We measure a radiated asymmetry:

$$A_T^{\rm r} = \frac{\Delta_T^{\rm r}}{\Sigma_T^{\rm r}} = \frac{\Delta_{\rm in}^{\rm r} + \Delta_{\rm el}^{\rm r}}{\Sigma_{\rm in}^{\rm r} + \Sigma_{\rm el}^{\rm r}}$$

where: $\Sigma + \Delta$ = Total cross section (unpol. + pol.)

First, need to remove elastic radiated tail to obtain $A_{\rm in}^{\rm r}$:

$$\begin{aligned} A_{\rm in}^{\rm r} &= \frac{\Delta_{\rm in}^{\rm r}}{\Sigma_{\rm in}^{\rm r}} \\ &= \frac{\Delta_T^{\rm r} - \Delta_{\rm el}^{\rm r}}{\Sigma_{\rm in}^{\rm r}} \\ &= \frac{\Sigma_T^{\rm r} A_T^{\rm r} - \Delta_{\rm el}^{\rm r}}{\Sigma_{\rm in}^{\rm r}} \\ &= \left(\frac{\Sigma_T^{\rm r}}{\Sigma_{\rm in}^{\rm r}}\right) A_T^{\rm r} - \frac{\Delta_{\rm el}^{\rm r}}{\Sigma_{\rm in}^{\rm r}} \\ &= \frac{1}{f} A_T^{\rm r} - A_{rc} \end{aligned}$$

where

$$f = \frac{\Sigma_{\rm in}^{\rm r}}{\Sigma_T^{\rm r}}$$

$$A_{rc} = \frac{\Delta_{\rm el}^{\rm r}}{\Sigma_{\rm in}^{\rm r}}$$

The extraction requires a model of $\Sigma_{\rm in}^{\rm r}$, $\Sigma_{\rm el}^{\rm r}$ and $\Delta_{\rm el}^{\rm r}$ at RSS kinematics.

1. $\Sigma_{\rm in}^{\rm r}$: Hall C fit using Monte Carlo.
2. $\Sigma_{\rm el}^{\rm r}$: Monte Carlo.
3. $\Delta_{\rm el}^{\rm r}$: Monte Carlo (Mascarad FF for asymmetry).

After tail subtraction, perform RC on inelastic cross section difference $\Delta\sigma_{\rm in}^{\rm r}$

$$\Delta\sigma_{\rm in}^{\rm r} = 2\,\Sigma_{\rm in}^{\rm r} A_{\rm in}^{\rm r}$$

Unfolding (Polrad) requires model of $\Delta\sigma_{\rm in}$ at lower incident energies. For this I'm using a combination of MAID2003 and the hall C unpolarized fit.