

RICH

Malte Wilfert

Institut für Kernphysik - Johannes Gutenberg-Universität Mainz

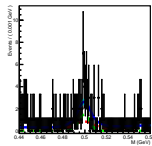
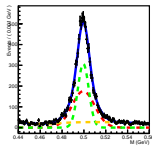
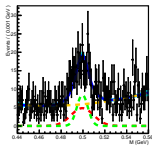
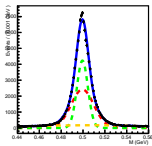
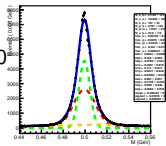
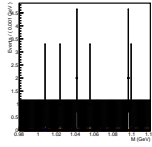
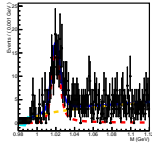
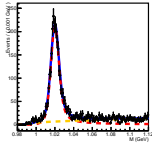
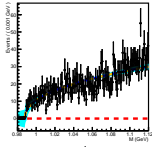
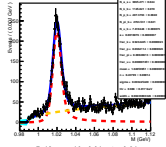
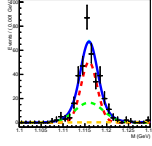
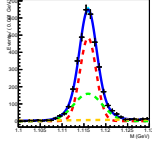
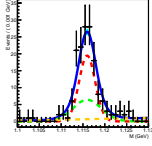
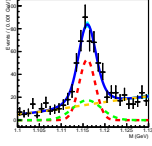
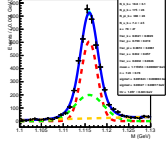
November 6th 2013

- Change LH ratio for $p < p_{thr}$
 - Range of ± 5 GeV around p_{thr} for both assumptions
 - Include histogram with unidentified hadrons $\Rightarrow \sum$ fractions = 1
 - Using the relativistic Breit Wigner from Quiela in the convolution for the ϕ
-
- $p < p_{thr}$
 - $\frac{LH(bg)}{LH(\pi)} > 0.476$ (1)
 - $\frac{LH(bg)}{LH(K)} > 0.357$ (1)
 - Not a π / K
- $p > p_{thr}$
 - $\frac{LH(p)}{LH(\pi)} > 1$
 - $\frac{LH(p)}{LH(K)} > 1$
 - $\frac{LH(p)}{LH(bg)} > 1$

no ID

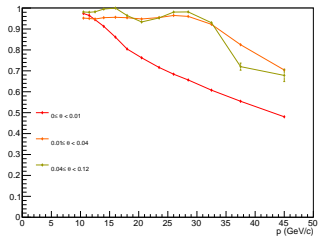
 π K p

unk

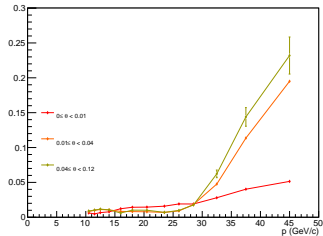
all: $12 < p < 13, 0.01 < \theta < 0.04$ all: $12 < p < 13, 0.01 < \theta < 0.04$ all: $12 < p < 13, 0.01 < \theta < 0.04$ 

- One Particle correct identified
- Colors: Full model bgn signal signal

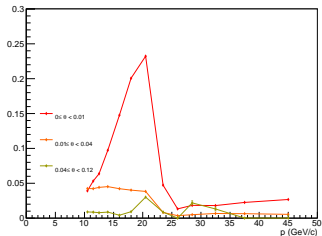
$\pi^- \rightarrow \pi$



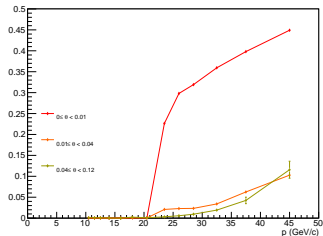
$\pi^- \rightarrow K$

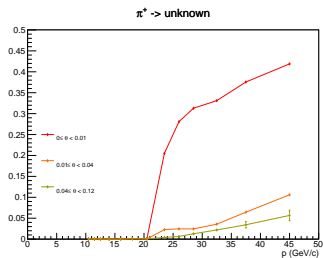
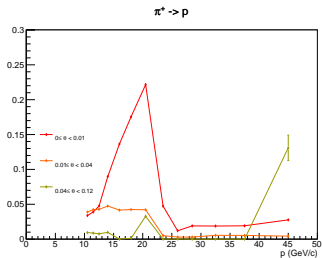
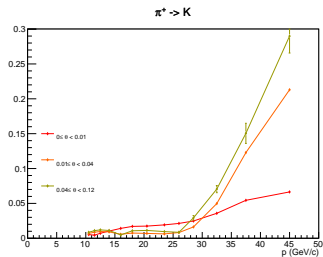
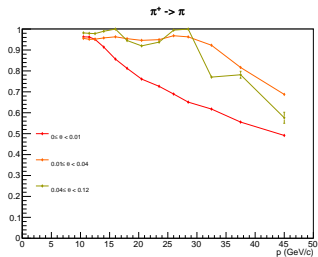


$\pi^- \rightarrow p$

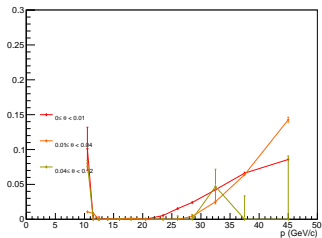


$\pi^- \rightarrow \text{unknown}$

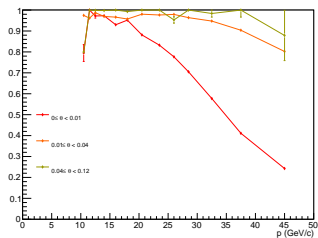




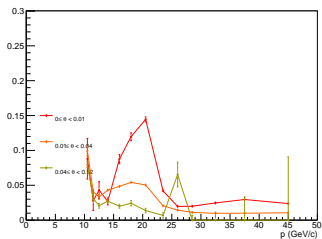
$K^- \rightarrow \pi$



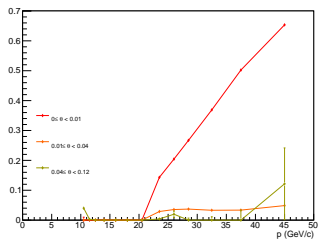
$K^- \rightarrow K$



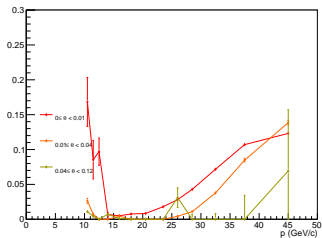
$K^- \rightarrow p$



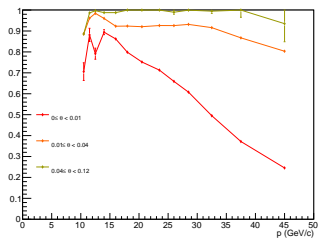
$K^- \rightarrow \text{unknown}$



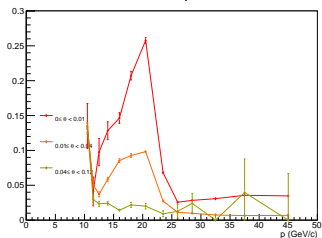
$K^+ \rightarrow \pi$



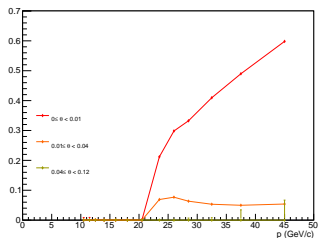
$K^+ \rightarrow K$



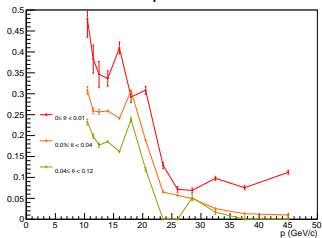
$K^+ \rightarrow p$



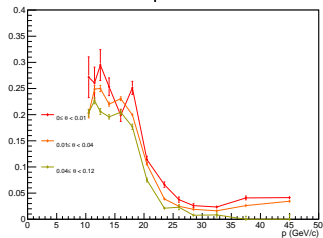
$K^+ \rightarrow \text{unknown}$



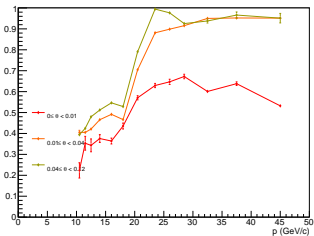
$\bar{p} \rightarrow \pi$



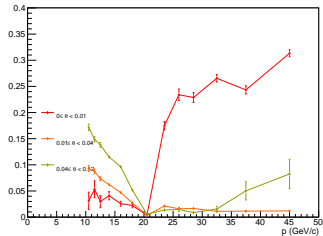
$\bar{p} \rightarrow K$



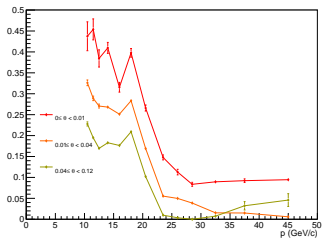
$\bar{p} \rightarrow p$



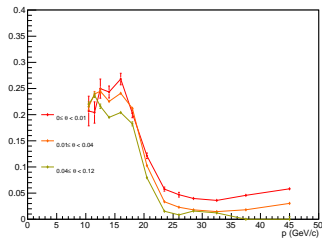
$\bar{p} \rightarrow \text{unknown}$



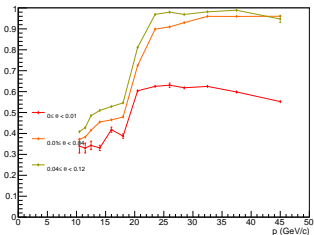
$p \rightarrow \pi$



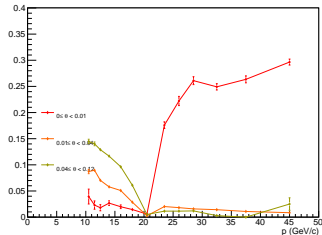
$p \rightarrow K$

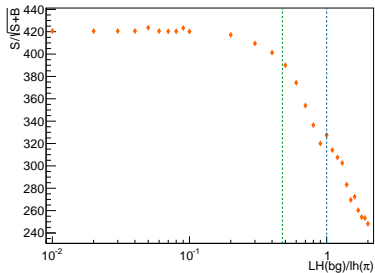
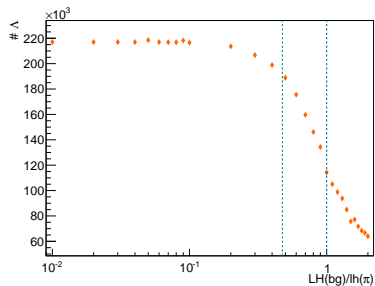


$p \rightarrow p$

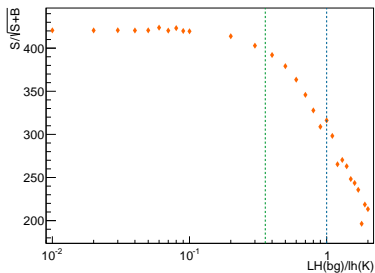
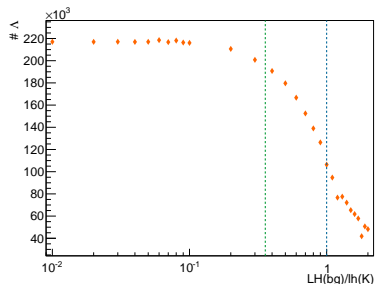


$p \rightarrow \text{unknown}$





- Identify the π as π
- p is not a pi / K
- Number of $\Lambda/\bar{\Lambda}$ vs $LH(bg)/LH(\pi)$
- $Sig/(\sqrt{Sig + Bgn})$ vs $LH(bg)/LH(\pi)$
- Blue line: My cut
- Green line: Quiela's cut



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