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# Resolution Plots for matched particles

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An aerial photograph of a university campus, overlaid with a semi-transparent blue filter. The image shows a large, multi-level plaza with many people walking. Several signs with the 'UIC' logo are visible. The text 'Matching Cut' is centered in white, bold font.

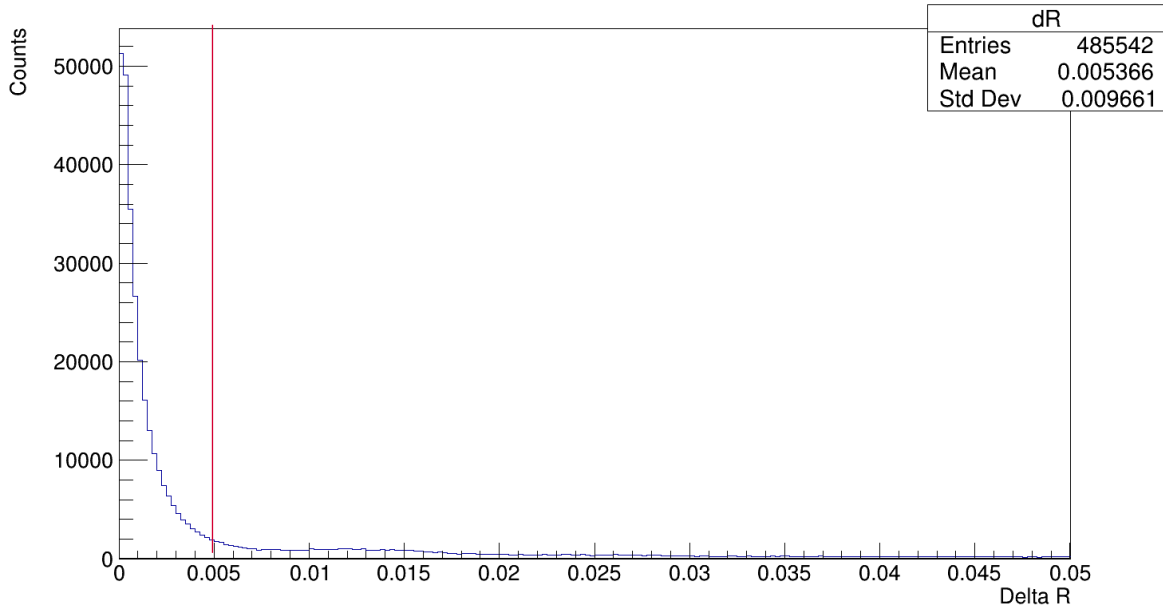
# Matching Cut



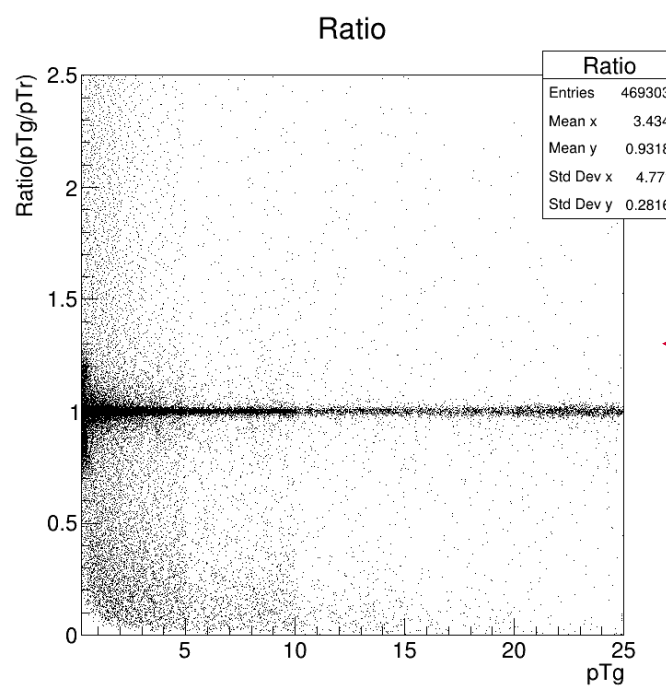
How is the cut done?

$$dR = \sqrt{(\eta_r - \eta_g)^2 + (\phi_r - \phi_g)^2}$$

Delta R

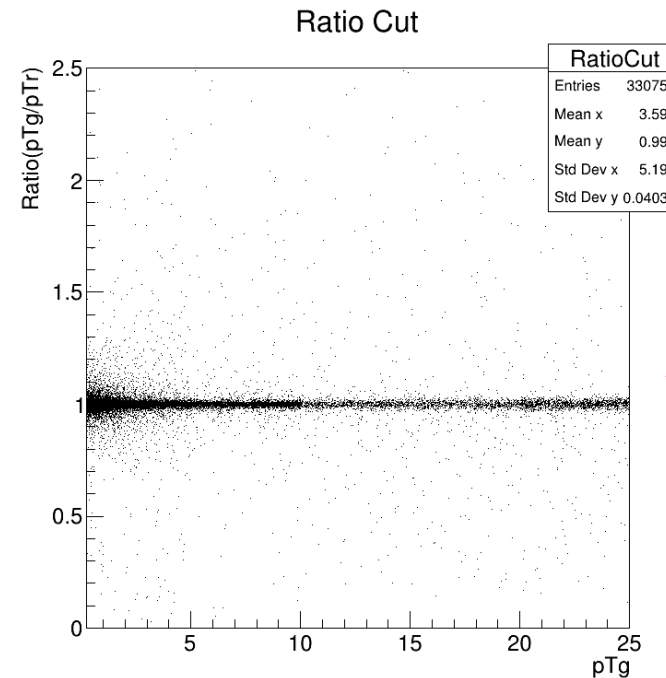


All  $dR > 0.005$  is cut



← Before Cut

This reduces the number of “fake” matches obtained.



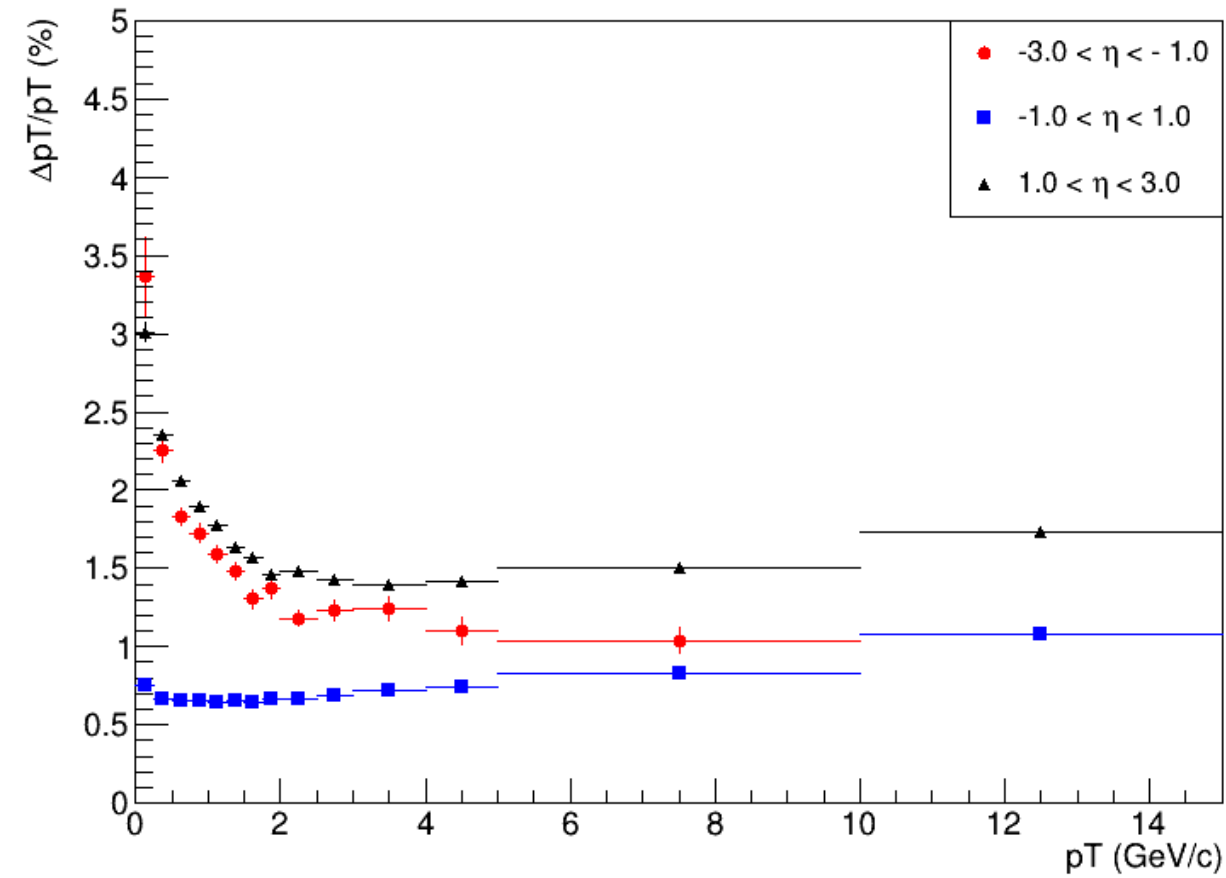
← After Cut

An aerial photograph of a university campus, overlaid with a semi-transparent blue filter. The image shows a large, multi-level plaza with many people walking. There are several trees and buildings visible. The text "Resolution Plots" is centered in white. There are also small "UIC" logos scattered throughout the scene.

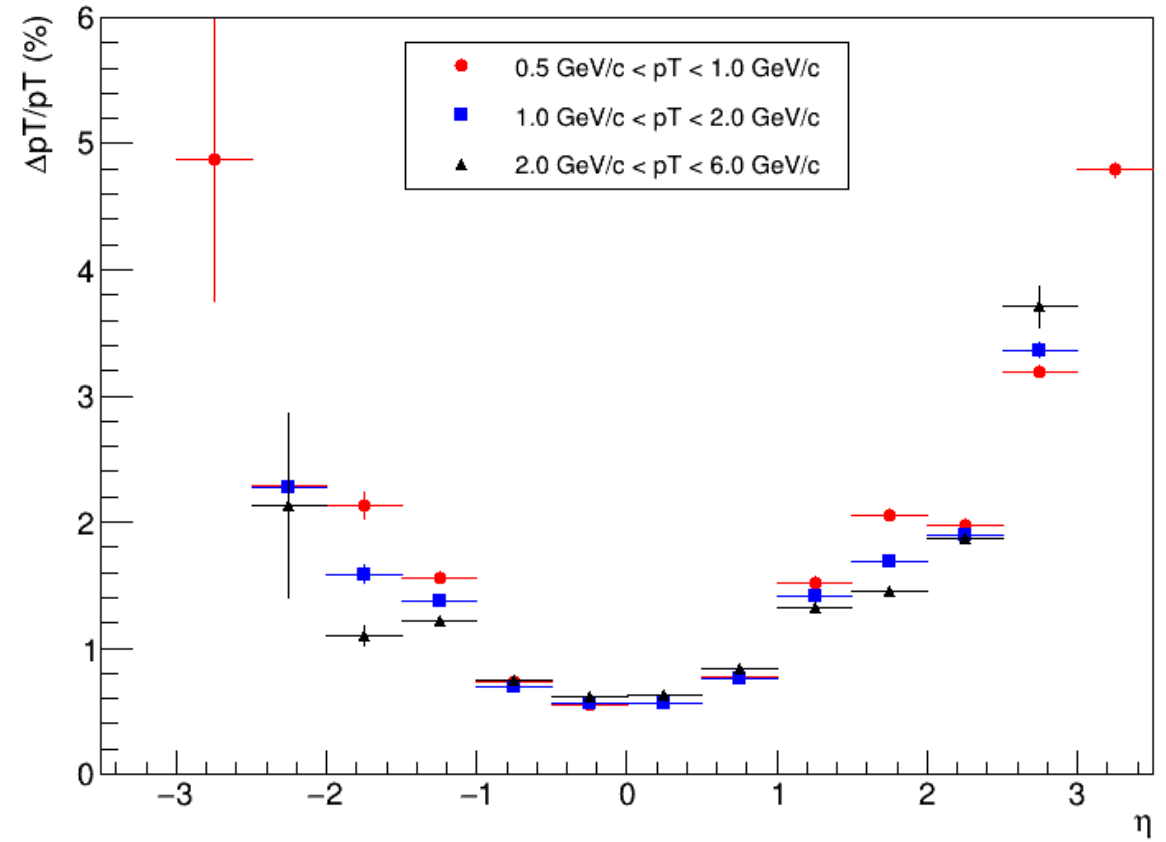
# Resolution Plots

# Pions

pT Cuts  
Resolution Plot (After Cut)



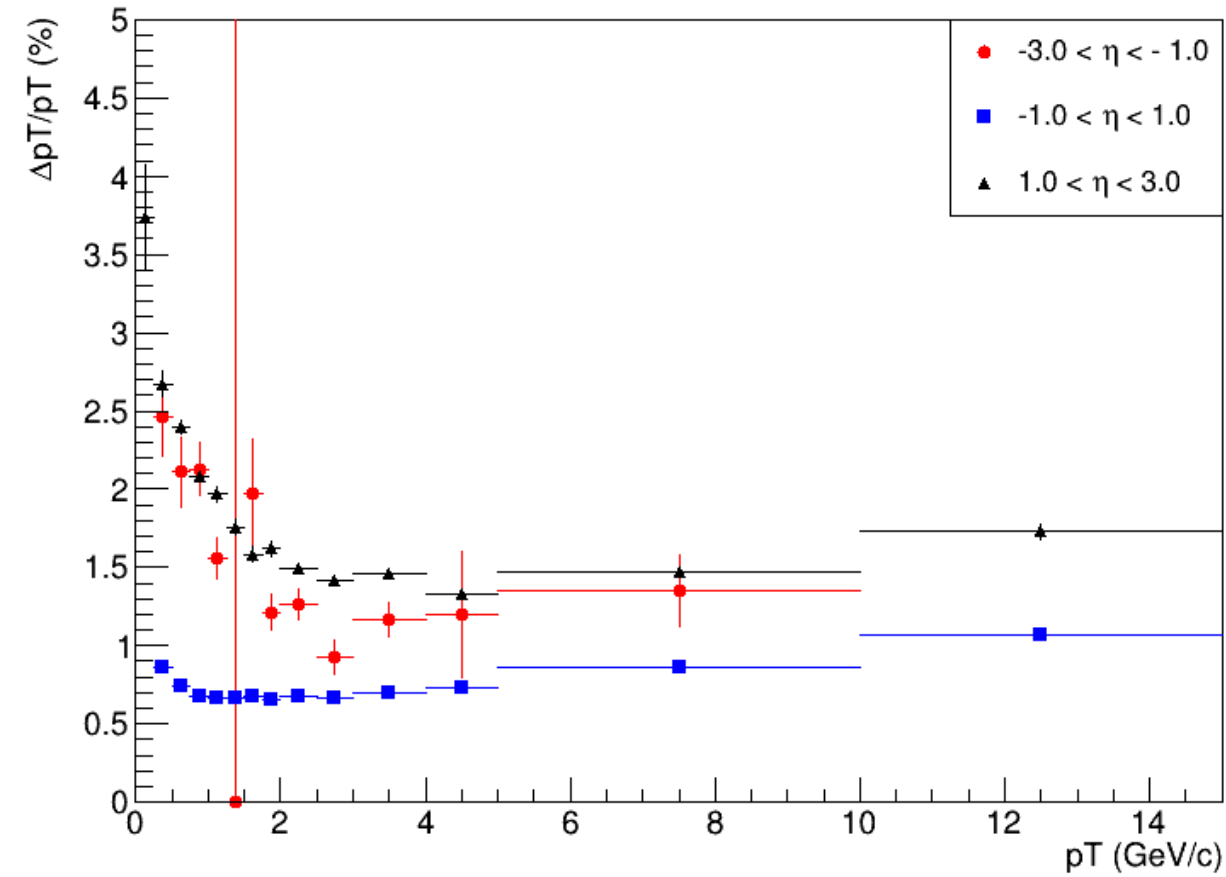
$\eta$  Cuts  
Resolution Plot (After Cut)



# Kaons

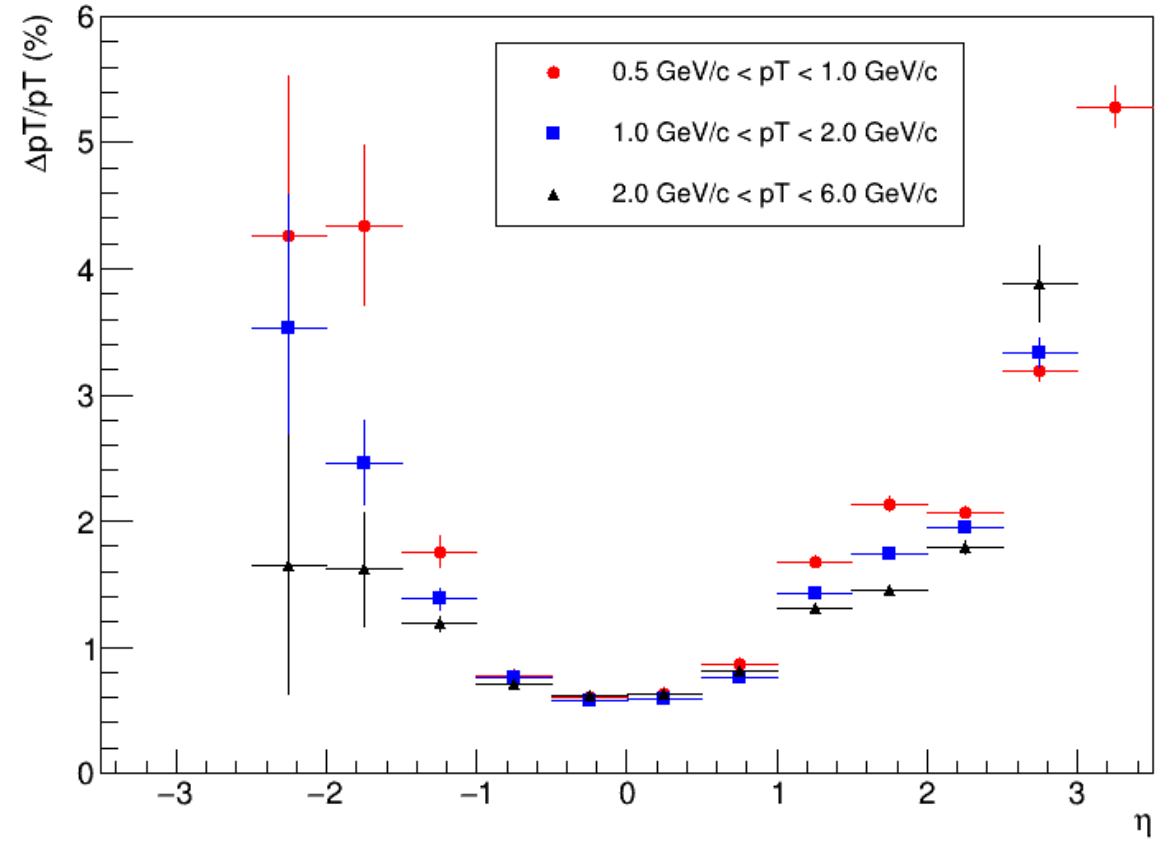
pT Cuts

Resolution Plot (After Cut)



$\eta$  Cuts

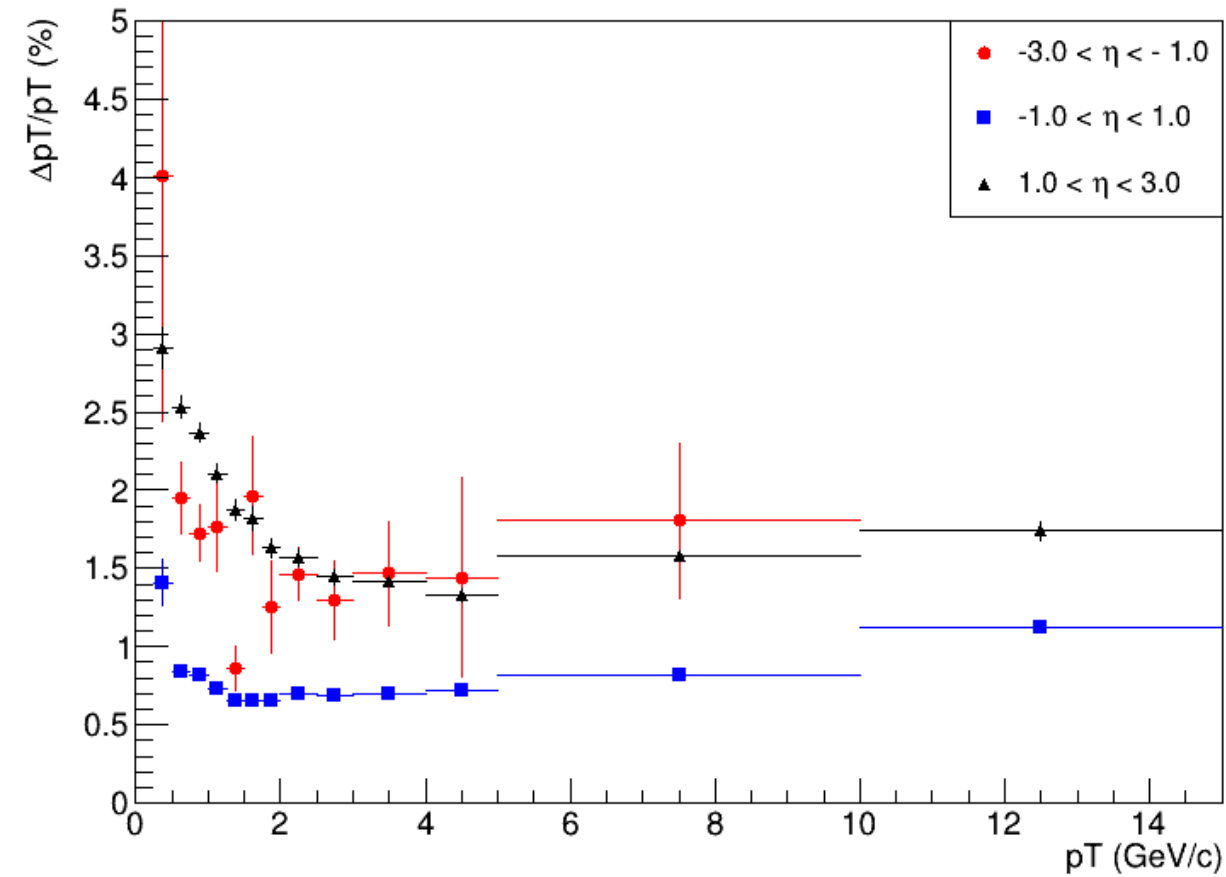
Resolution Plot (After Cut)



# Protons

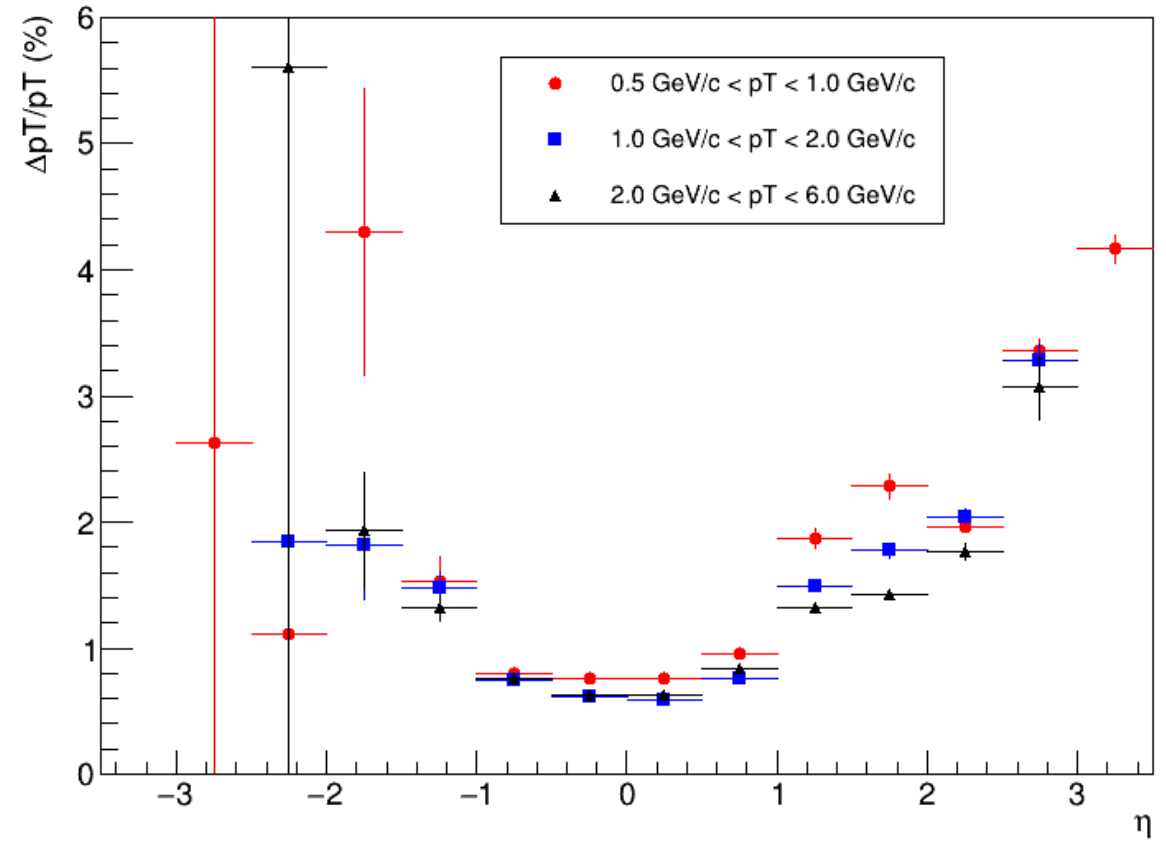
pT Cuts

Resolution Plot (After Cut)



$\eta$  Cuts

Resolution Plot (After Cut)



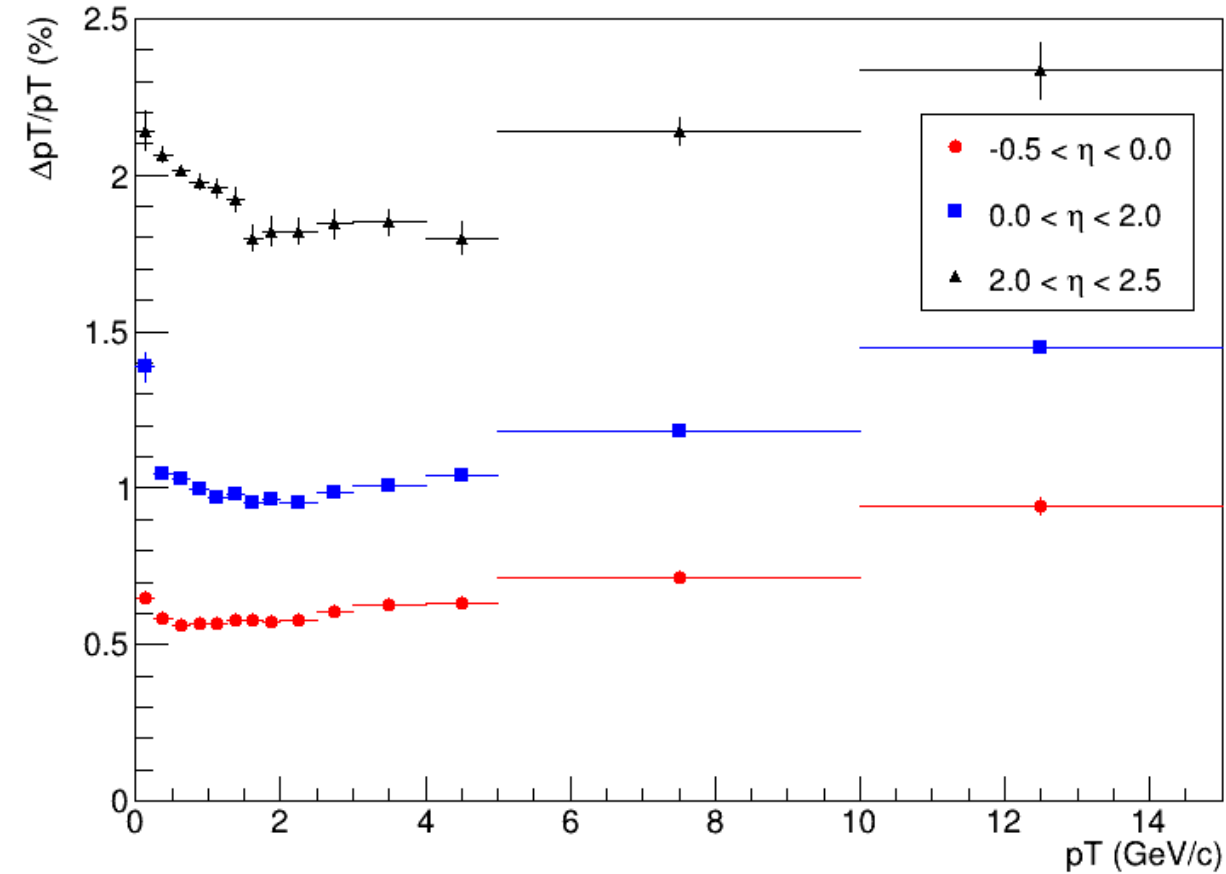
An aerial photograph of a university campus, overlaid with a semi-transparent blue filter. The image shows a large, multi-level plaza with many people walking. There are several trees and buildings visible. The text "Comparison with other results" is centered in white, bold font.

# Comparison with other results



# Pions, Kaons and Protons

Obtained  
Resolution Plot (After Cut)



Expected

