

Polarization observables - a simple example, Σ

$$\begin{aligned}
 \rho_f \frac{d\sigma}{d\Omega} = & \frac{1}{2} \left(\frac{d\sigma}{d\Omega} \right)_{unpol} \{ 1 - P_\gamma^{lin} \Sigma \cos 2\phi + P_x (P_\gamma^{circ} F + P_\gamma^{lin} H \sin 2\phi) \\
 & + P_y (T - P_\gamma^{lin} P \cos 2\phi) + P_z (P_\gamma^{circ} E + P_\gamma^{lin} G \sin 2\phi) \\
 & + \sigma'_x [P_\gamma^{circ} C_x + P_\gamma^{lin} O_x \sin 2\phi + P_x (T_x - P_\gamma^{lin} L_z \cos 2\phi) \\
 & + P_y (P_\gamma^{lin} C_z \sin 2\phi - P_\gamma^{circ} O_z) + P_z (L_x + P_\gamma^{lin} T_z \cos 2\phi) \\
 & + \sigma'_y [P_\gamma^{lin} T \cos 2\phi + P_x (P_\gamma^{circ} G - P_\gamma^{lin} E \sin 2\phi) \\
 & + P_y (\Sigma - P_\gamma^{lin} \cos 2\phi) + P_z (P_\gamma^{lin} F \sin 2\phi + P_\gamma^{circ} H)] \\
 & + \sigma'_z [P_\gamma^{circ} C_z + P_\gamma^{lin} O_z \sin 2\phi + P_x (T_z + P_\gamma^{lin} L_x \cos 2\phi) \\
 & + P_y (-P_\gamma^{lin} C_x \sin 2\phi - P_\gamma^{circ} C_z) + P_z (L_z + P_\gamma^{lin} T_x \cos 2\phi)] \}
 \end{aligned}$$

- circled signs are incorrect; those terms should be multiplied by (-1);
- O_z term in the last line should be O_x