2
15.1	9.3122191191e-05	1.2499279304e-08	6.5144470140e-07	3.2140807939e-07
15.2	1.2967356871e-04	6.1043898433e-09	1.0711762190e-05	4.9964218350e-06
15a.1	5.5818261598e-05	1.5098296439e-07	1.4696140173e-05	6.9414856374e-06
15a.2	1.6000585928e-05	1.5098461188e-07	1.4695839089e-05	6.9407594472e-06
15b.1	1.4158181384e-05	1.5093434305e-07	2.0934310426e-05	9.4989207246e-06
15b.2	1.2854647294e-05	1.5093443679e-07	2.0934303211e-05	9.4988949934e-06
15c.1	2.9447484867e-06	1.5092931252e-07	3.0352646953e-05	1.3220860358e-05
15c.2	1.6458676440e-06	1.5092844137e-07	3.0352642202e-05	1.3220836773e-05
16.1	1.9621584365e-06	1.1244510393e-09	2.7761894275e-06	1.1496825626e-06
16.2	2.0251426220e-06	1.1250029937e-09	2.7761894275e-06	1.1496855684e-06
16a.1	8.4443130598e-06	1.5089148526e-07	6.6721988303e-05	2.6808535215e-05
16a.2	8.4910059101e-06	1.5089143040e-07	6.6721988303e-05	2.6808535215e-05
16b.1	1.2166796472e-05	1.5081192239e-07	1.0076458856e-04	3.8971413534e-05
16b.2	1.2156411503e-05	1.5081198616e-07	1.0076458856e-04	3.8971413534e-05
17.1	1.6818573698e-06	1.1546238409e-09	9.5092509542e-06	3.5563795428e-06
17.2	1.1318765080e-06	1.1547980709e-09	9.5092550259e-06	3.5563907608e-06

TABLE VIII. Relative accuracy with which different sum rules are satisfied. $\omega_0/J = 1$ and $G/J = \sqrt{2}$.

Index	ω_0/J	G/J	T/J	N	D	$\langle H_{\rm e}\rangle/J$	1st moment	2nd moment
22	$\frac{1}{3}$	$\frac{1}{\sqrt{150}}$	1	128	2	-1.3904552941e+00	5.5948648407e-02	1.3922850834e-01
22a	$\frac{1}{3}$	$\frac{1}{\sqrt{150}}$	$10^{0.1}$	80	2	-1.2302903746e+00	6.2254190822e-02	1.8246099806e-01
22b	$\frac{1}{3}$	$\frac{1}{\sqrt{150}}$	$10^{0.2}$	80	2	-1.0597095374e+00	6.7446238925e-02	2.3712830051e-01
23	$\frac{1}{3}$	$\frac{1}{\sqrt{150}}$	2	40	3	-8.9030879367e-01	7.1451853466e-02	3.0638100348e-01
23a	$\frac{1}{3}$	$\frac{1}{\sqrt{150}}$	$10^{0.4}$	40	3	-7.3739362962e-01	7.4281605326e-02	3.9103039138e-01
23b	$\frac{1}{3}$	$\frac{1}{\sqrt{150}}$	$10^{0.5}$	40	3	-6.0163056408e-01	7.6258675649e-02	4.9761031639e-01
23c	$\frac{1}{3}$	$\frac{1}{\sqrt{150}}$	$10^{0.6}$	40	3	-4.8639161148e-01	7.7582702465e-02	6.3079800233e-01
24	$\frac{1}{3}$	$\frac{1}{\sqrt{150}}$	5	40	3	-3.9170134424e-01	7.8444001113e-02	7.9563845731e-01
24a	$\frac{1}{3}$	$\frac{1}{\sqrt{150}}$	$10^{0.8}$	40	3	-3.1273905731e-01	7.9013037171e-02	1.0066902699e+00
24b	$\frac{1}{3}$	$\frac{1}{\sqrt{150}}$	$10^{0.9}$	40	3	-2.4960374749e-01	7.9373302093e-02	1.2693027582e+00
25	$\frac{1}{3}$	$\frac{1}{\sqrt{150}}$	10	40	3	-1.9887505779e-01	7.9602967493e-02	1.5993583595e+00

TABLE IX. $\omega_0/J = 1/3$ and $G/J = 1/\sqrt{150}$.

Index	$\delta_{\rm OSR}$	δ_0	δ_1	δ_2
22	1.2388889971e-05	5.5508654841e-08	2.6820244136e-06	6.6684123114e-06
22a	1.0303602494e-05	1.8518928722e-07	3.6363158870e-07	3.8733046657e-06
22b	1.0083847788e-05	1.8518179194e-07	3.7265852094e-07	4.1924268672e-06
23	9.6120457789e-06	4.8448648808e-07	2.8479529286e-07	3.7641218380e-06
23a	2.7485514621e-08	4.8451335538e-07	2.8018690846e-07	5.5313003846e-07
23b	1.3022323503e-08	4.8449317009e-07	2.6455953862e-07	5.5623772380e-07
23c	1.5525164291e-08	4.8447229548e-07	2.4405953341e-07	5.6130122735e-07
24	9.7607884751e-09	4.8450861400e-07	2.1736276448e-07	5.6860494537e-07
24a	6.1793107208e-09	4.8448435494e-07	1.8105541232e-07	5.7904996449e-07
24b	7.9183080745e-09	4.8446891534e-07	1.3264468716e-07	5.9337292946e-07
25	6.7227379205e-09	4.8448079136e-07	6.6684536087e-08	6.1310366650e-07

TABLE X. Relative accuracy with which different sum rules are satisfied. $\omega_0/J = 1/3$ and $G/J = 1/\sqrt{150}$.

Index	ω_0/J	G/J	T/J	N	D	$\langle H_{\rm e}\rangle/J$	1st moment	2nd moment
26	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	1	30	4	-1.3324071754e+00	7.1486081461e-01	2.0611429416e+00
26a	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	$10^{0.1}$	30	4	-1.1815321195e+00	7.8897587148e-01	2.6394120830e+00
26b	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	$10^{0.2}$	30	4	-1.0215986025e+00	8.4997233464e-01	3.3530866497e+00
27	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	2	20	5	-8.6237579726e-01	8.9722719990e-01	4.2416976626e+00
27a	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	$10^{0.4}$	20	5	-7.1773046300e-01	9.3082234493e-01	5.3156630565e+00
27b	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	$10^{0.5}$	13	6	-5.8830292138e-01	9.5448178505e-01	6.6590410786e+00
27c.1	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	$10^{0.6}$	7	9	-4.7757297020e-01	9.7044163391e-01	8.3312969652e+00
27c.2	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	$10^{0.6}$	7	10	-4.7757297020e-01	9.7044163391e-01	8.3312969652e+00
28.1	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	5	7	10	-3.8593380979e-01	9.8089379977e-01	1.0396664010e+01
28.2	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	5	7	11	-3.8593380979e-01	9.8089379977e-01	1.0396664010e+01
28a.1	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	$10^{0.8}$	7	11	-3.0904089043e-01	9.8783805457e-01	1.3038025718e+01
28a.2	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	$10^{0.8}$	7	12	-3.0904089043e-01	9.8783805457e-01	1.3038025718e+01
28b.1	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	$10^{0.9}$	5	13	-2.4725878319e-01	9.9217444285e-01	1.6320151578e+01
28b.2	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	$10^{0.9}$	5	14	-2.4725878319e-01	9.9217444285e-01	1.6320151578e+01
29.1	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	10	5	14	-1.9737760919e-01	9.9504134539e-01	2.0448084153e+01
29.2	$\frac{1}{3}$	$\frac{1}{\sqrt{12}}$	10	5	15	-1.9737760919e-01	9.9504134539e-01	2.0448084153e+01

TABLE XI. $\omega_0/J = 1/3$ and $G/J = 1/\sqrt{12}$.

Index	δ_{OSR}	δ_0	δ_1	δ_2
26	5.5478471914e-05	5.0259961848e-08	4.9887652799e-07	2.8665200083e-07
26a	4.9729100147e-05	1.2619865992e-07	5.5237895019e-07	3.9805294269e-07
26b	4.0880969697e-05	1.2618890094e-07	7.3468009418e-07	4.5087206469e-07
27	2.6179653786e-06	5.0289040288e-08	1.0741565180e-06	4.7799436666e-07
27a	2.8261347670e-06	5.0266393159e-08	1.4472057297e-06	5.9513446578e-07
27b	5.5329621003e-06	5.0276561618e-08	1.9981041296e-06	7.6914361070e-07
27c.1	2.2086001048e-06	5.0274556755e-08	2.8131613730e-06	1.0268467552e-06
27c.2	3.1790608084e-06	5.0274426264e-08	2.8131491419e-06	1.0268148559e-06
28.1	6.9213249585e-06	5.0265797814e-08	4.0199128963e-06	1.4085870068e-06
28.2	8.3308185270e-06	5.0264645031e-08	4.0198892851e-06	1.4085456840e-06
28a.1	6.6011379978e-06	5.0259471937e-08	5.8818688906e-06	1.9962850051e-06
28a.2	7.3376167345e-06	5.0258670625e-08	5.8818565819e-06	1.9962601362e-06
28b.1	4.0616055608e-04	5.0288946488e-08	8.6745382019e-06	2.8751415287e-06
28b.2	4.0509076173e-04	5.0289388821e-08	8.6745125249e-06	2.8751060510e-06
29.1	2.0254984059e-04	5.0286179303e-08	1.2993971079e-05	4.2294494914e-06
29.2	2.0443564268e-04	5.0286352070e-08	1.2993988535e-05	4.2295052167e-06

TABLE XII. Relative accuracy with which different sum rules are satisfied. $\omega_0/J = 1/3$ and $G/J = 1/\sqrt{12}$.

Index	ω_0/J	G/J	T/J	N	D	$\langle H_{\rm e}\rangle/J$	1st moment	2nd moment
33.1	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	1	10	7	-1.1517445577e+00	3.0503755140e+00	1.2851205763e+01
33.2	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	1	10	8	-1.1517444891e+00	3.0503779741e+00	1.2851252563e+01
33a.1	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.1}$	10	7	-1.0325142700e+00	3.2864345657e+00	1.5520883612e+01
33a.2	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.1}$	10	8	-1.0325142570e+00	3.2864352128e+00	1.5520898775e+01
33b.1	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.2}$	10	7	-9.0582381534e-01	3.4827600805e+00	1.8664537507e+01
33b.2	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.2}$	10	8	-9.0582381307e-01	3.4827602401e+00	1.8664542126e+01
34.1	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	2	7	11	-7.7735209565e-01	3.6379568093e+00	2.2442585771e+01
34.2	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	2	7	12	-7.7735209565e-01	3.6379568093e+00	2.2442585771e+01
34a.1	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.4}$	7	11	-6.5746714814e-01	3.7513262954e+00	2.6902123325e+01
34a.2	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.4}$	7	12	-6.5746714814e-01	3.7513262954e+00	2.6902123325e+01
34b.1	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.5}$	6	13	-5.4713945099e-01	3.8330391599e+00	3.2389866321e+01
34b.2	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.5}$	6	14	-5.4713945099e-01	3.8330391599e+00	3.2389866321e+01
34c.1	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.6}$	6	13	-4.5008360034e-01	3.8898558587e+00	3.9162577771e+01
34c.2	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.6}$	6	14	-4.5008360034e-01	3.8898558587e+00	3.9162577771e+01
35.1	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	5	6	14	-3.6780987651e-01	3.9278464690e+00	4.7479898693e+01
35.2	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	5	6	15	-3.6780987651e-01	3.9278464690e+00	4.7479898693e+01
35a.1	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.8}$	6	14	-2.9733719572e-01	3.9535475209e+00	5.8083221292e+01
35a.2	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.8}$	6	15	-2.9733719572e-01	3.9535475209e+00	5.8083221292e+01
35b.1	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.9}$	6	14	-2.3970993868e-01	3.9701467574e+00	7.1246525555e+01
35b.2	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	$10^{0.9}$	6	15	-2.3970993868e-01	3.9701467574e+00	7.1246525555e+01
36.1	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	10	6	14	-1.9255390347e-01	3.9809018558e+00	8.7770445004e+01
36.2	$\frac{1}{3}$	$\frac{1}{\sqrt{3}}$	10	6	15	-1.9255390348e-01	3.9809018560e+00	8.7770445006e+01

TABLE XIII. $\omega_0/J = 1/3$ and $G/J = 1/\sqrt{3}$.

Index	δ_{OSR}	δ_0	δ_1	δ_2
33.1	4.4972581478e-05	5.5360028766e-08	6.7737618554e-05	3.2596817755e-05
33.2	3.8660971810e-05	5.5358536073e-08	6.7745077492e-05	3.2604980362e-05
33a.1	1.4032040606e-05	1.2617190480e-07	5.6031661544e-06	2.7976583744e-06
33a.2	2.2209158710e-05	1.2620277559e-07	5.6034060646e-06	2.7979624350e-06
33b.1	6.0776884346e-06	1.2619803966e-07	7.8228870026e-06	3.7048645583e-06
33b.2	8.9832863835e-06	1.2619728751e-07	7.8230169826e-06	3.7050646608e-06
34.1	2.2412921689e-04	5.0253750110e-08	1.1216922423e-05	4.9337403605e-06
34.2	2.2427668314e-04	5.0254948337e-08	1.1216922423e-05	4.9337449012e-06
34a.1	7.5430677197e-05	5.0286015417e-08	1.6081495308e-05	6.7838679974e-06
34a.2	7.5346239911e-05	5.0286515813e-08	1.6081492839e-05	6.7838659313e-06
34b.1	3.8347188132e-04	5.4186540040e-08	3.8334567434e-04	1.5249943404e-04
34b.2	3.8347404858e-04	5.4186983295e-08	3.8334567434e-04	1.5249943404e-04
34c.1	1.1797632408e-04	5.3251400390e-08	5.7004763355e-04	2.1781182812e-04
34c.2	1.1797811479e-04	5.3250851826e-08	5.7004763355e-04	2.1781182812e-04
35.1	6.6869054488e-05	5.0170247764e-08	5.1970778723e-05	1.9527214265e-05
35.2	6.7002671662e-05	5.0170694460e-08	5.1970778723e-05	1.9527218948e-05
35a.1	2.0845029455e-05	5.0124507803e-08	7.9109449141e-05	2.8753692677e-05
35a.2	2.1098899846e-05	5.0126548633e-08	7.9109449141e-05	2.8753700333e-05
35b.1	7.1121360005e-07	4.9969900266e-08	1.2101154342e-04	4.2706292544e-05
35b.2	8.9527169654e-07	4.9967899709e-08	1.2101154342e-04	4.2706296705e-05
36.1	9.5976873649e-06	4.9706234402e-08	1.8657127367e-04	6.4136274805e-05
36.2	9.5517018914e-06	4.9705357226e-08	1.8657129228e-04	6.4136274803e-05

TABLE XIV. Relative accuracy with which different sum rules are satisfied. $\omega_0/J = 1/3$ and $G/J = 1/\sqrt{3}$.

Index	ω_0/J	G/J	T/J	N	D	$\langle H_{\rm e}\rangle/J$	1st moment	2nd moment
37.1	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	1	7	11	-9.3815140221e-01	6.5422427647e+00	3.9687564660e+01
37.2	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	1	7	12	-9.3815140181e-01	6.5422427909e+00	3.9687565492e+01
37a.1	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	$10^{0.1}$	7	11	-8.5908367901e-01	6.8706465963e+00	4.5409558993e+01
37a.2	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	$10^{0.1}$	7	12	-8.5908367898e-01	6.8706465992e+00	4.5409559105e+01
37b.1	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	$10^{0.2}$	7	11	-7.7117043040e-01	7.1550506370e+00	5.2049213099e+01
37b.2	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	$10^{0.2}$	7	12	-7.7117043040e-01	7.1550506373e+00	5.2049213113e+01
38.1	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	2	7	11	-6.7746394970e-01	7.3900039310e+00	5.9920304436e+01
38.2	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	2	7	12	-6.7746394970e-01	7.3900039311e+00	5.9920304438e+01
38a.1	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	$10^{0.4}$	7	11	-5.8564996859e-01	7.5689062267e+00	6.9093110557e+01
38a.2	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	$10^{0.4}$	7	12	-5.8564996859e-01	7.5689062267e+00	6.9093110557e+01
38b.1	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	$10^{0.5}$	6	14	-4.9722541725e-01	7.7031070036e+00	8.0273626875e+01
38b.2	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	$10^{0.5}$	6	15	-4.9722541725e-01	7.7031070036e+00	8.0273626875e+01
38c.1	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	$10^{0.6}$	6	14	-4.1623249363e-01	7.7997832417e+00	9.3972749342e+01
38c.2	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	$10^{0.6}$	6	15	-4.1623249363e-01	7.7997832417e+00	9.3972749342e+01
39.1	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	5	6	14	-3.4517680544e-01	7.8664244314e+00	1.1071854377e+02
39.2	$\frac{1}{3}$	$\sqrt{\frac{2}{3}}$	5	6	15	-3.4517680544e-01	7.8664244314e+00	1.1071854377e+02

TABLE XV. $\omega_0/J = 1/3$ and $G/J = \sqrt{2/3}$.

Index	δ_{OSR}	δ_0	δ_1	δ_2
37.1	3.0932965304e-03	1.3348611246e-08	1.9578481388e-05	9.2149467689e-06
37.2	3.0234339773e-03	1.3459400941e-08	1.9508581633e-05	9.1497568077e-06
37a.1	1.1449952983e-03	2.6181889334e-08	4.2842493036e-04	1.9739735470e-04
37a.2	1.1506759399e-03	2.6177275669e-08	4.2842281596e-04	1.9739807233e-04
37b.1	3.9306627253e-04	3.9537752631e-08	5.8890794018e-04	2.6730570236e-04
37b.2	3.8765570892e-04	3.9481587202e-08	5.8891179334e-04	2.6731094220e-04
38.1	1.7411756189e-04	5.0138749380e-08	5.0333053019e-05	2.3119411072e-05
38.2	1.7447787347e-04	5.0138725074e-08	5.0333053019e-05	2.3119393755e-05
38a.1	5.3345072958e-05	5.0059109895e-08	7.1166897846e-05	3.1930865675e-05
38a.2	5.3419628964e-05	5.0060057398e-08	7.1166902742e-05	3.1930882838e-05
38b.1	3.6250995335e-04	4.9875007120e-08	1.0263406888e-04	4.4758218212e-05
38b.2	3.6251528194e-04	4.9875147761e-08	1.0263405925e-04	4.4758214519e-05
38c.1	1.3772610090e-04	4.9638388170e-08	1.5031915347e-04	6.3470818513e-05
38c.2	1.3772465420e-04	4.9637238863e-08	1.5031915347e-04	6.3470818513e-05
39.1	3.6720700561e-05	4.9215806717e-08	2.2232899861e-04	9.0684076657e-05
39.2	3.6722693322e-05	4.9213829817e-08	2.2232901745e-04	9.0684076657e-05

TABLE XVI. Relative accuracy with which different sum rules are satisfied. $\omega_0/J = 1/3$ and $G/J = \sqrt{2/3}$.

Index	ω_0/J	G/J	T/J	N	D	$\langle H_{\rm e}\rangle/J$	1st moment	2nd moment
49.1	3	$\sqrt{6}$	2	10	6	-7.8094846825e-01	3.6424211544e+00	2.5178008432e+01
49.2	3	$\sqrt{6}$	2	10	7	-7.8094845896e-01	3.6424220256e+00	2.5178035758e+01
49a.1	3	$\sqrt{6}$	$10^{0.4}$	10	6	-6.5914832023e-01	3.7534387477e+00	2.9138888190e+01
49a.2	3	$\sqrt{6}$	$10^{0.4}$	10	7	-6.5914831827e-01	3.7534390162e+00	2.9138898605e+01
49b.1	3	$\sqrt{6}$	$10^{0.5}$	8	8	-5.4785020392e-01	3.8342402373e+00	3.4203236375e+01
49b.2	3	$\sqrt{6}$	$10^{0.5}$	8	9	-5.4785020392e-01	3.8342402373e+00	3.4203236377e+01
49c.1	3	$\sqrt{6}$	$10^{0.6}$	7	11	-4.5039301904e-01	3.8903769505e+00	4.0619578334e+01
49c.2	3	$\sqrt{6}$	$10^{0.6}$	7	12	-4.5039301904e-01	3.8903769505e+00	4.0619578334e+01
50.1	3	$\sqrt{6}$	5	7	11	-3.6794218160e-01	3.9280719065e+00	4.8648769203e+01
50.2	3	$\sqrt{6}$	5	7	12	-3.6794218160e-01	3.9280719065e+00	4.8648769203e+01
50a.1	3	$\sqrt{6}$	$10^{0.8}$	7	11	-2.9739181195e-01	3.9536416909e+00	5.9014140987e+01
50a.2	3	$\sqrt{6}$	$10^{0.8}$	7	12	-2.9739181195e-01	3.9536416909e+00	5.9014140987e+01
50b.1	3	$\sqrt{6}$	$10^{0.9}$	7	11	-2.3973240843e-01	3.9701859184e+00	7.1988347347e+01
50b.2	3	$\sqrt{6}$	$10^{0.9}$	7	12	-2.3973240843e-01	3.9701859184e+00	7.1988347347e+01
51.1	3	$\sqrt{6}$	10	5	18	-1.9257077468e-01	3.9807615513e+00	8.8354563713e+01
51.2	3	$\sqrt{6}$	10	5	19	-1.9257077468e-01	3.9807615513e+00	8.8354563713e+01

TABLE XVII. $\omega_0/J = 3$ and $G/J = \sqrt{3}$.

Index	δ_{OSR}	δ_0	δ_1	δ_2
49.1	5.1024502565e-07	5.9978658182e-07	4.9668533877e-06	3.5084509275e-06
49.2	1.8655382625e-06	5.9981923800e-07	4.9670280103e-06	3.5087035748e-06
49a.1	7.4936405442e-07	5.9982127642e-07	6.1605456627e-06	3.9229692500e-06
49a.2	1.5076645051e-06	5.9977091879e-07	6.1606852893e-06	3.9231964372e-06
49b.1	2.5706638445e-07	1.3313572115e-07	8.4477136106e-06	4.0837880329e-06
49b.2	3.3595087862e-07	1.3313613601e-07	8.4477069662e-06	4.0837758443e-06
49c.1	7.2951308075e-06	1.3312868268e-07	1.1176359807e-05	5.0175534842e-06
49c.2	7.3663193707e-06	1.3312798543e-07	1.1176359807e-05	5.0175530281e-06
50.1	8.9478755777e-07	1.3313448762e-07	1.5216704025e-05	6.3857093198e-06
50.2	5.6265355569e-07	1.3313389819e-07	1.5216705204e-05	6.3857108432e-06
50a.1	3.1024261291e-06	2.3174476710e-07	2.1795146392e-05	8.0983313176e-06
50a.2	7.4611617289e-06	2.3174606661e-07	2.1795125304e-05	8.0982773165e-06
50b.1	4.4733891460e-06	2.3178747837e-07	3.1136407522e-05	1.1186150460e-05
50b.2	6.8414154867e-06	2.3178722317e-07	3.1136412189e-05	1.1186162814e-05
51.1	1.9531718417e-04	1.3308931182e-07	4.5012060368e-05	1.6207447213e-05
51.2	1.9620343870e-04	1.3308943001e-07	4.5012060368e-05	1.6207450569e-05

TABLE XVIII. Relative accuracy with which different sum rules are satisfied. $\omega_0/J = 3$ and $G/J = \sqrt{3}$.

Index	ω_0/J	G/J	T/J	N	D	$\langle H_{\rm e}\rangle/J$	1st moment	2nd moment
53a	3	$\sqrt{6}$	$10^{0.4}$	10	8	-5.8858232456e-01	7.5712894837e+00	7.3583530924e+01
53b.1	3	$\sqrt{6}$	$10^{0.5}$	7	9	-4.9852659518e-01	7.7047254159e+00	8.3907162108e+01
53b.2	3	$\sqrt{6}$	$10^{0.5}$	7	10	-4.9852659518e-01	7.7047254162e+00	8.3907162130e+01
53c.1	3	$\sqrt{6}$	$10^{0.6}$	7	10	-4.1680546820e-01	7.8005574708e+00	9.6890230431e+01
53c.2	3	$\sqrt{6}$	$10^{0.6}$	7	11	-4.1680546820e-01	7.8005574708e+00	9.6890230431e+01
54.1	3	$\sqrt{6}$	5	7	11	-3.4542505663e-01	7.8667820499e+00	1.1305788393e+02
54.2	3	$\sqrt{6}$	5	7	12	-3.4542505663e-01	7.8667820499e+00	1.1305788393e+02
54a.1	3	$\sqrt{6}$	$10^{0.8}$	7	11	-2.8264307378e-01	7.9128299716e+00	1.3386788267e+02
54a.2	3	$\sqrt{6}$	$10^{0.8}$	7	12	-2.8264307378e-01	7.9128299716e+00	1.3386788267e+02
54b.1	3	$\sqrt{6}$	$10^{0.9}$	7	11	-2.3013541190e-01	7.9432475515e+00	1.5987040880e+02
54b.2	3	$\sqrt{6}$	$10^{0.9}$	7	12	-2.3013541190e-01	7.9432475515e+00	1.5987040880e+02
55.1	3	$\sqrt{6}$	10	5	20	-1.8637475540e-01	7.9630190253e+00	1.9264007414e+02
55.2	3	$\sqrt{6}$	10	5	21	-1.8637475540e-01	7.9630190253e+00	1.9264007414e+02

TABLE XIX. $\omega_0/J = 3$ and $G/J = \sqrt{6}$.

Index	δ_{OSR}	δ_0	δ_1	δ_2
53a	8.0452868743e-06	8.7853691769e-08	1.5250372914e-06	6.4345091746e-07
53b.1	2.2149857760e-05	1.8522719156e-07	2.0466243450e-06	7.1815728622e-07
53b.2	1.8887467038e-05	1.8522696656e-07	2.0466139743e-06	7.1812587491e-07
53c.1	6.2859744317e-07	1.8519640415e-07	2.6845394070e-06	9.6802884524e-07
53c.2	5.4585438589e-06	1.8519675633e-07	2.6845643468e-06	9.6807741701e-07
54.1	9.6798384000e-07	1.8519385024e-07	3.6347246613e-06	1.3285081678e-06
54.2	9.6660290065e-06	1.8519442030e-07	3.6346946322e-06	1.3284435985e-06
54a.1	2.5409969524e-06	1.8518592491e-07	5.1061675521e-06	1.8701205203e-06
54a.2	2.5971819356e-06	1.8518557745e-07	5.1061681375e-06	1.8701224580e-06
54b.1	2.9012961688e-06	1.8520986683e-07	7.3332789798e-06	2.6672458864e-06
54b.2	2.7135339947e-06	1.8521004903e-07	7.3332789798e-06	2.6672451910e-06
55.1	1.8578575189e-04	1.8521146933e-07	1.0751310932e-05	3.8609713518e-06
55.2	1.8746672634e-04	1.8521079673e-07	1.0751306279e-05	3.8609675047e-06

TABLE XX. Relative accuracy with which different sum rules are satisfied. $\omega_0/J = 3$ and $G/J = \sqrt{6}$.