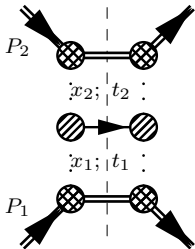


Factorization:



Factorization formula:

$$d\sigma = \int \frac{d^2\mathbf{q}_{T1}}{\pi} \int \frac{dx_1}{x_1} \Phi(x_1, t_1, \mu_F) \times \\ \times \int \frac{d^2\mathbf{q}_{T2}}{\pi} \int \frac{dx_2}{x_2} \Phi(x_2, t_2, \mu_F) d\hat{\sigma}_{PRA}$$

Where Φ - Unintegrated PDFs.

Partonic cross-section:

$$d\hat{\sigma}_{PRA} = \frac{(2\pi)^4}{2x_1x_2S} \overline{|\mathcal{M}|^2}_{PRA} \delta^{(4)}(P_{[i]} - P_{[f]}) \times \\ \times \prod_{j=[f]} \frac{d^3\mathbf{p}_j}{(2\pi)^3 2p_j^0},$$

Normalization of the unPDF:

$$\int^{\mu^2} dt \Phi(x, t, \mu^2) = x f(x, \mu^2),$$

where $f(x, \mu^2)$ - collinear PDF, implies, that the *collinear limit* holds for the amplitude:

$$\int \frac{d\phi_1 d\phi_2}{(2\pi)^2} \lim_{t_{1,2} \rightarrow 0} \overline{|\mathcal{M}|^2}_{PRA} = \overline{|\mathcal{M}|^2}_{CPM}$$