

Ratio to nominal

STAR

$p+p \rightarrow p' + K^+ K^- + p'$ $\sqrt{s} = 200$ GeV

K^+, K^- :

$p_T > 0.3$ GeV

$|\eta| < 0.7$

$\min(p_T^+, p_T^-) < 0.7$ GeV

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

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

$p_x > -0.2 \text{ GeV}$

$\Delta\phi < 90^\circ$

1

1.5

2

$m(K^+ K^-)$ [GeV]

— $\epsilon_{\text{TPC}} \uparrow$ (embed. stat.)

— $\epsilon_{\text{TPC}} \uparrow$ (pile-up)

— $\epsilon_{\text{TPC}} \uparrow$ (dead mat.)

— $\epsilon_{\text{TOF}} \uparrow$

— $\epsilon_{\text{RP}} \uparrow$

— $\langle z_{\text{vtx}} \rangle \uparrow$

— $\sigma(z_{\text{vtx}}) \uparrow$

— Luminosity \uparrow

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- - - $\epsilon_{\text{TPC}} \downarrow$ (pile-up)

- - - $\epsilon_{\text{TPC}} \downarrow$ (dead mat.)

- - - $\epsilon_{\text{TOF}} \downarrow$

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- - - $\langle z_{\text{vtx}} \rangle \downarrow$

- - - $\sigma(z_{\text{vtx}}) \downarrow$

- - - Luminosity \downarrow

■ Total (w/o lumi.)

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