

Ratio to nominal

**STAR**

$p+p \rightarrow p' + p \bar{p} + p'$   $\sqrt{s} = 200$  GeV

$p, \bar{p}$ :

$p_T > 0.4$  GeV

$|\eta| < 0.7$

$\min(p_T^+, p_T^-) < 1.1$  GeV

$p'$ :  $(p_x + 0.3 \text{ GeV})^2 + p_y^2 < 0.25 \text{ GeV}^2$

$0.2 \text{ GeV} < |p_y| < 0.4 \text{ GeV}$

$p_x > -0.2 \text{ GeV}$

-1

-0.5

0

0.5

1

$\cos\theta^{\text{GJ}}(p)$

- $\Delta\epsilon_{\text{TPC}}$  (embed. stat.)
- $\Delta\epsilon_{\text{TPC}}$  (dead mat.)
- $\Delta\epsilon_{\text{RP}}$
- $\Delta\epsilon_{\text{RP}}$
- $\Delta\epsilon_{\text{veto}}$
- $\Delta\sigma(z_{\text{vtx}})$
- $\Delta\text{Luminosity}$

- $\Delta\epsilon_{\text{TPC}}$  (pile-up)
- $\Delta\epsilon_{\text{TOF}}$
- $\Delta\epsilon_{\text{DM veto}}$
- $\Delta\epsilon_{\text{RP}}$
- $\Delta\epsilon_{\text{vtx}}$
- $\Delta\langle z_{\text{vtx}} \rangle$
- $\Delta N_{\text{bkgd}}^{\text{non-excl}}$

- Total (w/o lumi.)
- Total (w/ lumi.)