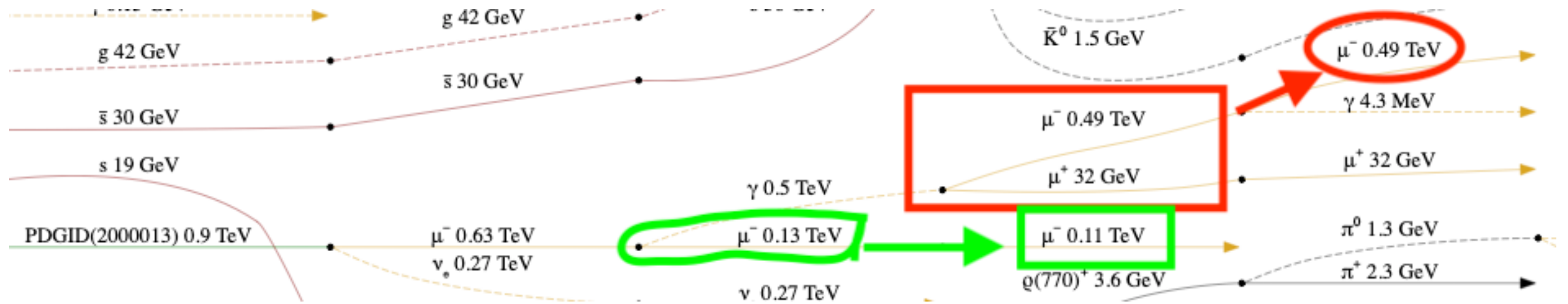# Alaa Weekly Update July 28th
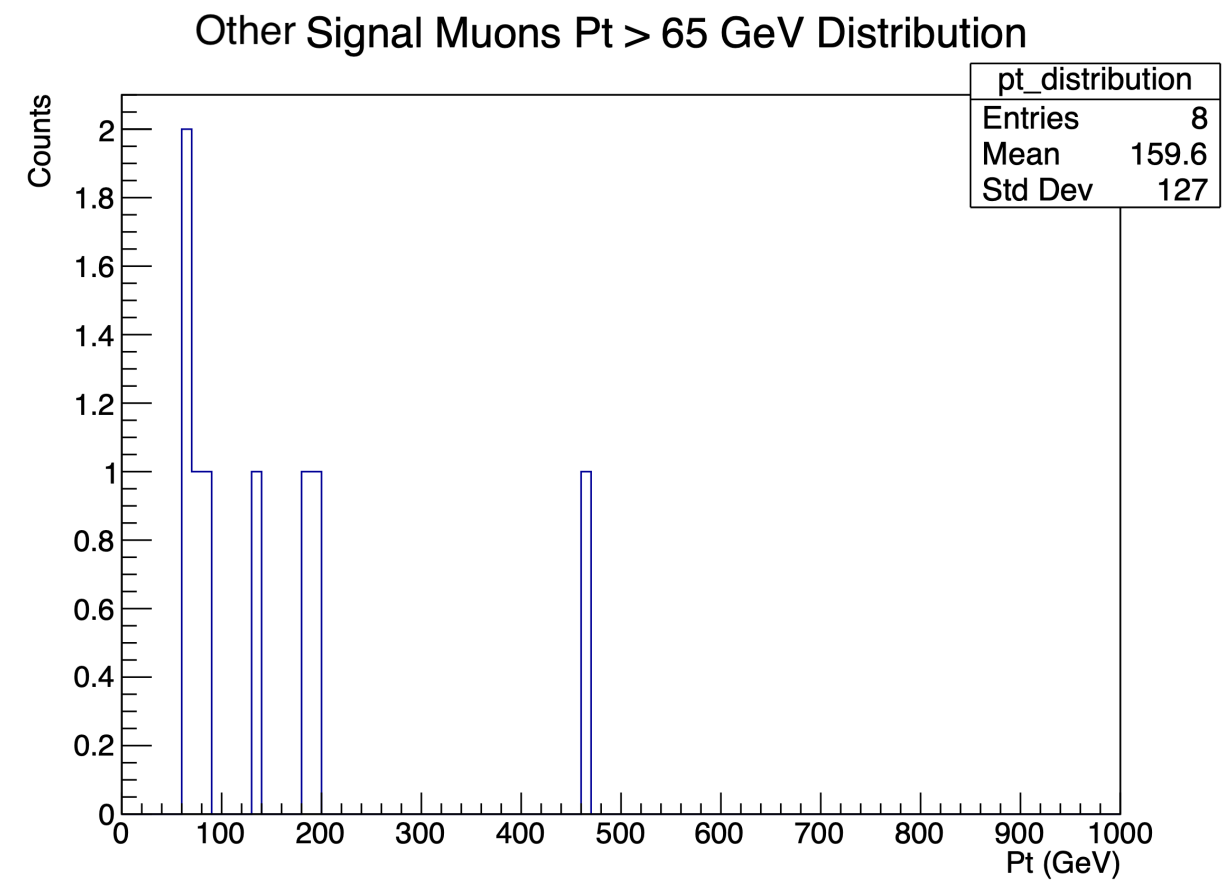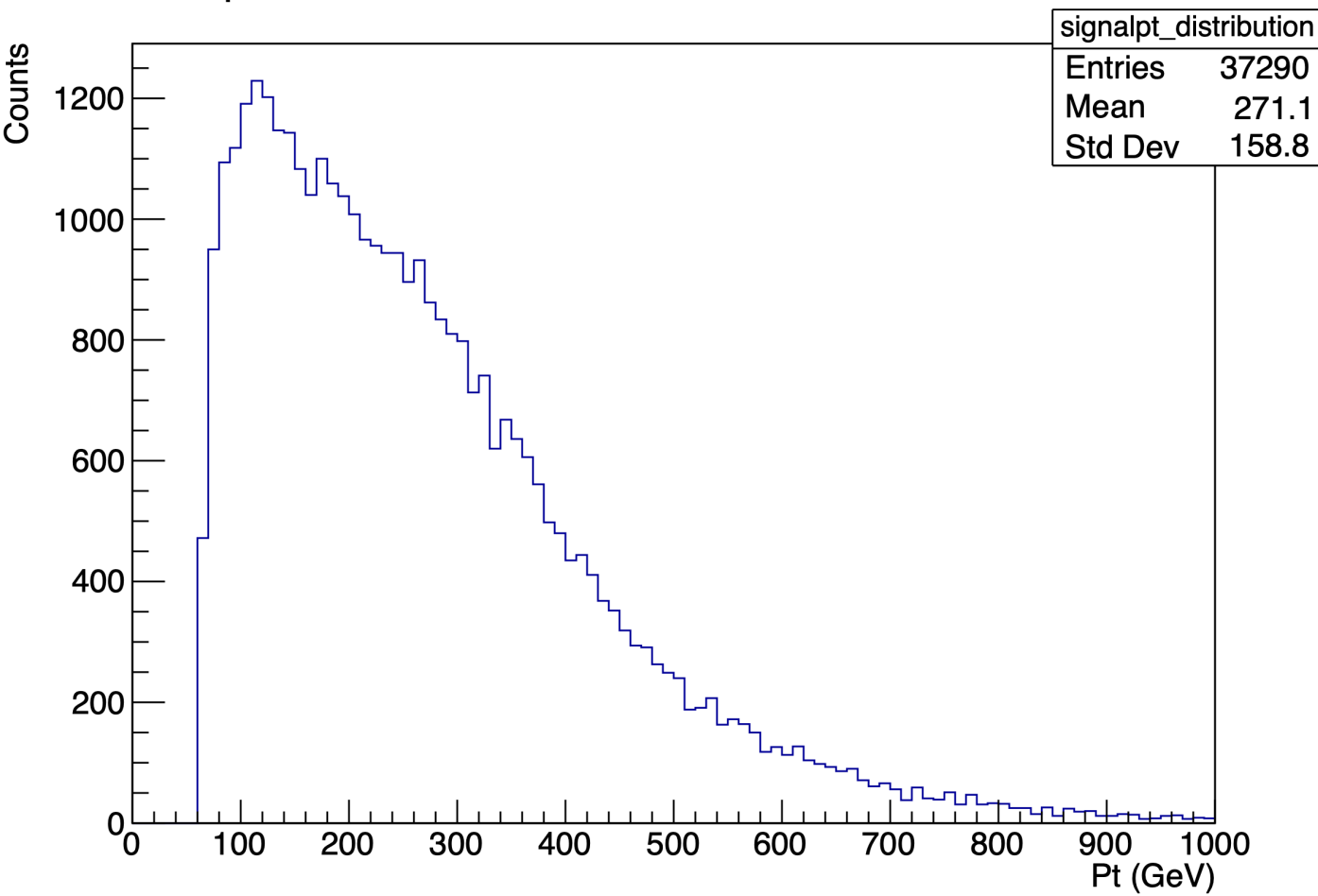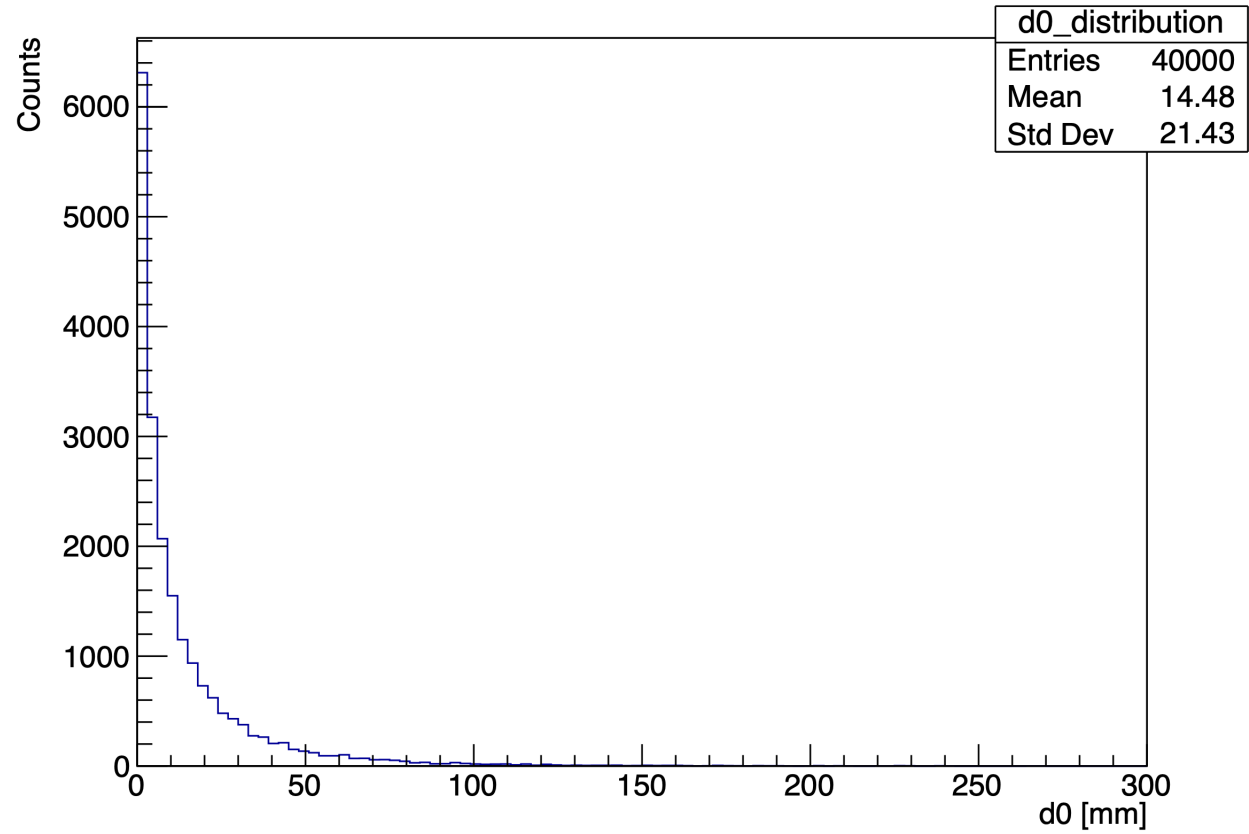
Last week minutes:

- Update plots to show non-signal muons and signal muons:

  -- updated eta and pt plots

- Calculate deltaphi, deltaeta, deltaR, d0

- Make cuts and compare to paper acceptance:

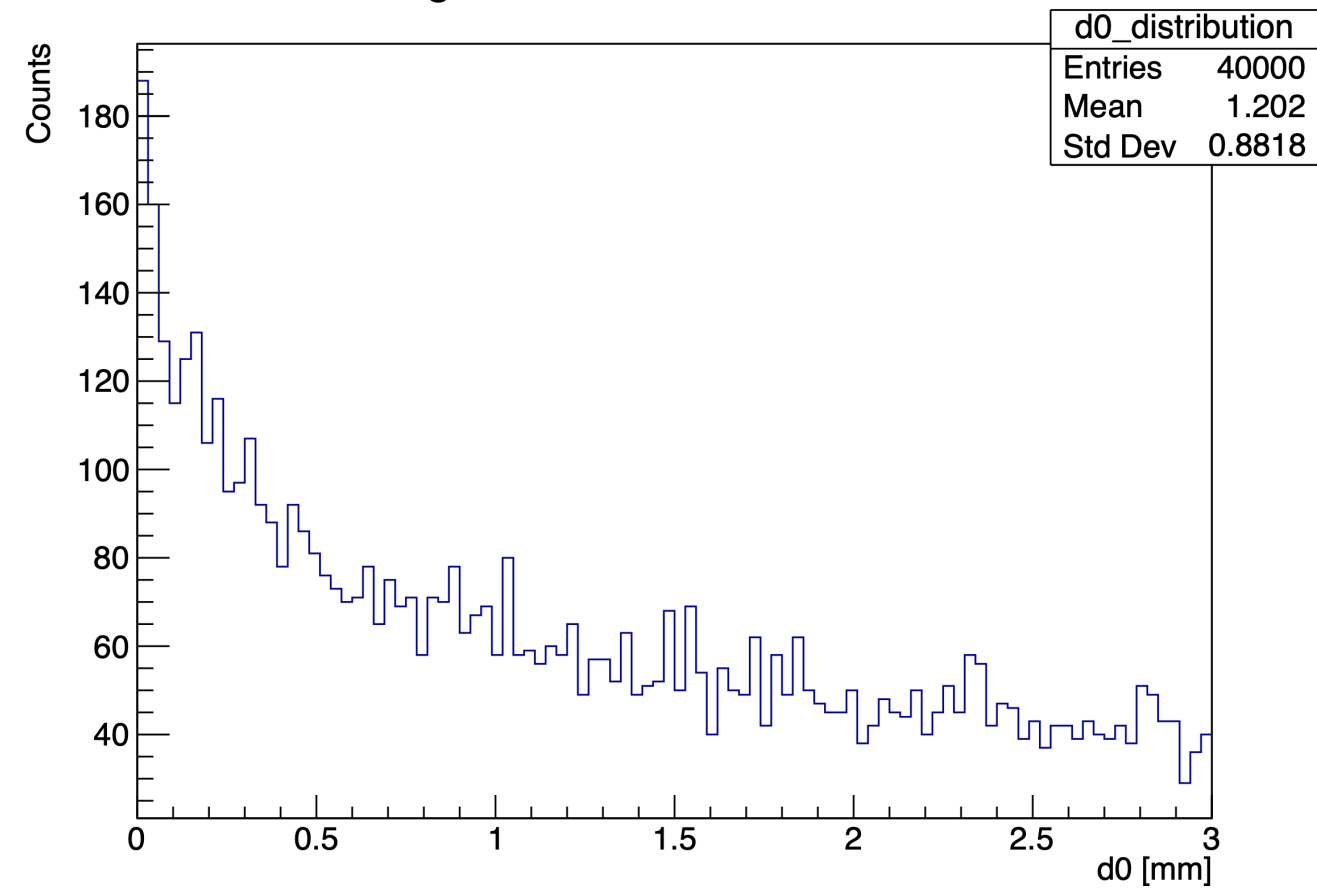 --Validating d0, deltaR, deltaphi, and deltaEta plots first
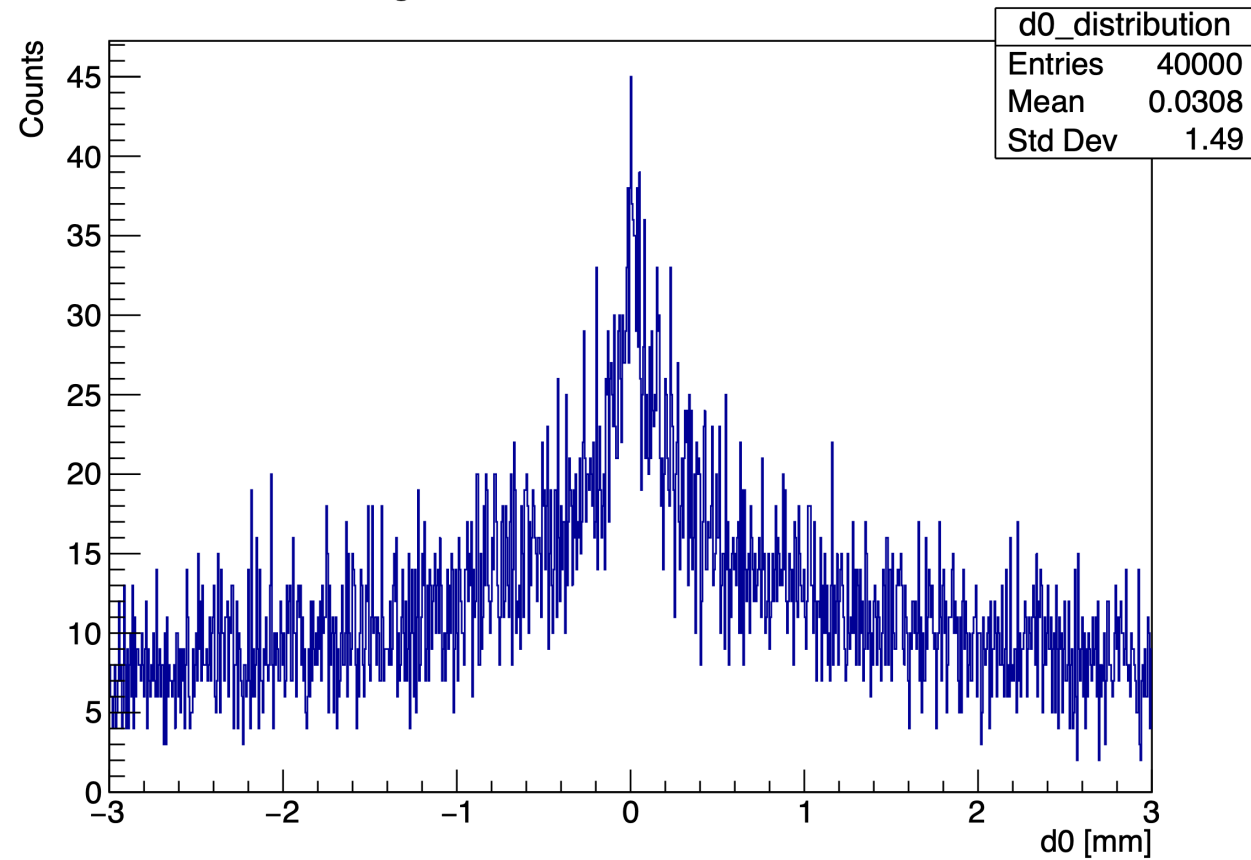
Smuons produced Muons Pt > 65 GeV Distribution

signalpt_distribution	
Entries	37290
Mean	271.1
Std Dev	158.8

Other Signal Muons Pt > 65 GeV Distribution

pt_distribution	
Entries	8
Mean	159.6
Std Dev	127

Signal muons d0 Distribution

Smuon-produced muons (status==1)

d0-L_xy Plot
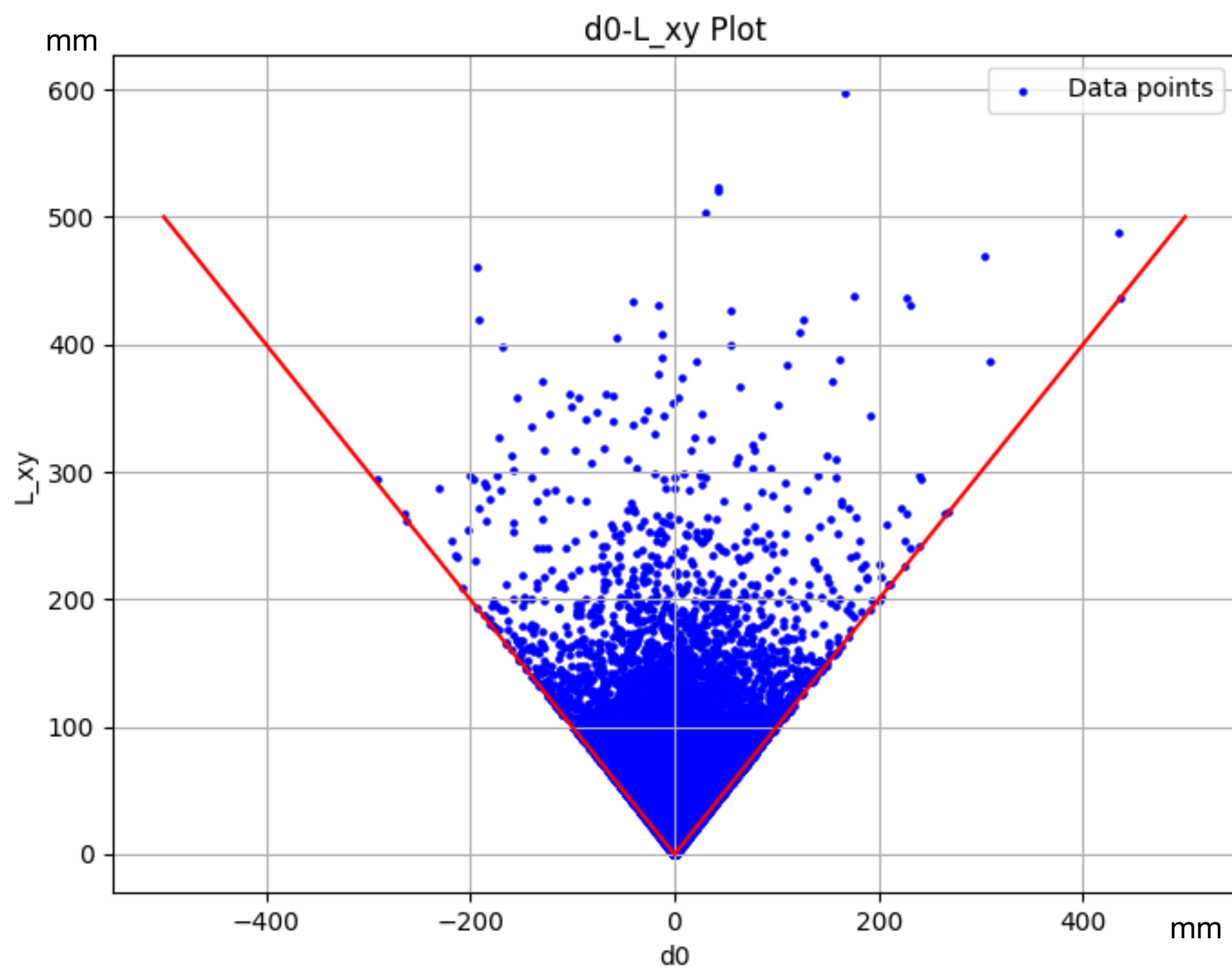
Delta Eta Distribution

dEta_distribution	
Entries	23071
Mean	−0.01726
Std Dev	1.606
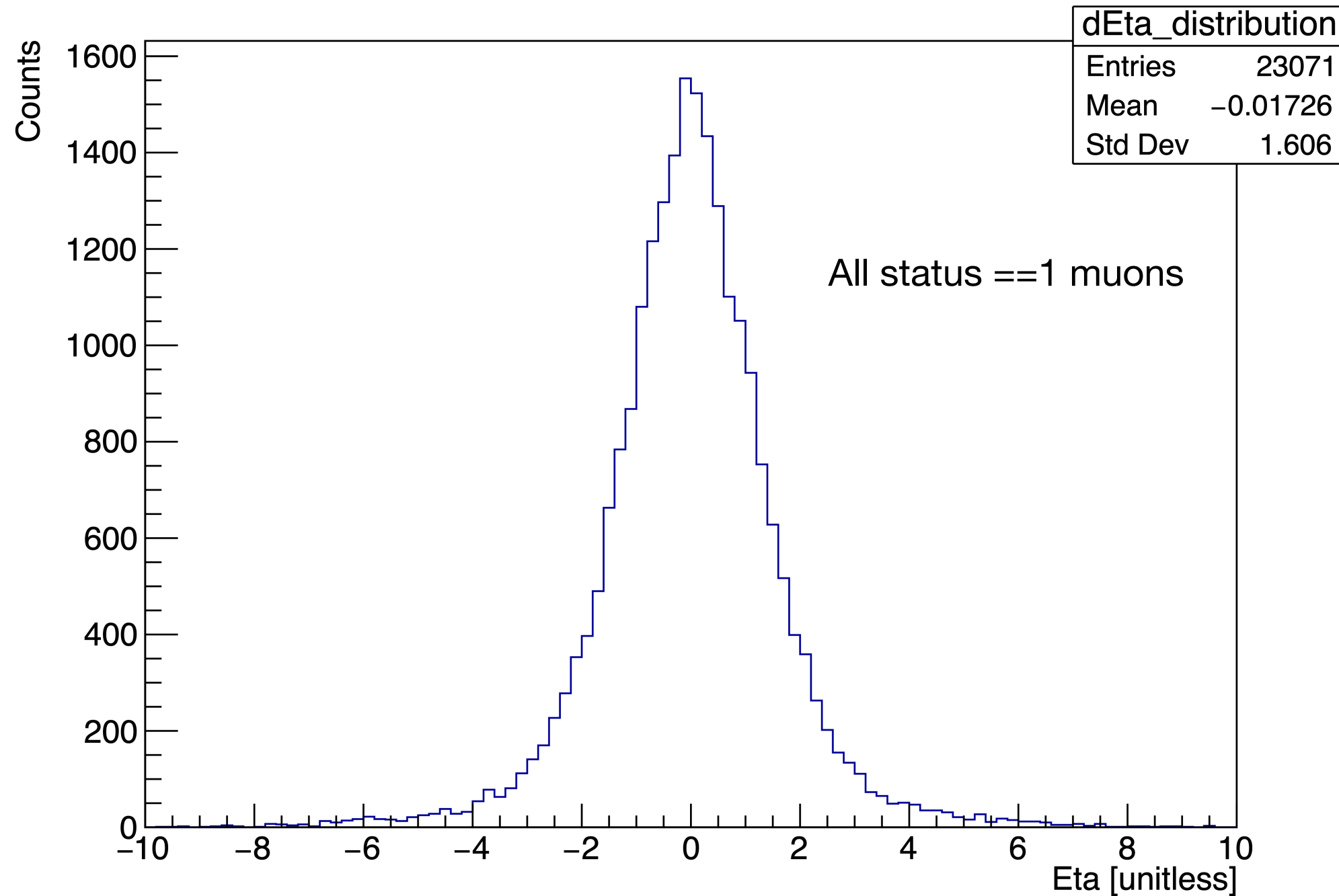
All status ==1 muons

Delta eta peaks around zero

$$\Delta\eta = \eta_A - (-\eta_A) = \pm 2\eta_A$$

Delta Phi Distribution

All status ==1 muons

dPhi_distribution	
Entries	23071
Mean	0.01026
Std Dev	2.771
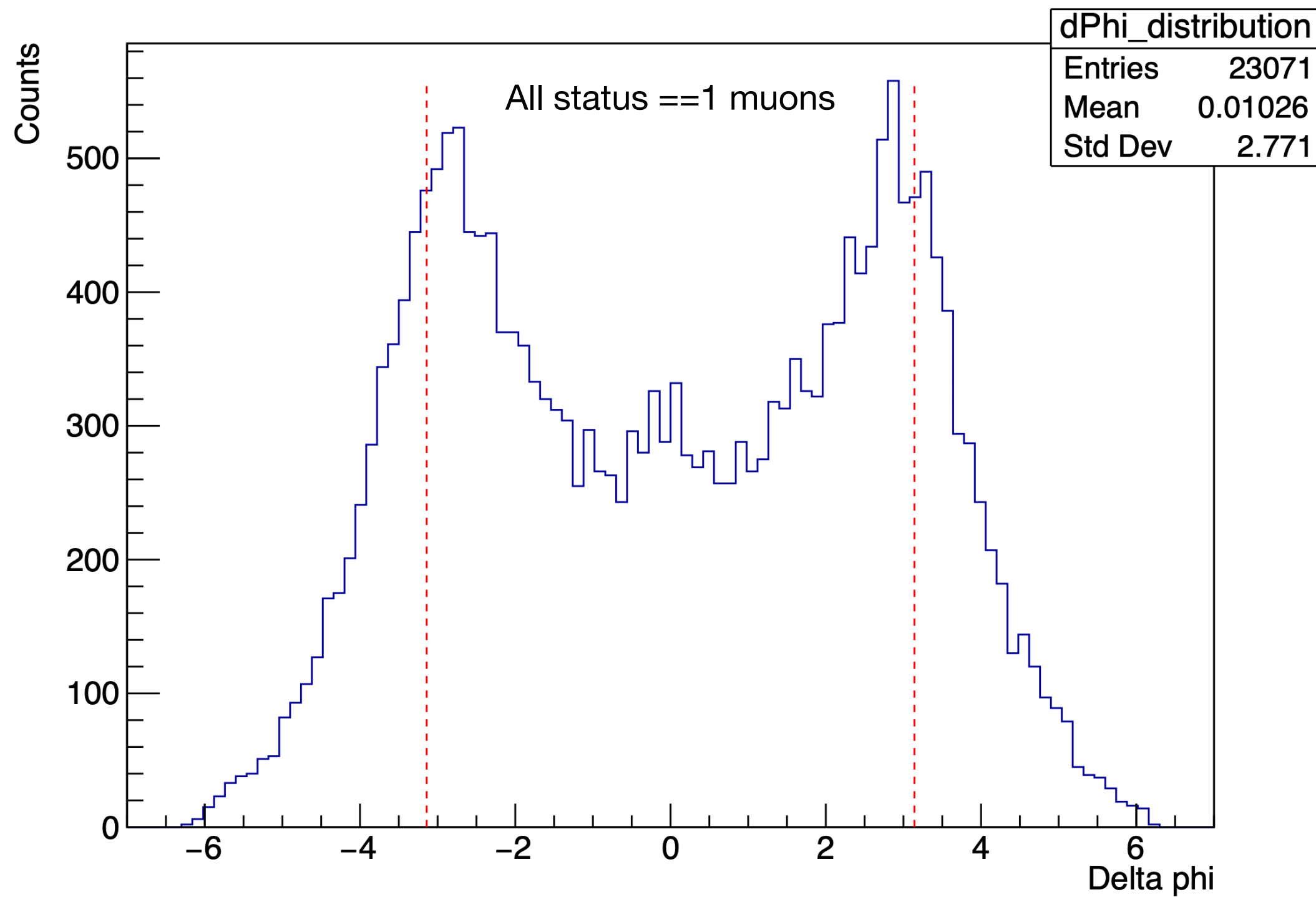
Delta phi peaks around ±π

Delta R Distribution
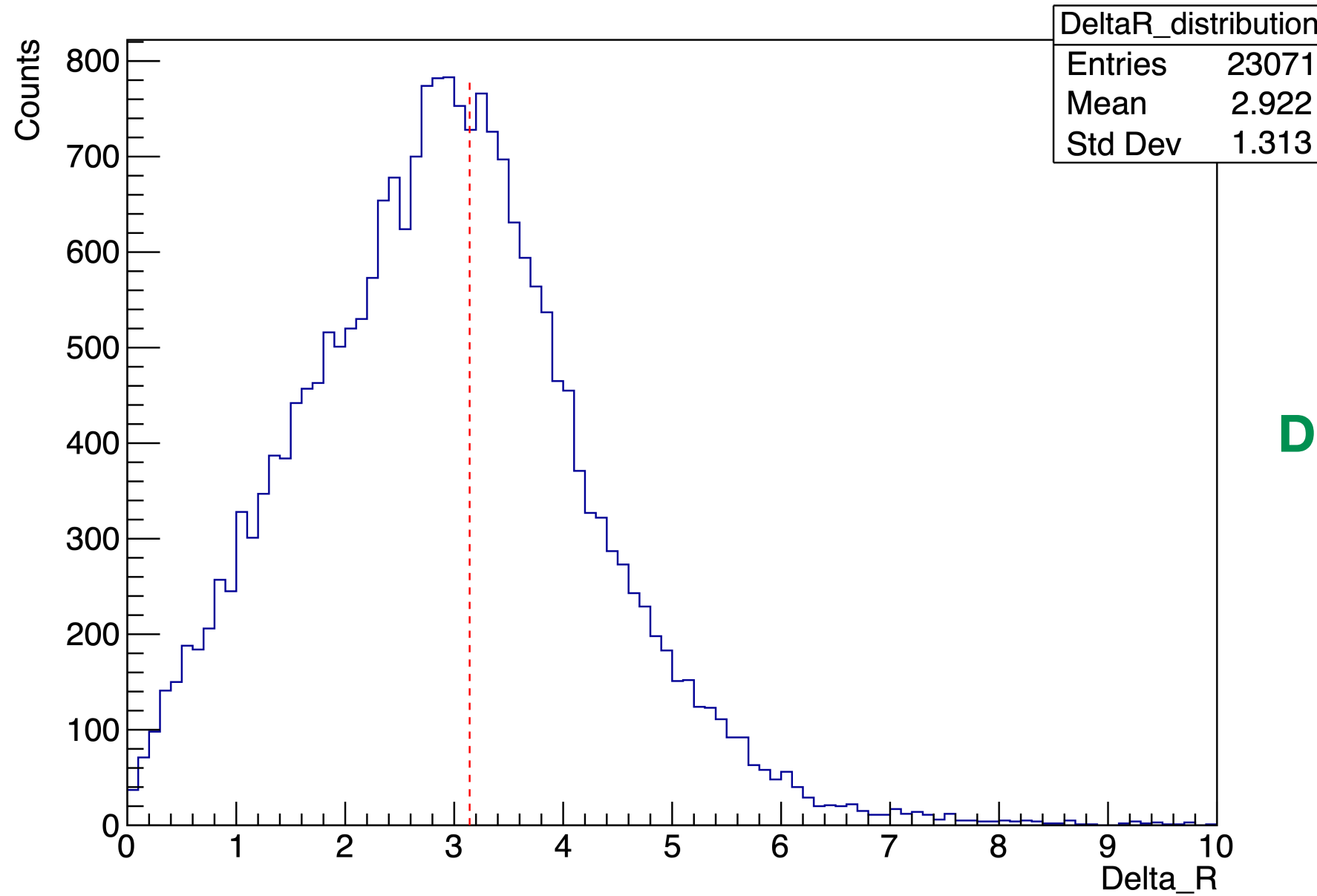
All status ==1 muons

Delta R peaks around π

$$\Delta R = \sqrt{\Delta \eta^2 + \Delta \phi^2}$$