

$$\mathcal{H}(M_h, P_{hT}, \eta) = 2P_{hT} \sum_i \sum_{a,b,c,d} \int_{x_a^{\min}}^1 dx_a \int_{x_b^{\min}}^1 \frac{dx_b}{z} h_1^a(x_a) f_1^b(x_b) \frac{d\Delta \hat{\sigma}_{a\uparrow b \rightarrow c\uparrow d}}{d\hat{t}} H_1^{a,c}(z, M_h),$$

$$\mathcal{D}(M_h, P_{hT}, \eta) = 2P_{hT} \sum_i \sum_{a,b,c,d} \int_{x_a^{\min}}^1 dx_a \int_{x_b^{\min}}^1 \frac{dx_b}{z} f_1^a(x_a) f_1^b(x_b) \frac{d\hat{\sigma}_{ab \rightarrow cd}}{d\hat{t}} D_1^c(z, M_h),$$