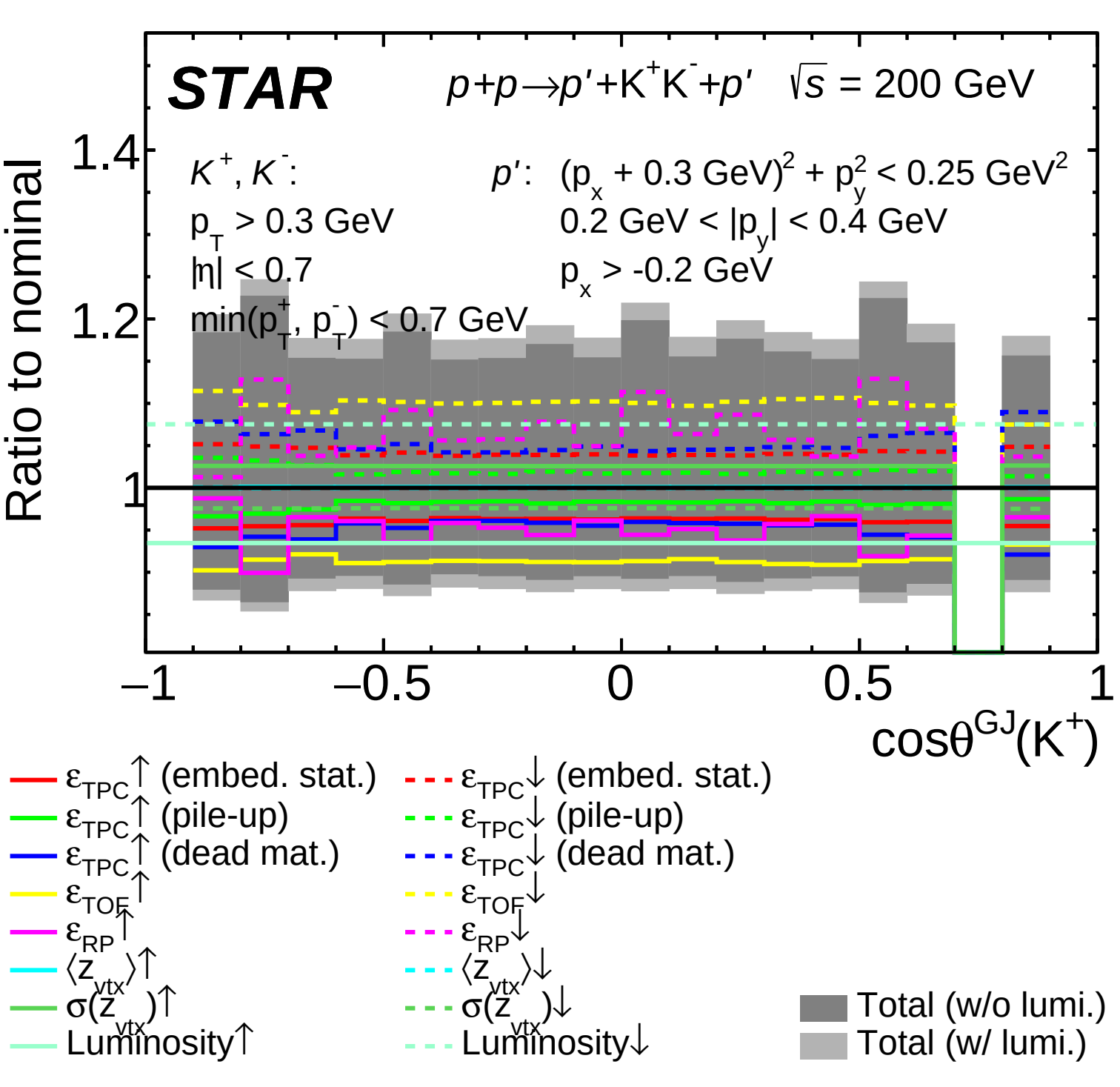
STAR
$p+p\rightarrow p'+K^+K^-+p'$ $\sqrt{s}$ = 200 GeV
K^+, K^-:
p_T > 0.3 GeV
$|\eta|$ < 0.7
$\min(p_T^+, p_T^-)$ < 0.7 GeV
p': $(p_x + 0.3\ \text{GeV})^2 + p_y^2 < 0.25\ \text{GeV}^2$
0.2 GeV < $|p_y|$ < 0.4 GeV
p_x > -0.2 GeV
Ratio to nominal
1.4
1.2
1
–1
–0.5
0
0.5
1
$\cos\theta^{GJ}(K^+)$
$\varepsilon_{TPC}\uparrow$ (embed. stat.)
$\varepsilon_{TPC}\uparrow$ (pile-up)
$\varepsilon_{TPC}\uparrow$ (dead mat.)
$\varepsilon_{TOF}\uparrow$
$\varepsilon_{RP}\uparrow$
$\langle z_{vtx}\rangle\uparrow$
$\sigma(z_{vtx})\uparrow$
Luminosity$\uparrow$
$\varepsilon_{TPC}\downarrow$ (embed. stat.)
$\varepsilon_{TPC}\downarrow$ (pile-up)
$\varepsilon_{TPC}\downarrow$ (dead mat.)
$\varepsilon_{TOF}\downarrow$
$\varepsilon_{RP}\downarrow$
$\langle z_{vtx}\rangle\downarrow$
$\sigma(z_{vtx})\downarrow$
Luminosity$\downarrow$
Total (w/o lumi.)
Total (w/ lumi.)