

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

$\Delta\phi > 90^\circ$

p' : $(p_x + 0.3 \text{ GeV})^2 + p_y^2 < 0.25 \text{ GeV}^2$
 $0.2 \text{ GeV} < |p_y| < 0.4 \text{ GeV}$
 $p_x > -0.2 \text{ GeV}$

2

2.5

3

$m(p\bar{p})$ [GeV]

$\epsilon_{\text{TPC}} \uparrow$ (embed. stat.)
 $\epsilon_{\text{TPC}} \uparrow$ (pile-up)
 $\epsilon_{\text{TPC}} \uparrow$ (dead mat.)
 $\epsilon_{\text{TOF}} \uparrow$
 $\epsilon_{\text{RP}} \uparrow$
 $\langle z_{\text{vtx}} \rangle \uparrow$
 $\sigma(z_{\text{vtx}}) \uparrow$
 $\text{Luminosity} \uparrow$

$\epsilon_{\text{TPC}} \downarrow$ (embed. stat.)
 $\epsilon_{\text{TPC}} \downarrow$ (pile-up)
 $\epsilon_{\text{TPC}} \downarrow$ (dead mat.)
 $\epsilon_{\text{TOF}} \downarrow$
 $\epsilon_{\text{RP}} \downarrow$
 $\langle z_{\text{vtx}} \rangle \downarrow$
 $\sigma(z_{\text{vtx}}) \downarrow$
 $\text{Luminosity} \downarrow$

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