

$$\frac{\mathrm{d}N_{\mathrm{ch}}(\boldsymbol{b}_{\perp})}{\mathrm{d}\eta} = \int_{\boldsymbol{p}_{\perp}} \int_{z_{\min}}^1 \mathrm{d}z \frac{D_h(z)}{z^2} \mathcal{F}_{y \rightarrow \eta} \left. \frac{\mathrm{d}N_g(\boldsymbol{b}_{\perp})}{\mathrm{d}^2\boldsymbol{p}_{g\perp} \mathrm{d}y_g} \right|_{\boldsymbol{p}_{g\perp} = \boldsymbol{p}_{\perp}/z}$$