$$
\begin{aligned}
\frac{\mathrm{d}\sigma^{\mathrm{TFR}}}{\mathrm{d}x_B\,\mathrm{d}y\,\mathrm{d}\zeta\,\mathrm{d}^2\boldsymbol{P}_{h\perp}\,\mathrm{d}\phi_S} = \frac{2\alpha_{\mathrm{em}}^2}{Q^2 y}\,\Bigg\{\Bigg(1-y+\frac{y^2}{2}\Bigg) \\
\times \sum_a e_a^2\,\Bigg[M(x_B,\zeta,\boldsymbol{P}_{h\perp}^2) - |\boldsymbol{S}_\perp|\,\frac{|\boldsymbol{P}_{h\perp}|}{m_h}\,M_T^h(x_B,\zeta,\boldsymbol{P}_{h\perp}^2)\,\sin(\phi_h-\phi_S)\Bigg] \\
+\lambda_l\,y\,\Bigg(1-\frac{y}{2}\Bigg)\sum_a e_a^2\,\Bigg[S_\parallel\,\Delta M_L(x_B,\zeta,\boldsymbol{P}_{h\perp}^2) \\
+\ |\boldsymbol{S}_\perp|\,\frac{|\boldsymbol{P}_{h\perp}|}{m_h}\,\Delta M_T^h(x_B,\zeta,\boldsymbol{P}_{h\perp}^2)\,\cos(\phi_h-\phi_S)\Bigg]\Bigg\}\,.
\end{aligned}
$$