

Coordinates

$$\text{Co} : (\frac{1}{3}, \frac{2}{3}, \frac{1}{6}), (1, 1, \frac{1}{2}), (\frac{2}{3}, \frac{1}{3}, \frac{5}{6})$$

$$\text{O} : (0, 0, 0.239587), (\frac{2}{3}, \frac{1}{3}, 0.09374633), (\frac{2}{3}, \frac{1}{3}, 0.57292033), (\frac{1}{3}, \frac{2}{3}, 0.42707967), (\frac{1}{3}, \frac{2}{3}, 0.90625367), (0, 0, 0.760413)$$

$$\text{Li} : (0, 0, 0), (\frac{2}{3}, \frac{1}{3}, \frac{1}{3}), (\frac{1}{3}, \frac{2}{3}, \frac{2}{3})$$

$$\text{Reflections} : (1, 0, 1), (-1, 0, 1), (1, 0, -1), (0, 1, 1), (0, -1, 1), (0, 1, -1), \\ (0, -1, -1), (-1, 1, 1), (0, -1, 1), (-1, 1, -1), (1, -1, -1), (-1, -1, -1)$$

⌈

$$\begin{aligned} F_{hkl} &= f_{\text{Co}}(e^{2\pi i(\frac{h}{3} + \frac{2k}{3} + \frac{l}{6})} + e^{2\pi i(h+k+\frac{l}{2})} + e^{2\pi i(\frac{2h}{3} + \frac{k}{3} + \frac{5l}{6})}) \\ &\quad + f_{\text{O}}(e^{2\pi i(0+0+\frac{0.239587 \cdot l}{1})} + e^{2\pi i(\frac{2h}{3} + \frac{k}{3} + \frac{0.09374633 \cdot l}{1})} + e^{2\pi i(\frac{2h}{3} + \frac{k}{3} + \frac{0.57292033 \cdot l}{1})} + e^{2\pi i(\frac{h}{3} + \frac{2k}{3} + \frac{0.42707967 \cdot l}{1})} \\ &\quad + e^{2\pi i(\frac{h}{3} + \frac{2k}{3} + \frac{0.90625367 \cdot l}{1})} + e^{2\pi i(0+0+\frac{0.760413 \cdot l}{1})}) \\ &\quad + f_{\text{Li}}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2h}{3} + \frac{k}{3} + \frac{l}{3})} + e^{2\pi i(\frac{h}{3} + \frac{2k}{3} + \frac{2l}{3})}) \\ &= f_{\text{Co}}(e^{2\pi i(\frac{h}{3} + \frac{2k}{3} + \frac{l}{6})} + e^{2\pi i(h+k+\frac{l}{2})} + e^{2\pi i(\frac{2h}{3} + \frac{k}{3} + \frac{5l}{6})}) \\ &\quad + f_{\text{O}}(e^{2\pi i(\frac{0.239587 \cdot l}{1})} + e^{2\pi i(\frac{2h}{3} + \frac{k}{3} + \frac{0.09374633 \cdot l}{1})} + e^{2\pi i(\frac{2h}{3} + \frac{k}{3} + \frac{0.57292033 \cdot l}{1})} + e^{2\pi i(\frac{h}{3} + \frac{2k}{3} + \frac{0.42707967 \cdot l}{1})} \\ &\quad + e^{2\pi i(\frac{h}{3} + \frac{2k}{3} + \frac{0.90625367 \cdot l}{1})} + e^{2\pi i(\frac{0.760413 \cdot l}{1})}) \\ &\quad + f_{\text{Li}}(e^{2\pi i(0)} + e^{2\pi i(\frac{2h}{3} + \frac{k}{3} + \frac{l}{3})} + e^{2\pi i(\frac{h}{3} + \frac{2k}{3} + \frac{2l}{3})}) \end{aligned}$$

$$\begin{aligned}
F_{101} &= f_{Co}(e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{1}{6})} + e^{2\pi i(1+0+\frac{1}{2})} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{5 \cdot 1}{6})}) \\
&\quad + f_O(e^{2\pi i(0+0+\frac{0.239587 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{0.09374633 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{0.57292033 \cdot 1}{1})} + e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{0.42707967 \cdot 1}{1})}) \\
&\quad + e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{0.90625367 \cdot 1}{1})} + e^{2\pi i(0+0+\frac{0.760413 \cdot 1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{1}{3})} + e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{2 \cdot 1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{1}{6})} + e^{2\pi i(1+0+\frac{1}{2})} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{5 \cdot 1}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{0.09374633 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{0.57292033 \cdot 1}{1})} + e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{0.42707967 \cdot 1}{1})}) \\
&\quad + e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{0.90625367 \cdot 1}{1})} + e^{2\pi i(\frac{0.760413 \cdot 1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{1}{3})} + e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{2 \cdot 1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{1}{2})} + e^{2\pi i(\frac{3}{2})} + e^{2\pi i(\frac{3}{2})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{0.760413}{1})} + e^{2\pi i(\frac{1.239587}{1})} + e^{2\pi i(\frac{0.760413}{1})}) \\
&\quad + e^{2\pi i(\frac{1.239587}{1})} + e^{2\pi i(\frac{0.760413}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(1)} + e^{2\pi i(1)}) \\
&= f_{Co}(-1 + -1 + -1) \\
&\quad + f_O([0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i] \\
&\quad + [0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i] \\
&\quad + [0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i]) \\
&\quad + f_{Li}(1 + 1 + 1) \\
&= -3f_{Co} + 0.39228084116117606f_O + 3f_{Li}
\end{aligned}$$

$$\begin{aligned}
F_{-101} &= f_{Co}(e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 0}{3} + \frac{1}{6})} + e^{2\pi i(-1+0+\frac{1}{2})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{0}{3} + \frac{5 \cdot 1}{6})}) \\
&\quad + f_O(e^{2\pi i(0+0+\frac{0.239587 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{0}{3} + \frac{0.09374633 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{0}{3} + \frac{0.57292033 \cdot 1}{1})} + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 0}{3} + \frac{0.42707967 \cdot 1}{1})}) \\
&\quad + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 0}{3} + \frac{0.90625367 \cdot 1}{1})} + e^{2\pi i(0+0+\frac{0.760413 \cdot 1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{0}{3} + \frac{1}{3})} + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 0}{3} + \frac{2 \cdot 1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 0}{3} + \frac{1}{6})} + e^{2\pi i(-1+0+\frac{1}{2})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{0}{3} + \frac{5 \cdot 1}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{0}{3} + \frac{0.09374633 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{0}{3} + \frac{0.57292033 \cdot 1}{1})} + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 0}{3} + \frac{0.42707967 \cdot 1}{1})}) \\
&\quad + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 0}{3} + \frac{0.90625367 \cdot 1}{1})} + e^{2\pi i(\frac{0.760413 \cdot 1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{0}{3} + \frac{1}{3})} + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 0}{3} + \frac{2 \cdot 1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{-1}{6})} + e^{2\pi i(\frac{-1}{2})} + e^{2\pi i(\frac{1}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{-40655}{70961})} + e^{2\pi i(\frac{-7197}{76771})} + e^{2\pi i(\frac{0.09374634}{1})}) \\
&\quad + e^{2\pi i(\frac{0.57292034}{1})} + e^{2\pi i(\frac{0.760413}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{-1}{3})} + e^{2\pi i(\frac{1}{3})}) \\
&= f_{Co}([0.5 + (-0.86603)i] + -1 + [0.5 + (0.86603)i]) \\
&\quad + f_O([0.06538 + (0.99786)i] + [-0.89686 + (0.44231)i] \\
&\quad + [0.83148 + (-0.55555)i] + [0.83148 + (0.55555)i] \\
&\quad + [-0.89686 + (-0.44231)i] + [0.06538 + (-0.99786)i]) \\
&\quad + f_{Li}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (0.86603)i]) \\
&= -4.743458736911066e - 09f_O
\end{aligned}$$

$$\begin{aligned}
F_{10-1} &= f_{Co}(e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{-1}{6})} + e^{2\pi i(1+0 + \frac{-1}{2})} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{5 \cdot -1}{6})}) \\
&\quad + f_O(e^{2\pi i(0+0 + \frac{0.239587 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{0.09374633 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{0.57292033 \cdot -1}{1})} + e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{0.42707967 \cdot -1}{1})}) \\
&\quad + e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{0.90625367 \cdot -1}{1})} + e^{2\pi i(0+0 + \frac{0.760413 \cdot -1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{-1}{3})} + e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{2 \cdot -1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{-1}{6})} + e^{2\pi i(1+0 + \frac{-1}{2})} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{5 \cdot -1}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{0.09374633 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{0.57292033 \cdot -1}{1})} + e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{0.42707967 \cdot -1}{1})}) \\
&\quad + e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{0.90625367 \cdot -1}{1})} + e^{2\pi i(\frac{0.760413 \cdot -1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2 \cdot 1}{3} + \frac{0}{3} + \frac{-1}{3})} + e^{2\pi i(\frac{1}{3} + \frac{2 \cdot 0}{3} + \frac{2 \cdot -1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{1}{6})} + e^{2\pi i(\frac{1}{2})} + e^{2\pi i(\frac{-1}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{-2042}{8523})} + e^{2\pi i(\frac{0.57292034}{1})} + e^{2\pi i(\frac{0.09374634}{1})} + e^{2\pi i(\frac{-7197}{76771})}) \\
&\quad + e^{2\pi i(\frac{-40655}{70961})} + e^{2\pi i(\frac{-6481}{8523})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{1}{3})} + e^{2\pi i(\frac{-1}{3})}) \\
&= f_{Co}([0.5 + (0.86603)i] + -1 + [0.5 + (-0.86603)i]) \\
&\quad + f_O([0.06538 + (-0.99786)i] + [-0.89686 + (-0.44231)i] \\
&\quad + [0.83148 + (0.55555)i] + [0.83148 + (-0.55555)i] \\
&\quad + [-0.89686 + (0.44231)i] + [0.06538 + (0.99786)i]) \\
&\quad + f_{Li}(1 + [-0.5 + (0.86603)i] + [-0.5 + (-0.86603)i]) \\
&= -4.743458736911066e - 09f_O
\end{aligned}$$

$$\begin{aligned}
F_{011} &= f_{Co}(e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{1}{6})} + e^{2\pi i(0+1+\frac{1}{2})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{5 \cdot 1}{6})}) \\
&\quad + f_O(e^{2\pi i(0+0+\frac{0.239587 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{0.09374633 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{0.57292033 \cdot 1}{1})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{0.42707967 \cdot 1}{1})}) \\
&\quad + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{0.90625367 \cdot 1}{1})} + e^{2\pi i(0+0+\frac{0.760413 \cdot 1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{1}{3})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{2 \cdot 1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{1}{6})} + e^{2\pi i(0+1+\frac{1}{2})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{5 \cdot 1}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{0.09374633 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{0.57292033 \cdot 1}{1})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{0.42707967 \cdot 1}{1})}) \\
&\quad + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{0.90625367 \cdot 1}{1})} + e^{2\pi i(\frac{0.760413 \cdot 1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{1}{3})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{2 \cdot 1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{5}{6})} + e^{2\pi i(\frac{3}{2})} + e^{2\pi i(\frac{7}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{0.42707966}{1})} + e^{2\pi i(\frac{0.90625366}{1})} + e^{2\pi i(\frac{1.09374634}{1})}) \\
&\quad + e^{2\pi i(\frac{1.57292034}{1})} + e^{2\pi i(\frac{0.760413}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2}{3})} + e^{2\pi i(\frac{4}{3})}) \\
&= f_{Co}([0.5 + (-0.86603)i] + -1 + [0.5 + (0.86603)i]) \\
&\quad + f_O([0.06538 + (0.99786)i] + [-0.89686 + (0.44231)i] \\
&\quad + [0.83148 + (-0.55555)i] + [0.83148 + (0.55555)i] \\
&\quad + [-0.89686 + (-0.44231)i] + [0.06538 + (-0.99786)i]) \\
&\quad + f_{Li}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (0.86603)i]) \\
&= -4.7434586258887634e - 09f_O
\end{aligned}$$

$$\begin{aligned}
F_{0-11} &= f_{Co}(e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{1}{6})} + e^{2\pi i(0 + -1 + \frac{1}{2})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{5 \cdot 1}{6})}) \\
&\quad + f_O(e^{2\pi i(0 + 0 + \frac{0.239587 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{0.09374633 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{0.57292033 \cdot 1}{1})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{0.42707967 \cdot 1}{1})}) \\
&\quad + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{0.90625367 \cdot 1}{1})} + e^{2\pi i(0 + 0 + \frac{0.760413 \cdot 1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0 + 0 + 0)} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{1}{3})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{2 \cdot 1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{1}{6})} + e^{2\pi i(0 + -1 + \frac{1}{2})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{5 \cdot 1}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{0.09374633 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{0.57292033 \cdot 1}{1})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{0.42707967 \cdot 1}{1})}) \\
&\quad + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{0.90625367 \cdot 1}{1})} + e^{2\pi i(\frac{0.760413 \cdot 1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{1}{3})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{2 \cdot 1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{-1}{2})} + e^{2\pi i(\frac{-1}{2})} + e^{2\pi i(\frac{1}{2})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{-15640}{65279})} + e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{-17032}{71089})}) \\
&\quad + e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{0.760413}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(0)} + e^{2\pi i(0)}) \\
&= f_{Co}(-1 + -1 + -1) \\
&\quad + f_O([0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i] \\
&\quad + [0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i] \\
&\quad + [0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i]) \\
&\quad + f_{Li}(1 + 1 + 1) \\
&= -3f_{Co} + 0.39228084116117673f_O + 3f_{Li}
\end{aligned}$$

$$\begin{aligned}
F_{01-1} &= f_{Co}(e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{-1}{6})} + e^{2\pi i(0+1+\frac{-1}{2})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{5 \cdot -1}{6})}) \\
&\quad + f_O(e^{2\pi i(0+0+\frac{0.239587 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{0.09374633 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{0.57292033 \cdot -1}{1})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{0.42707967 \cdot -1}{1})}) \\
&\quad + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{0.90625367 \cdot -1}{1})} + e^{2\pi i(0+0+\frac{0.760413 \cdot -1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{-1}{3})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{2 \cdot -1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{-1}{6})} + e^{2\pi i(0+1+\frac{-1}{2})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{5 \cdot -1}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{0.09374633 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{0.57292033 \cdot -1}{1})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{0.42707967 \cdot -1}{1})}) \\
&\quad + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{0.90625367 \cdot -1}{1})} + e^{2\pi i(\frac{0.760413 \cdot -1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{1}{3} + \frac{-1}{3})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot 1}{3} + \frac{2 \cdot -1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{1}{2})} + e^{2\pi i(\frac{1}{2})} + e^{2\pi i(\frac{-1}{2})}) \\
&\quad + f_O(e^{2\pi i(\frac{-2042}{8523})} + e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{-17032}{71089})} + e^{2\pi i(\frac{0.239587}{1})}) \\
&\quad + e^{2\pi i(\frac{-15640}{65279})} + e^{2\pi i(\frac{-6481}{8523})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(0)} + e^{2\pi i(0)}) \\
&= f_{Co}(-1 + -1 + -1) \\
&\quad + f_O([0.06538 + (-0.99786)i] + [0.06538 + (0.99786)i] \\
&\quad + [0.06538 + (-0.99786)i] + [0.06538 + (0.99786)i] \\
&\quad + [0.06538 + (-0.99786)i] + [0.06538 + (0.99786)i]) \\
&\quad + f_{Li}(1 + 1 + 1) \\
&= -3f_{Co} + 0.39228084116117673f_O + 3f_{Li}
\end{aligned}$$

$$\begin{aligned}
F_{0-1-1} &= f_{Co}(e^{2\pi i(\frac{0}{3} + \frac{2}{3} + \frac{-1}{6})} + e^{2\pi i(0 + -1 + \frac{-1}{2})} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{5}{6})}) \\
&\quad + f_O(e^{2\pi i(0+0+\frac{0.239587 \cdot -1}{1})} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{0.09374633 \cdot -1}{1})} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{0.57292033 \cdot -1}{1})} + e^{2\pi i(\frac{0}{3} + \frac{2}{3} + \frac{0.42707967 \cdot -1}{1})} \\
&\quad + e^{2\pi i(\frac{0}{3} + \frac{2}{3} + \frac{0.90625367 \cdot -1}{1})} + e^{2\pi i(0+0+\frac{0.760413 \cdot -1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{-1}{3})} + e^{2\pi i(\frac{0}{3} + \frac{2}{3} + \frac{2}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{0}{3} + \frac{2}{3} + \frac{-1}{6})} + e^{2\pi i(0 + -1 + \frac{-1}{2})} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{5}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587 \cdot -1}{1})} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{0.09374633 \cdot -1}{1})} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{0.57292033 \cdot -1}{1})} + e^{2\pi i(\frac{0}{3} + \frac{2}{3} + \frac{0.42707967 \cdot -1}{1})} \\
&\quad + e^{2\pi i(\frac{0}{3} + \frac{2}{3} + \frac{0.90625367 \cdot -1}{1})} + e^{2\pi i(\frac{0.760413 \cdot -1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{-1}{3})} + e^{2\pi i(\frac{0}{3} + \frac{2}{3} + \frac{2}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{-5}{6})} + e^{2\pi i(\frac{-3}{2})} + e^{2\pi i(\frac{-7}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{-2042}{8523})} + e^{2\pi i(\frac{-30306}{70961})} + e^{2\pi i(\frac{-69574}{76771})} + e^{2\pi i(\frac{-83968}{76771})} \\
&\quad + e^{2\pi i(\frac{-111616}{70961})} + e^{2\pi i(\frac{-6481}{8523})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{-2}{3})} + e^{2\pi i(\frac{-4}{3})}) \\
&= f_{Co}([0.5 + (0.86603)i] + -1 + [0.5 + (-0.86603)i]) \\
&\quad + f_O([0.06538 + (-0.99786)i] + [-0.89686 + (-0.44231)i] \\
&\quad + [0.83148 + (0.55555)i] + [0.83148 + (-0.55555)i] \\
&\quad + [-0.89686 + (0.44231)i] + [0.06538 + (0.99786)i]) \\
&\quad + f_{Li}(1 + [-0.5 + (0.86603)i] + [-0.5 + (-0.86603)i]) \\
&= -4.7434586258887634e - 09f_O
\end{aligned}$$

$$\begin{aligned}
F_{-111} &= f_{Co}(e^{2\pi i(\frac{-1}{3} + \frac{2}{3} + \frac{1}{6})} + e^{2\pi i(-1+1+\frac{1}{2})} + e^{2\pi i(\frac{2}{3} + \frac{1}{3} + \frac{5}{6})}) \\
&\quad + f_O(e^{2\pi i(0+0+\frac{0.239587 \cdot 1}{1})} + e^{2\pi i(\frac{2}{3} + \frac{1}{3} + \frac{0.09374633 \cdot 1}{1})} + e^{2\pi i(\frac{2}{3} + \frac{1}{3} + \frac{0.57292033 \cdot 1}{1})} + e^{2\pi i(\frac{-1}{3} + \frac{2}{3} + \frac{0.42707967 \cdot 1}{1})} \\
&\quad + e^{2\pi i(\frac{-1}{3} + \frac{2}{3} + \frac{0.90625367 \cdot 1}{1})} + e^{2\pi i(0+0+\frac{0.760413 \cdot 1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2}{3} + \frac{1}{3} + \frac{1}{3})} + e^{2\pi i(\frac{-1}{3} + \frac{2}{3} + \frac{2}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{-1}{3} + \frac{2}{3} + \frac{1}{6})} + e^{2\pi i(-1+1+\frac{1}{2})} + e^{2\pi i(\frac{2}{3} + \frac{1}{3} + \frac{5}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587 \cdot 1}{1})} + e^{2\pi i(\frac{2}{3} + \frac{1}{3} + \frac{0.09374633 \cdot 1}{1})} + e^{2\pi i(\frac{2}{3} + \frac{1}{3} + \frac{0.57292033 \cdot 1}{1})} + e^{2\pi i(\frac{-1}{3} + \frac{2}{3} + \frac{0.42707967 \cdot 1}{1})} \\
&\quad + e^{2\pi i(\frac{-1}{3} + \frac{2}{3} + \frac{0.90625367 \cdot 1}{1})} + e^{2\pi i(\frac{0.760413 \cdot 1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2}{3} + \frac{1}{3} + \frac{1}{3})} + e^{2\pi i(\frac{-1}{3} + \frac{2}{3} + \frac{2}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{1}{2})} + e^{2\pi i(\frac{1}{2})} + e^{2\pi i(\frac{1}{2})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{-15640}{65279})} + e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{0.760413}{1})} \\
&\quad + e^{2\pi i(\frac{1.239587}{1})} + e^{2\pi i(\frac{0.760413}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(0)} + e^{2\pi i(1)}) \\
&= f_{Co}(-1 + -1 + -1) \\
&\quad + f_O([0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i] \\
&\quad + [0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i] \\
&\quad + [0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i]) \\
&\quad + f_{Li}(1 + 1 + 1) \\
&= -3f_{Co} + 0.3922808411611765f_O + 3f_{Li}
\end{aligned}$$

$$\begin{aligned}
F_{0-11} &= f_{Co}(e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{1}{6})} + e^{2\pi i(0 + -1 + \frac{1}{2})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{5 \cdot 1}{6})}) \\
&\quad + f_O(e^{2\pi i(0 + 0 + \frac{0.239587 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{0.09374633 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{0.57292033 \cdot 1}{1})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{0.42707967 \cdot 1}{1})}) \\
&\quad + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{0.90625367 \cdot 1}{1})} + e^{2\pi i(0 + 0 + \frac{0.760413 \cdot 1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0 + 0 + 0)} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{1}{3})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{2 \cdot 1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{1}{6})} + e^{2\pi i(0 + -1 + \frac{1}{2})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{5 \cdot 1}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{0.09374633 \cdot 1}{1})} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{0.57292033 \cdot 1}{1})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{0.42707967 \cdot 1}{1})}) \\
&\quad + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{0.90625367 \cdot 1}{1})} + e^{2\pi i(\frac{0.760413 \cdot 1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2 \cdot 0}{3} + \frac{-1}{3} + \frac{1}{3})} + e^{2\pi i(\frac{0}{3} + \frac{2 \cdot -1}{3} + \frac{2 \cdot 1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{-1}{2})} + e^{2\pi i(\frac{-1}{2})} + e^{2\pi i(\frac{1}{2})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{-15640}{65279})} + e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{-17032}{71089})}) \\
&\quad + e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{0.760413}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(0)} + e^{2\pi i(0)}) \\
&= f_{Co}(-1 + -1 + -1) \\
&\quad + f_O([0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i] \\
&\quad + [0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i] \\
&\quad + [0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i]) \\
&\quad + f_{Li}(1 + 1 + 1) \\
&= -3f_{Co} + 0.39228084116117673f_O + 3f_{Li}
\end{aligned}$$

$$\begin{aligned}
F_{-11-1} &= f_{Co}(e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 1}{3} + \frac{-1}{6})} + e^{2\pi i(-1+1+\frac{-1}{2})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{1}{3} + \frac{5 \cdot -1}{6})}) \\
&\quad + f_O(e^{2\pi i(0+0+\frac{0.239587 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{1}{3} + \frac{0.09374633 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{1}{3} + \frac{0.57292033 \cdot -1}{1})} + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 1}{3} + \frac{0.42707967 \cdot -1}{1})}) \\
&\quad + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 1}{3} + \frac{0.90625367 \cdot -1}{1})} + e^{2\pi i(0+0+\frac{0.760413 \cdot -1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{1}{3} + \frac{-1}{3})} + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 1}{3} + \frac{2 \cdot -1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 1}{3} + \frac{-1}{6})} + e^{2\pi i(-1+1+\frac{-1}{2})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{1}{3} + \frac{5 \cdot -1}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{1}{3} + \frac{0.09374633 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{1}{3} + \frac{0.57292033 \cdot -1}{1})} + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 1}{3} + \frac{0.42707967 \cdot -1}{1})}) \\
&\quad + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 1}{3} + \frac{0.90625367 \cdot -1}{1})} + e^{2\pi i(\frac{0.760413 \cdot -1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{1}{3} + \frac{-1}{3})} + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot 1}{3} + \frac{2 \cdot -1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{1}{6})} + e^{2\pi i(\frac{-1}{2})} + e^{2\pi i(\frac{-7}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{-2042}{8523})} + e^{2\pi i(\frac{-30306}{70961})} + e^{2\pi i(\frac{-69574}{76771})} + e^{2\pi i(\frac{-7197}{76771})}) \\
&\quad + e^{2\pi i(\frac{-40655}{70961})} + e^{2\pi i(\frac{-6481}{8523})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{-2}{3})} + e^{2\pi i(\frac{-1}{3})}) \\
&= f_{Co}([0.5 + (0.86603)i] + -1 + [0.5 + (-0.86603)i]) \\
&\quad + f_O([0.06538 + (-0.99786)i] + [-0.89686 + (-0.44231)i] \\
&\quad + [0.83148 + (0.55555)i] + [0.83148 + (-0.55555)i] \\
&\quad + [-0.89686 + (0.44231)i] + [0.06538 + (0.99786)i]) \\
&\quad + f_{Li}(1 + [-0.5 + (0.86603)i] + [-0.5 + (-0.86603)i]) \\
&= -4.7434586258887634e - 09f_O
\end{aligned}$$

$$\begin{aligned}
F_{1-1-1} &= f_{Co}(e^{2\pi i(\frac{1}{3} + \frac{2}{3} + \frac{-1}{6})} + e^{2\pi i(1 + -1 + \frac{-1}{2})} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{5}{6})}) \\
&\quad + f_O(e^{2\pi i(0+0+\frac{0.239587 \cdot -1}{1})} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{0.09374633 \cdot -1}{1})} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{0.57292033 \cdot -1}{1})} + e^{2\pi i(\frac{1}{3} + \frac{2}{3} + \frac{0.42707967 \cdot -1}{1})} \\
&\quad + e^{2\pi i(\frac{1}{3} + \frac{2}{3} + \frac{0.90625367 \cdot -1}{1})} + e^{2\pi i(0+0+\frac{0.760413 \cdot -1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{-1}{3})} + e^{2\pi i(\frac{1}{3} + \frac{2}{3} + \frac{2}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{1}{3} + \frac{2}{3} + \frac{-1}{6})} + e^{2\pi i(1 + -1 + \frac{-1}{2})} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{5}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587 \cdot -1}{1})} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{0.09374633 \cdot -1}{1})} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{0.57292033 \cdot -1}{1})} + e^{2\pi i(\frac{1}{3} + \frac{2}{3} + \frac{0.42707967 \cdot -1}{1})} \\
&\quad + e^{2\pi i(\frac{1}{3} + \frac{2}{3} + \frac{0.90625367 \cdot -1}{1})} + e^{2\pi i(\frac{0.760413 \cdot -1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2}{3} + \frac{-1}{3} + \frac{-1}{3})} + e^{2\pi i(\frac{1}{3} + \frac{2}{3} + \frac{2}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{-1}{2})} + e^{2\pi i(\frac{-1}{2})} + e^{2\pi i(\frac{-1}{2})}) \\
&\quad + f_O(e^{2\pi i(\frac{-2042}{8523})} + e^{2\pi i(\frac{0.239587}{1})} + e^{2\pi i(\frac{-17032}{71089})} + e^{2\pi i(\frac{-54057}{71089})} \\
&\quad + e^{2\pi i(\frac{-80919}{65279})} + e^{2\pi i(\frac{-6481}{8523})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(0)} + e^{2\pi i(-1)}) \\
&= f_{Co}(-1 + -1 + -1) \\
&\quad + f_O([0.06538 + (-0.99786)i] + [0.06538 + (0.99786)i] \\
&\quad + [0.06538 + (-0.99786)i] + [0.06538 + (0.99786)i] \\
&\quad + [0.06538 + (-0.99786)i] + [0.06538 + (0.99786)i]) \\
&\quad + f_{Li}(1 + 1 + 1) \\
&= -3f_{Co} + 0.3922808411611765f_O + 3f_{Li}
\end{aligned}$$

$$\begin{aligned}
F_{-1-1-1} &= f_{Co}(e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot -1}{3} + \frac{-1}{6})} + e^{2\pi i(-1 + -1 + \frac{-1}{2})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{-1}{3} + \frac{5 \cdot -1}{6})}) \\
&\quad + f_O(e^{2\pi i(0+0+\frac{0.239587 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{-1}{3} + \frac{0.09374633 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{-1}{3} + \frac{0.57292033 \cdot -1}{1})} + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot -1}{3} + \frac{0.42707967 \cdot -1}{1})}) \\
&\quad + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot -1}{3} + \frac{0.90625367 \cdot -1}{1})} + e^{2\pi i(0+0+\frac{0.760413 \cdot -1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{-1}{3} + \frac{-1}{3})} + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot -1}{3} + \frac{2 \cdot -1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot -1}{3} + \frac{-1}{6})} + e^{2\pi i(-1 + -1 + \frac{-1}{2})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{-1}{3} + \frac{5 \cdot -1}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{0.239587 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{-1}{3} + \frac{0.09374633 \cdot -1}{1})} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{-1}{3} + \frac{0.57292033 \cdot -1}{1})} + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot -1}{3} + \frac{0.42707967 \cdot -1}{1})}) \\
&\quad + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot -1}{3} + \frac{0.90625367 \cdot -1}{1})} + e^{2\pi i(\frac{0.760413 \cdot -1}{1})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2 \cdot -1}{3} + \frac{-1}{3} + \frac{-1}{3})} + e^{2\pi i(\frac{-1}{3} + \frac{2 \cdot -1}{3} + \frac{2 \cdot -1}{3})}) \\
&= f_{Co}(e^{2\pi i(\frac{-7}{6})} + e^{2\pi i(\frac{-5}{2})} + e^{2\pi i(\frac{-11}{6})}) \\
&\quad + f_O(e^{2\pi i(\frac{-2042}{8523})} + e^{2\pi i(\frac{-37253}{34060})} + e^{2\pi i(\frac{-58143}{36965})} + e^{2\pi i(\frac{-52752}{36965})}) \\
&\quad + e^{2\pi i(\frac{-64927}{34060})} + e^{2\pi i(\frac{-6481}{8523})}) \\
&\quad + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{-4}{3})} + e^{2\pi i(\frac{-5}{3})}) \\
&= f_{Co}([0.5 + (-0.86603)i] + -1 + [0.5 + (0.86603)i]) \\
&\quad + f_O([0.06538 + (-0.99786)i] + [0.83148 + (-0.55555)i] \\
&\quad + [-0.89686 + (0.44231)i] + [-0.89686 + (-0.44231)i] \\
&\quad + [0.83148 + (0.55555)i] + [0.06538 + (0.99786)i]) \\
&\quad + f_{Li}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (0.86603)i]) \\
&= 4.743456849531924e - 09 f_O
\end{aligned}$$
