

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

Ratio to nominal

1.4  
1.2  
1  
0.8 $K^+, K^-:$  $p_T > 0.3 \text{ GeV}$  $|\eta| < 0.7$  $\min(p_T^+, p_T^-) < 0.7 \text{ GeV}$  $p': (p_x + 0.3 \text{ GeV})^2 + p_y^2 < 0.25 \text{ GeV}^2$  $0.2 \text{ GeV} < |p_y| < 0.4 \text{ GeV}$  $p_x > -0.2 \text{ GeV}$ 

-1

-0.5

0

0.5

1

 $\cos\theta^{\text{CS}}(K^+)$  $\Delta\epsilon_{\text{TPC}}$  (embed. stat.) $\Delta\epsilon_{\text{TPC}}$  (dead mat.) $\Delta\epsilon_{\text{RP}}^{\text{trig.}}$  $\Delta\epsilon_{\text{RP}}$  $\Delta\epsilon_{\text{veto}}$  $\Delta\sigma(z_{\text{vtx}})$  $\Delta\epsilon_{\text{TPC}}$  (pile-up) $\Delta\epsilon_{\text{TOF}}$  $\Delta\epsilon_{\text{RP}}^{\text{DM veto}}$  $\Delta\epsilon_{\text{vtx}}$  $\Delta\langle z_{\text{vtx}} \rangle$  $\Delta\text{Luminosity}$ 

Total (w/ lumi.)

