1 Interesting observation

1.1 Effect of `xmueout`

Figure 1 shows the profile when the scattering angle is allowed to lie in the interval $\theta_{\text{out}} \in [-\pi, \pi]$. Figure 2 shows the same computations, but with $\theta_{\text{out}} \in [0, \pi]$

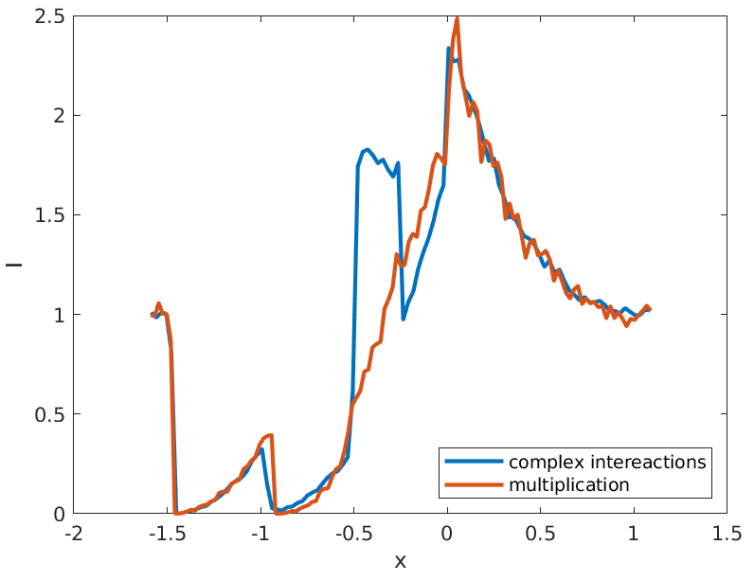

Figure 1: Comparison with multiplied profile (xmueout can also be negative)

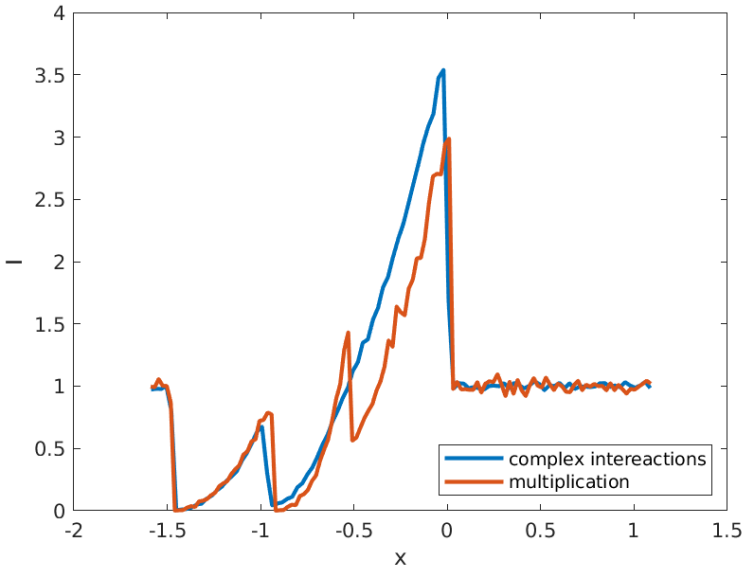

Figure 2: Comparison with multiplied profile (xmueout is only positive)

Loosely speaking, one can understand this result because in Figure 2, photons are not allowed to be backscattered to the first resonance line.