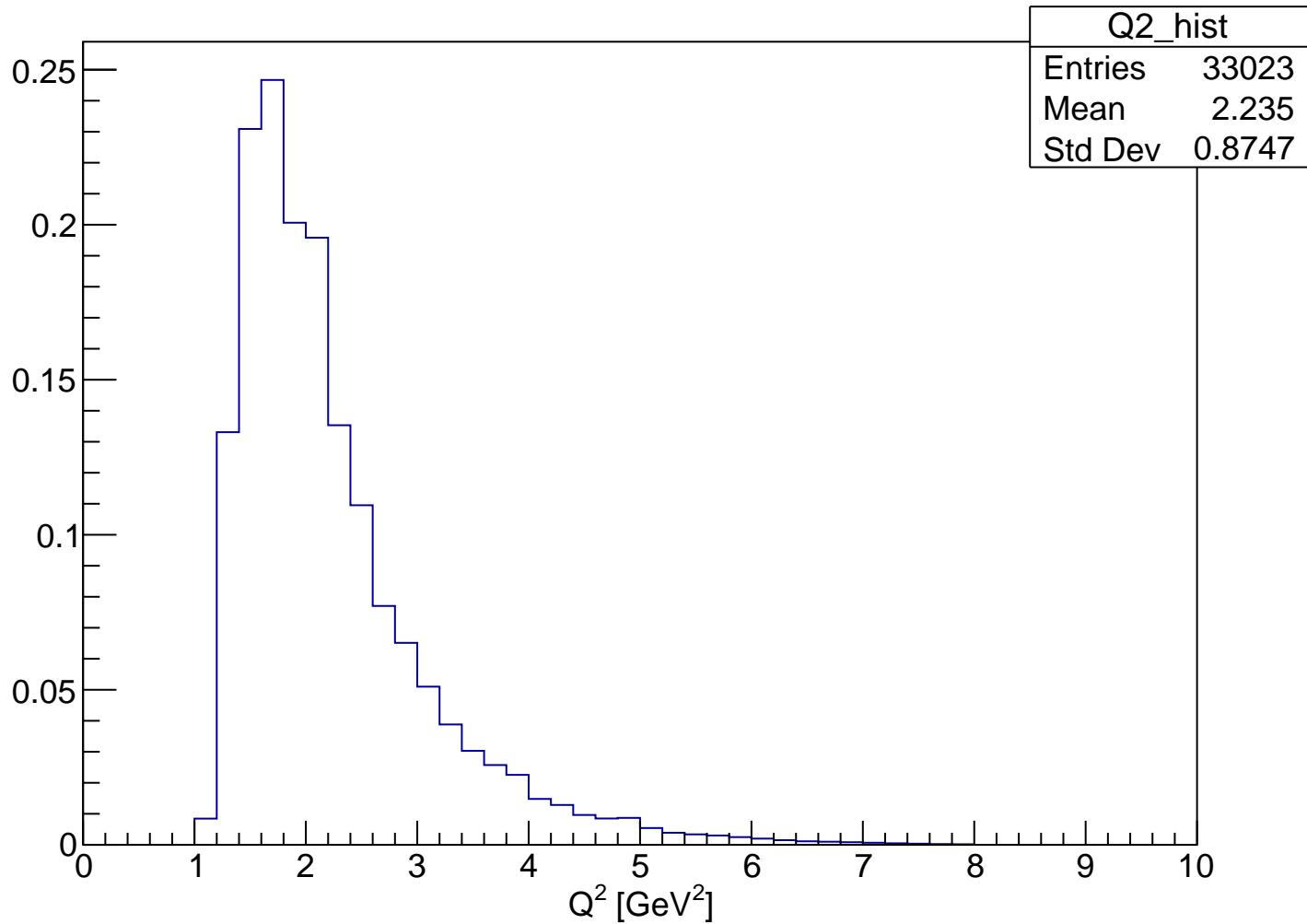


**File : MC inbending without vertex correction**

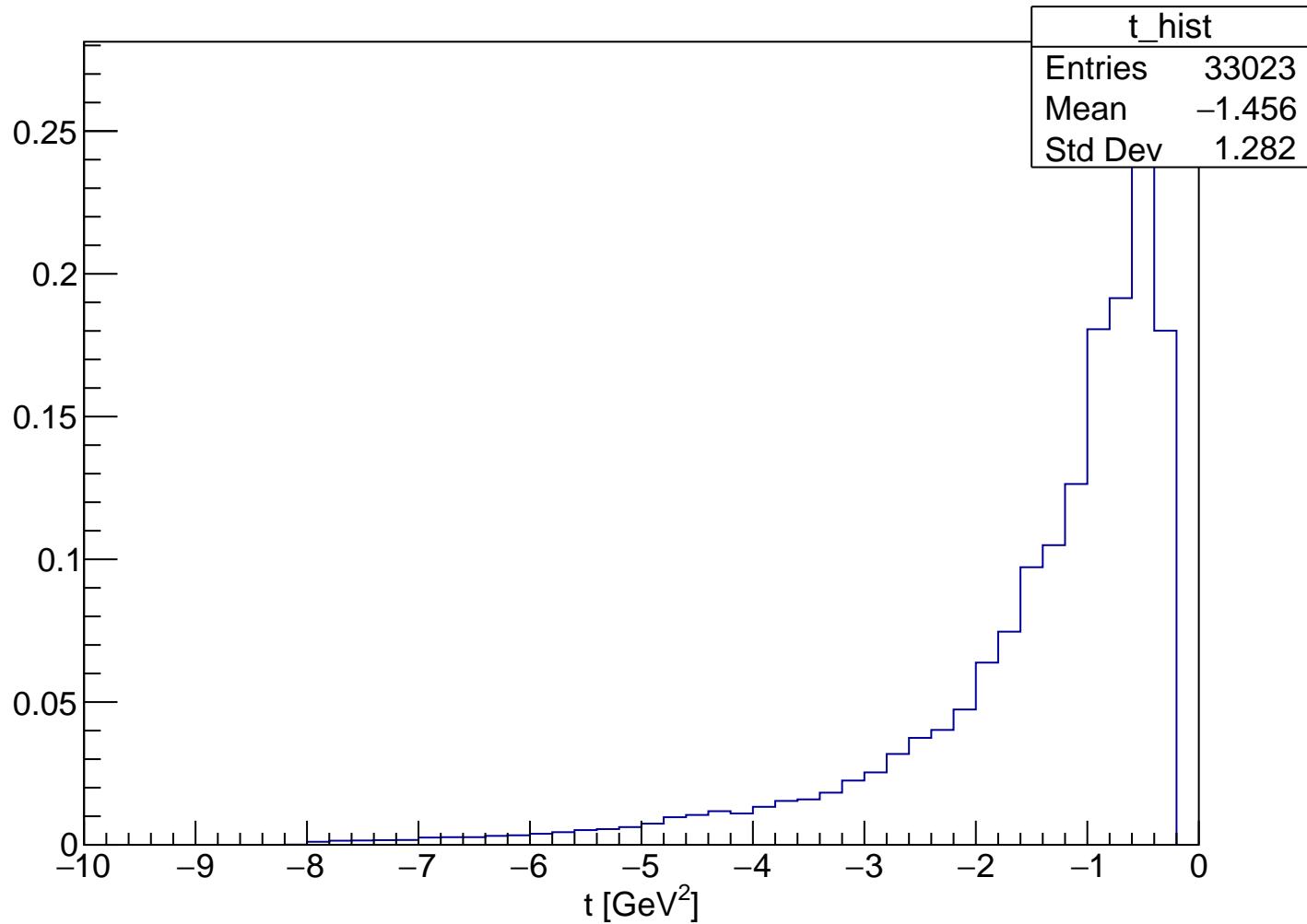
**Number of generated events: 2 000 000**

**Summary of cuts for the next plots:**

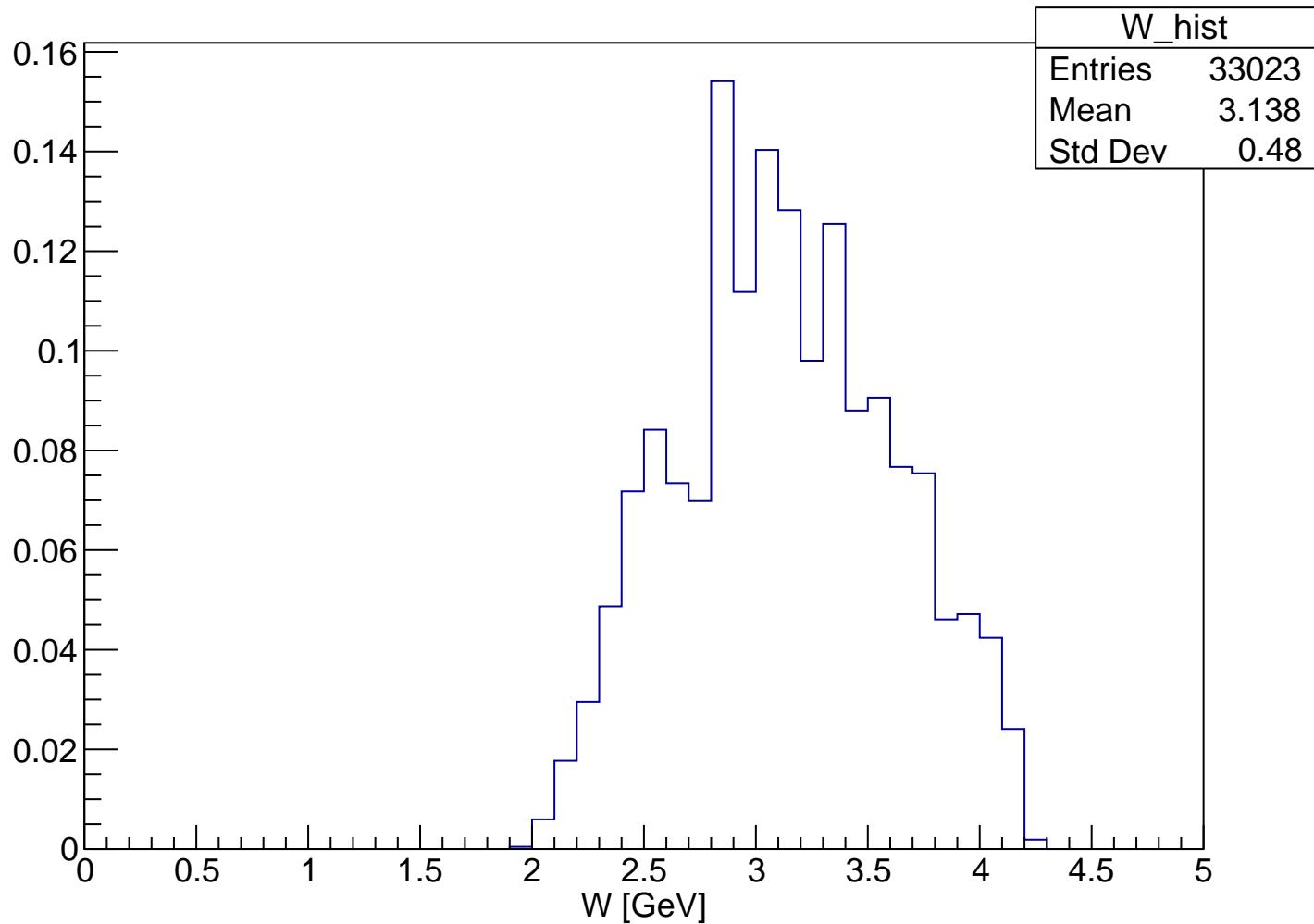
- Only 1 proton, 1  $\pi^+$ , 1  $\pi^-$ , and 1  $e^-$
- $Q^2 > 1 \rightarrow$  electron FD
- Very large cut on Missing mass, Invariant mass  $\pi^+ \pi^-$  and Invariant mass Ks Kl (cut between 0 and 3 GeV)

$Q^2$ 

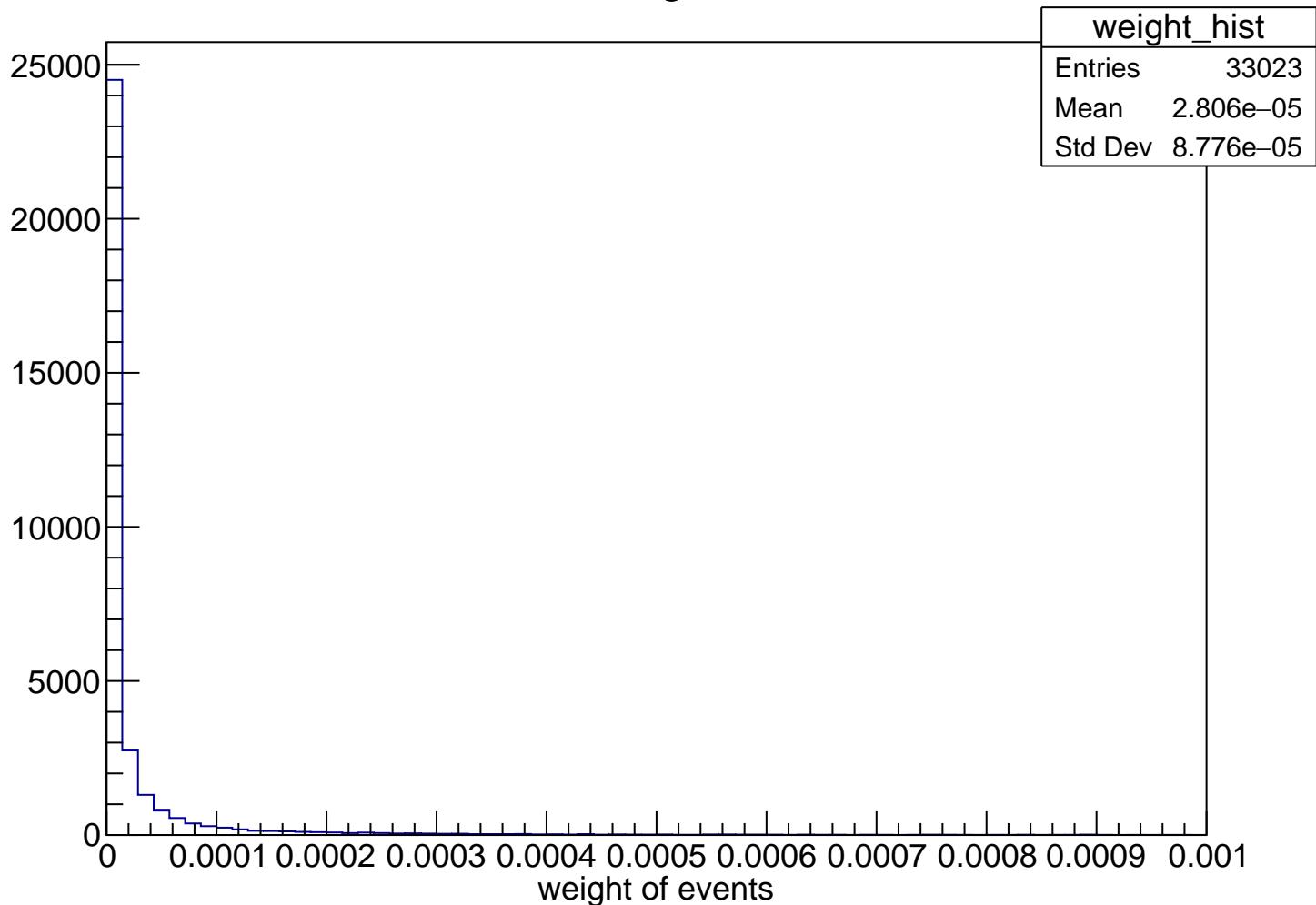
*t*



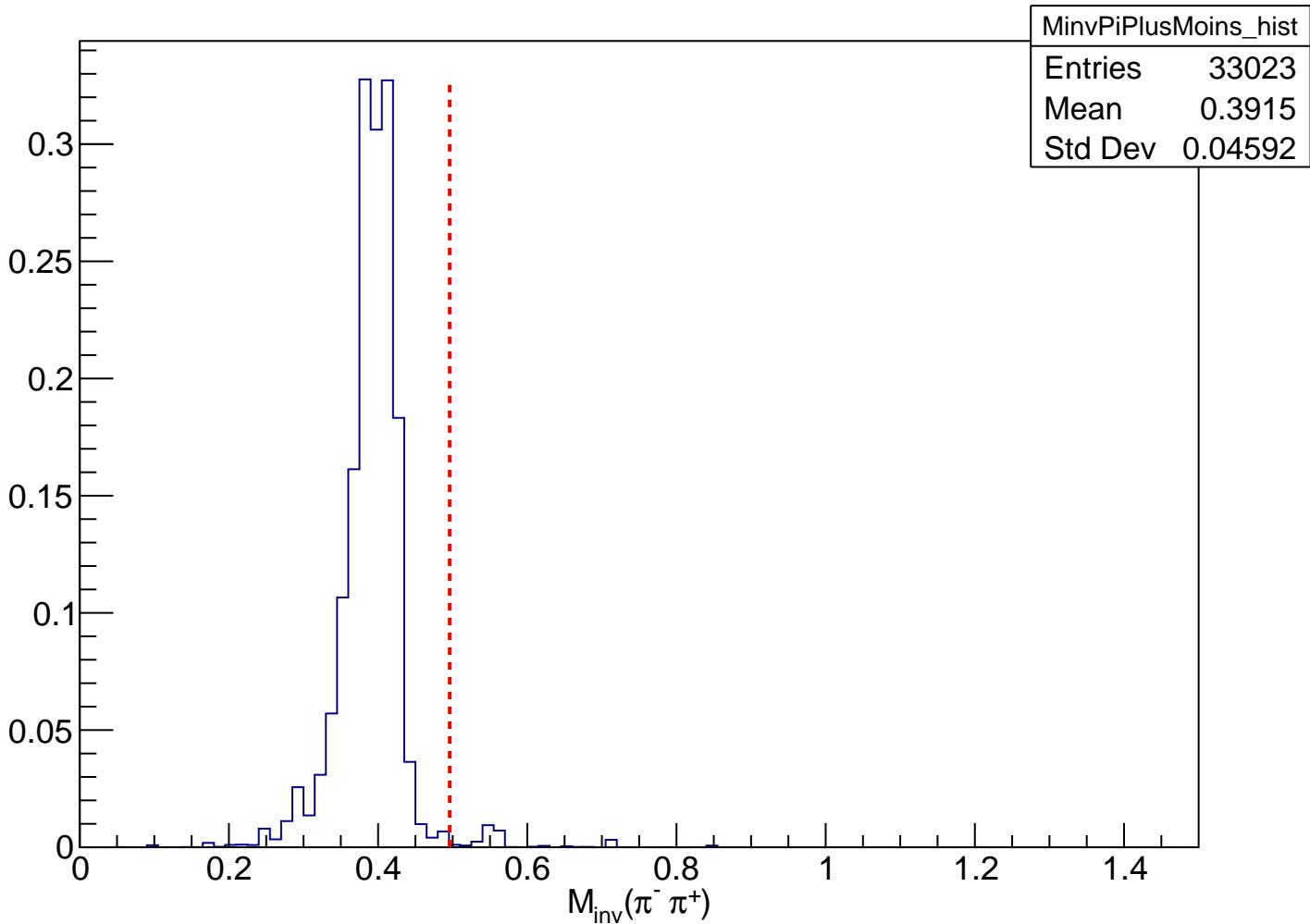
$W$



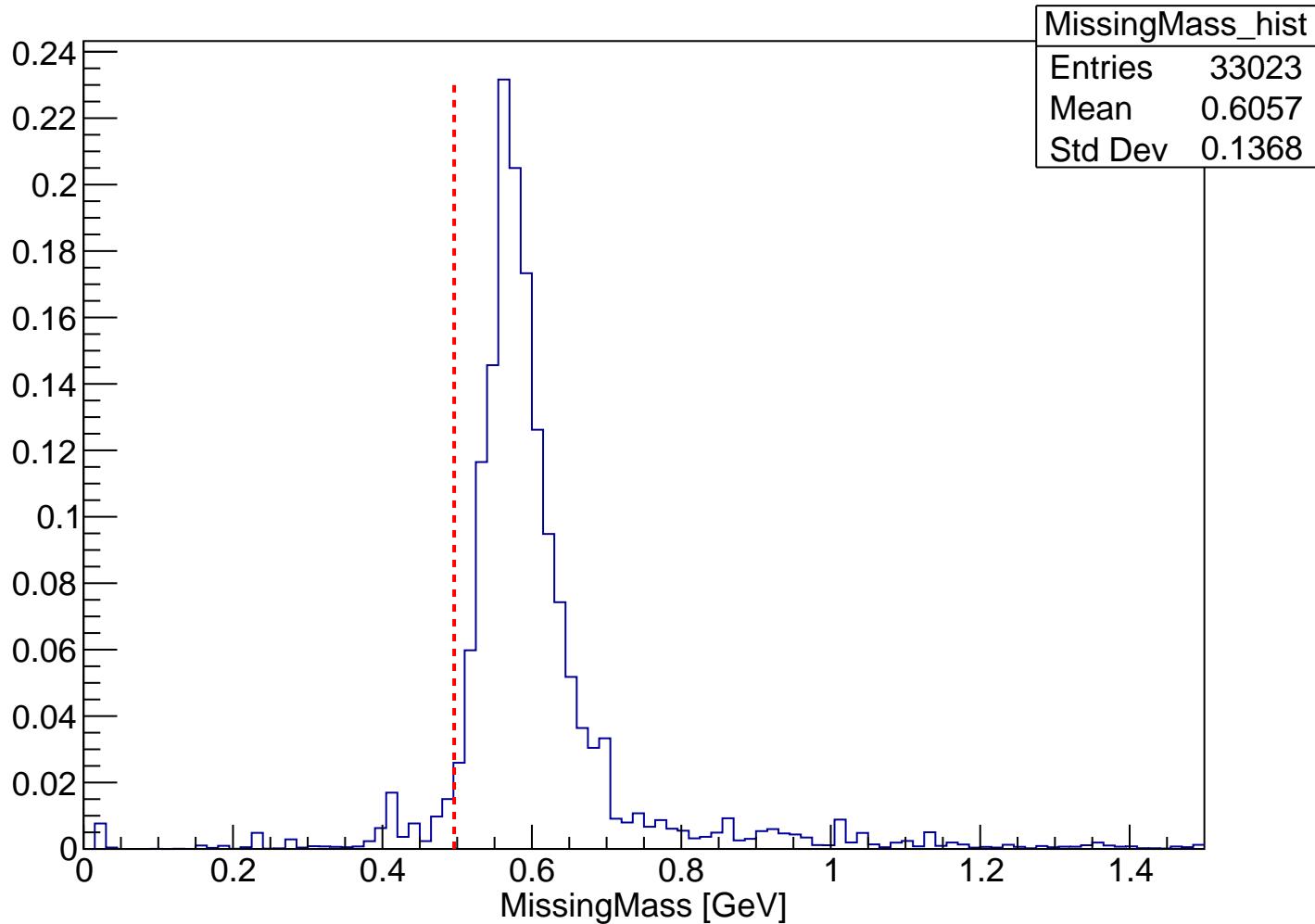
# weight



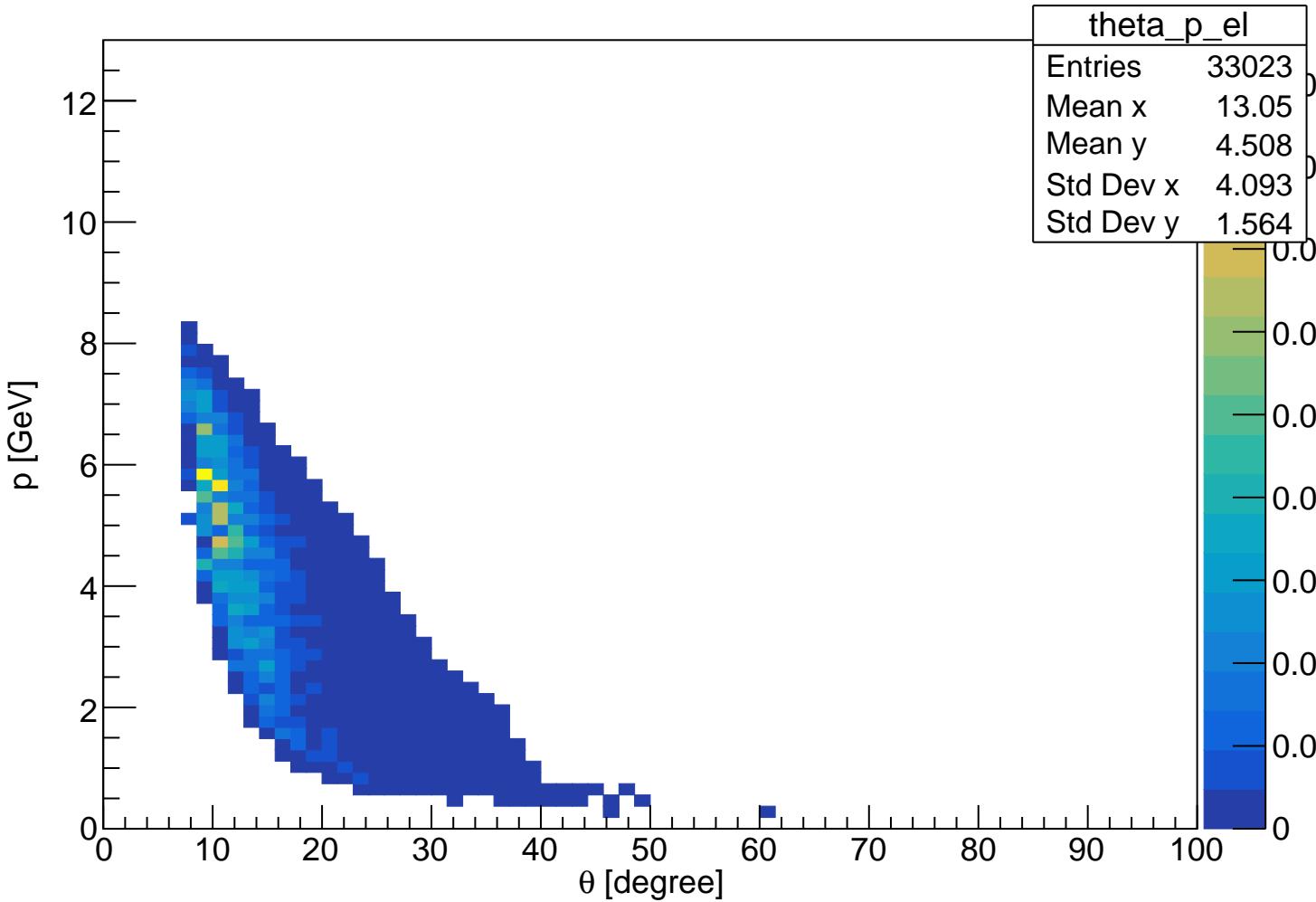
# Invariant Mass $\pi^- \pi^+$



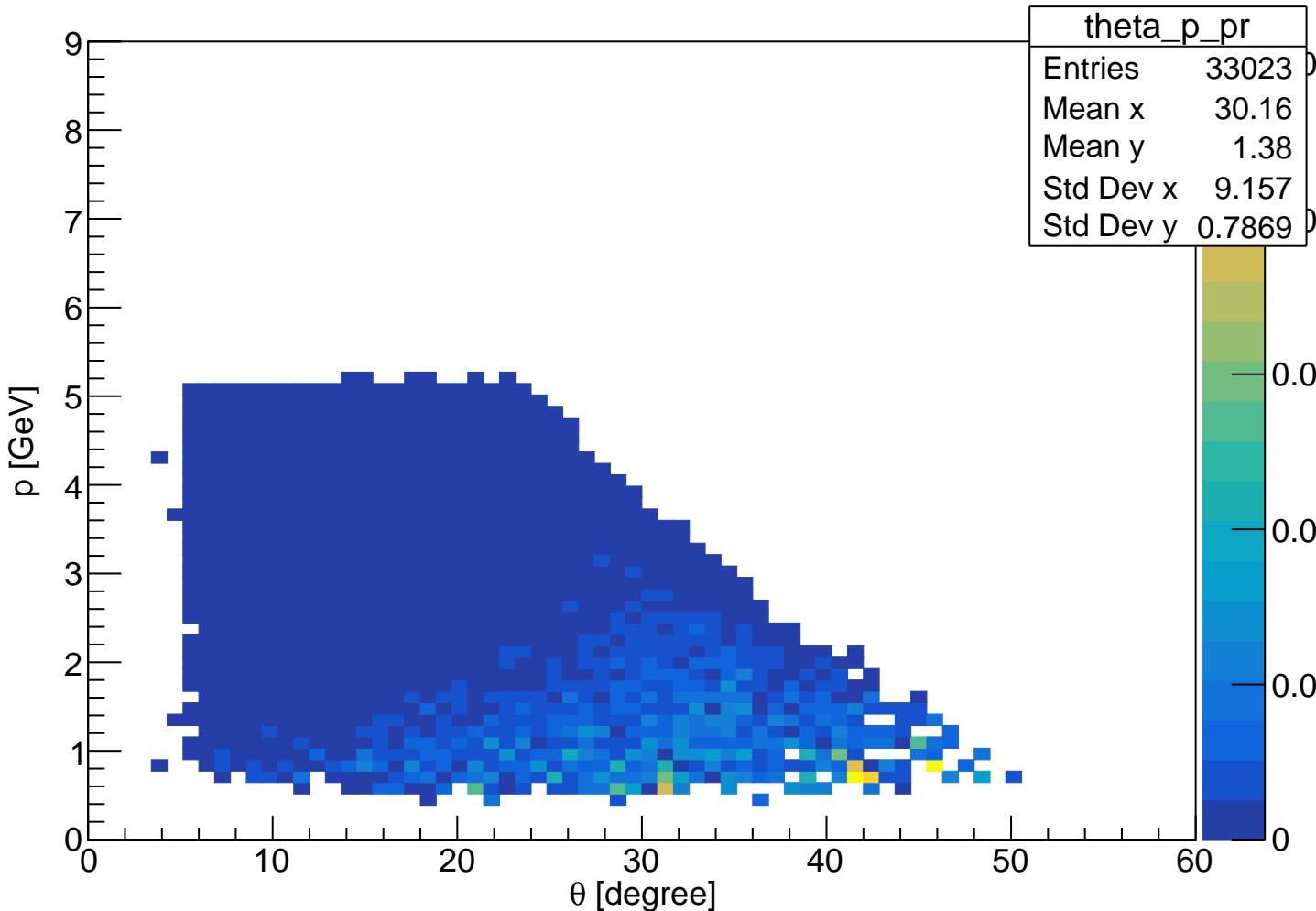
# Missing Mass



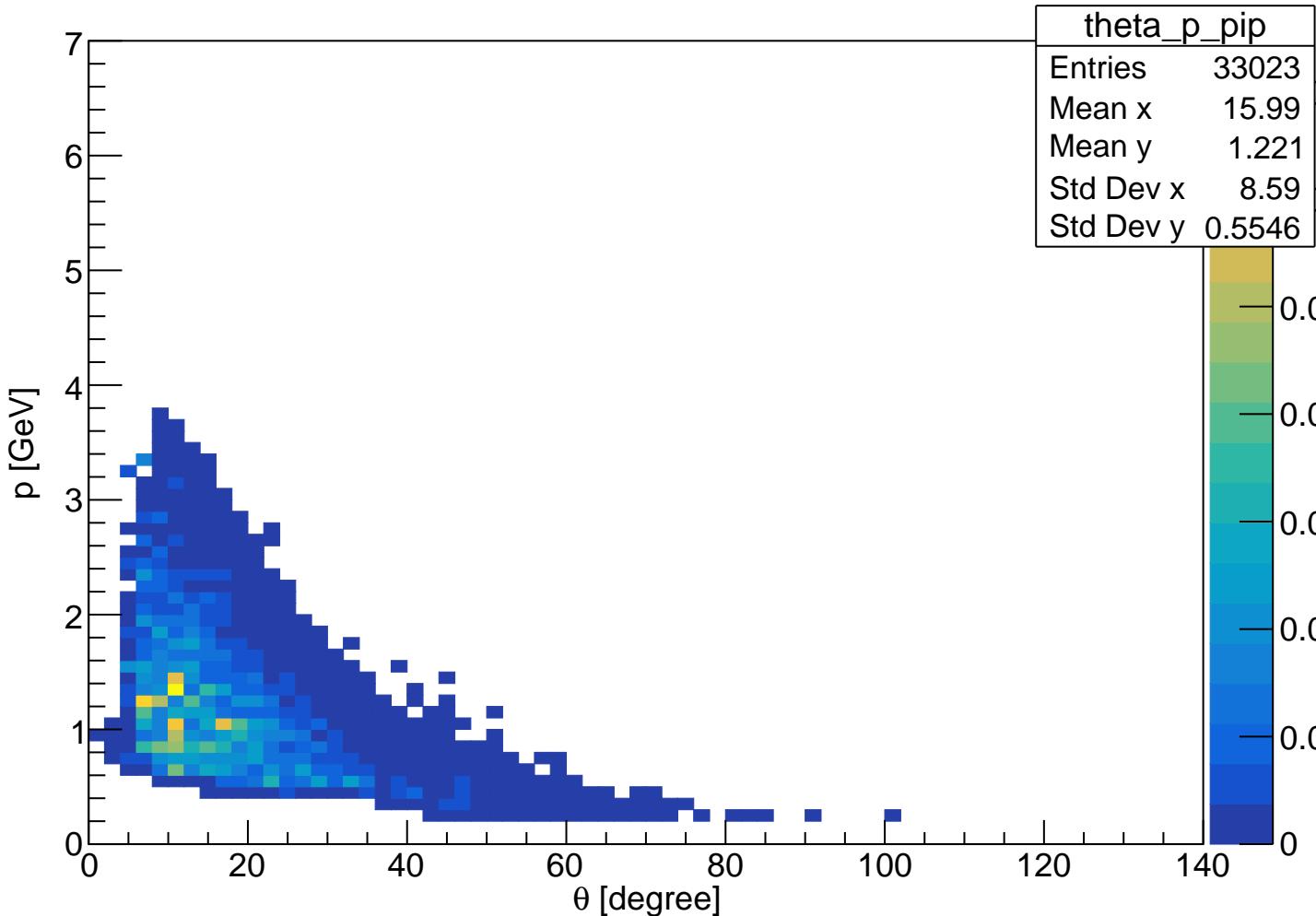
# Theta vs p for electron



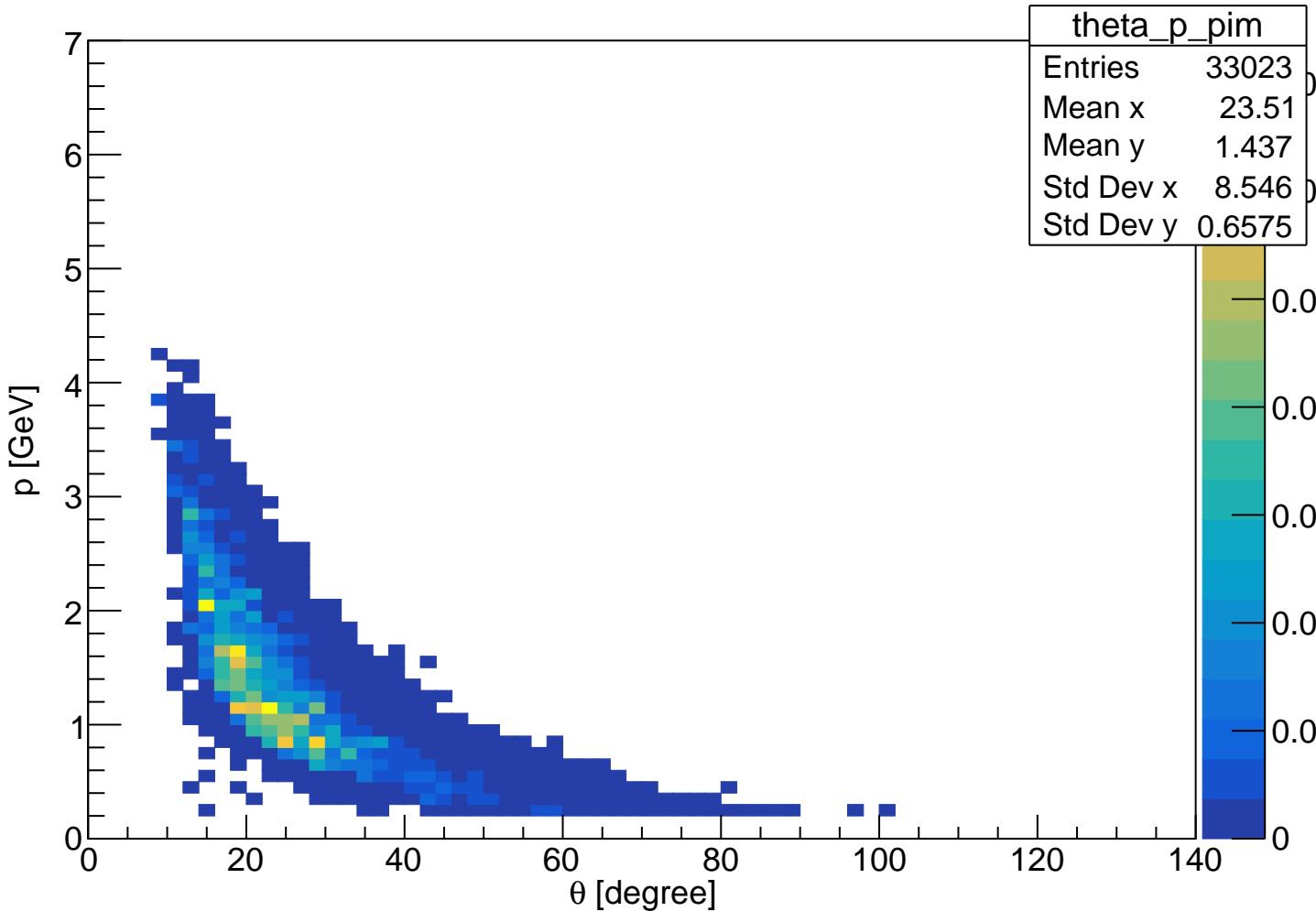
# Theta vs p for proton



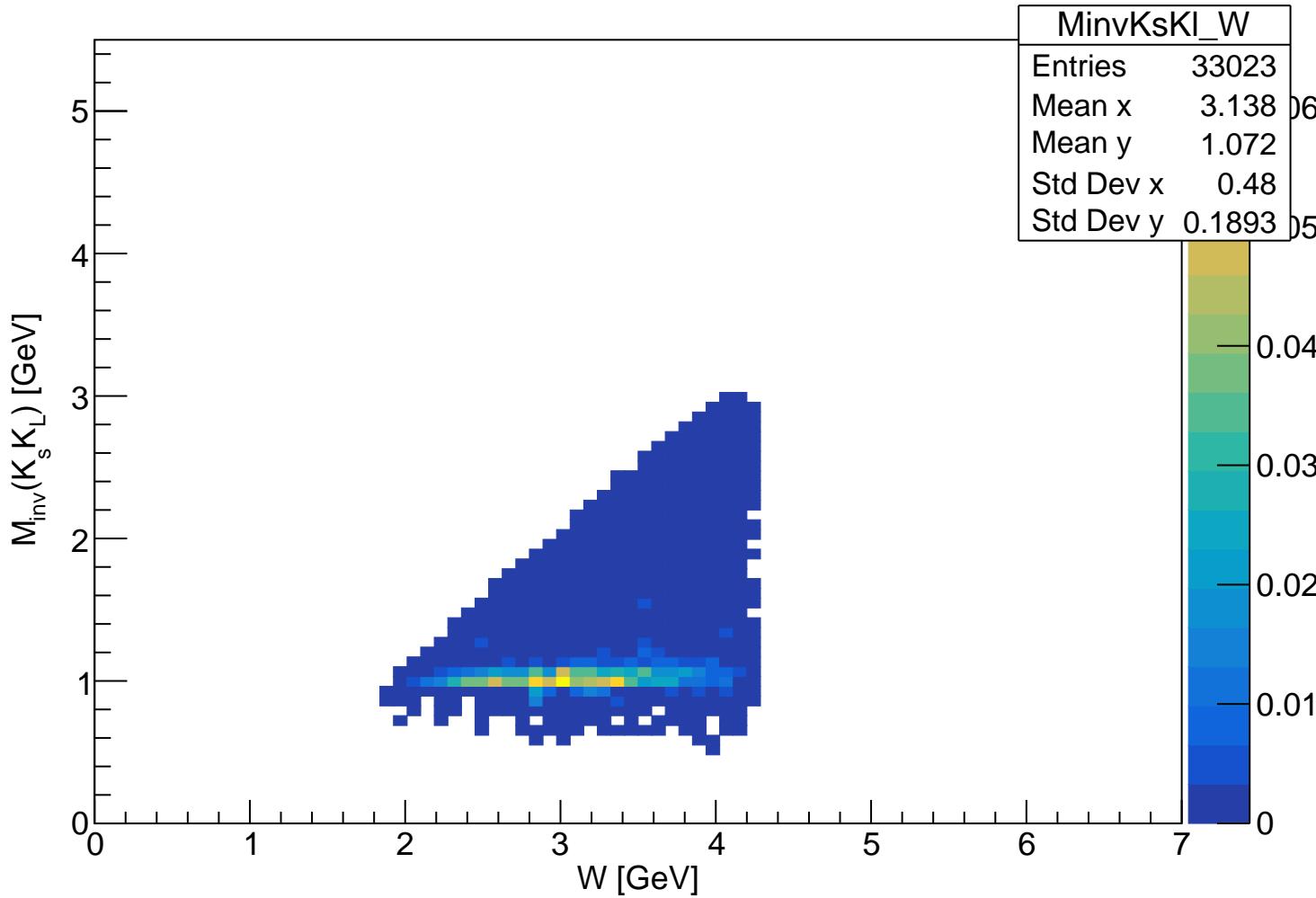
# Theta vs p for $\pi^+$



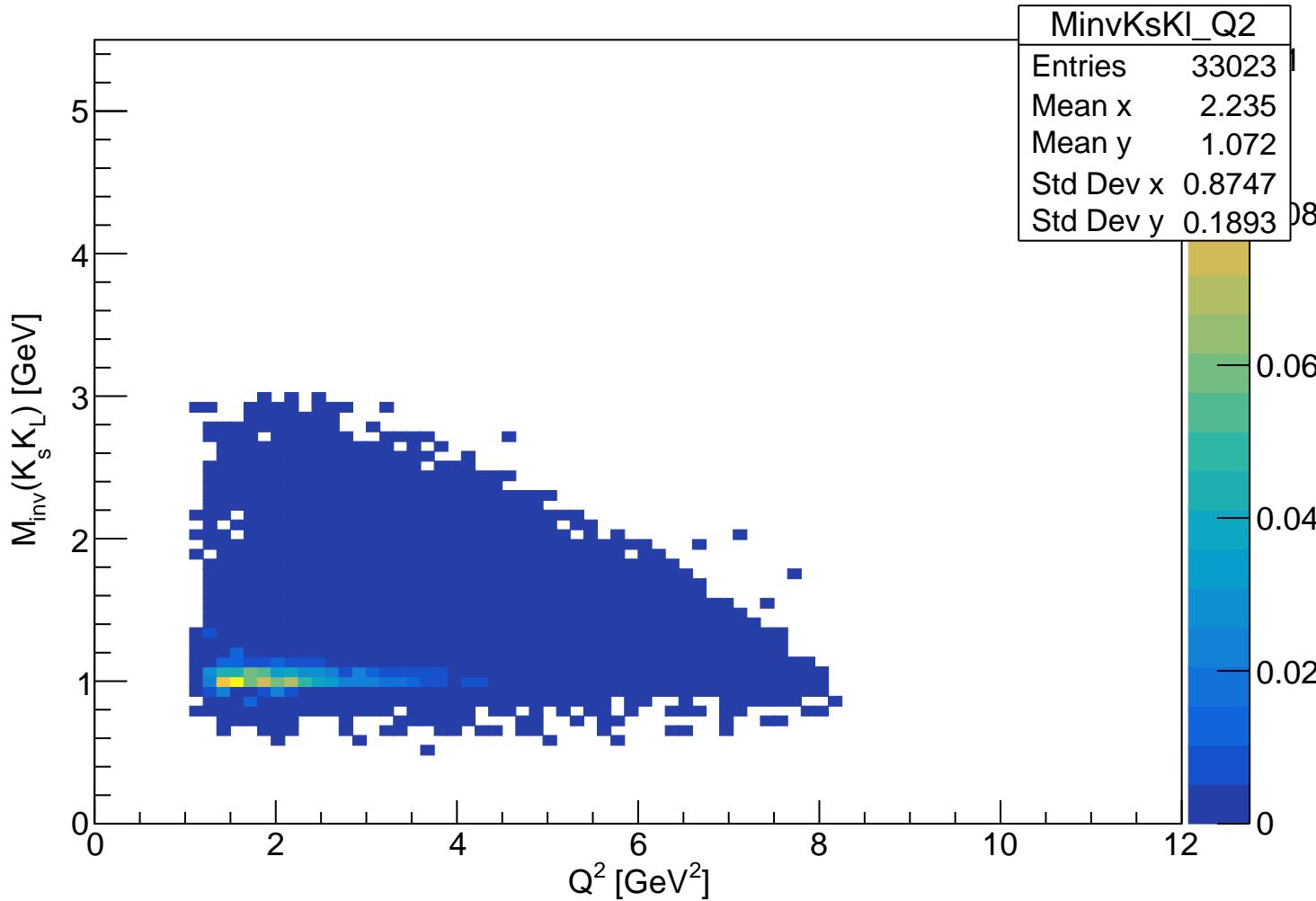
# Theta vs p for $\pi^-$



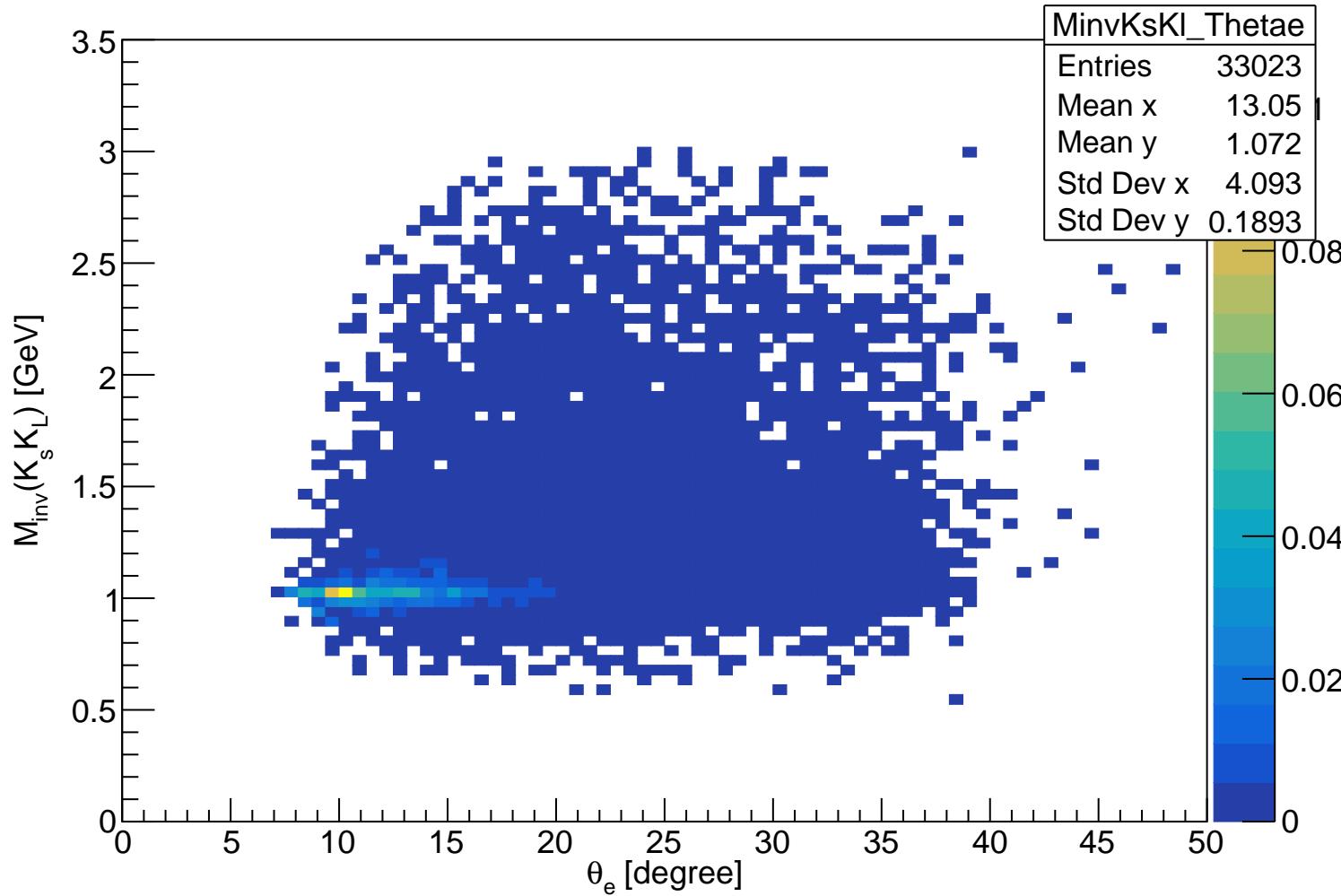
# Invariant Mass Ks Kl vs W



# Invariant Mass Ks Kl vs $Q^2$



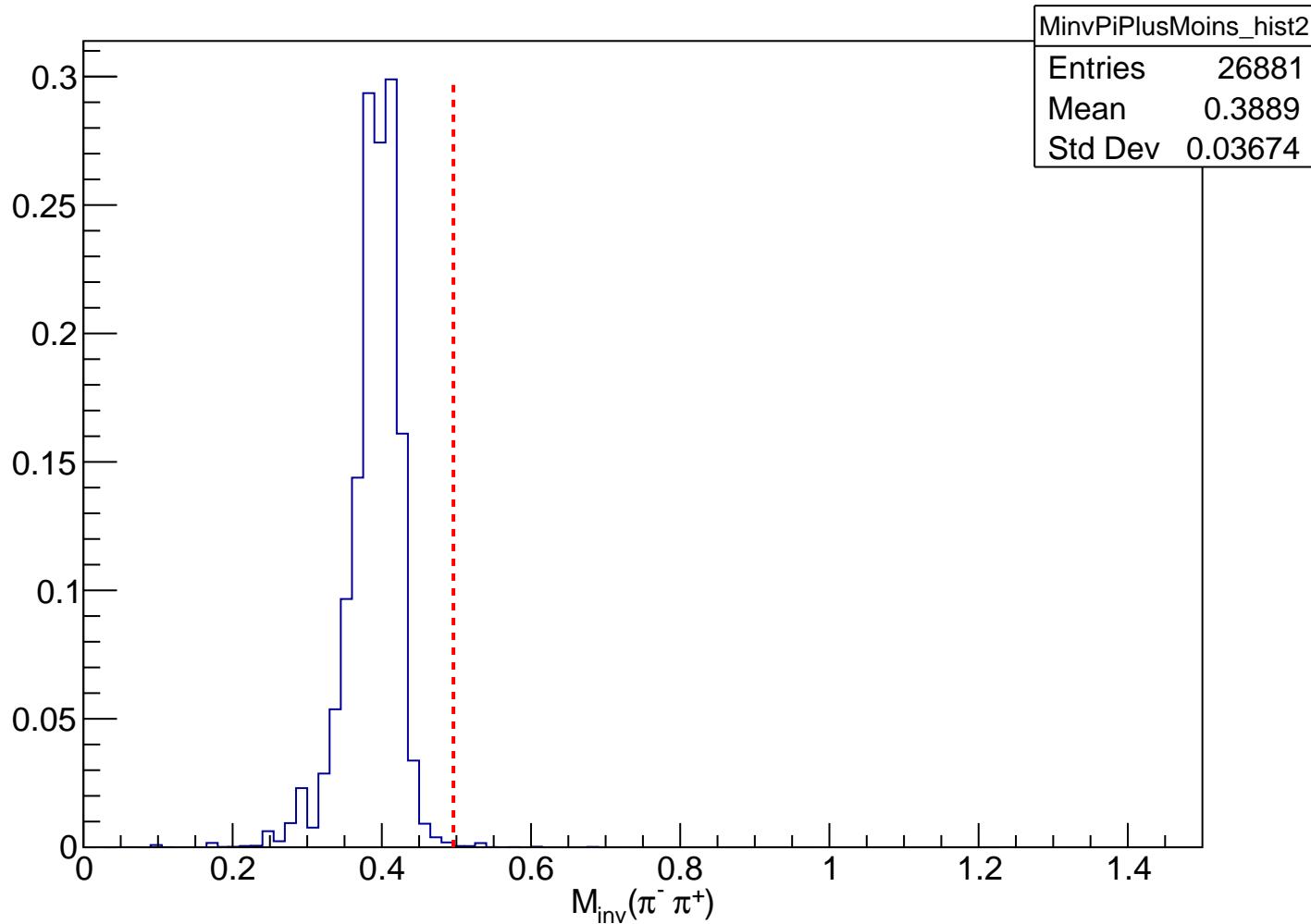
# Invariant Mass Ks Kl vs Theta electron



## **Summary of cuts for the next plots:**

- Add a cut on missing mass :  $0.4 < MM < 0.7$  GeV**

# Invariant Mass $\pi^- \pi^+$ with cut on MM

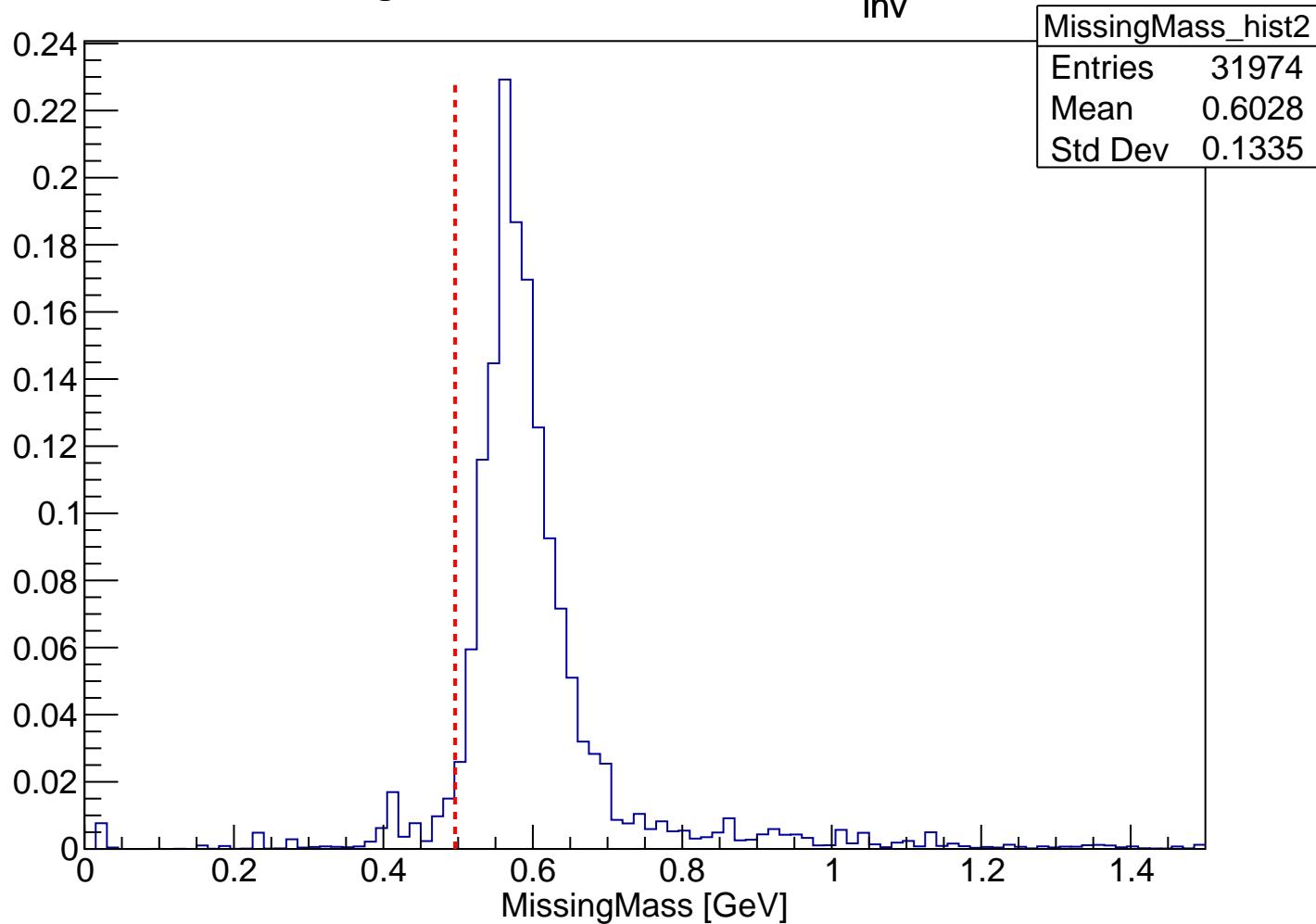


## **Summary of cuts for the next plots:**

- Replace the cut on missing mass by the cut on invariant mass  $\pi^+ \pi^-$  :**

$$0.3 < M_{\text{inv}} < 0.6 \text{ GeV}$$

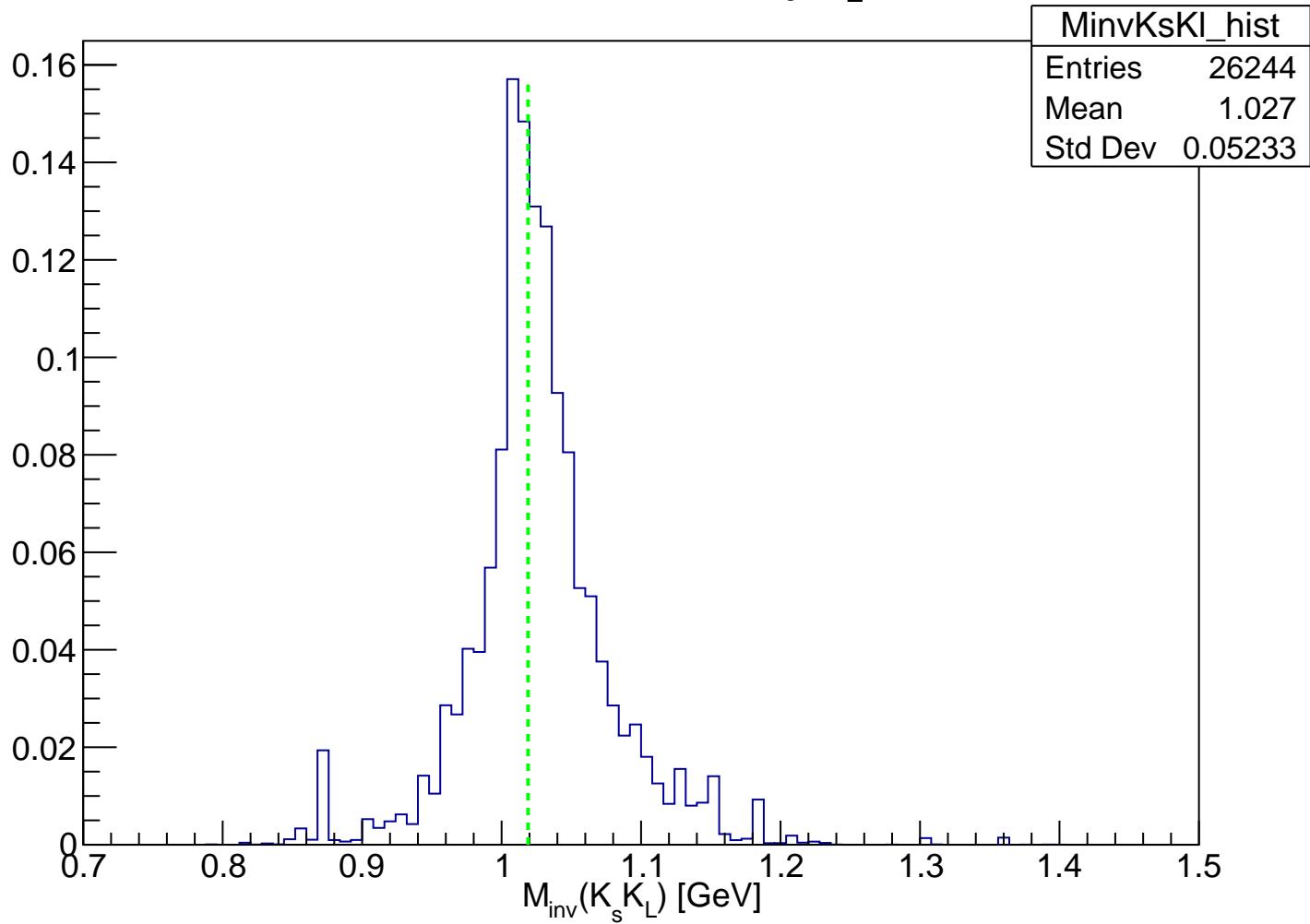
# Missing Mass with cut on $M_{inv}$ of $\pi^+\pi^-$



## **Summary of cuts for the next plots:**

- both cut are present (in invariant mass pi+ pi- and missing mass)**

# Invariant Mass $K_s K_L$

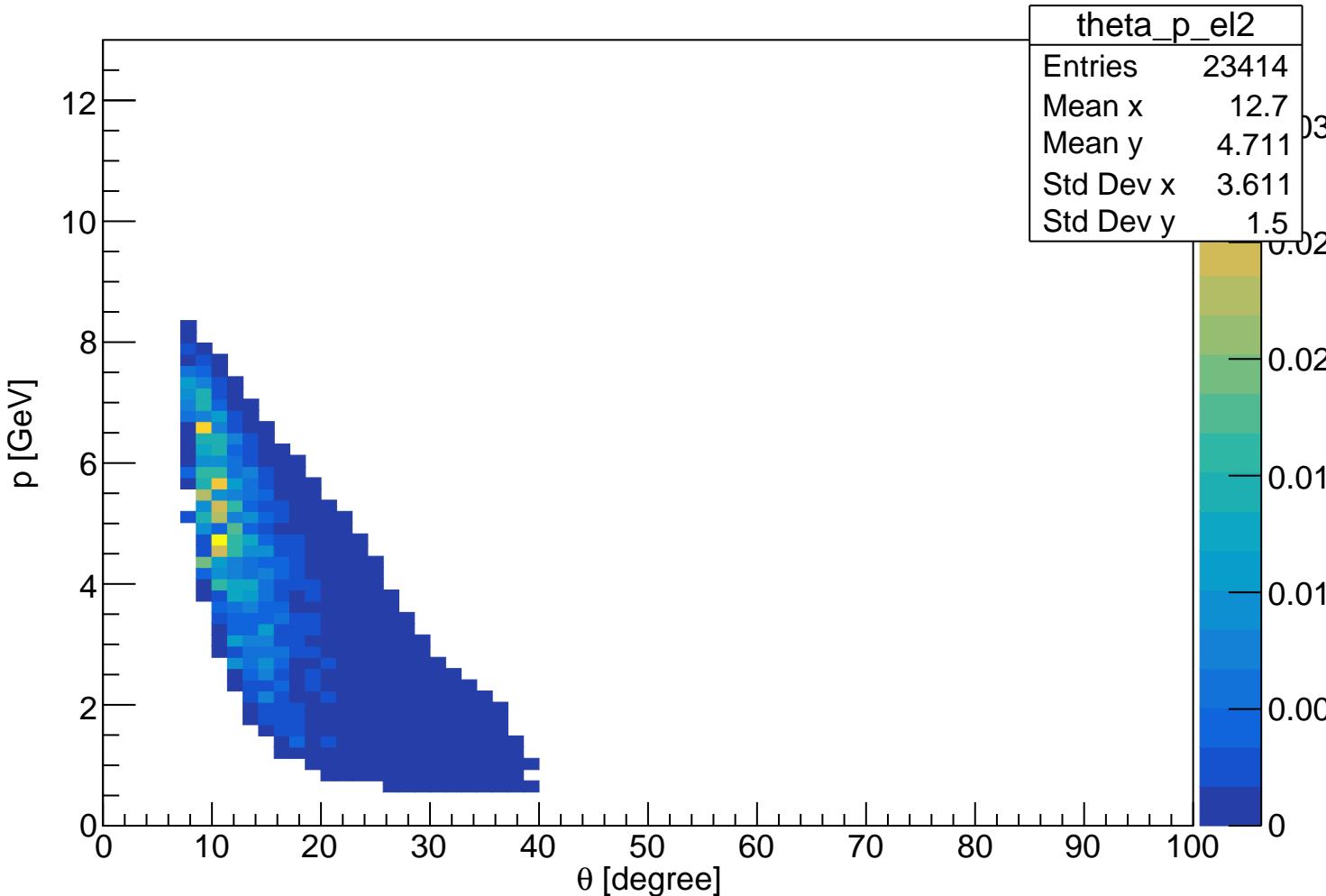


## **Summary of cuts for the next plots:**

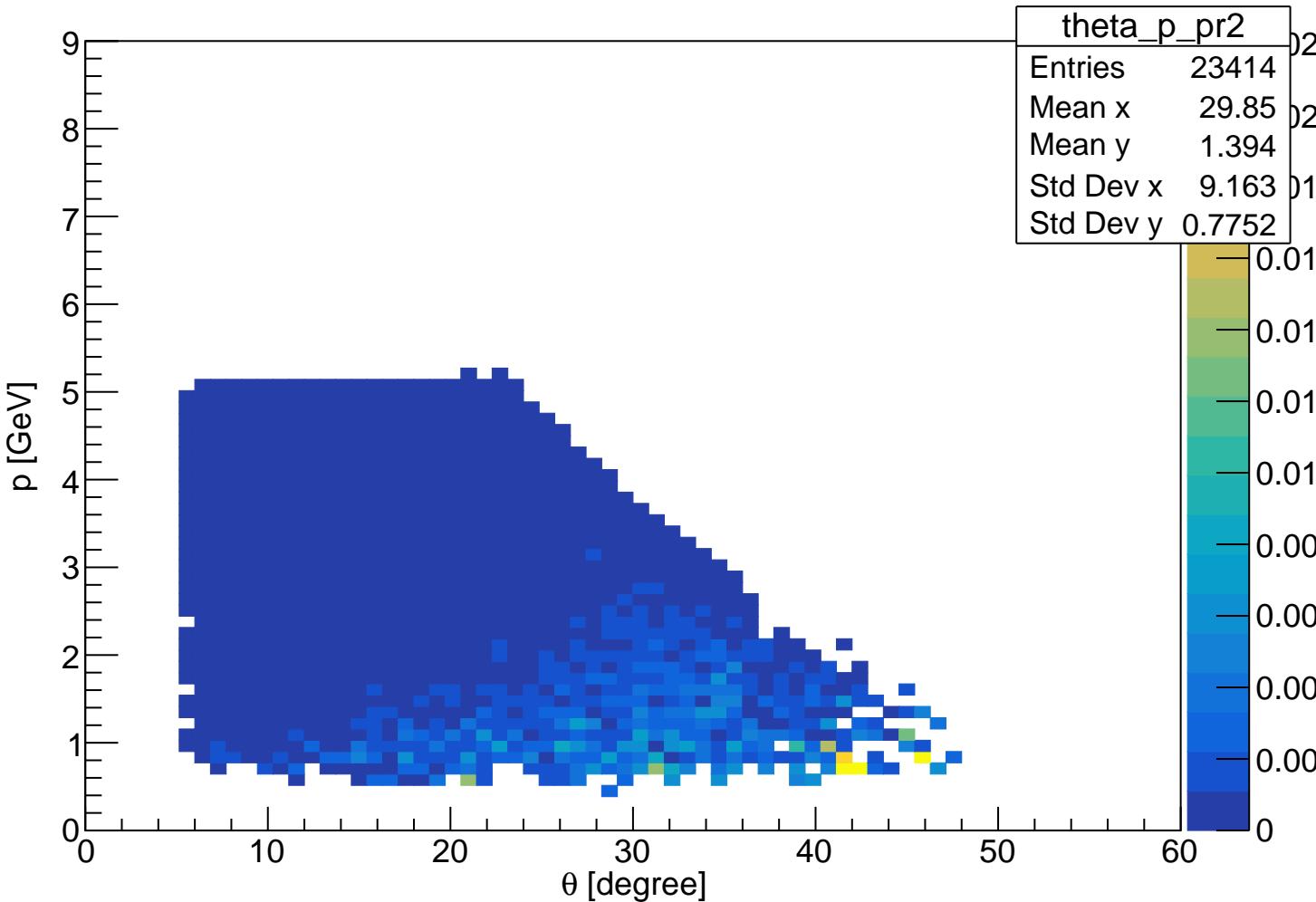
- All cuts (like invariant mass  $\pi^+ \pi^-$  and missing mass) +  $0.8 < M_\phi < 1.2$

**objective : see where the particles reconstructed as a phi went**

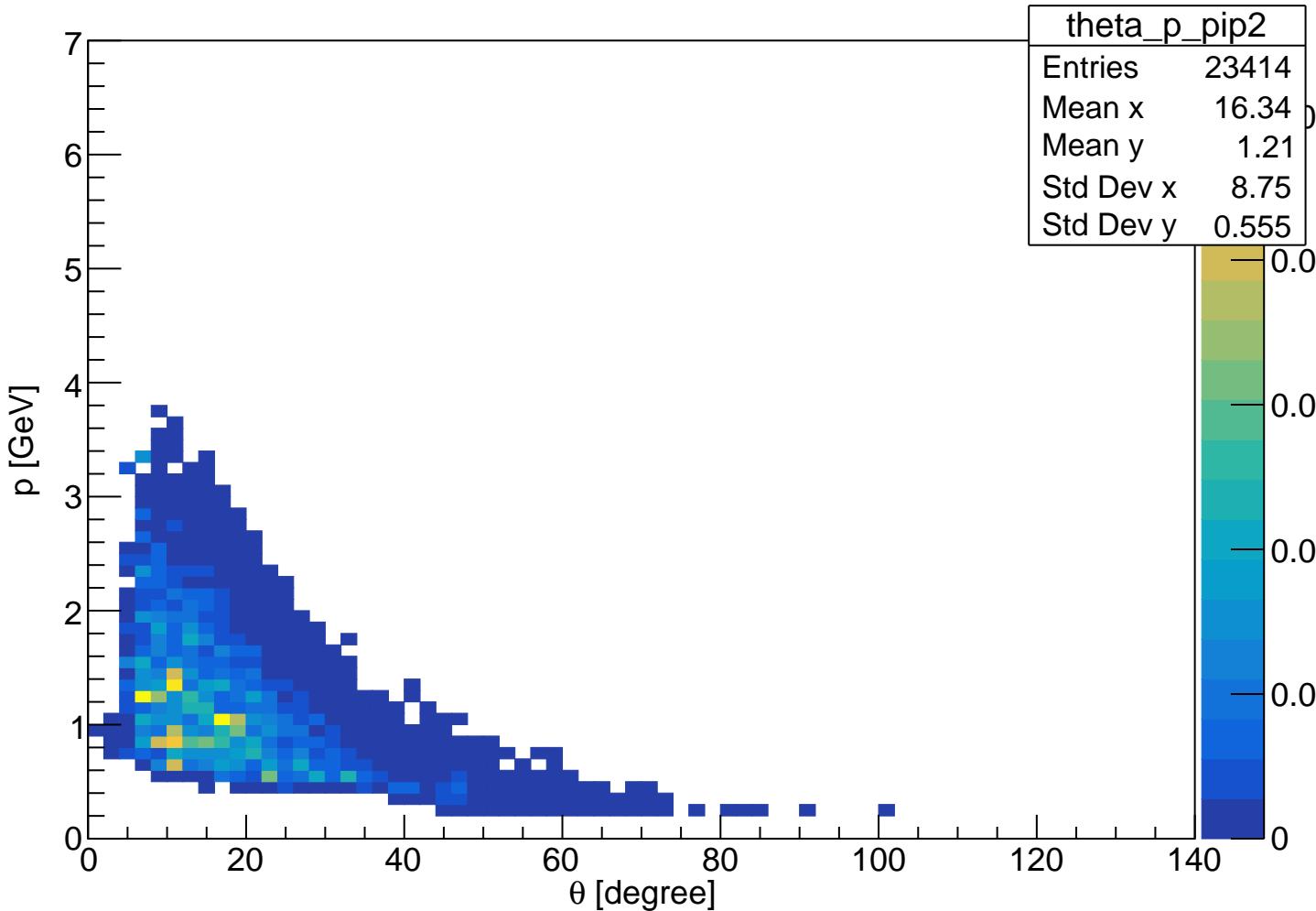
# Theta vs p for electron with all cuts



## Theta vs p for proton with all cuts



# Theta vs p for $\pi^+$ with all cuts



# Theta vs p for $\pi^-$ with all cuts

