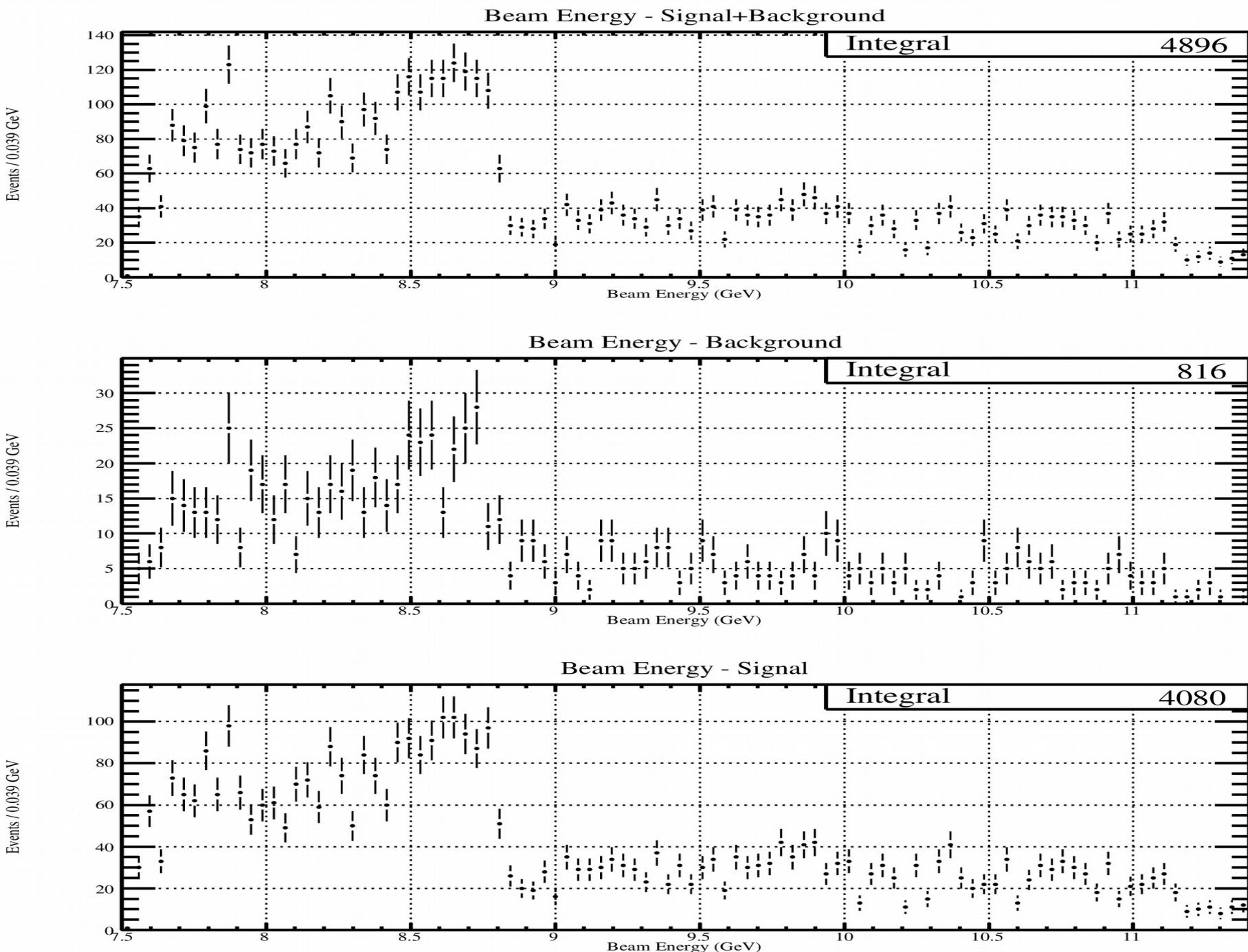


# List of things this talk will discuss:

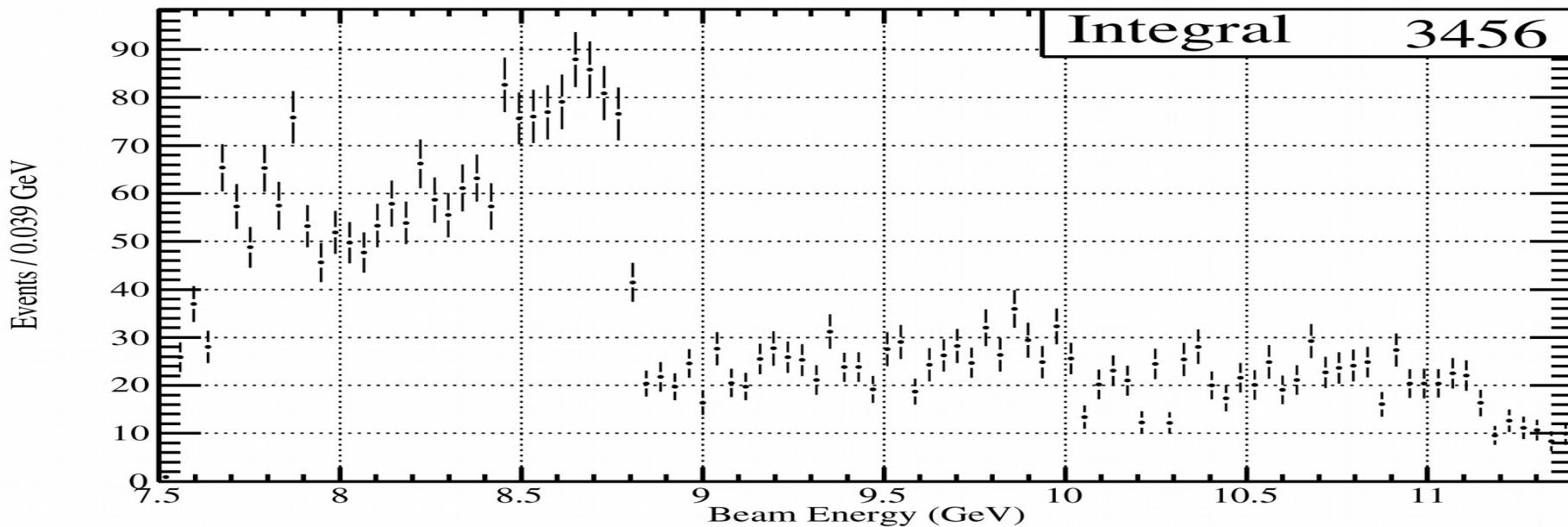
- Comparison between Qvalue and Elliptical Subtraction plots
- QValue Plots:
  - The upper histogram will show Q weighted events (signal)
  - The lower histogram will show 1-Q weighted events (background), with a cut around the phi-eta mass intersection; identical to the elliptical mass cut
- Elliptical Subtraction Plots:
  - The upper histogram will show the S+BG region (2 sigma elliptical mass cut about phi-eta intersection region)
  - The middle histogram will show the BG region (elliptical area with an inner radius of 5 sigma, and a total area equal to the 2 sigma cut above)
  - The lower histogram is the upper histogram minus the lower histogram; thus S (just signal)

# Beam Energy: Elliptical Subtraction

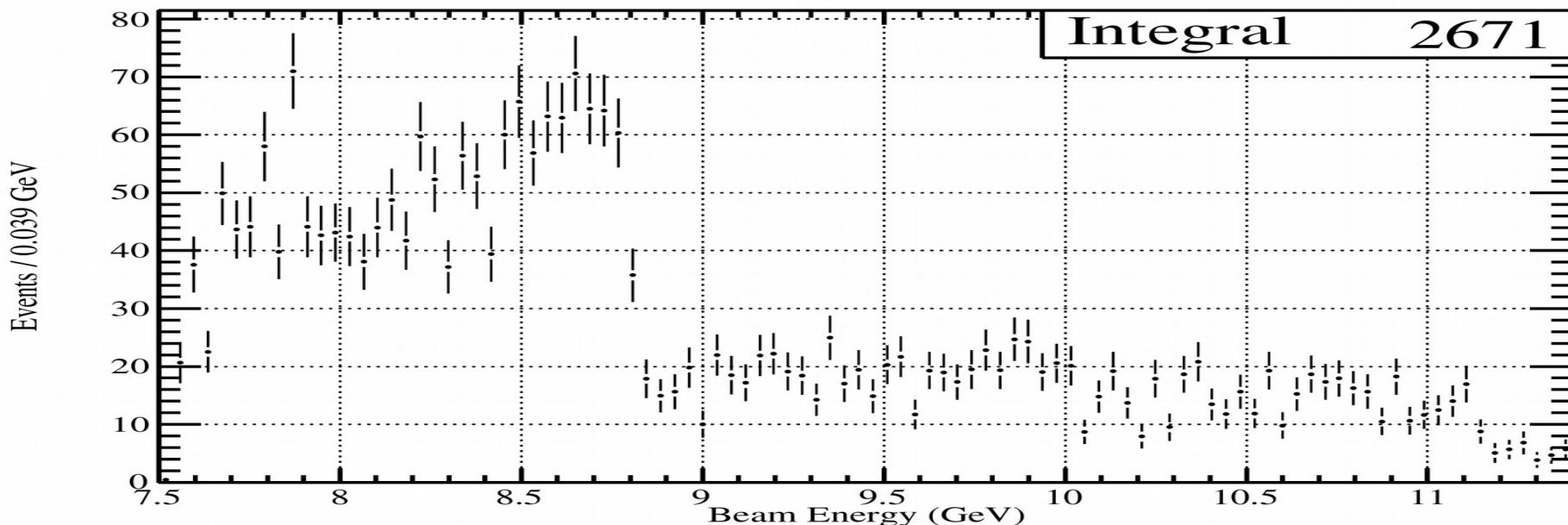


# Beam Energy: QValue

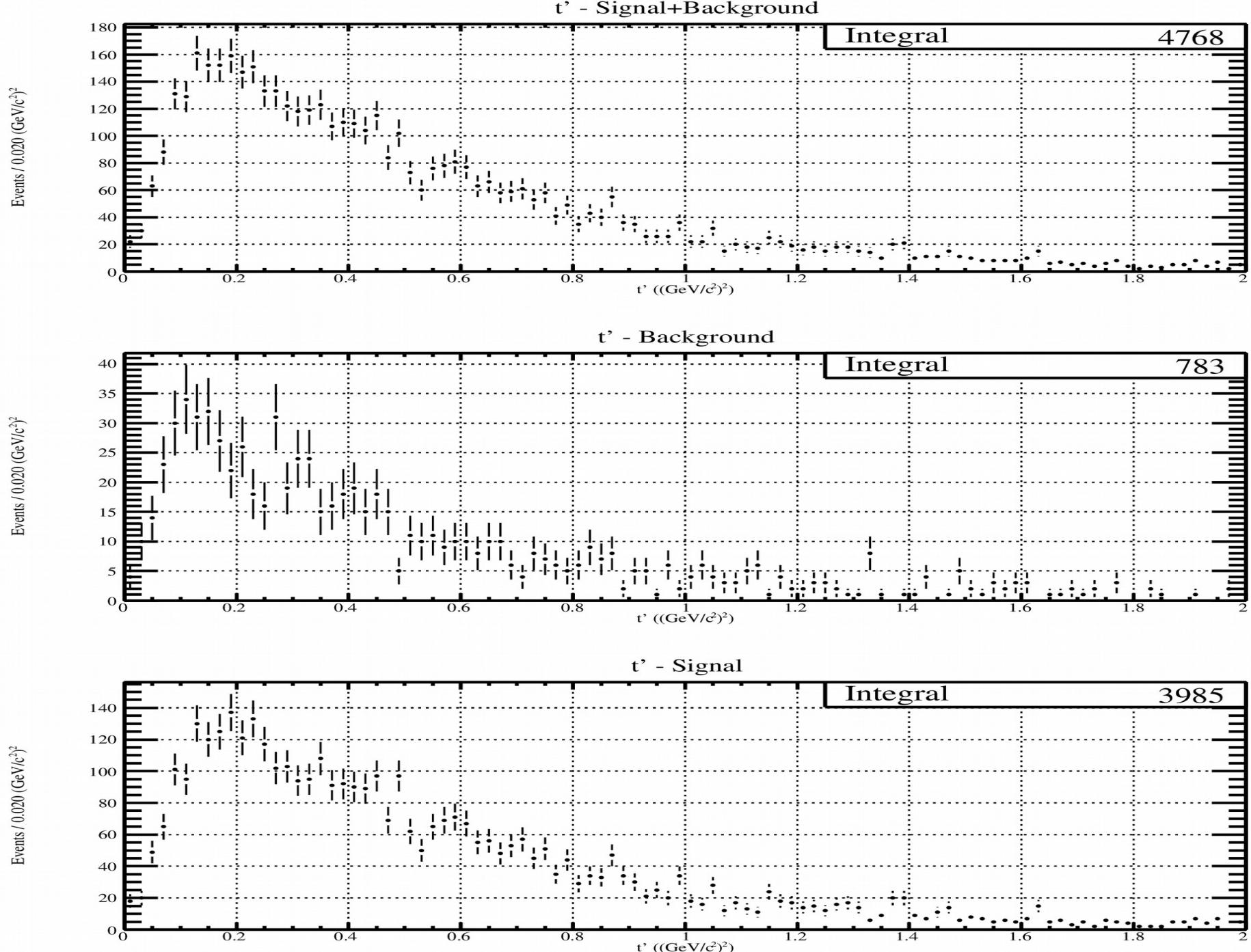
Beam Energy - Signal



Beam Energy - Background

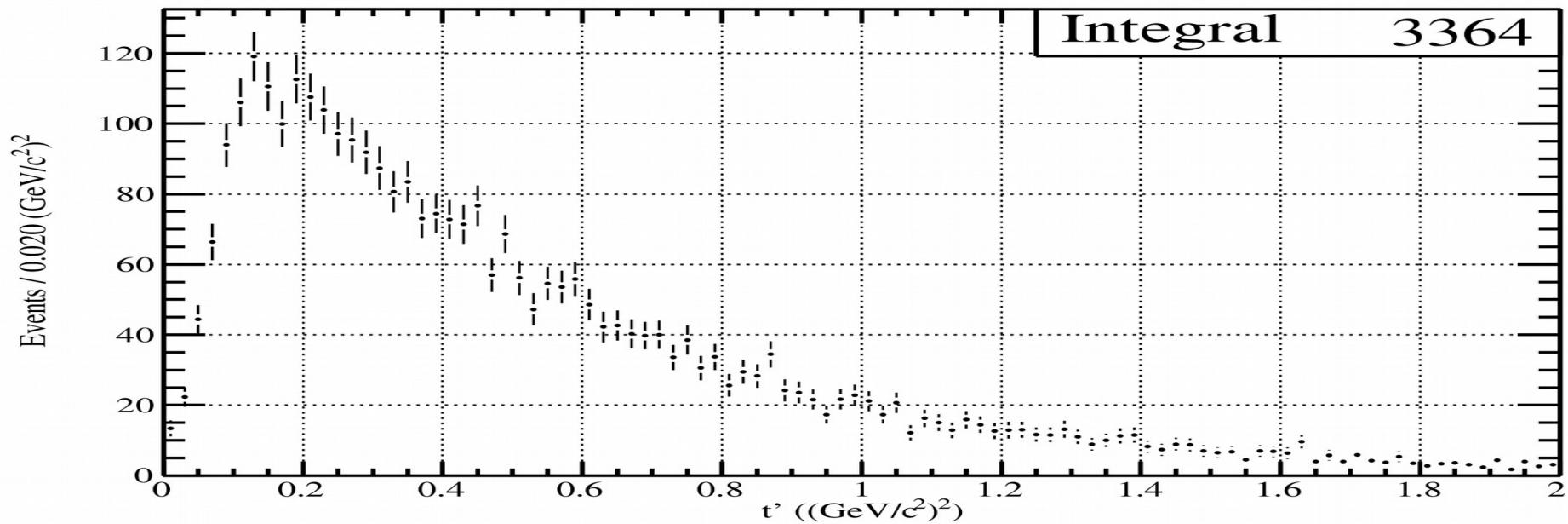


# $t'$ : Elliptical Subtraction

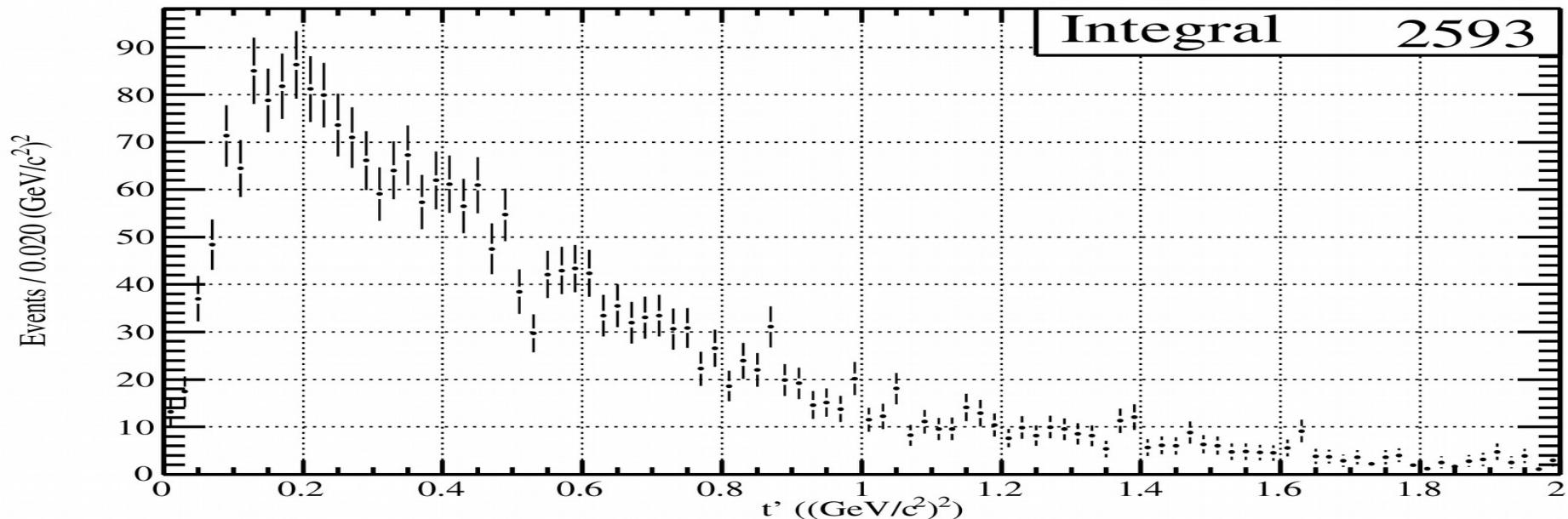


# $t'$ : QValue

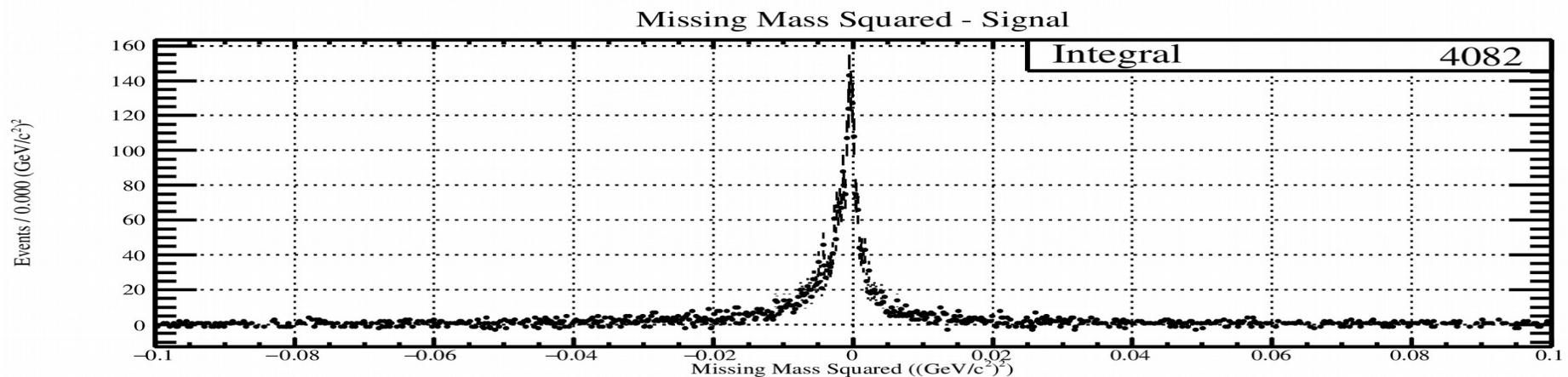
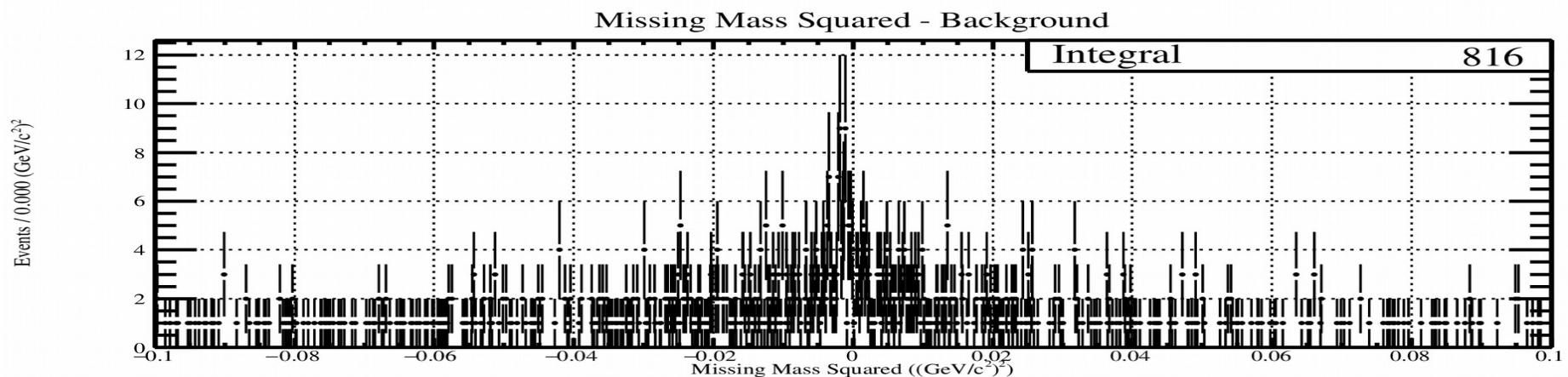
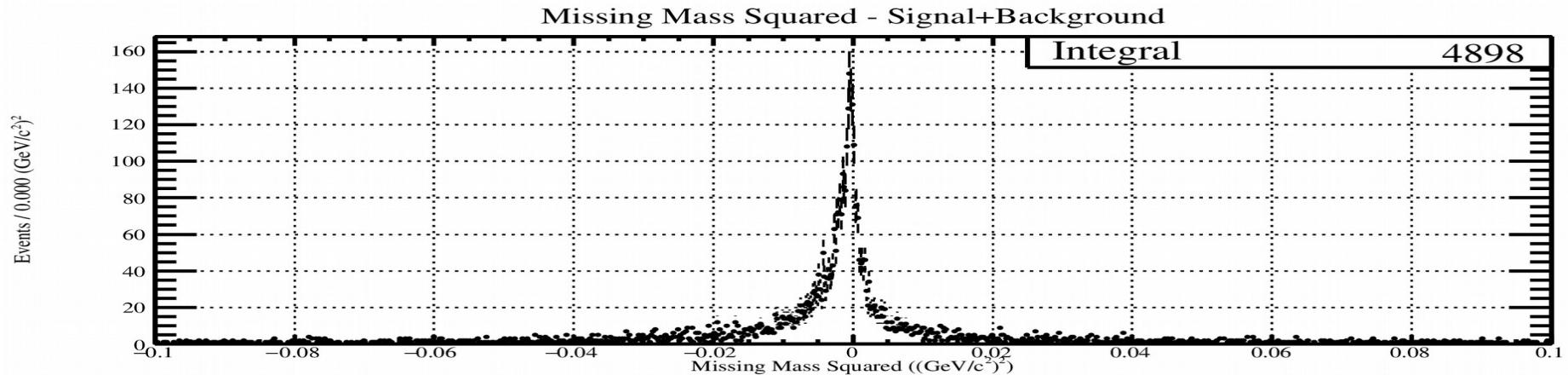
$t'$  - Signal



$t'$  - Background

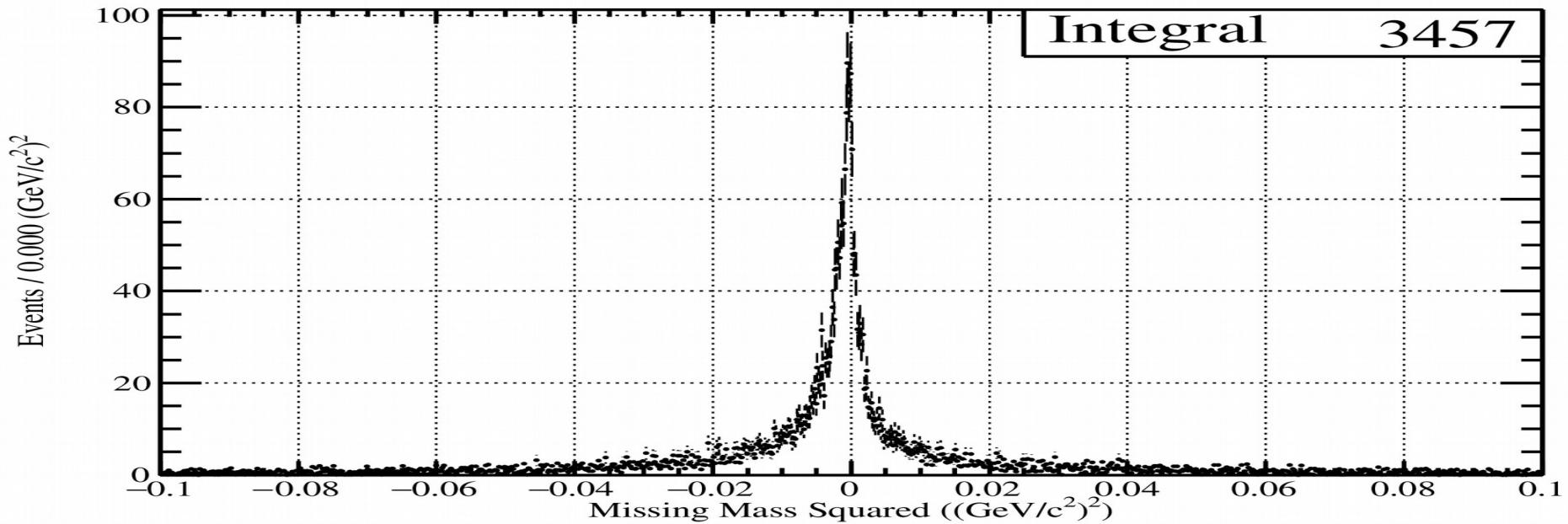


# Missing Mass<sup>2</sup>: Elliptical Subtraction

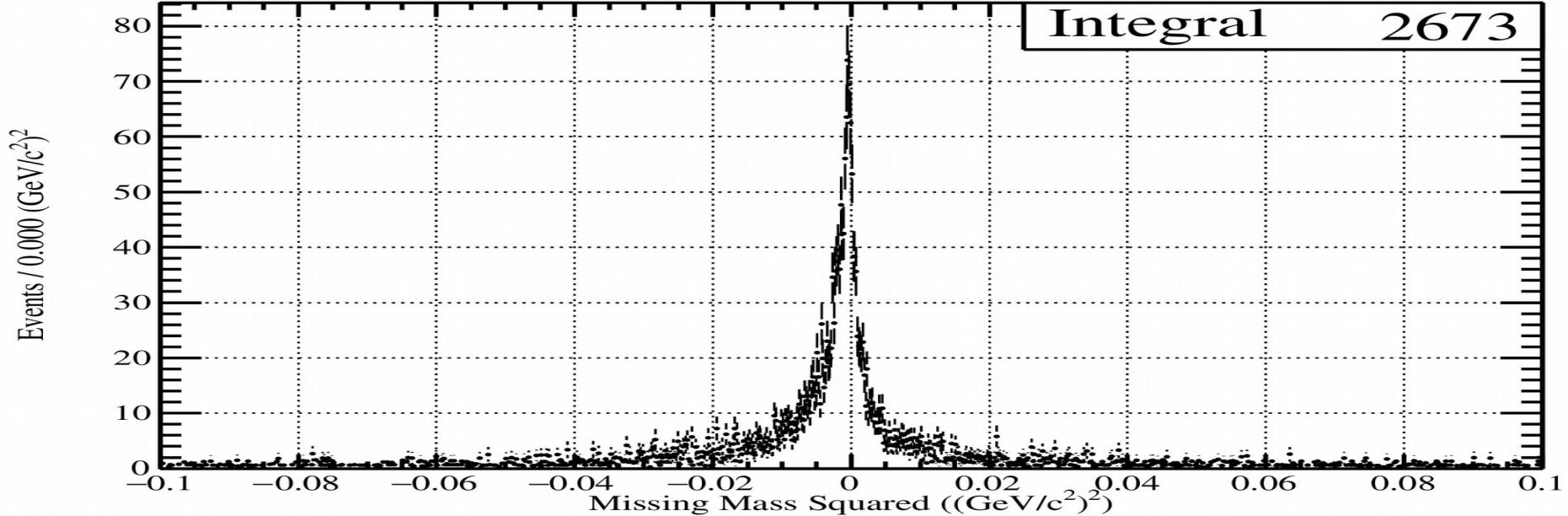


# Missing Mass<sup>2</sup>: QValue

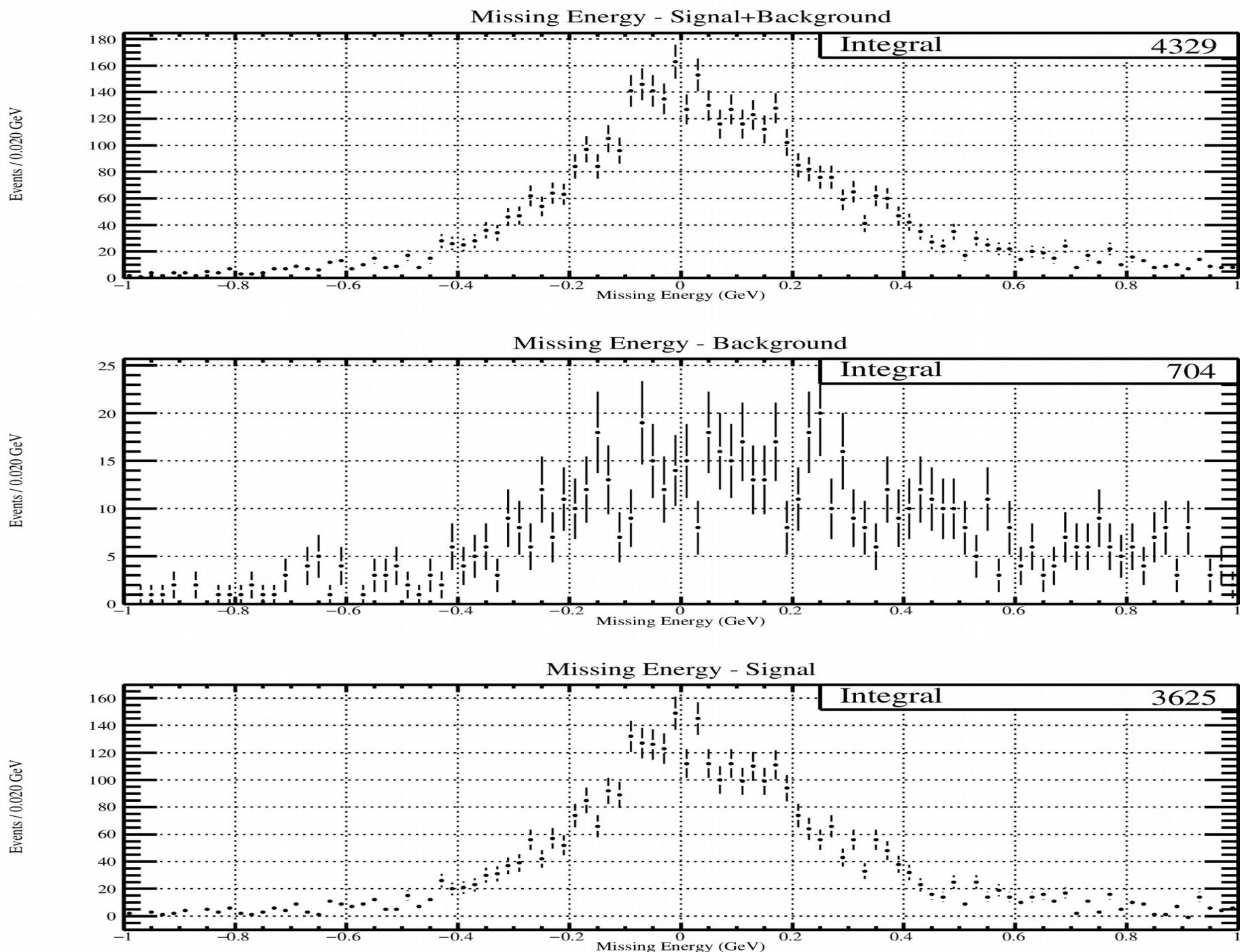
Missing Mass Squared - Signal



Missing Mass Squared - Background

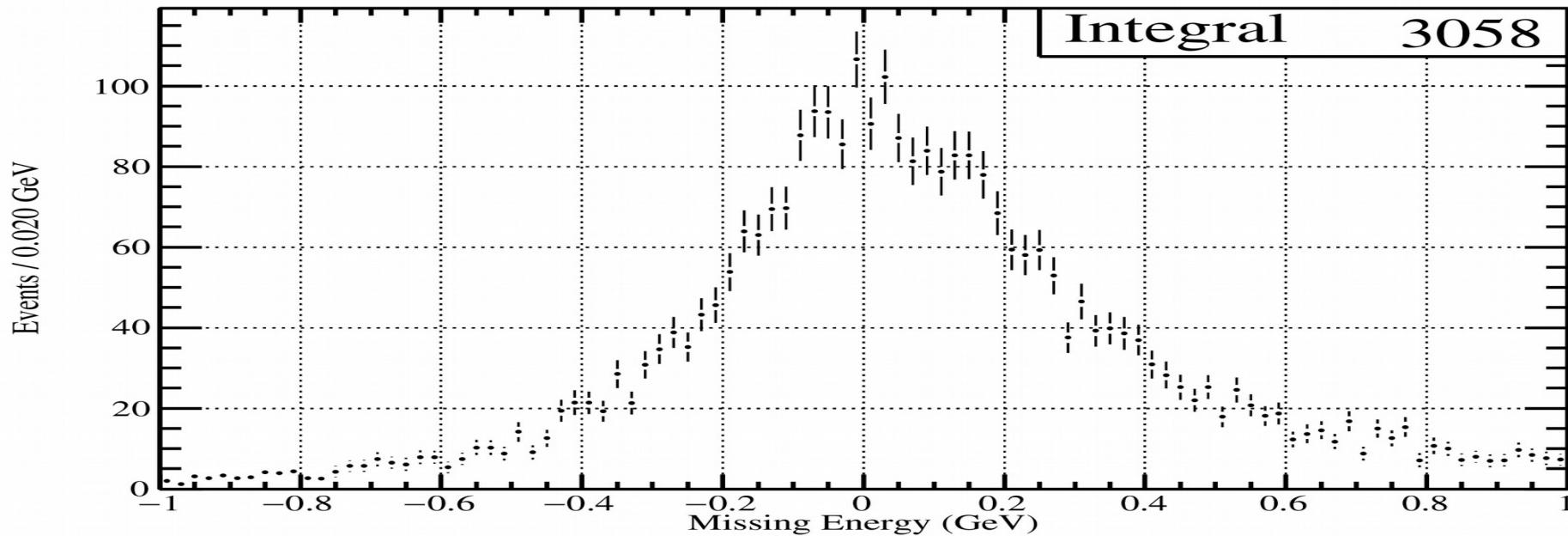


# Missing Energy: Elliptical Subtraction

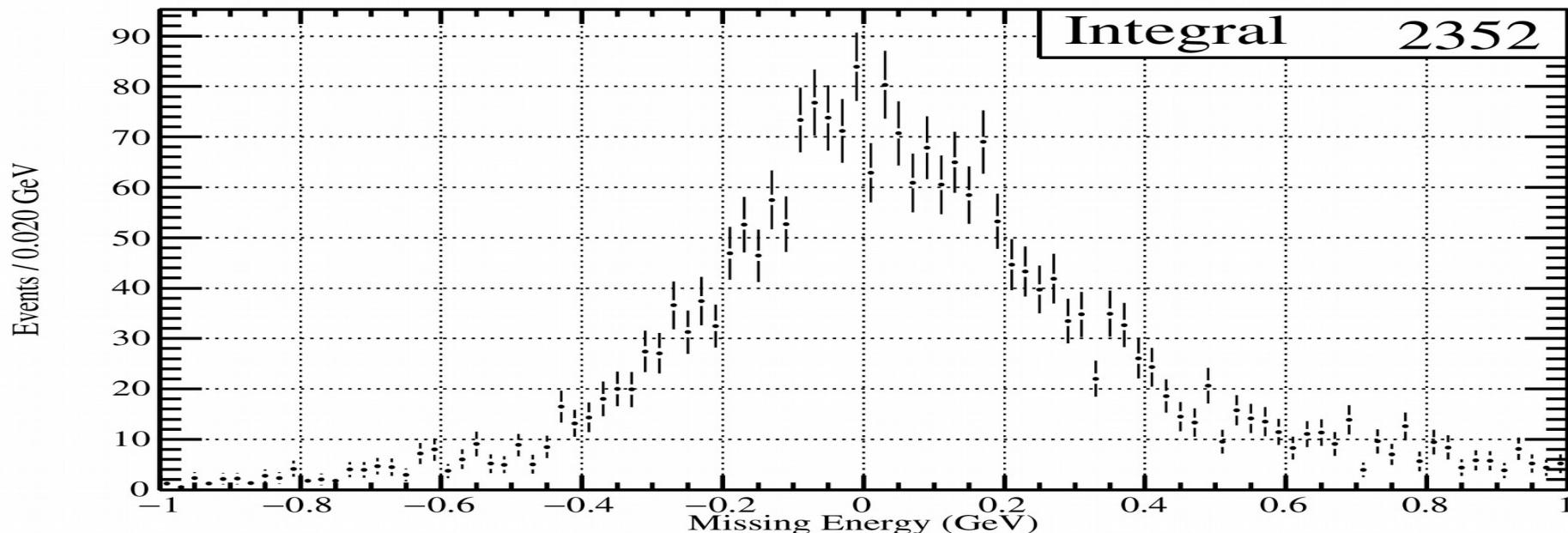


# Missing Energy: QValue

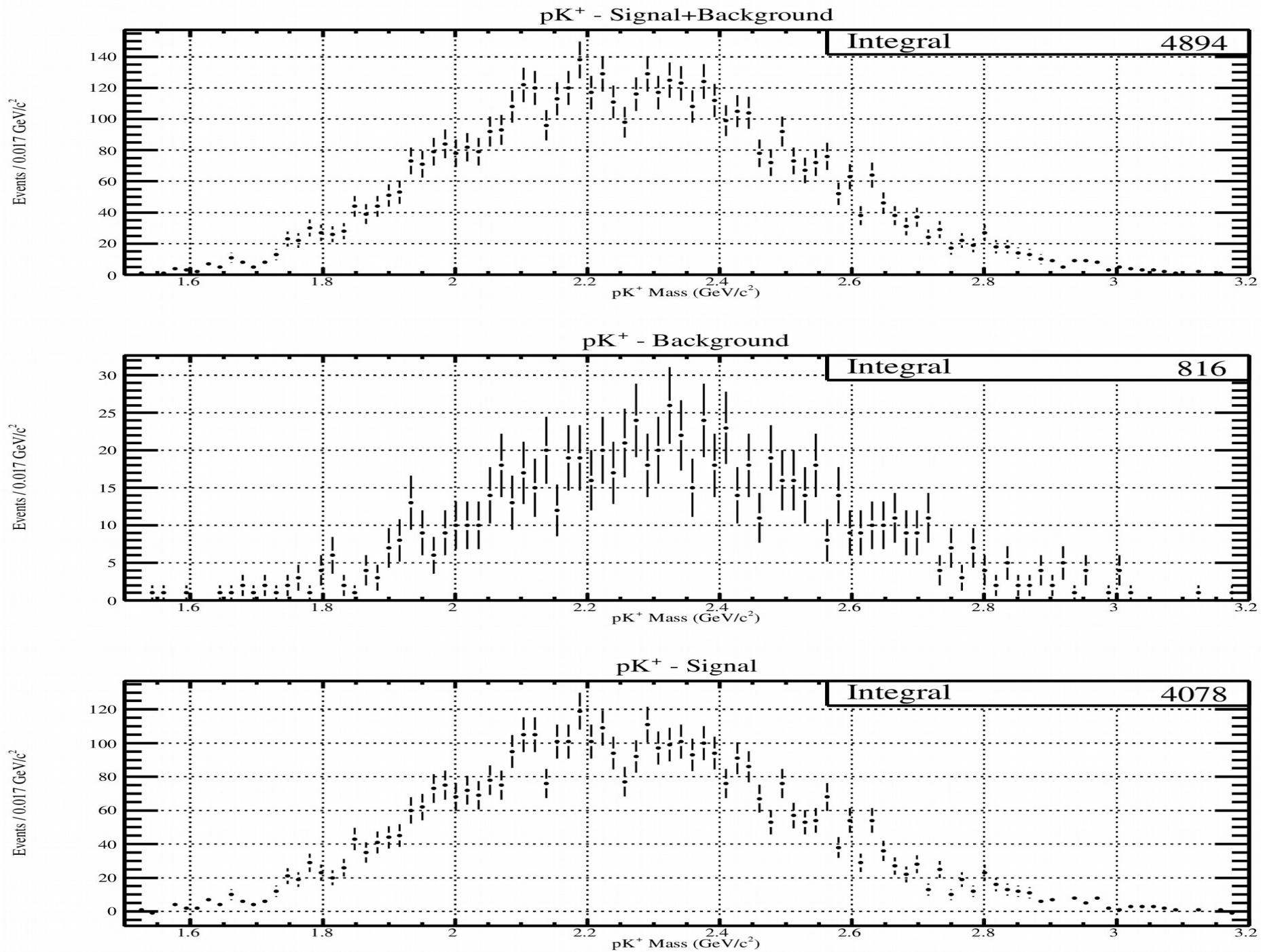
Missing Energy - Signal



Missing Energy - Background

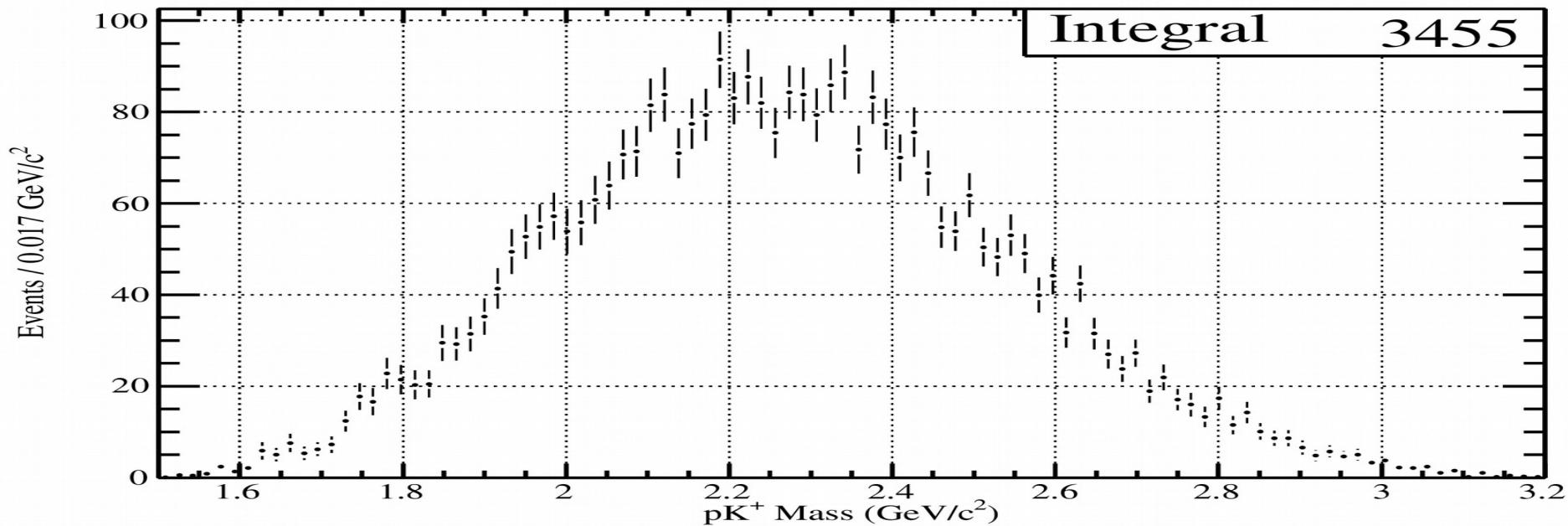


# Proton K<sup>+</sup>: Elliptical Subtraction

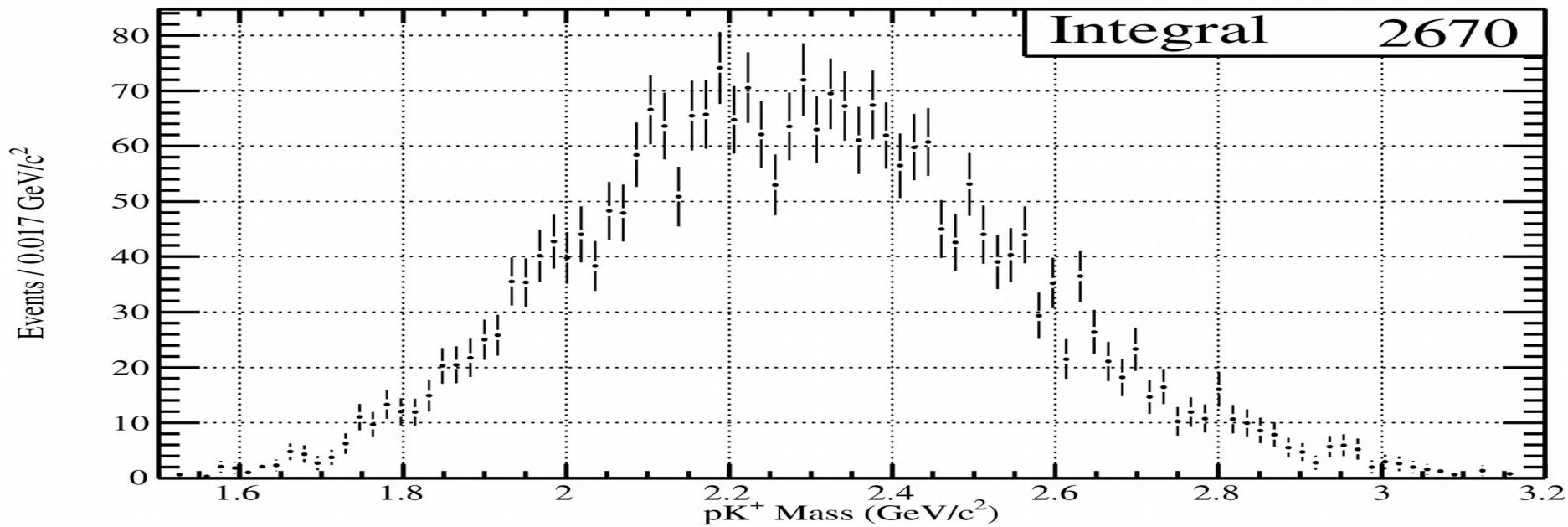


# Proton K<sup>+</sup>: QValue

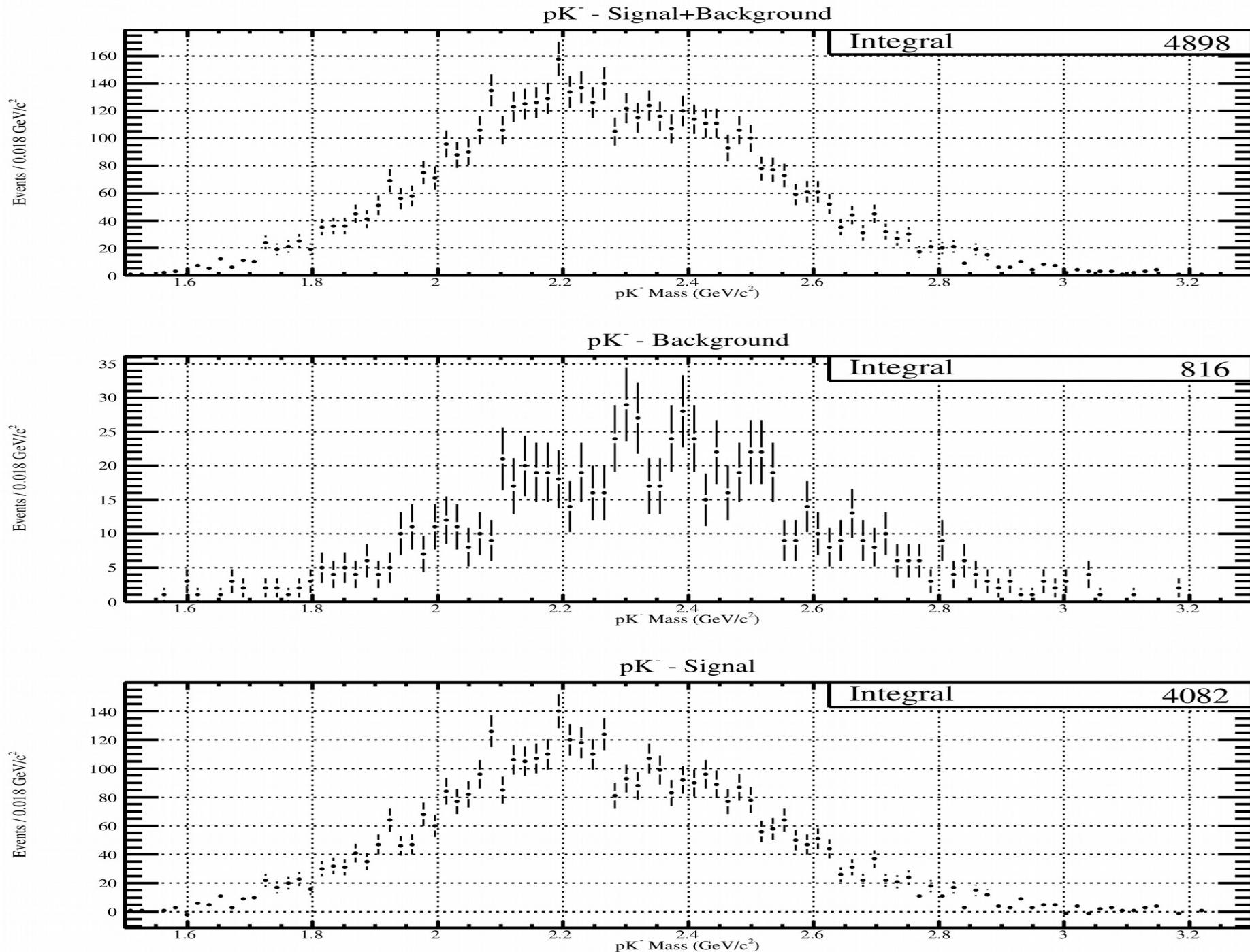
pK<sup>+</sup> - Signal



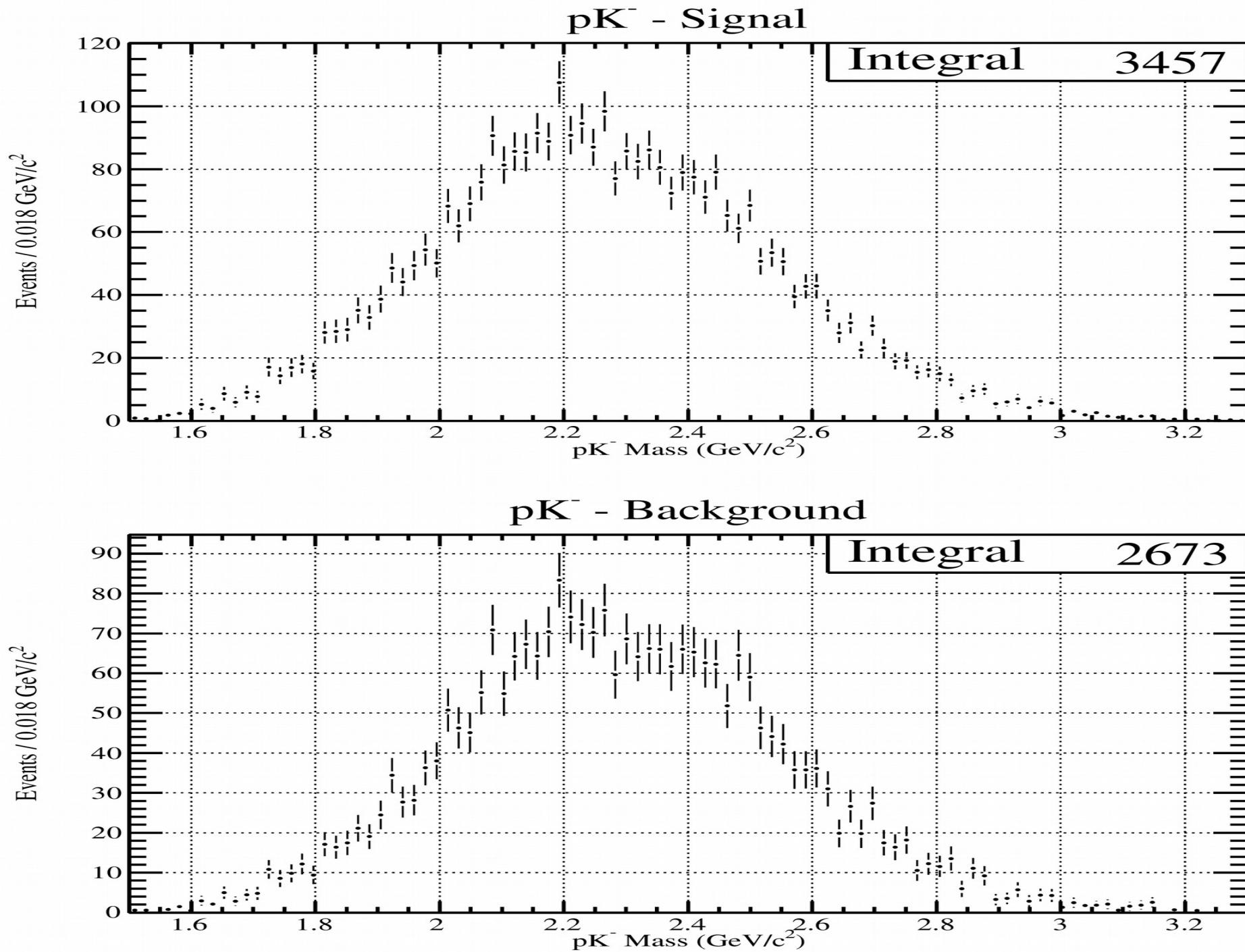
pK<sup>+</sup> - Background



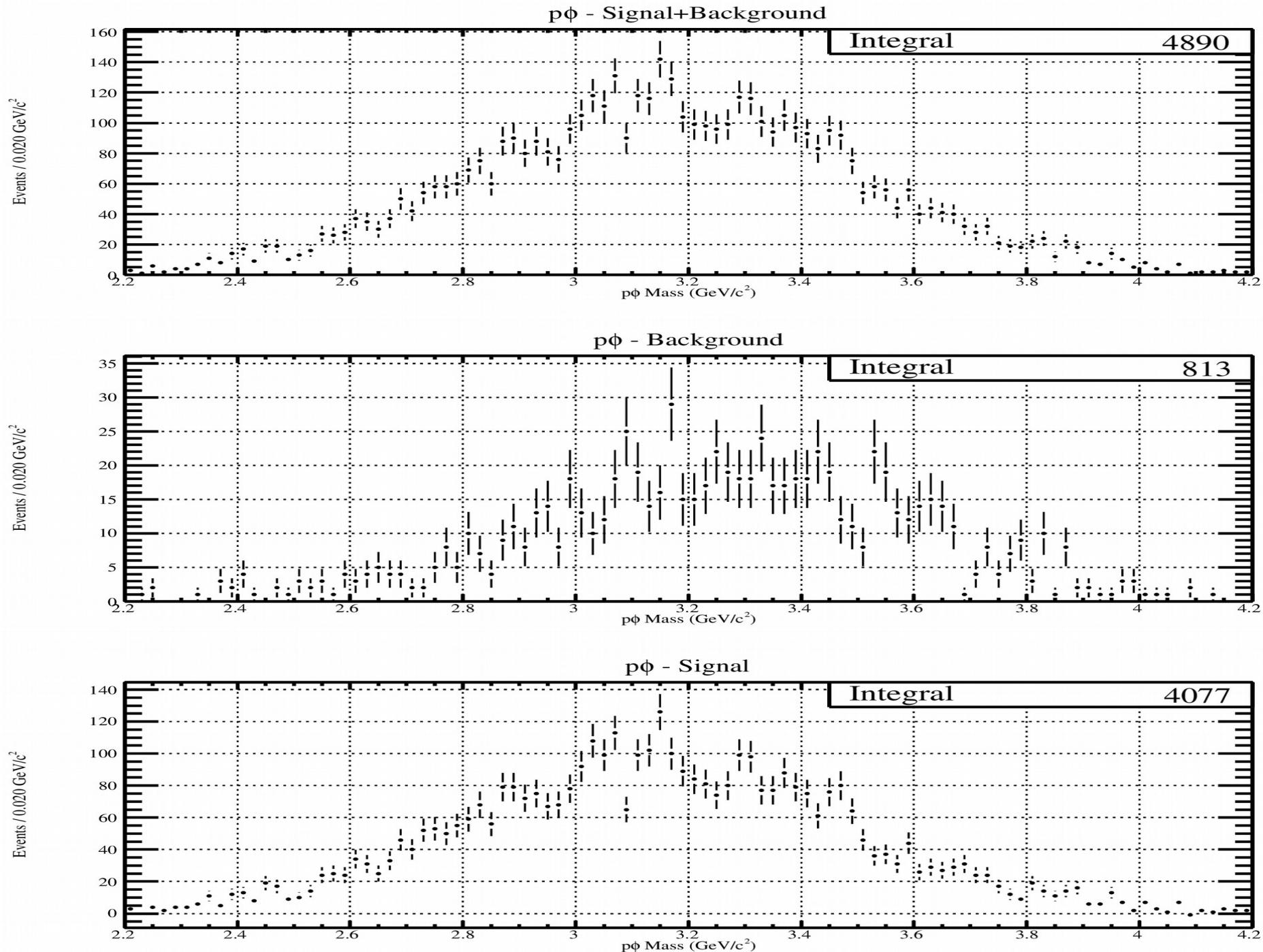
# Proton K-: Elliptical Subtraction



# Proton K-: QValue

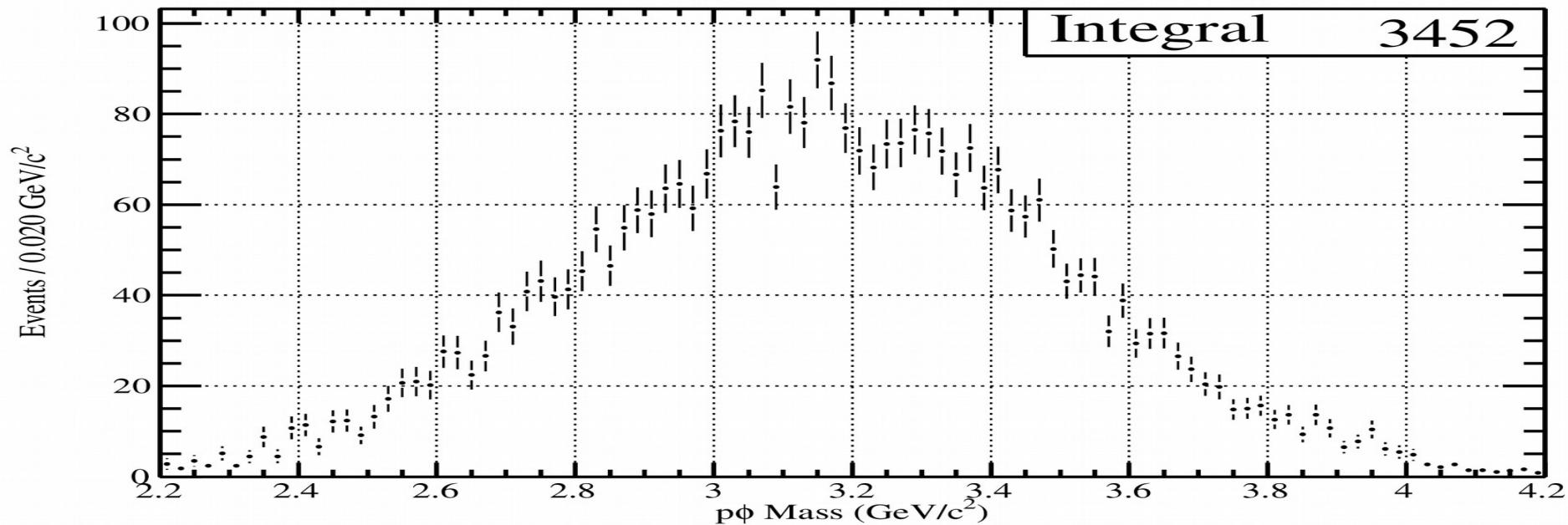


# Proton Phi: Elliptical Subtraction

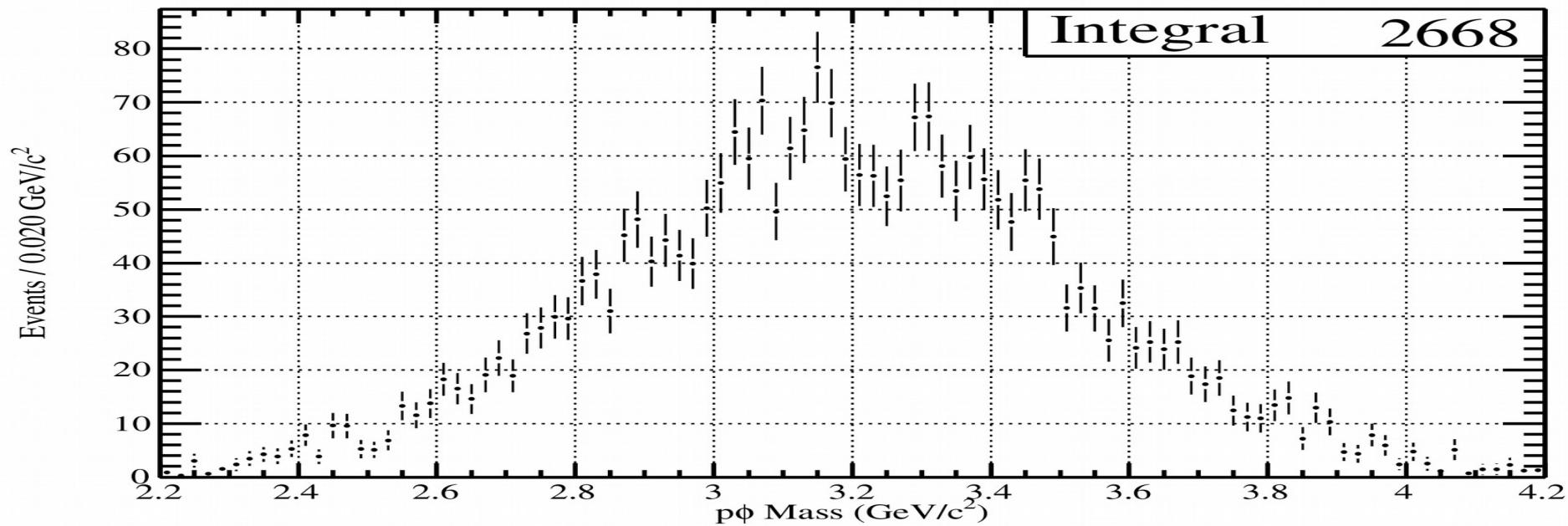


# Proton Phi: QValue

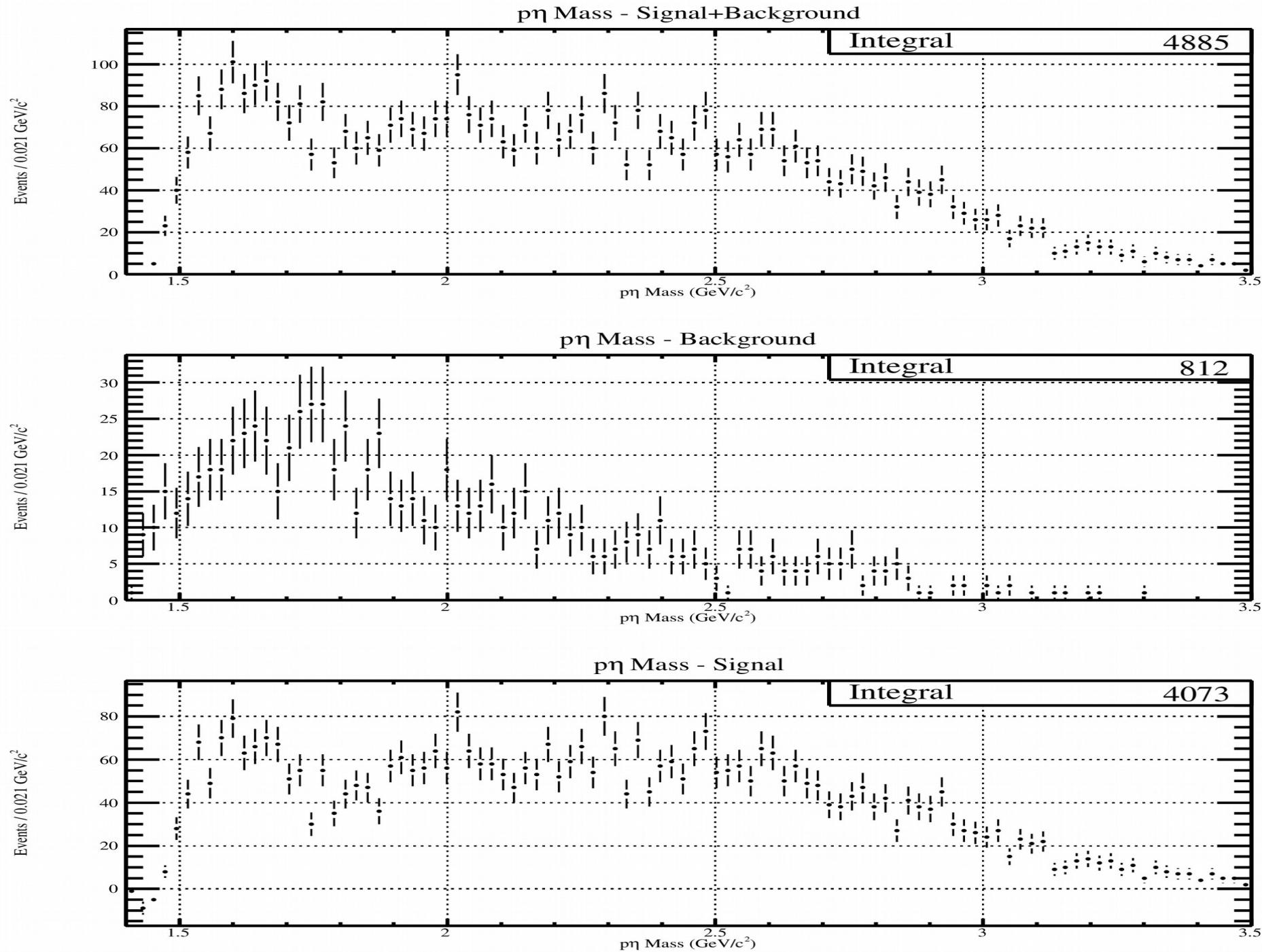
p $\phi$  - Signal



p $\phi$  - Background

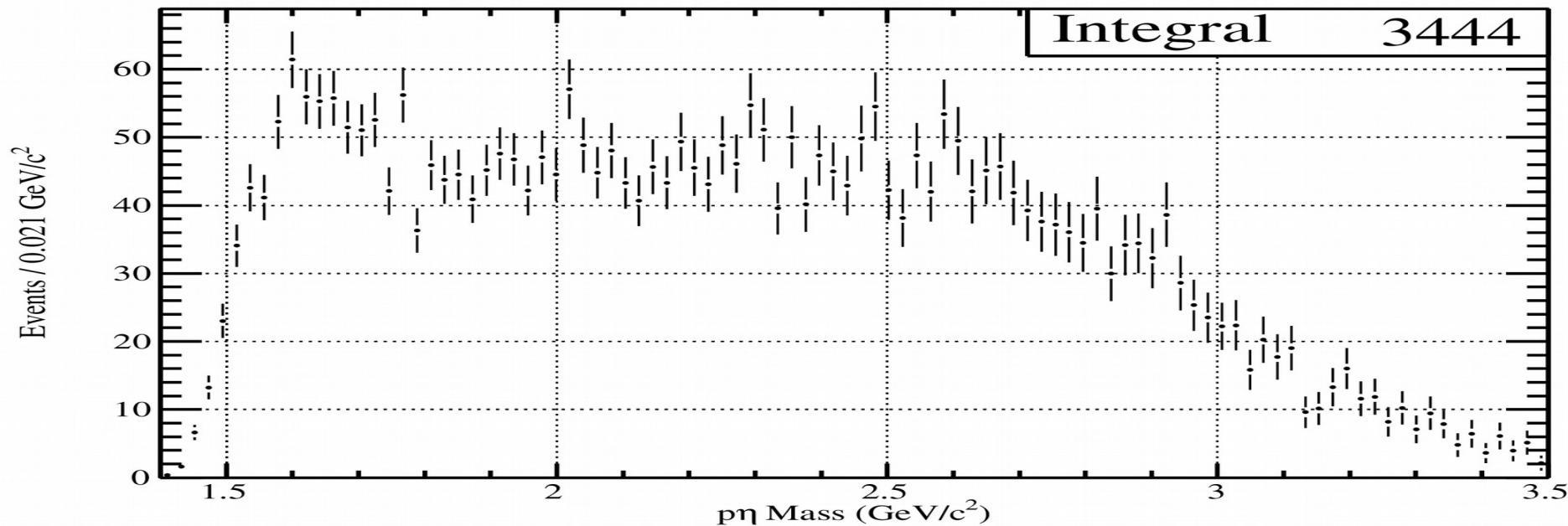


# Proton Eta: Elliptical Subtraction

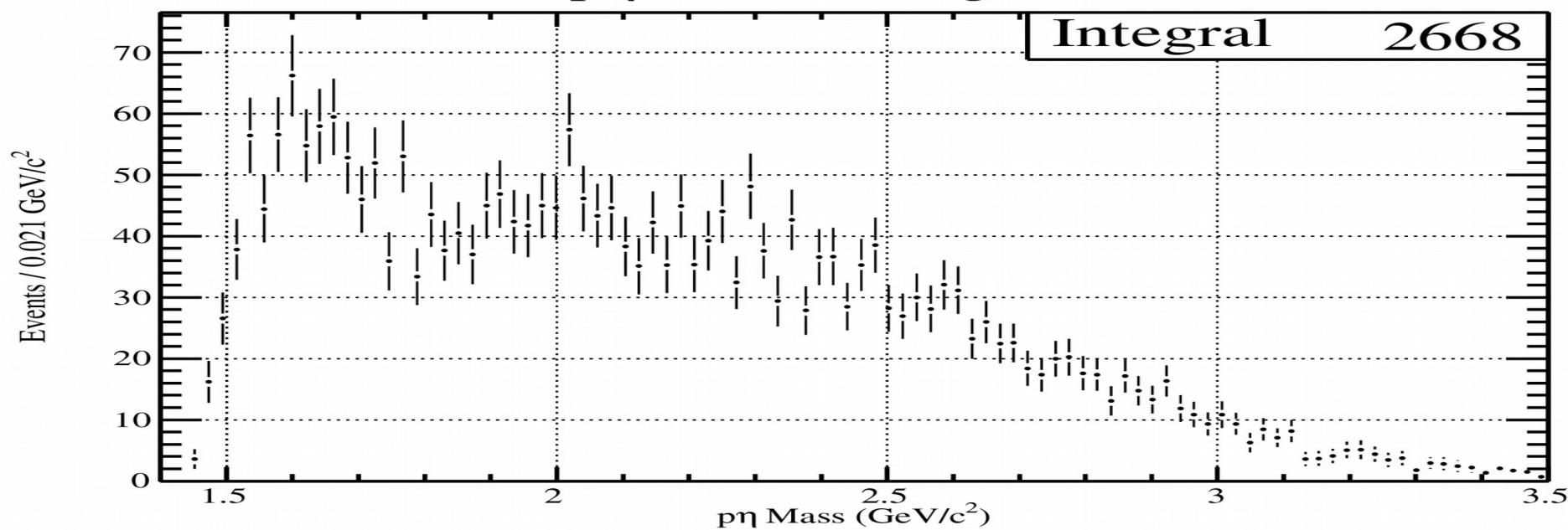


# Proton Eta: QValue

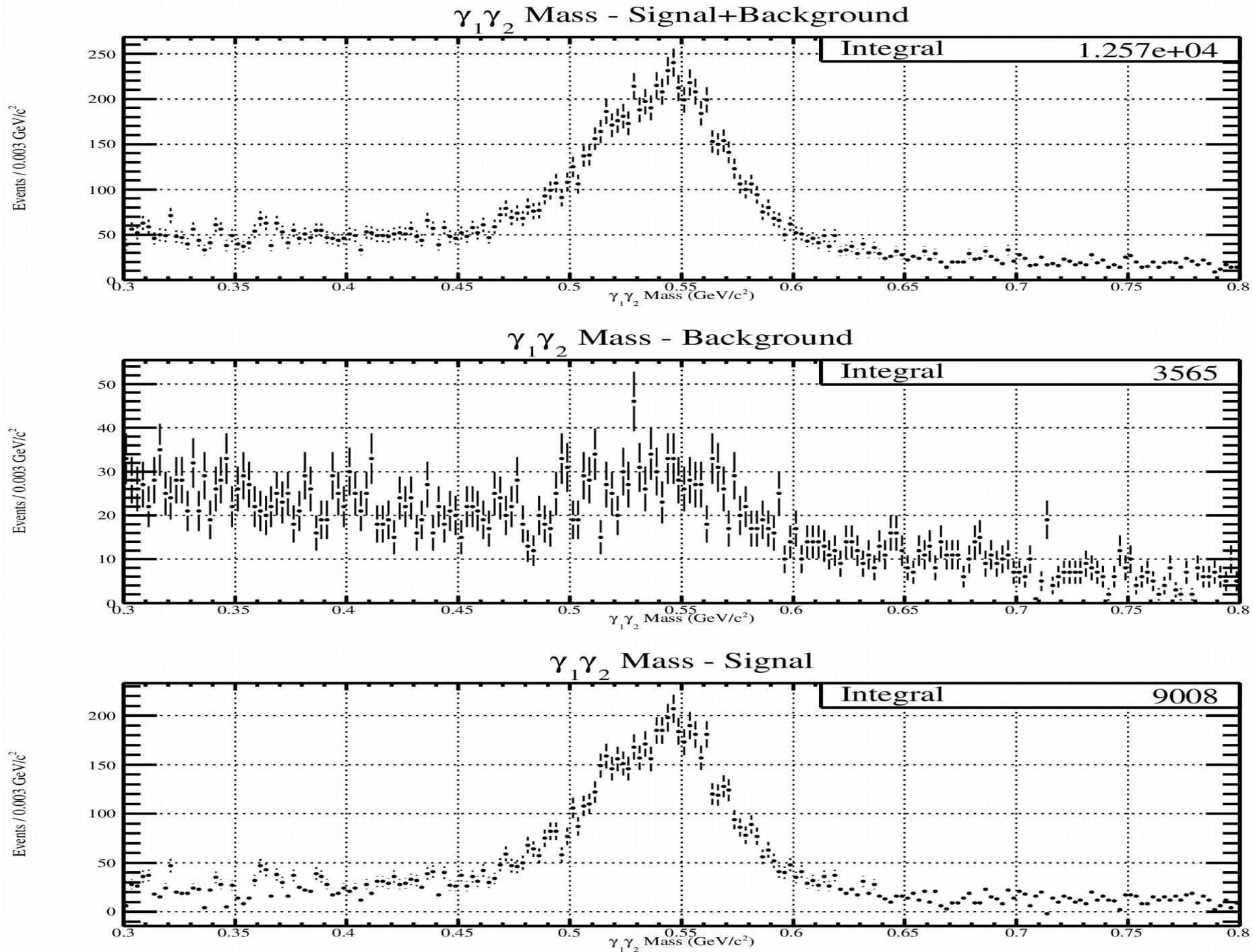
p $\eta$  Mass - Signal



p $\eta$  Mass - Background

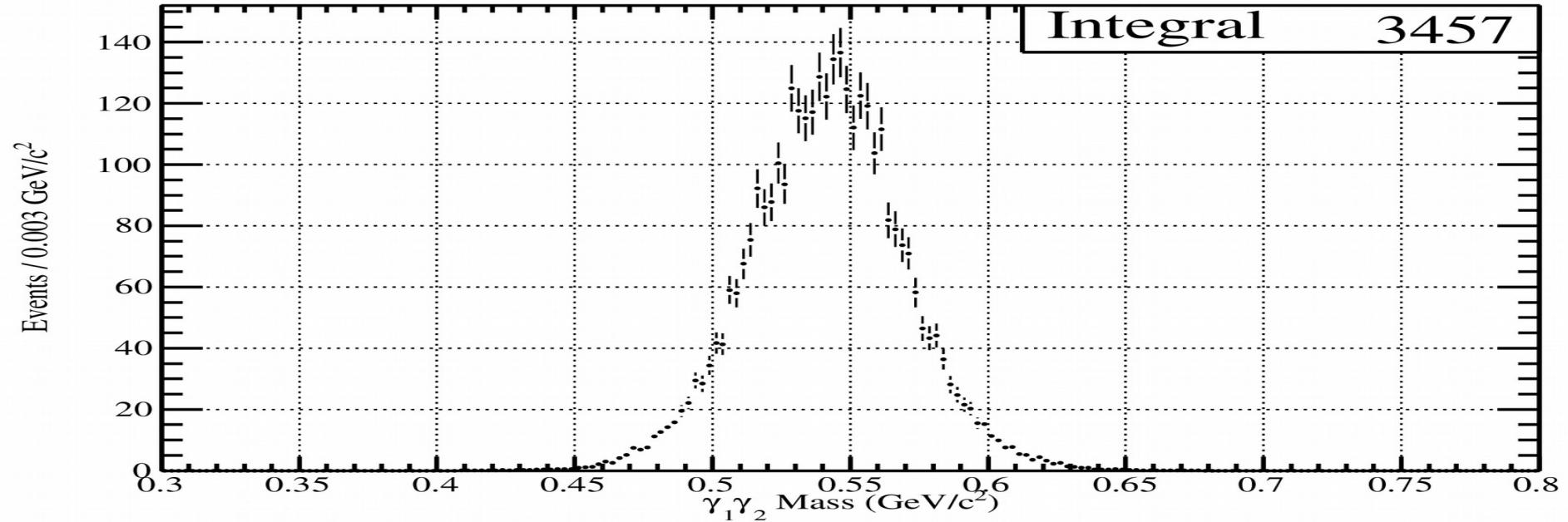


# Eta: Phi-Side Band Subtraction

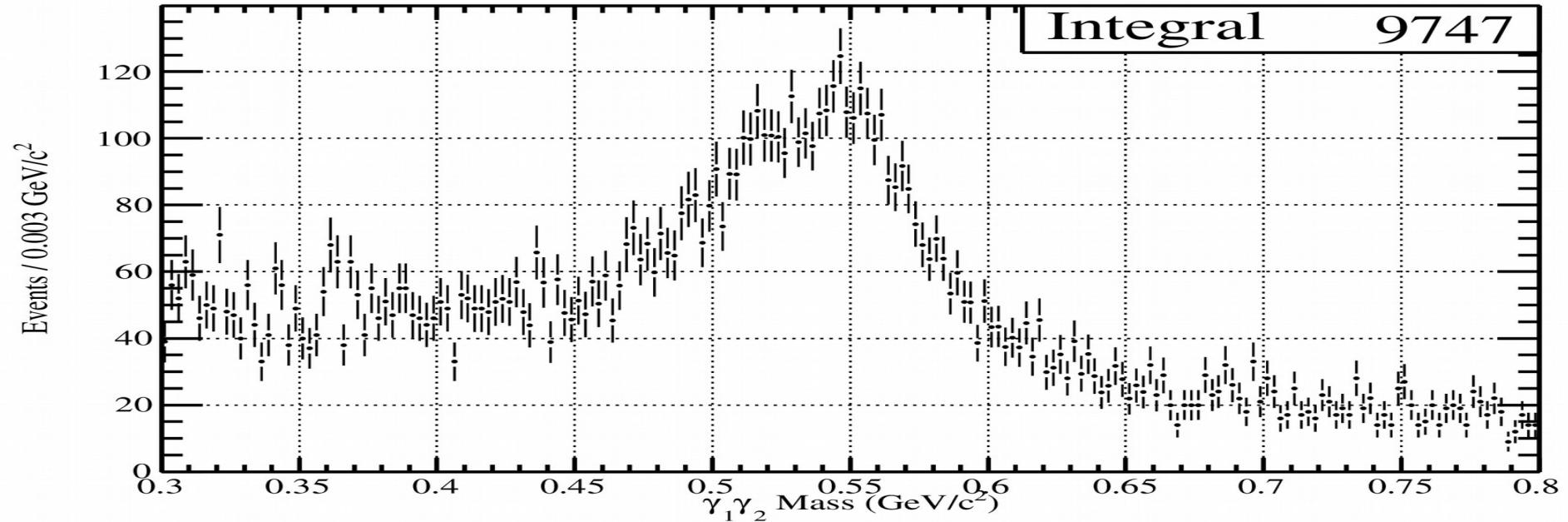


# Eta: QValue

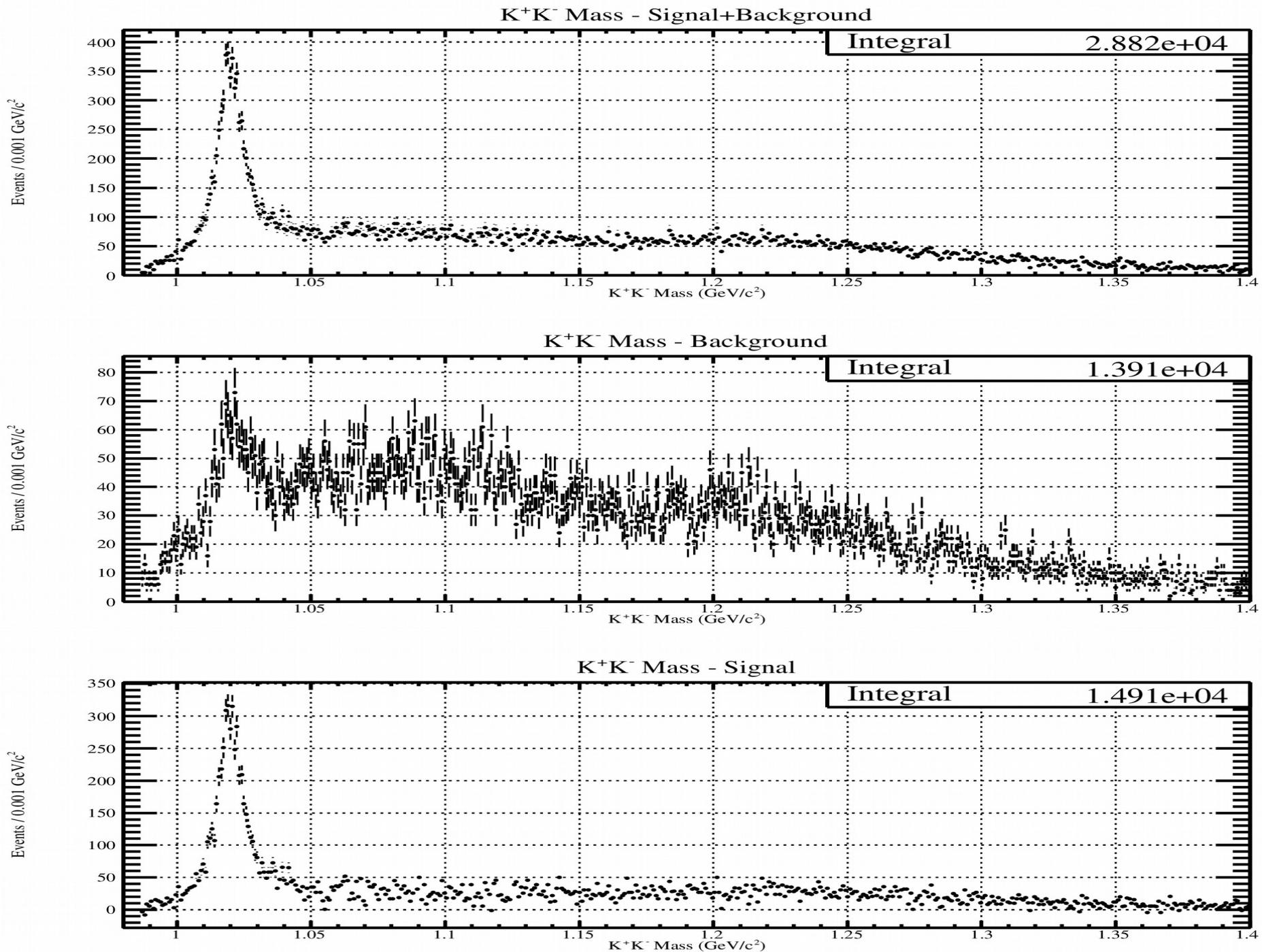
$\gamma_1 \gamma_2$  Mass - Signal



$\gamma_1 \gamma_2$  Mass - Background

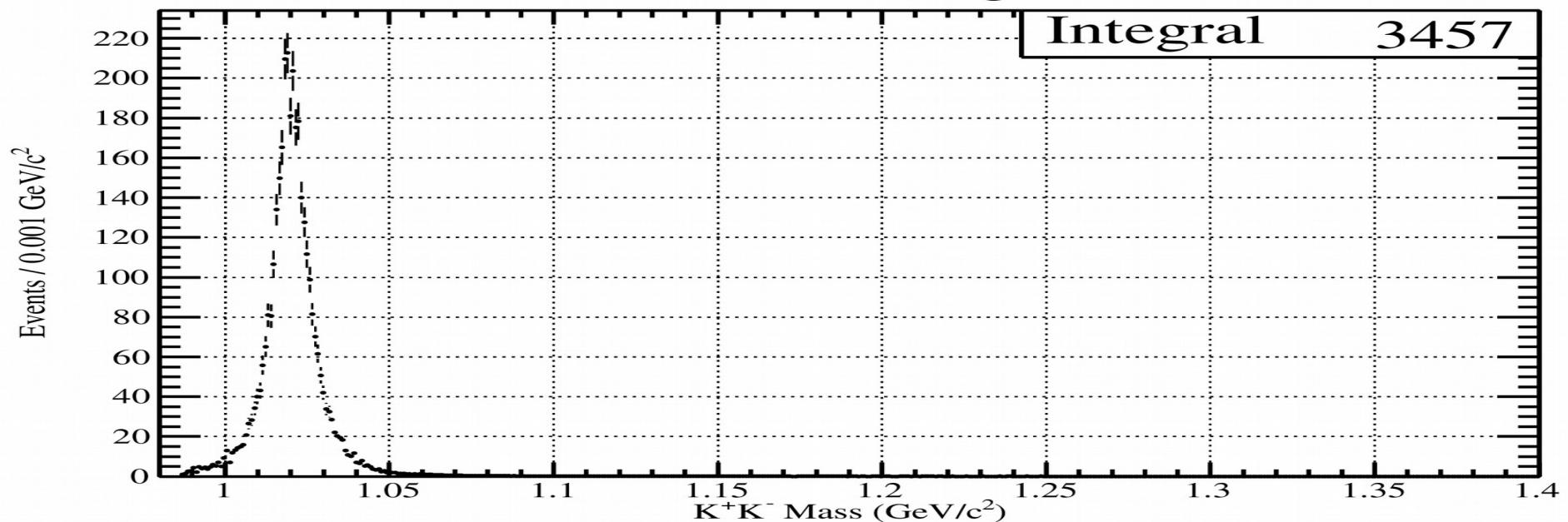


# Phi: Eta-Side Band Subtraction

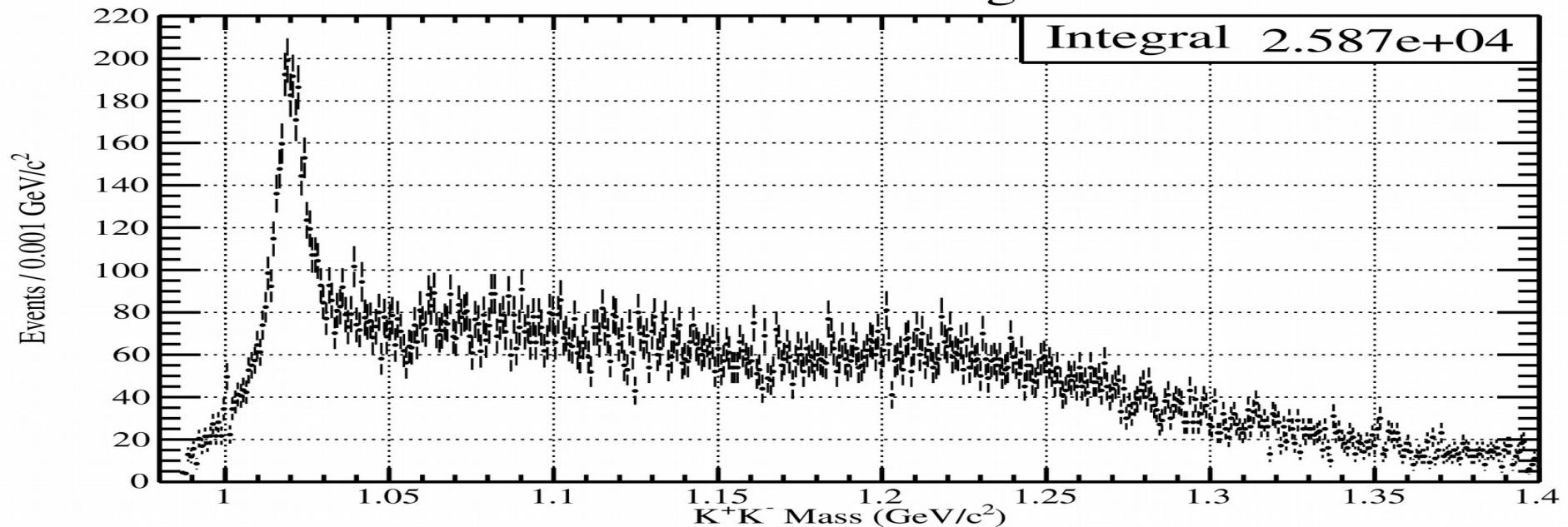


# Phi: QValue

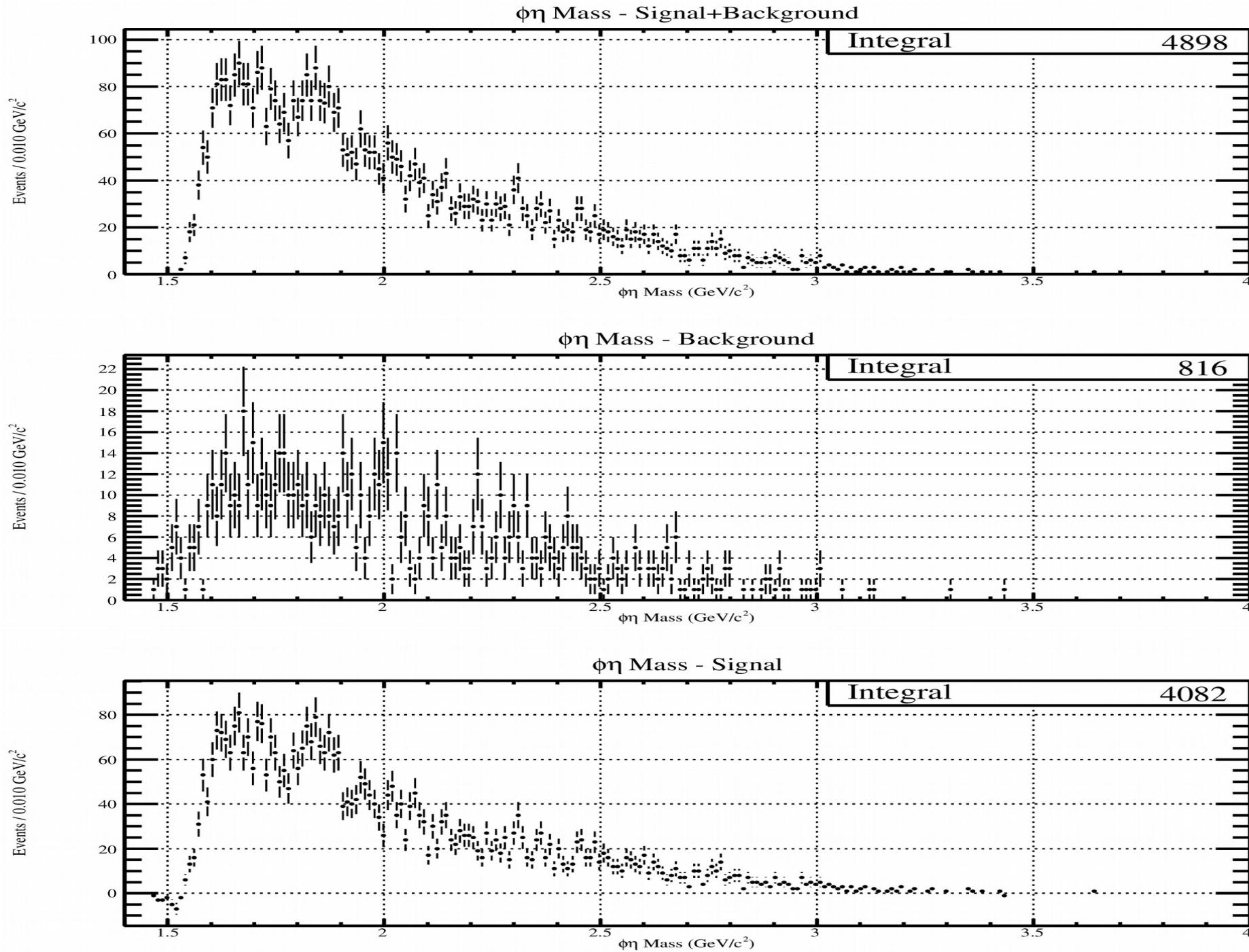
K<sup>+</sup>K<sup>-</sup> Mass - Signal



K<sup>+</sup>K<sup>-</sup> Mass - Background

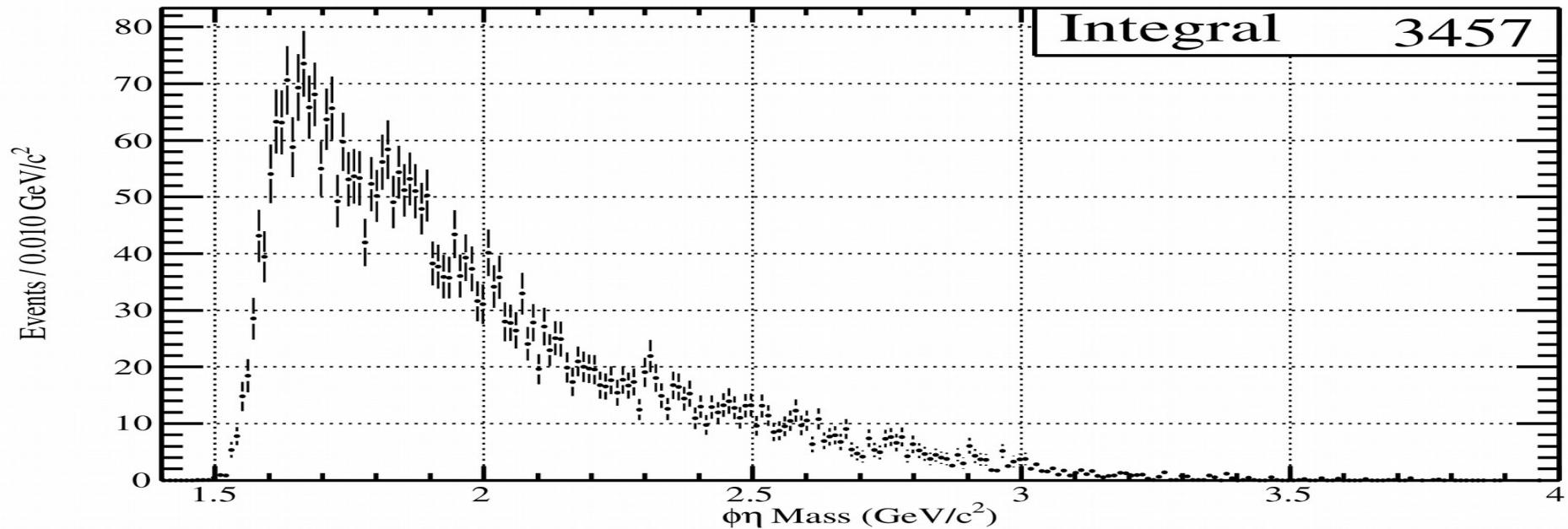


# PhiEta: Elliptical Subtraction



# PhiEta: QValue

$\phi\eta$  Mass - Signal



$\phi\eta$  Mass - Background

