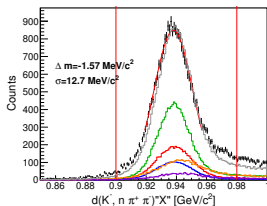


Current Status

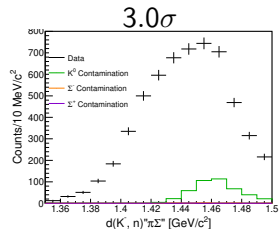
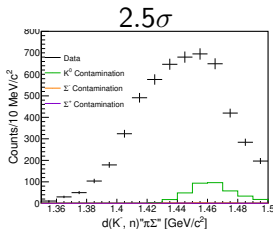
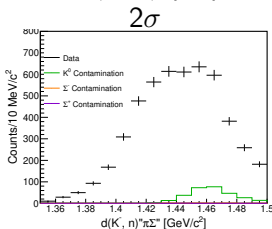
Kentaro Inoue

April 25, 2019

$$d(K^-, n)'' \pi^\pm \Sigma^\mp''$$



$d(K^-, n\pi^+\pi^-)$ "n" selected region was changed.
 Default 0.90 ~ 0.98[GeV/c²]
 MC NC resolution study.
 150px(default), 160ps, 170ps



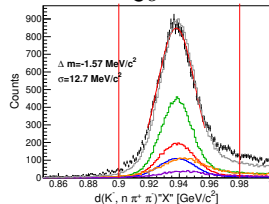
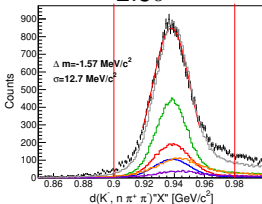
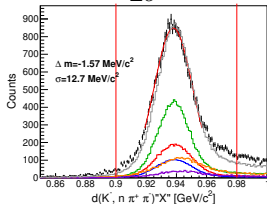
$$NC\sigma = 150ps$$

Data fitting

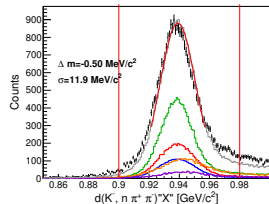
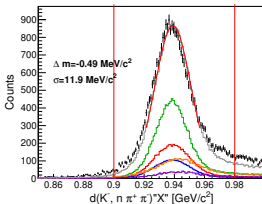
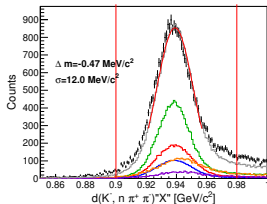
2σ

2.5σ

3σ



MC sum fitting



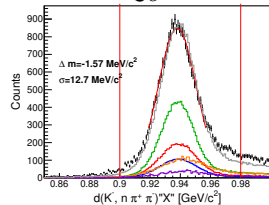
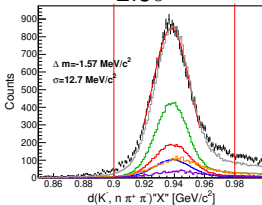
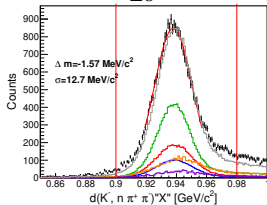
$$NC\sigma = 160ps$$

Data fitting

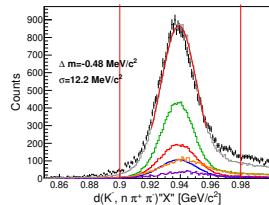
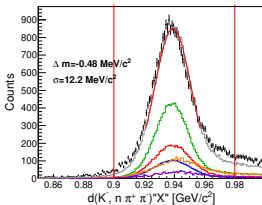
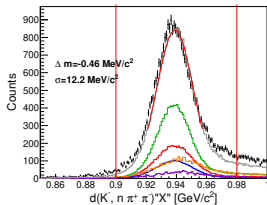
2σ

2.5σ

3σ



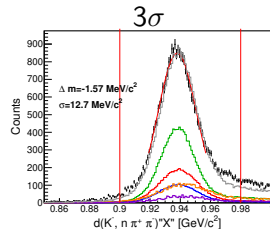
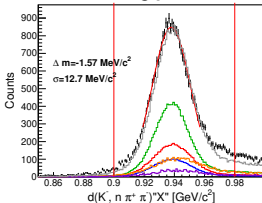
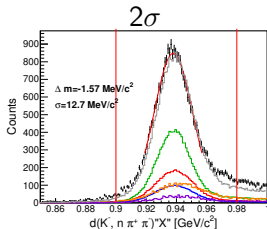
MC sum fitting



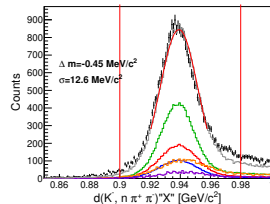
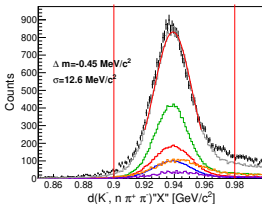
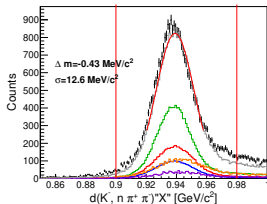
$$NC\sigma = 170ps$$

Data fitting

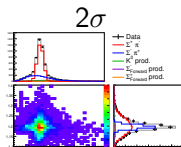
2.5σ



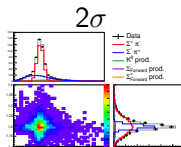
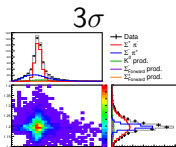
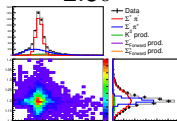
MC sum fitting



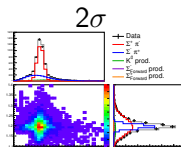
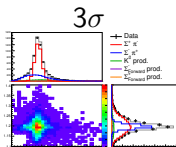
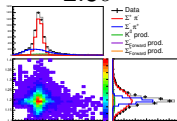
$$d(K^-, n\pi)'' X''$$



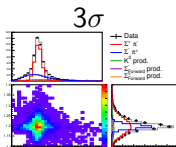
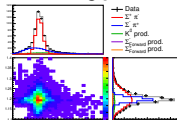
$\sigma = 150ps$
 2.5σ



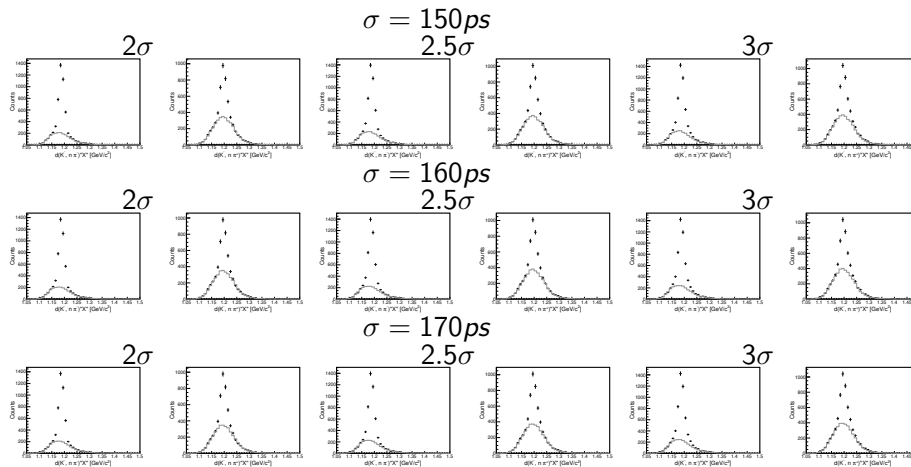
$\sigma = 160ps$
 2.5σ



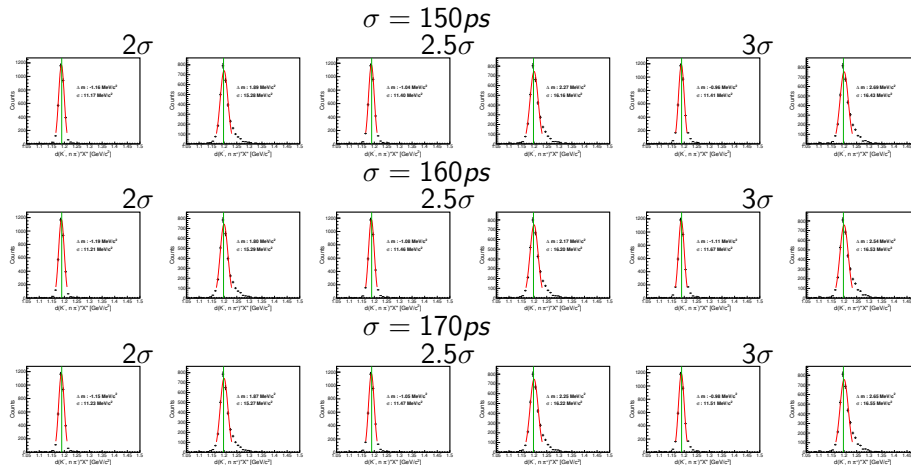
$\sigma = 170ps$
 2.5σ



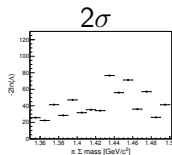
$d(K^-, n\pi)^+ X^-$ (Back ground)



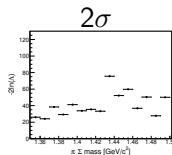
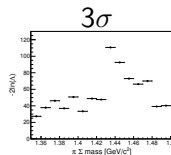
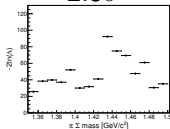
$d(K^-, n\pi)^+ X^-$ (Fitting subtracted BG)



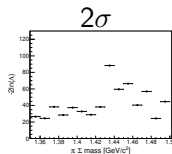
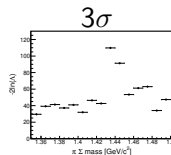
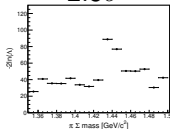
$d(K^-, n\pi)^- X^-$ (Likelihood)



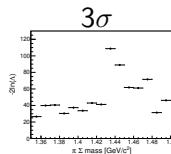
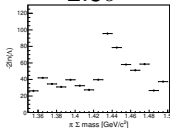
$\sigma = 150ps$
 2.5σ



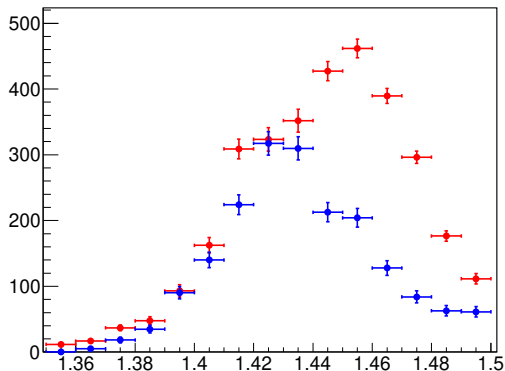
$\sigma = 160ps$
 2.5σ



$\sigma = 170ps$
 2.5σ

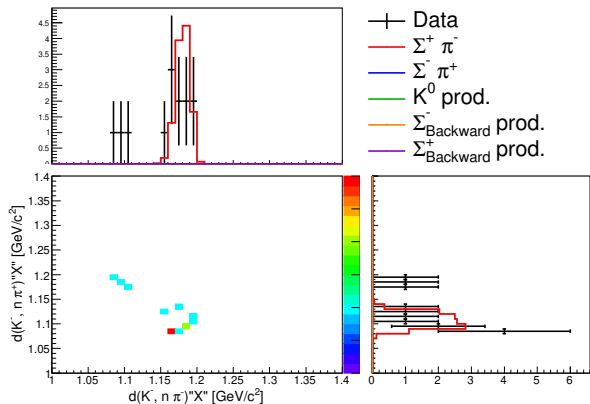


$\pi\Sigma$ Number (3σ cut NC=150ps)

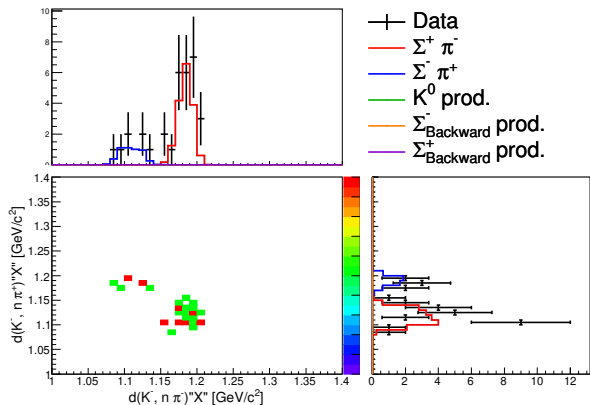


Error bar only statistics.

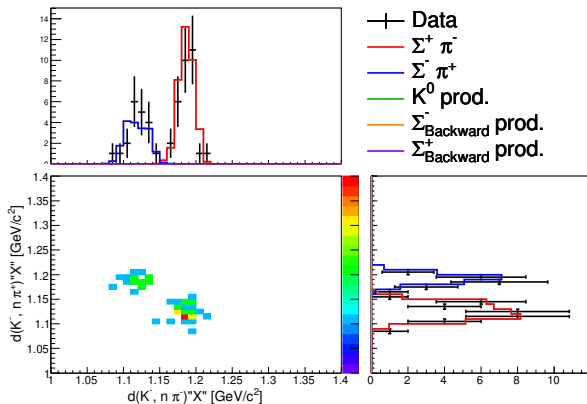
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1350 \sim 1360 [\text{GeV}/c^2]$



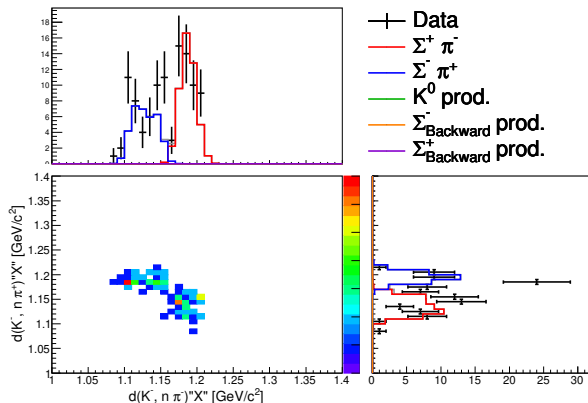
$d(K^-, n\pi^+)''X''$ vs $d(K^-, n\pi^-)''X''$ fitting
 $d(K^-, n)''X''$ 1360 \sim 1370 [GeV/c²]



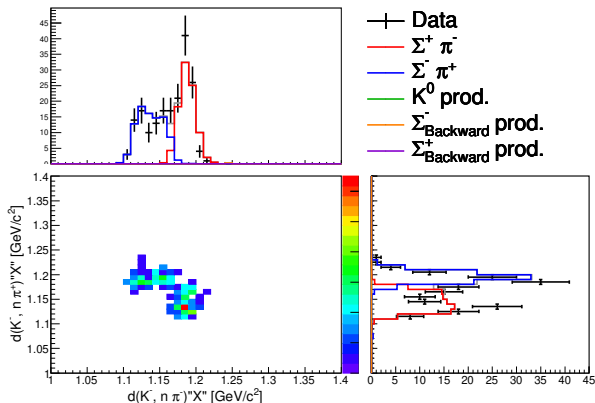
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1370 \sim 1380 [\text{GeV}/c^2]$



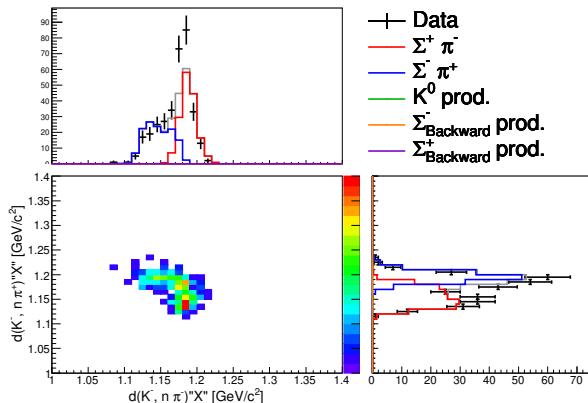
$d(K^-, n\pi^+)''X''$ vs $d(K^-, n\pi^-)''X''$ fitting
 $d(K^-, n)''X''$ 1380 \sim 1390 [GeV/c²]



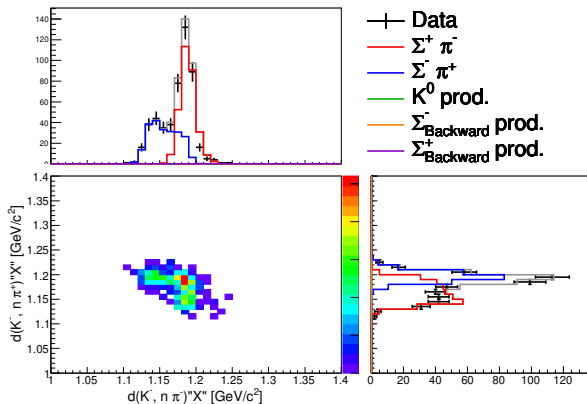
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1390 \sim 1400 [\text{GeV}/c^2]$



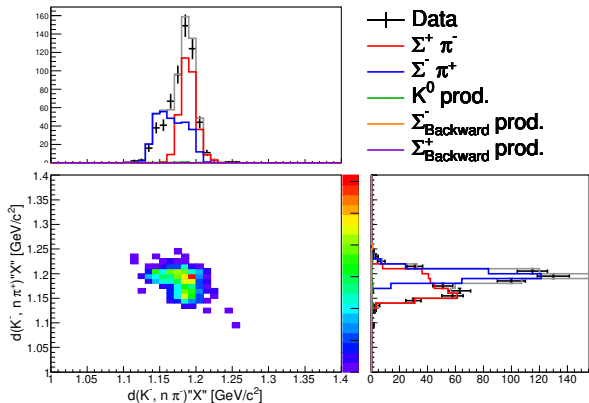
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1400 \sim 1410 [\text{GeV}/c^2]$



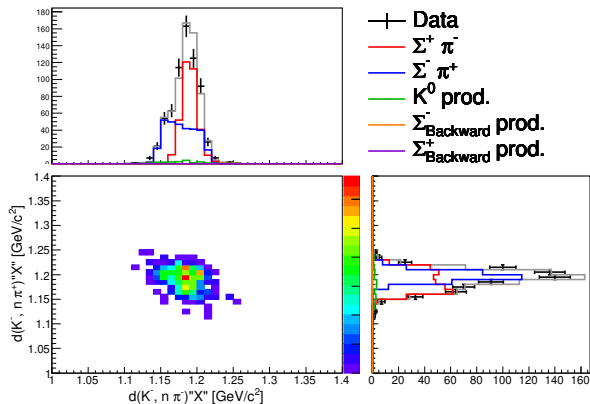
$d(K^-, n\pi^+)''X''$ vs $d(K^-, n\pi^-)''X''$ fitting
 $d(K^-, n)''X''$ 1410 \sim 1420 [GeV/c²]



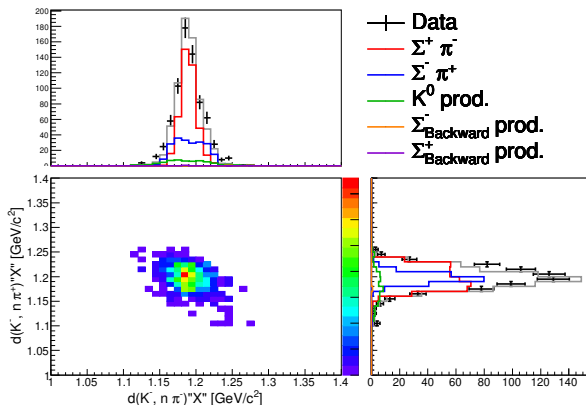
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1420 \sim 1430 [\text{GeV}/c^2]$



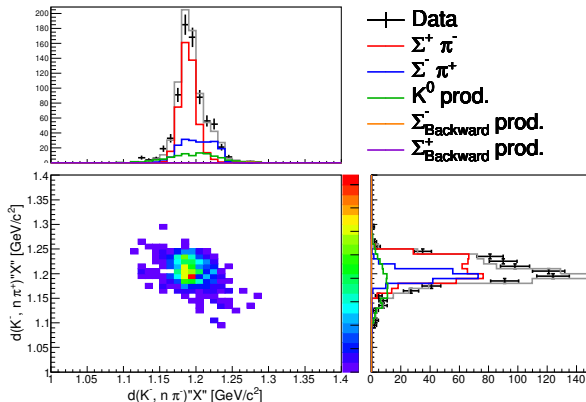
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1430 \sim 1440 [\text{GeV}/c^2]$



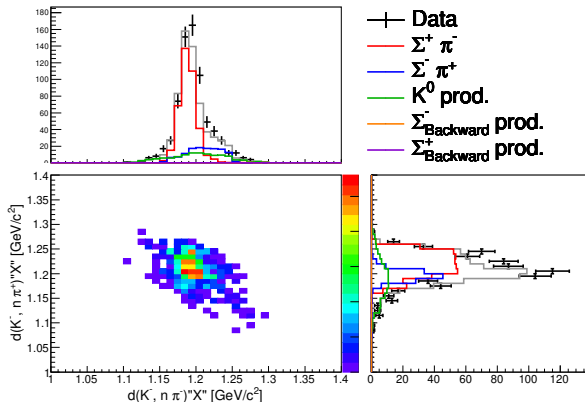
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1440 \sim 1450 [\text{GeV}/c^2]$



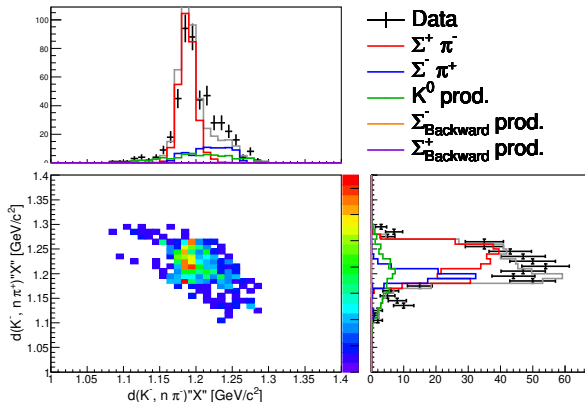
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1450 \sim 1460 [\text{GeV}/c^2]$



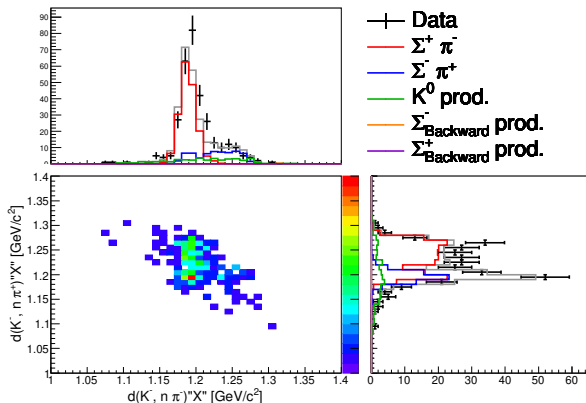
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1460 \sim 1470 [\text{GeV}/c^2]$



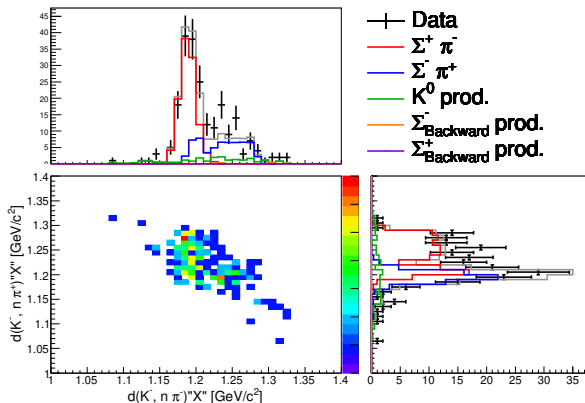
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1470 \sim 1480 [\text{GeV}/c^2]$



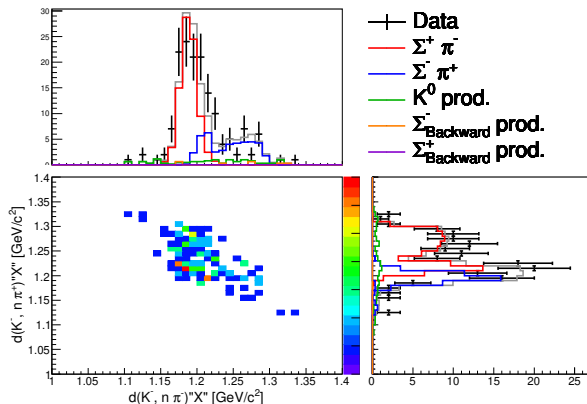
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1480 \sim 1490 [\text{GeV}/c^2]$



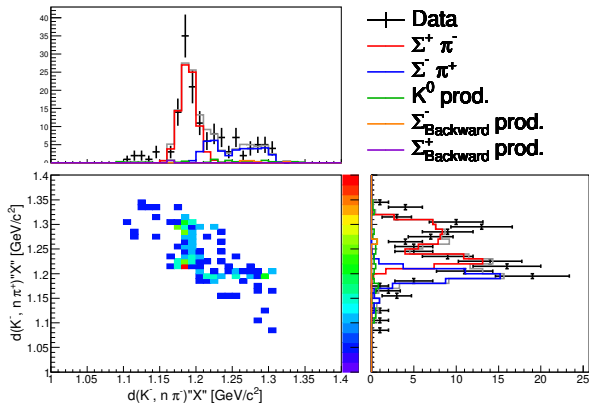
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1490 \sim 1500 [\text{GeV}/c^2]$



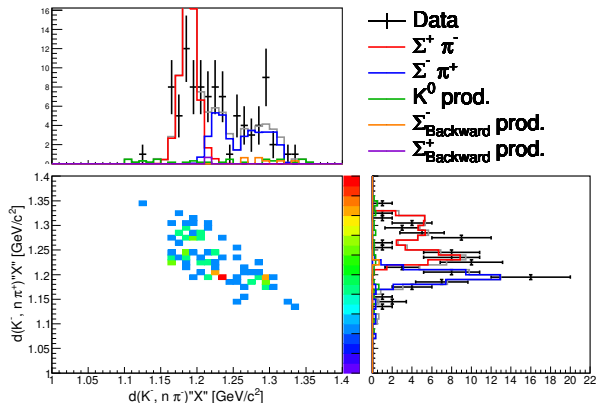
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1500 \sim 1510 [\text{GeV}/c^2]$



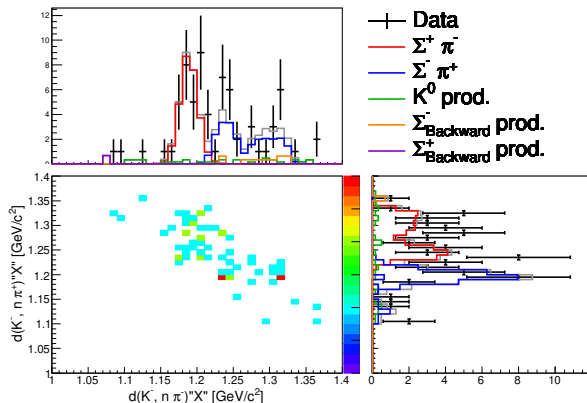
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1510 \sim 1520 [\text{GeV}/c^2]$



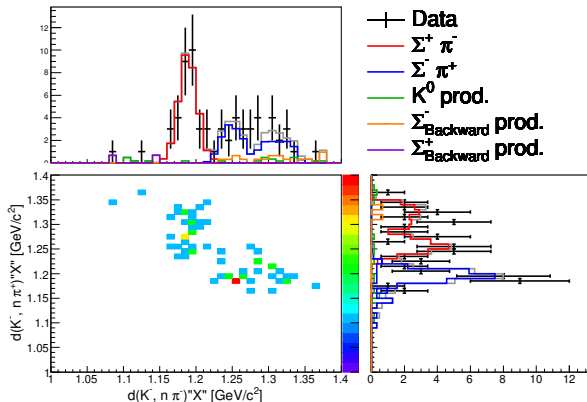
$d(K^-, n\pi^+)''X''$ vs $d(K^-, n\pi^-)''X''$ fitting
 $d(K^-, n)''X''$ 1520 \sim 1530 [GeV/c²]



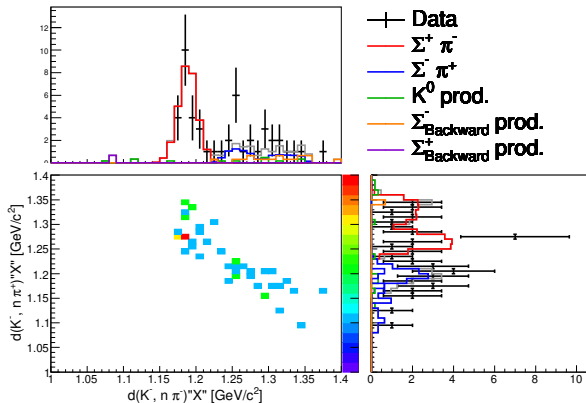
$d(K^-, n\pi^+)''X''$ vs $d(K^-, n\pi^-)''X''$ fitting
 $d(K^-, n)''X''$ 1530 \sim 1540 [GeV/c²]



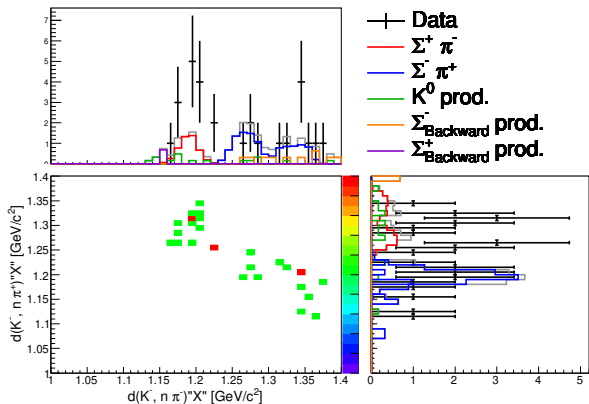
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1540 \sim 1550 [\text{GeV}/c^2]$



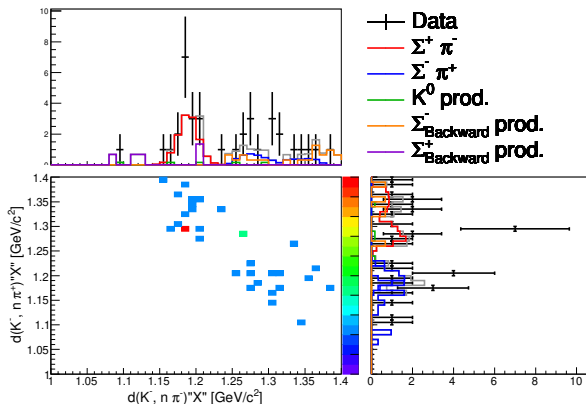
$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1550 \sim 1560 [\text{GeV}/c^2]$



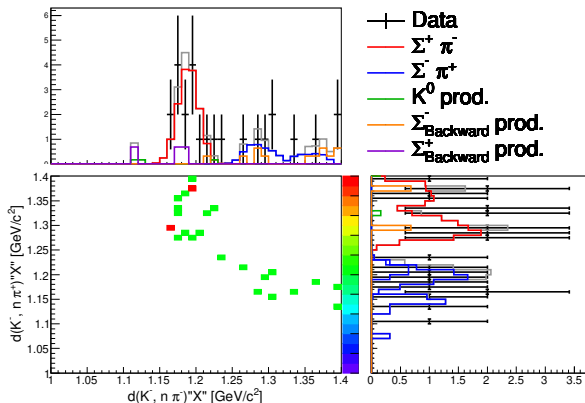
$d(K^-, n\pi^+)''X''$ vs $d(K^-, n\pi^-)''X''$ fitting
 $d(K^-, n)''X''$ 1560 \sim 1570 [GeV/c²]



$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1570 \sim 1580 [\text{GeV}/c^2]$



$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1580 \sim 1590 [\text{GeV}/c^2]$



$d(K^-, n\pi^+) "X" \text{ vs } d(K^-, n\pi^-) "X" \text{ fitting}$
 $d(K^-, n) "X" 1590 \sim 1600 [\text{GeV}/c^2]$

