$$\underbrace{\frac{d\sigma}{d\vec{x}}}_{} \propto \int \underbrace{\frac{f(q_1)}{q_1}\frac{f(q_2)}{q_2}dq_1 dq_2}_{} \times \underbrace{|\mathcal{M}(\vec{y})|^2 d\Phi(\vec{y})}_{} \times \underbrace{W(\vec{y}|\vec{x})}_{}$$