
$$\begin{aligned}
a_k &= (\eta^+ + \eta^- C_f) + \zeta \operatorname{Re}(z) (\eta^{\operatorname{Re}} D_f + \eta^{\operatorname{Im}} S_f) \\
&\quad + \operatorname{Im}(z) (\eta^{\operatorname{Im}} D_f - \eta^{\operatorname{Re}} S_f) \\
b_k &= (\eta^{\operatorname{Re}} D_f + \eta^{\operatorname{Im}} S_f) + \operatorname{Re}(z) (\zeta^+ + \zeta^- C_f) \\
c_k &= \zeta (\eta^- + \eta^+ C_f) - \zeta \operatorname{Re}(z) (\eta^{\operatorname{Re}} D_f + \eta^{\operatorname{Im}} S_f) \\
&\quad - \operatorname{Im}(z) (\eta^{\operatorname{Im}} D_f - \eta^{\operatorname{Re}} S_f) \\
d_k &= \zeta (\eta^{\operatorname{Im}} D_f - \eta^{\operatorname{Re}} S_f) + \operatorname{Im}(z) (\zeta^+ + \zeta^- C_f)
\end{aligned}$$
