

TABLE I: Contribution of different background sources to the observed asymmetry in the inclusive muon and like-sign dimuon samples with muon impact parameter above  $50 \mu\text{m}$ . Only statistical uncertainties are given.

Source	inclusive muon	like-sign dimuon
$(f_K a_K \text{ or } F_K a_K) \times 10^2$	$+0.223 \pm 0.009$	$+0.205 \pm 0.060$
$(f_\pi a_\pi \text{ or } F_\pi a_\pi) \times 10^2$	$+0.001 \pm 0.008$	$+0.001 \pm 0.007$
$(f_p a_p \text{ or } F_p a_p) \times 10^2$	$-0.003 \pm 0.006$	$-0.005 \pm 0.005$
$[(1 - f_{\text{bkg}})\delta \text{ or } (2 - F_{\text{bkg}})\Delta] \times 10^2$	$-0.077 \pm 0.019$	$-0.244 \pm 0.035$
$(a_{\text{bkg}} \text{ or } A_{\text{bkg}}) \times 10^2$	$+0.146 \pm 0.024$	$-0.043 \pm 0.071$
$(a \text{ or } A) \times 10^2$	$+0.134 \pm 0.004$	$-0.302 \pm 0.079$
$[(a - a_{\text{bkg}}) \text{ or } (A - A_{\text{bkg}})] \times 10^2$	$-0.012 \pm 0.024$	$-0.259 \pm 0.106$

TABLE II: Contribution of different background sources to the observed asymmetry in the inclusive muon and like-sign dimuon samples with muon impact parameter below  $50 \mu\text{m}$ . Only statistical uncertainties are given.

Source	inclusive muon	like-sign dimuon
$(f_K a_K \text{ or } F_K a_K) \times 10^2$	$+1.024 \pm 0.030$	$+1.421 \pm 0.066$
$(f_\pi a_\pi \text{ or } F_\pi a_\pi) \times 10^2$	$+0.024 \pm 0.035$	$+0.016 \pm 0.051$
$(f_p a_p \text{ or } F_p a_p) \times 10^2$	$-0.012 \pm 0.030$	$-0.028 \pm 0.041$
$[(1 - f_{\text{bkg}})\delta \text{ or } (2 - F_{\text{bkg}})\Delta] \times 10^2$	$-0.039 \pm 0.010$	$-0.166 \pm 0.021$
$(a_{\text{bkg}} \text{ or } A_{\text{bkg}}) \times 10^2$	$+0.997 \pm 0.056$	$+1.243 \pm 0.096$
$(a \text{ or } A) \times 10^2$	$+0.953 \pm 0.003$	$+0.715 \pm 0.083$
$[(a - a_{\text{bkg}}) \text{ or } (A - A_{\text{bkg}})] \times 10^2$	$-0.044 \pm 0.056$	$-0.527 \pm 0.127$

TABLE III: Contribution of different background sources to the observed asymmetry in the inclusive muon and like-sign dimuon samples with muon impact parameter above  $80 \mu\text{m}$ . Only statistical uncertainties are given.

Source	inclusive muon	like-sign dimuon
$(f_K a_K \text{ or } F_K a_K) \times 10^2$	$+0.148 \pm 0.008$	$+0.104 \pm 0.074$
$(f_\pi a_\pi \text{ or } F_\pi a_\pi) \times 10^2$	$-0.001 \pm 0.005$	$-0.002 \pm 0.003$
$(f_p a_p \text{ or } F_p a_p) \times 10^2$	$-0.002 \pm 0.004$	$-0.004 \pm 0.002$
$[(1 - f_{\text{bkg}})\delta \text{ or } (2 - F_{\text{bkg}})\Delta] \times 10^2$	$-0.077 \pm 0.020$	$-0.236 \pm 0.036$
$(a_{\text{bkg}} \text{ or } A_{\text{bkg}}) \times 10^2$	$+0.068 \pm 0.023$	$-0.139 \pm 0.083$
$(a \text{ or } A) \times 10^2$	$+0.035 \pm 0.005$	$-0.386 \pm 0.094$
$[(a - a_{\text{bkg}}) \text{ or } (A - A_{\text{bkg}})] \times 10^2$	$-0.033 \pm 0.023$	$-0.247 \pm 0.125$

TABLE IV: Contribution of different background sources to the observed asymmetry in the inclusive muon and like-sign dimuon samples with muon impact parameter below  $80 \mu\text{m}$ . Only statistical uncertainties are given.

Source	inclusive muon	like-sign dimuon
$(f_K a_K \text{ or } F_K a_K) \times 10^2$	$+0.963 \pm 0.027$	$+1.203 \pm 0.053$
$(f_\pi a_\pi \text{ or } F_\pi a_\pi) \times 10^2$	$+0.010 \pm 0.033$	$-0.001 \pm 0.043$
$(f_p a_p \text{ or } F_p a_p) \times 10^2$	$-0.017 \pm 0.027$	$-0.029 \pm 0.035$
$[(1 - f_{\text{bkg}})\delta \text{ or } (2 - F_{\text{bkg}})\Delta] \times 10^2$	$-0.040 \pm 0.010$	$-0.179 \pm 0.023$
$(a_{\text{bkg}} \text{ or } A_{\text{bkg}}) \times 10^2$	$+0.916 \pm 0.052$	$+0.994 \pm 0.082$
$(a \text{ or } A) \times 10^2$	$+0.896 \pm 0.003$	$+0.683 \pm 0.069$
$[(a - a_{\text{bkg}}) \text{ or } (A - A_{\text{bkg}})] \times 10^2$	$-0.020 \pm 0.052$	$-0.311 \pm 0.107$

TABLE V: Contribution of different background sources to the observed asymmetry in the inclusive muon and like-sign dimuon samples with muon impact parameter above  $120 \mu\text{m}$ . Only statistical uncertainties are given.

Source	inclusive muon	like-sign dimuon
$(f_K a_K \text{ or } F_K a_K) \times 10^2$	$+0.109 \pm 0.009$	$+0.113 \pm 0.087$
$(f_\pi a_\pi \text{ or } F_\pi a_\pi) \times 10^2$	$-0.001 \pm 0.004$	$-0.001 \pm 0.002$
$(f_p a_p \text{ or } F_p a_p) \times 10^2$	$-0.001 \pm 0.003$	$-0.002 \pm 0.002$
$[(1 - f_{\text{bkg}})\delta \text{ or } (2 - F_{\text{bkg}})\Delta] \times 10^2$	$-0.079 \pm 0.020$	$-0.237 \pm 0.037$
$(a_{\text{bkg}} \text{ or } A_{\text{bkg}}) \times 10^2$	$+0.027 \pm 0.023$	$-0.127 \pm 0.093$
$(a \text{ or } A) \times 10^2$	$-0.014 \pm 0.005$	$-0.529 \pm 0.120$
$[(a - a_{\text{bkg}}) \text{ or } (A - A_{\text{bkg}})] \times 10^2$	$-0.041 \pm 0.023$	$-0.402 \pm 0.152$

TABLE VI: Contribution of different background sources to the observed asymmetry in the inclusive muon and like-sign dimuon samples with muon impact parameter below  $120 \mu\text{m}$ . Only statistical uncertainties are given.

Source	inclusive muon	like-sign dimuon
$(f_K a_K \text{ or } F_K a_K) \times 10^2$	$+0.914 \pm 0.025$	$+1.047 \pm 0.051$
$(f_\pi a_\pi \text{ or } F_\pi a_\pi) \times 10^2$	$+0.008 \pm 0.031$	$-0.003 \pm 0.039$
$(f_p a_p \text{ or } F_p a_p) \times 10^2$	$-0.016 \pm 0.026$	$-0.027 \pm 0.032$
$[(1 - f_{\text{bkg}})\delta \text{ or } (2 - F_{\text{bkg}})\Delta] \times 10^2$	$-0.042 \pm 0.011$	$-0.188 \pm 0.025$
$(a_{\text{bkg}} \text{ or } A_{\text{bkg}}) \times 10^2$	$+0.864 \pm 0.049$	$+0.829 \pm 0.077$
$(a \text{ or } A) \times 10^2$	$+0.835 \pm 0.002$	$+0.555 \pm 0.060$
$[(a - a_{\text{bkg}}) \text{ or } (A - A_{\text{bkg}})] \times 10^2$	$-0.029 \pm 0.049$	$-0.274 \pm 0.098$