

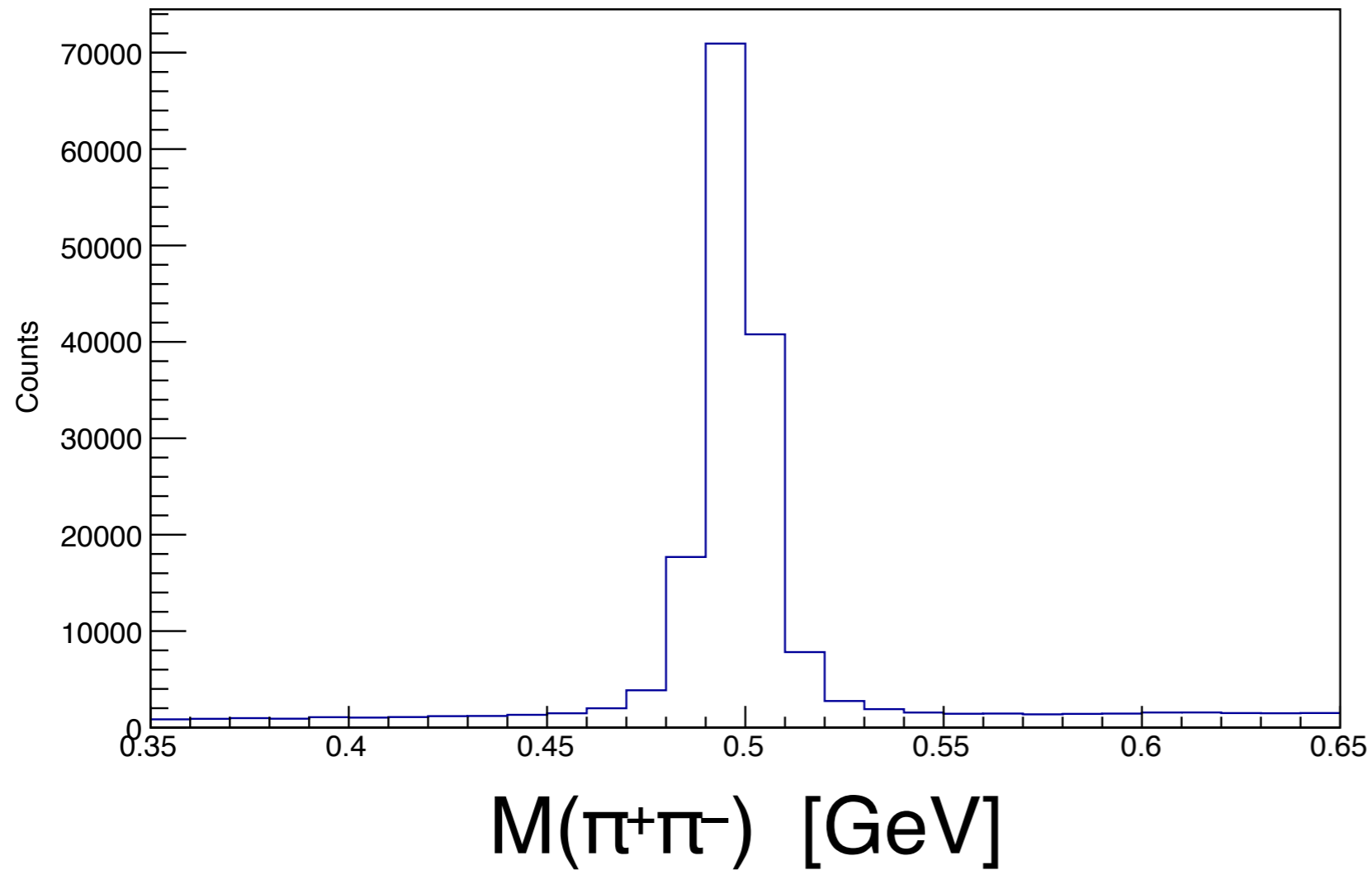
# Channels for PID Studies

- Need common set of channels / ROOT files to study PID parameters & performance over full phase space
  - $\gamma p \rightarrow p \rho^0, \rho^0 \rightarrow \pi^+ \pi^-$
  - $\gamma p \rightarrow p \omega, \omega \rightarrow \pi^+ \pi^- \pi^0$
  - $\gamma p \rightarrow p \phi, \phi \rightarrow K^+ K^-$
  - $\gamma p \rightarrow p K_S K^+ \pi^-, K_S \rightarrow \pi^+ \pi^-$
  - $\gamma p \rightarrow p \Lambda^0, \Lambda^0 \rightarrow p \pi^-$
  - $\gamma \rightarrow e^+ e^-$  conversions

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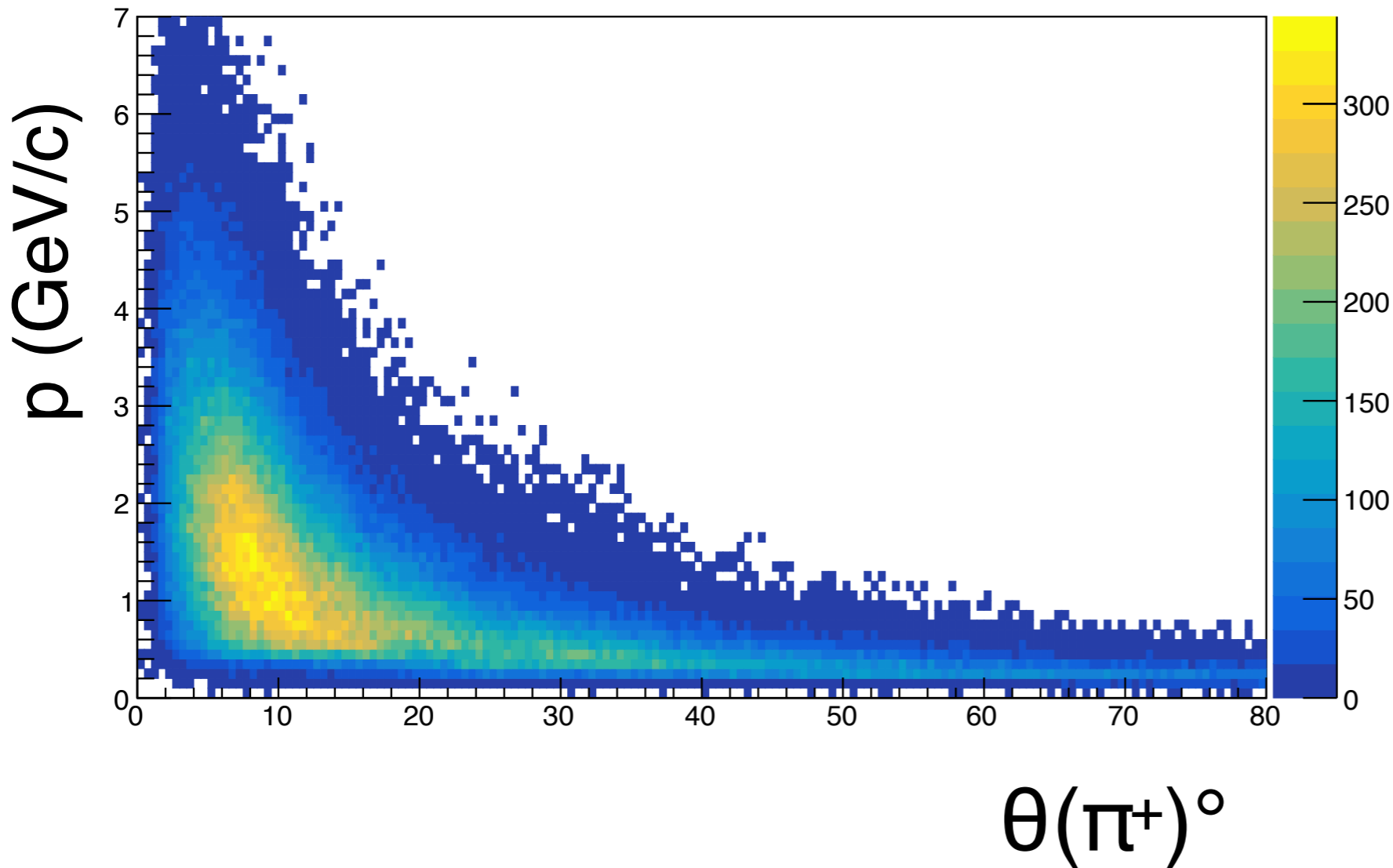
$K_S$  from  $\gamma p \rightarrow p K_S K^+ \pi^-$ ,  $K_S \rightarrow \pi^+ \pi^-$



Data: 2017 ver02  
KinFit CL > 1%  
Flt. sig. >  $3\sigma$

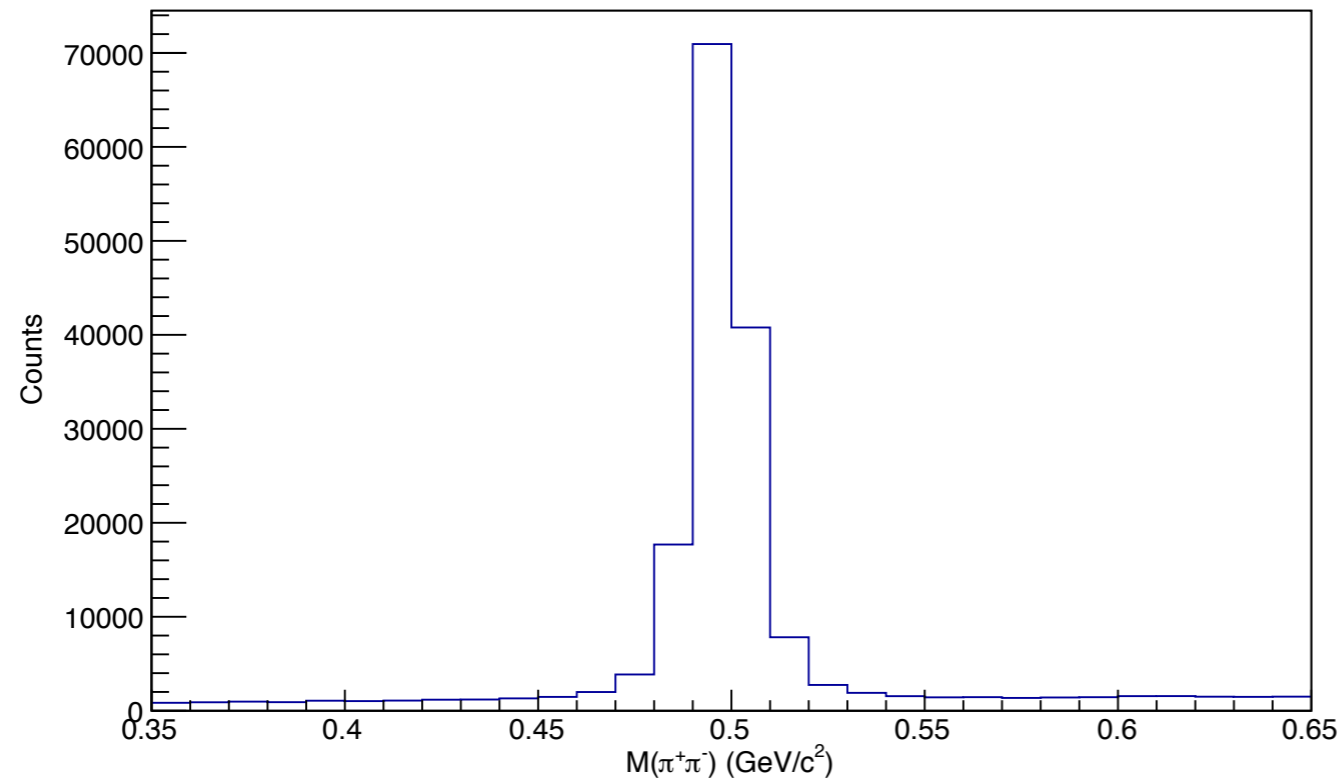
$K_S$  from  $\gamma p \rightarrow p K_S K^+ \pi^-$ ,  $K_S \rightarrow \pi^+ \pi^-$

$\pi^+$  momentum vs  $\theta$



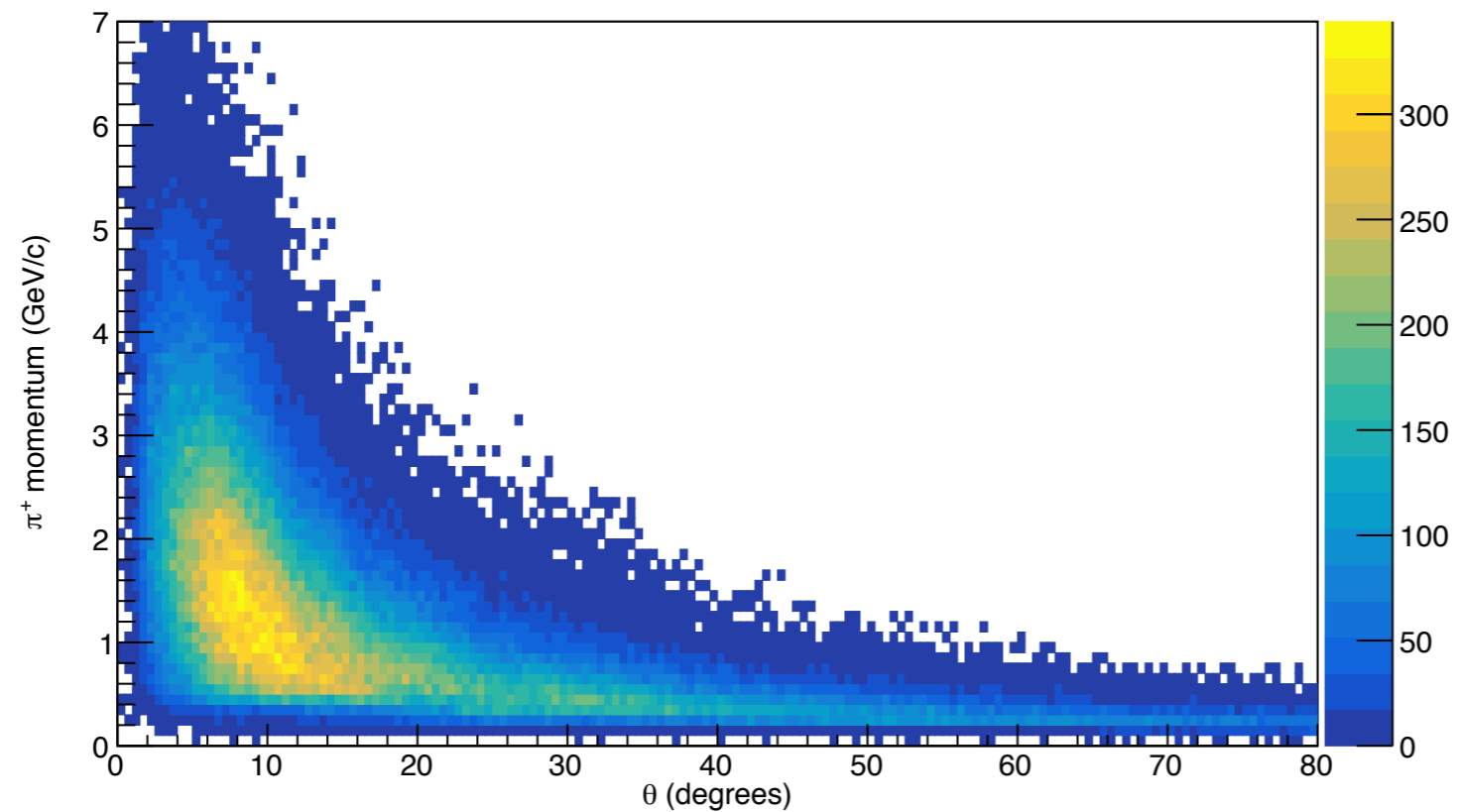
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$M(p\pi^-)$  [GeV]

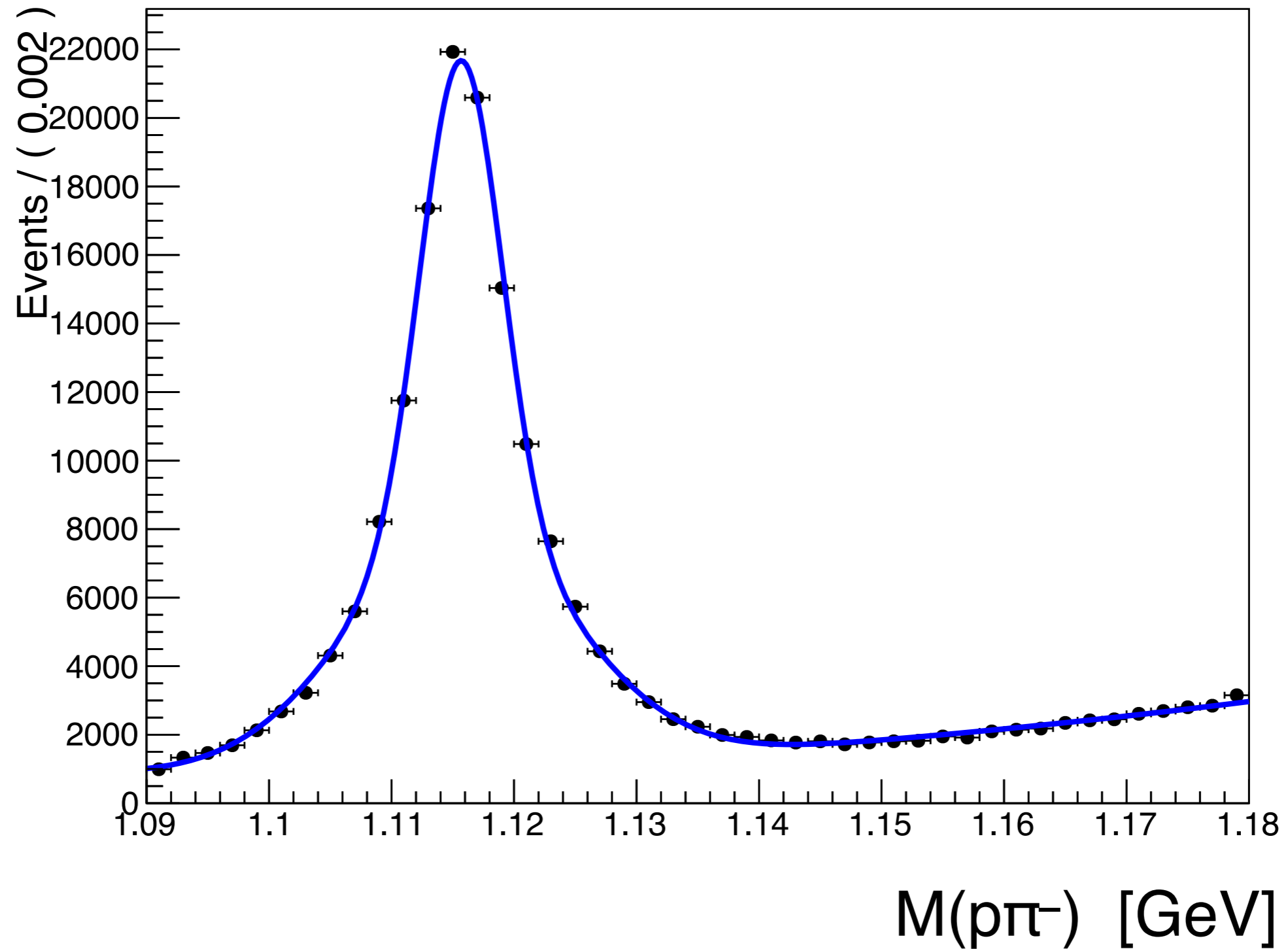
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# Lambda mass distribution



# $K^+$ Lambda Kinematics

