Circular Beam and Longitudinal Target Polarization

$$\frac{d\sigma}{dx_i} = \sigma_0 \{ (1 + \Lambda_z \cdot \mathbf{P_z}) + \delta_\odot (\mathbf{I}^\odot + \Lambda_z \cdot \mathbf{P}_z^\odot) \}$$

$$(\rightarrow\Rightarrow - \leftarrow\Rightarrow) := \frac{d\sigma(\rightarrow\Rightarrow)}{dx_i} - \frac{d\sigma(\leftarrow\Rightarrow)}{dx_i} = 2 \cdot \sigma_0 \{ \delta_\odot (\mathbf{I}^\odot + \Lambda_z \cdot \mathbf{P}_z^\odot) \}$$

$$(\leftarrow\Leftarrow - \rightarrow\Leftarrow) := \frac{d\sigma(\leftarrow\Leftarrow)}{dx_i} - \frac{d\sigma(\rightarrow\Leftarrow)}{dx_i} = 2 \cdot \sigma_0 \{ \delta_\odot (-\mathbf{I}^\odot + \Lambda_z \cdot \mathbf{P}_z^\odot) \}$$

1) $(\rightarrow\Rightarrow - \leftarrow\Rightarrow) + (\leftarrow\Leftarrow - \rightarrow\Leftarrow) := \frac{d\sigma_{3/2}}{dx_i} - \frac{d\sigma_{1/2}}{dx_i} = 4 \cdot \sigma_0 \cdot \delta_\odot \cdot (\Lambda_z \cdot \mathbf{P}_z^\odot)$

2) $(\leftarrow\Leftarrow - \leftarrow\Rightarrow) - (\rightarrow\Rightarrow - \rightarrow\Leftarrow) := -4 \cdot \sigma_0 \cdot (\Lambda_z \cdot \mathbf{P_z})$