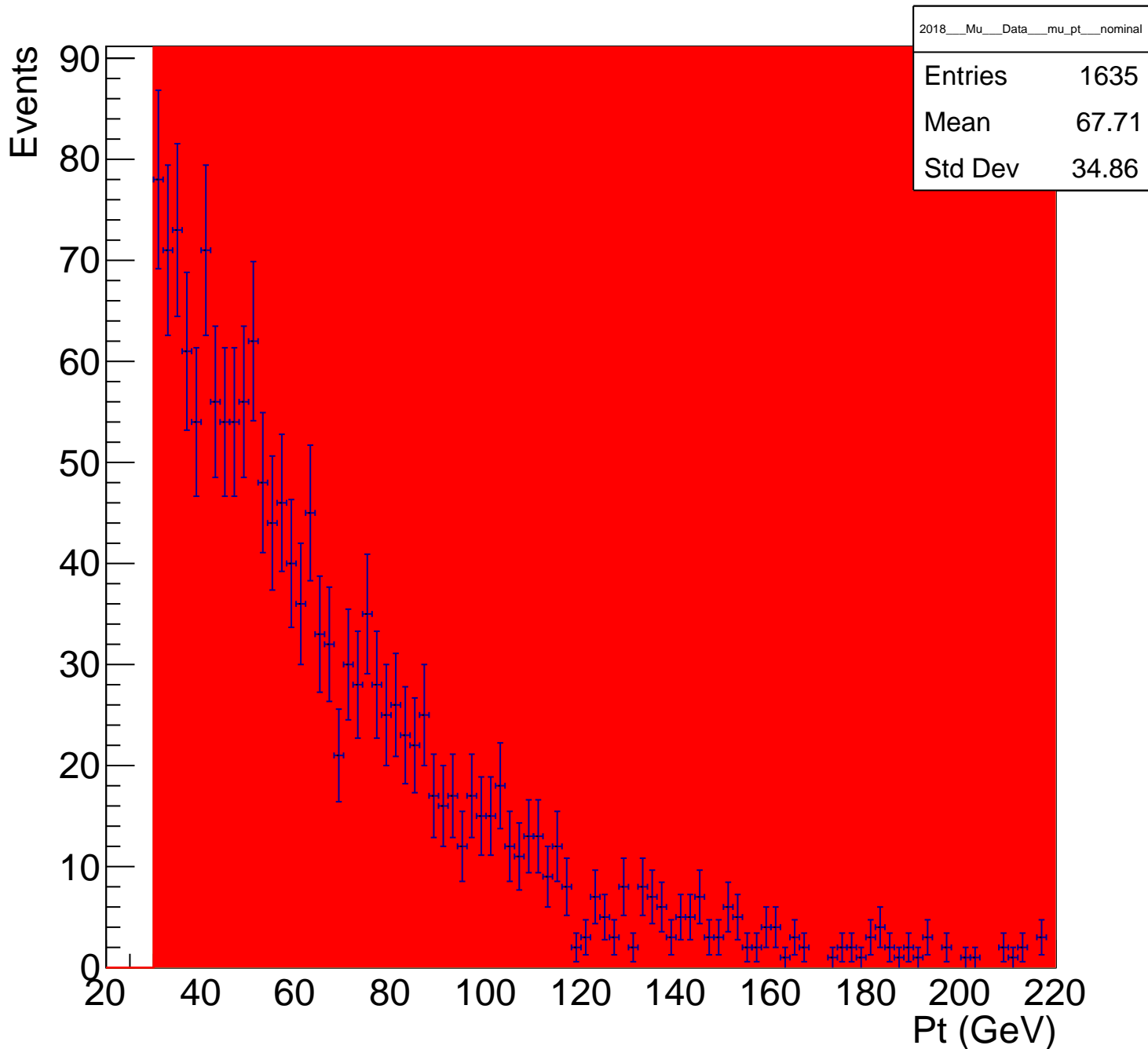


# Muon Transverse Momentum



# Muon Pseudorapidity

Events

45  
40  
35  
30  
25  
20  
15  
10  
5  
0

-3

-2

-1

0

1

2

3

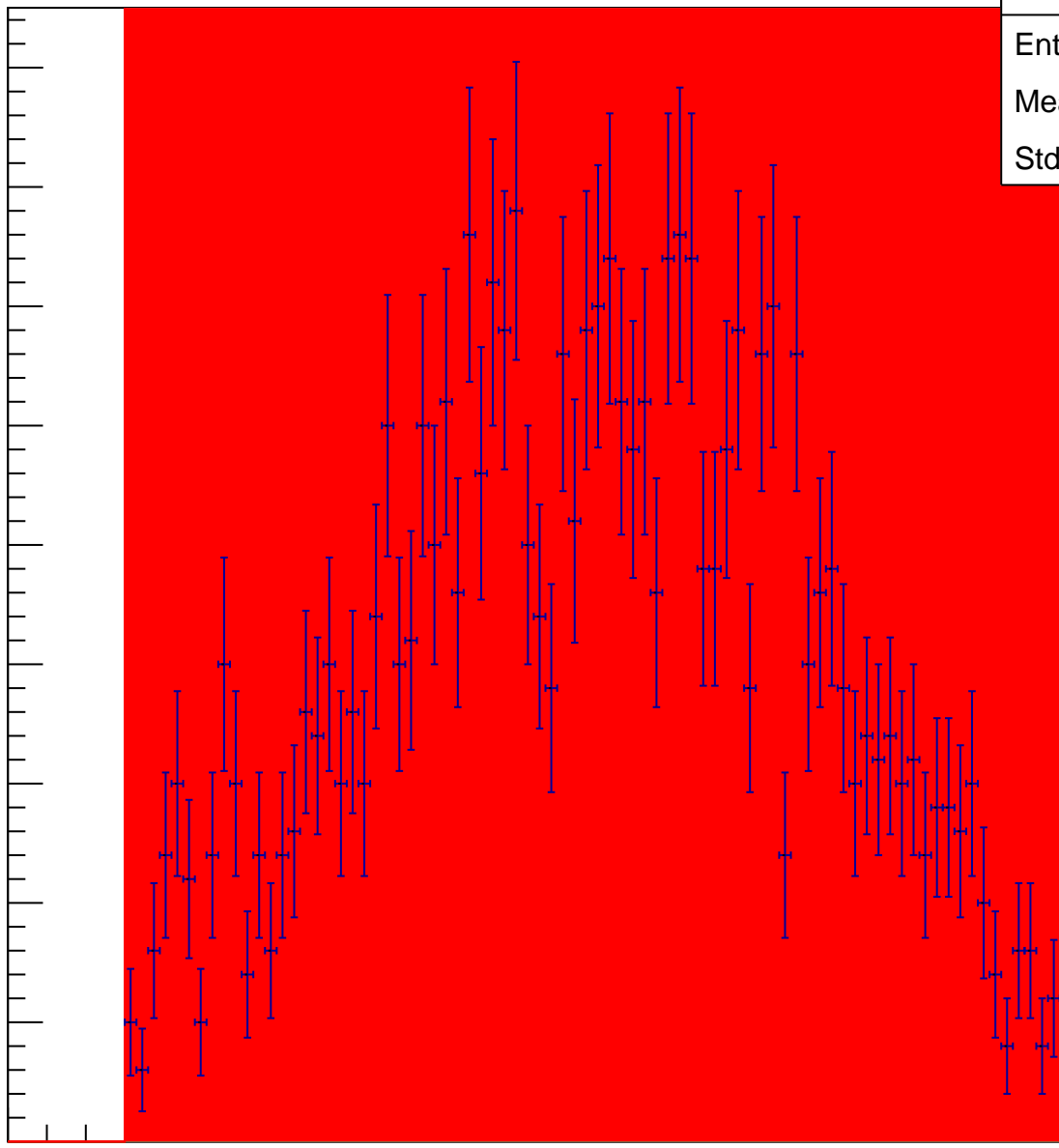
Eta

2018\_\_Mu\_\_Data\_\_mu\_eta\_\_nominal

Entries 1635

Mean 0.01167

Std Dev 1.098



# Muon Angle

Events

35  
30  
25  
20  
15  
10  
5  
0

-3

-2

-1

0

1

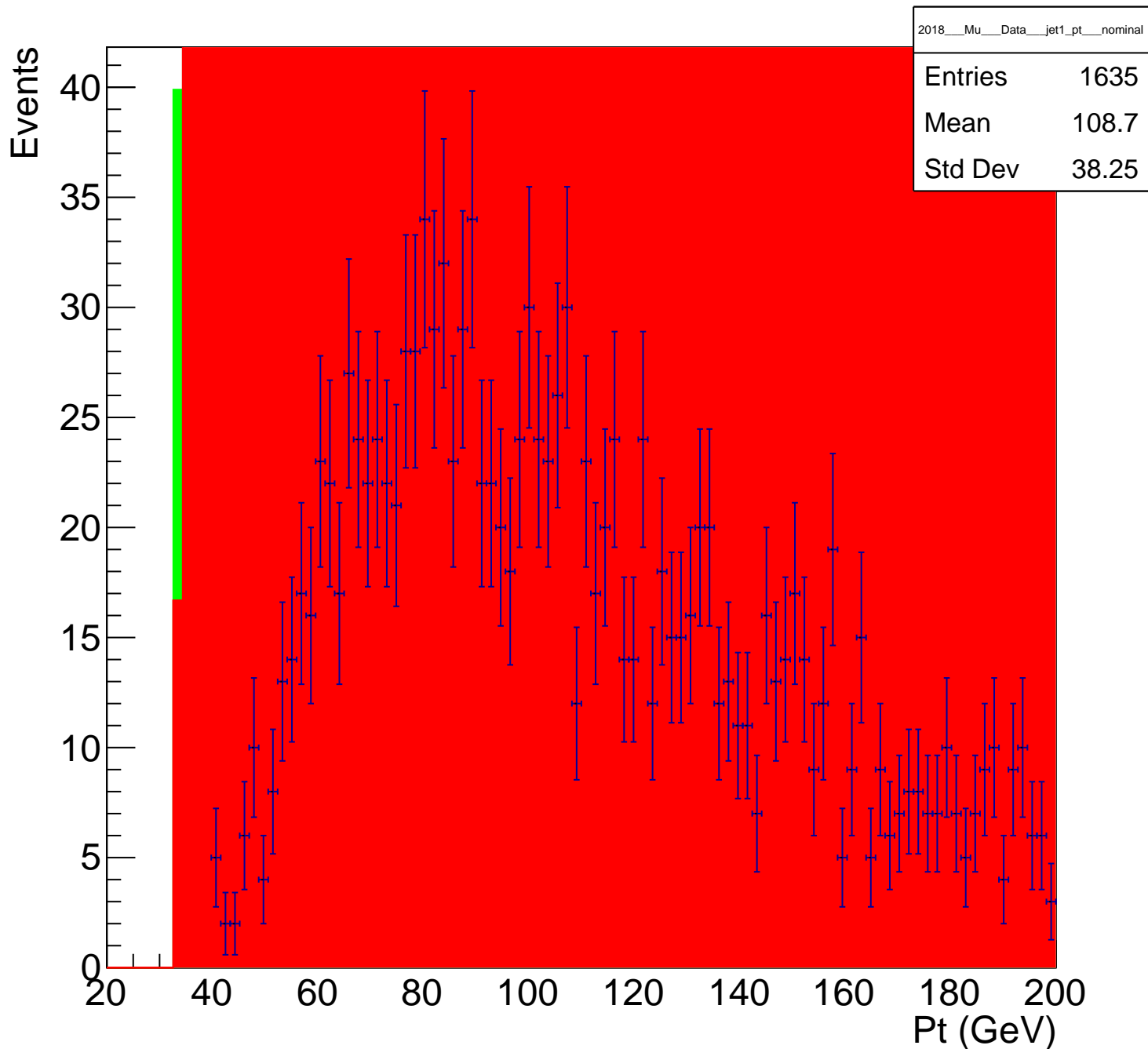
2

3

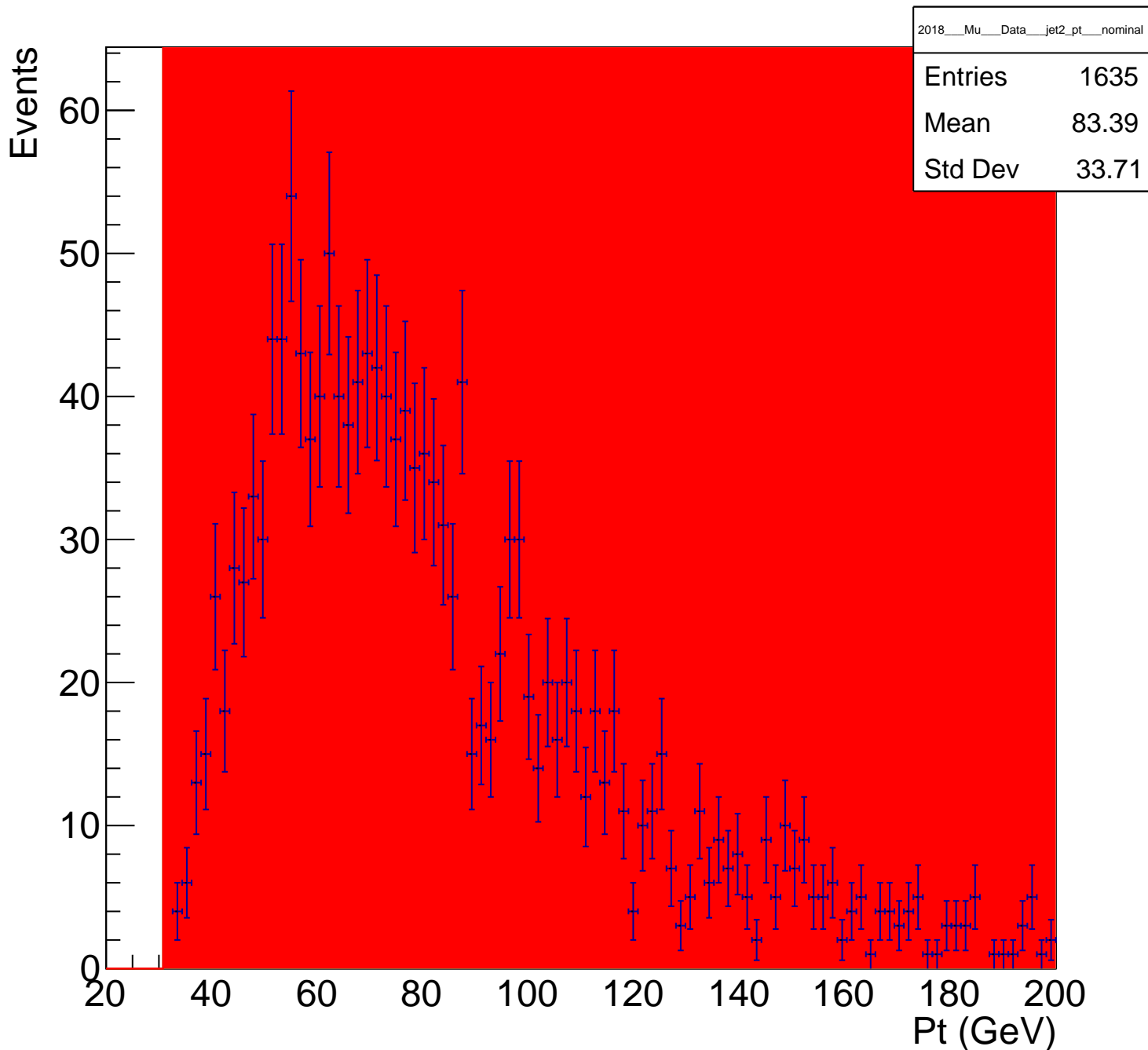
Phi (Radians)

|                                 |         |
|---------------------------------|---------|
| 2018__Mu__Data__mu_phi__nominal |         |
| Entries                         | 1635    |
| Mean                            | 0.03818 |
| Std Dev                         | 1.818   |

# Jet Transverse Momentum for Leading Jet



# Jet Transverse Momentum for Subleading Jet



# Jet Pseudorapidity for Leading Jet

Events

50  
40  
30  
20  
10  
0

|                                   |          |
|-----------------------------------|----------|
| 2018__Mu__Data__jet1_eta__nominal |          |
| Entries                           | 1635     |
| Mean                              | -0.02697 |
| Std Dev                           | 1.16     |

-3

-2

-1

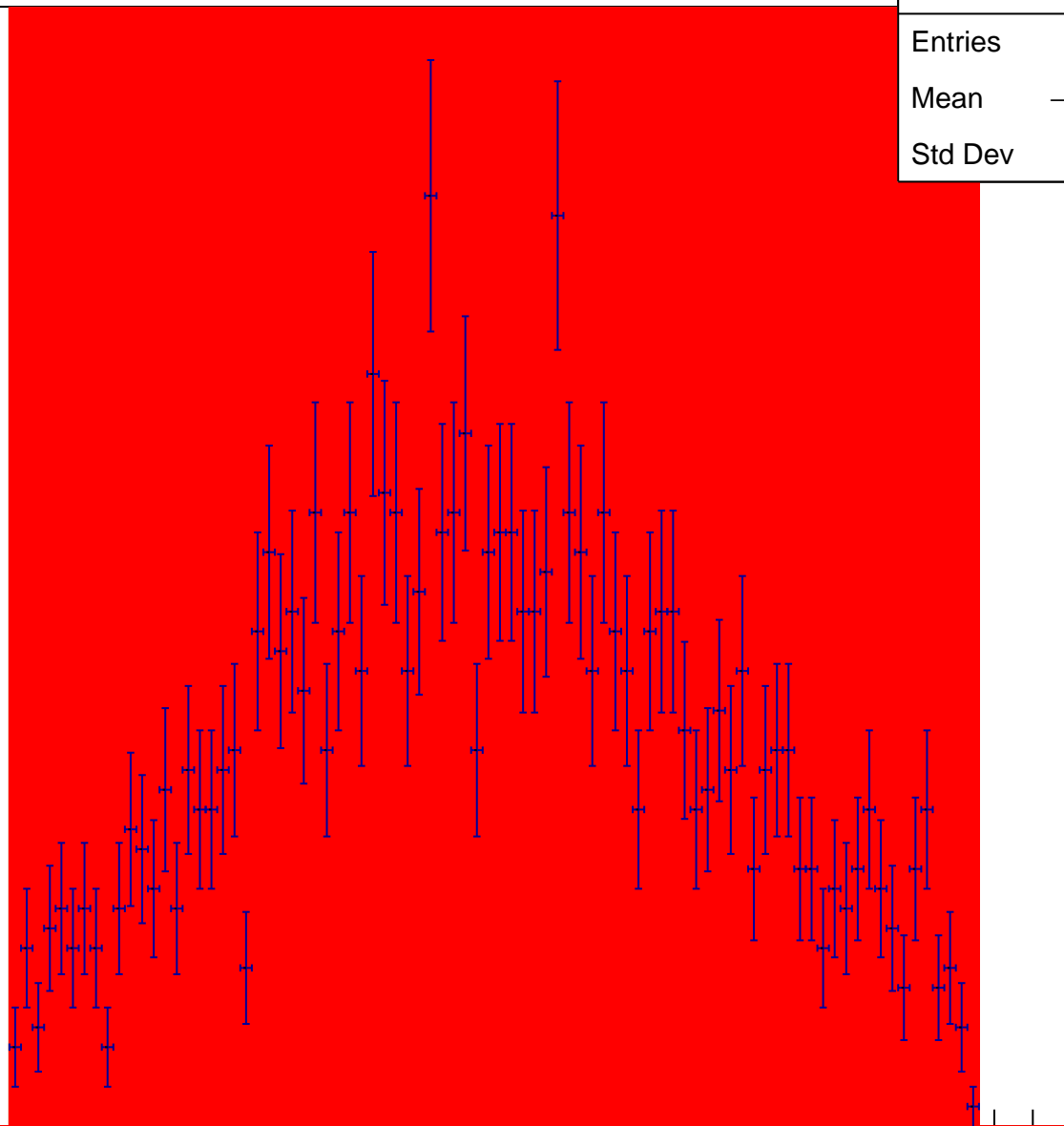
0

1

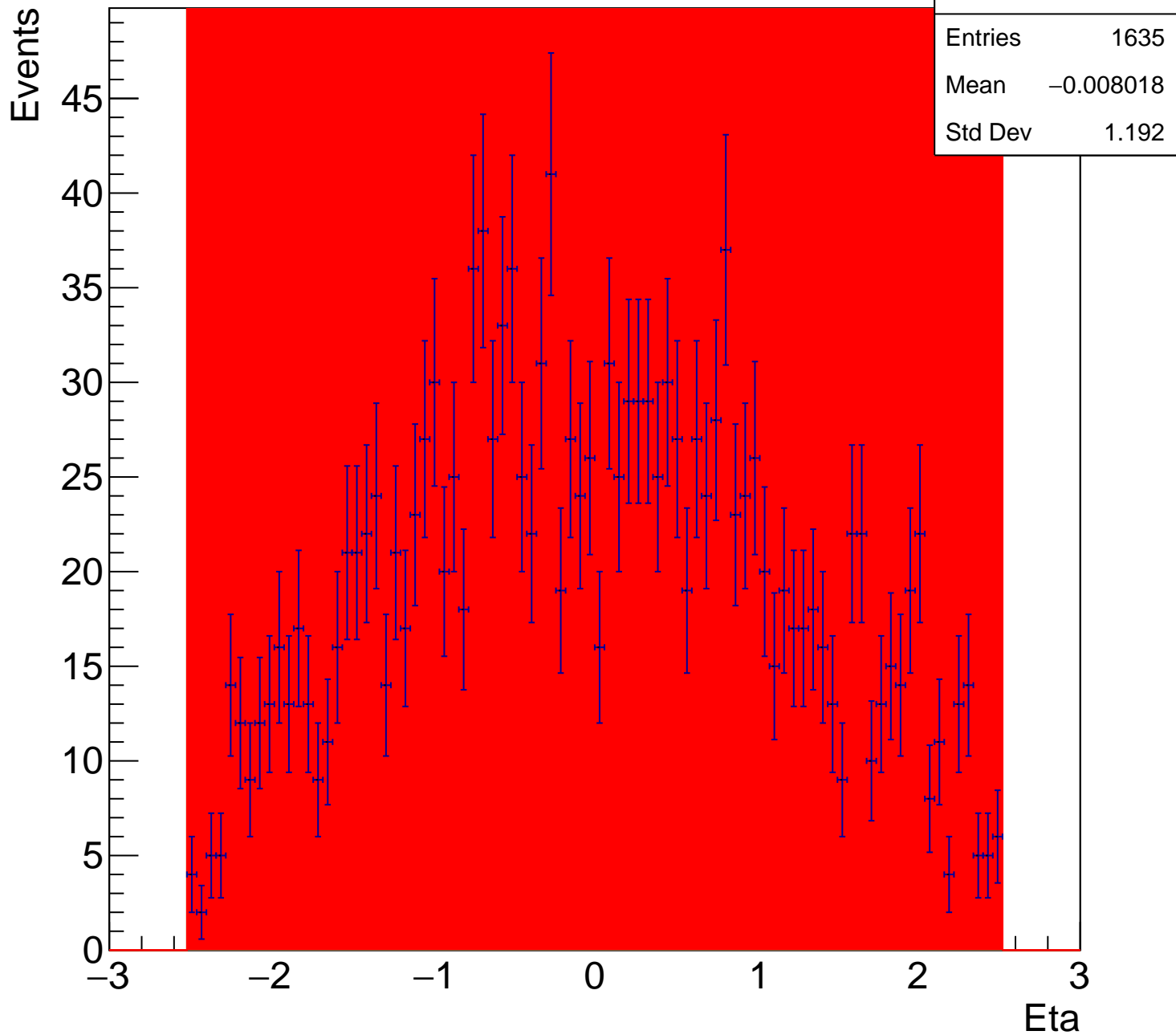
2

3

Eta



# Jet Pseudorapidity for Subleading Jet



# Jet Angle for Leading Jet

Events

35  
30  
25  
20  
15  
10  
5  
0

-3

-2

-1

0

1

2

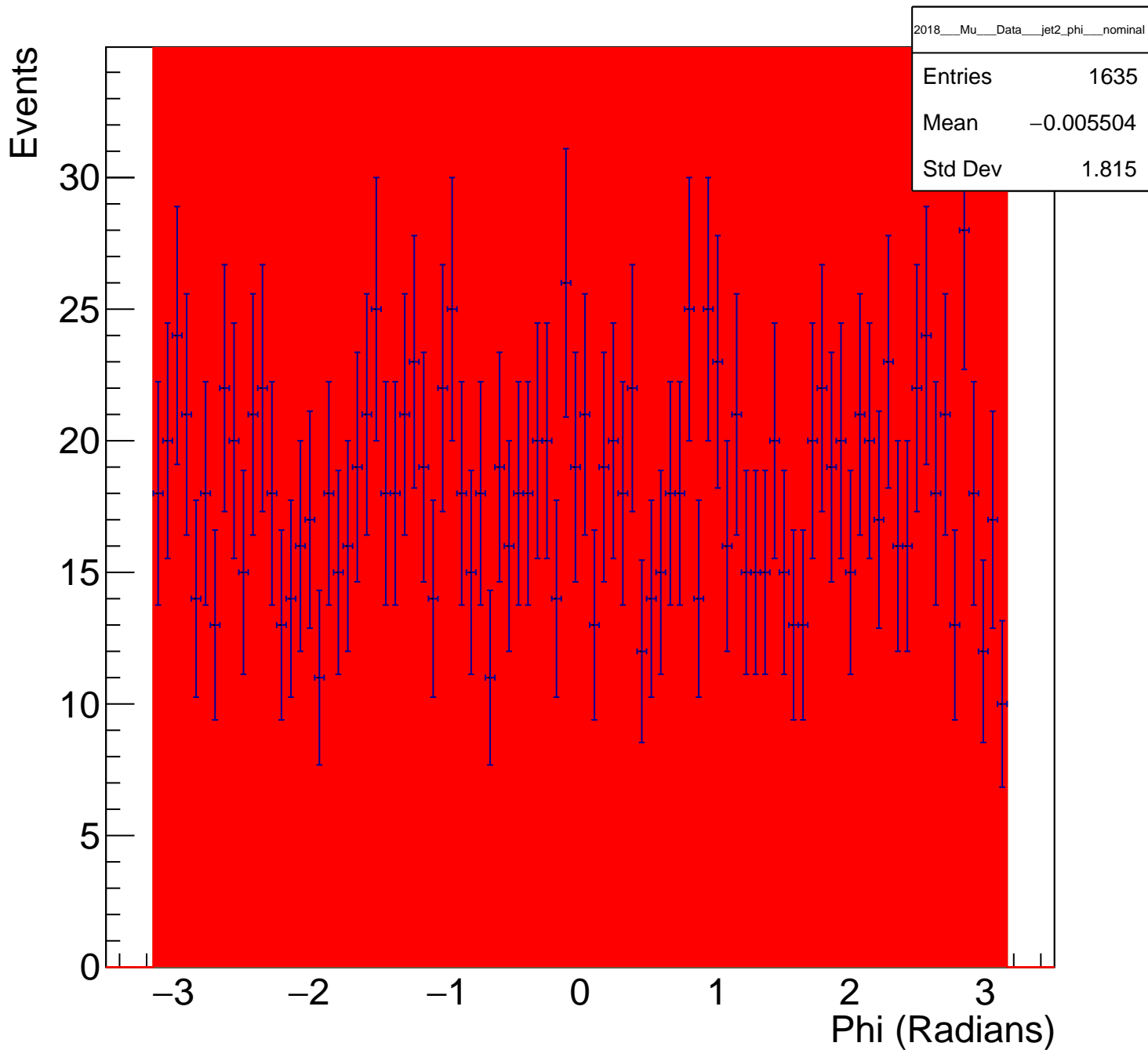
3

Phi (Radians)

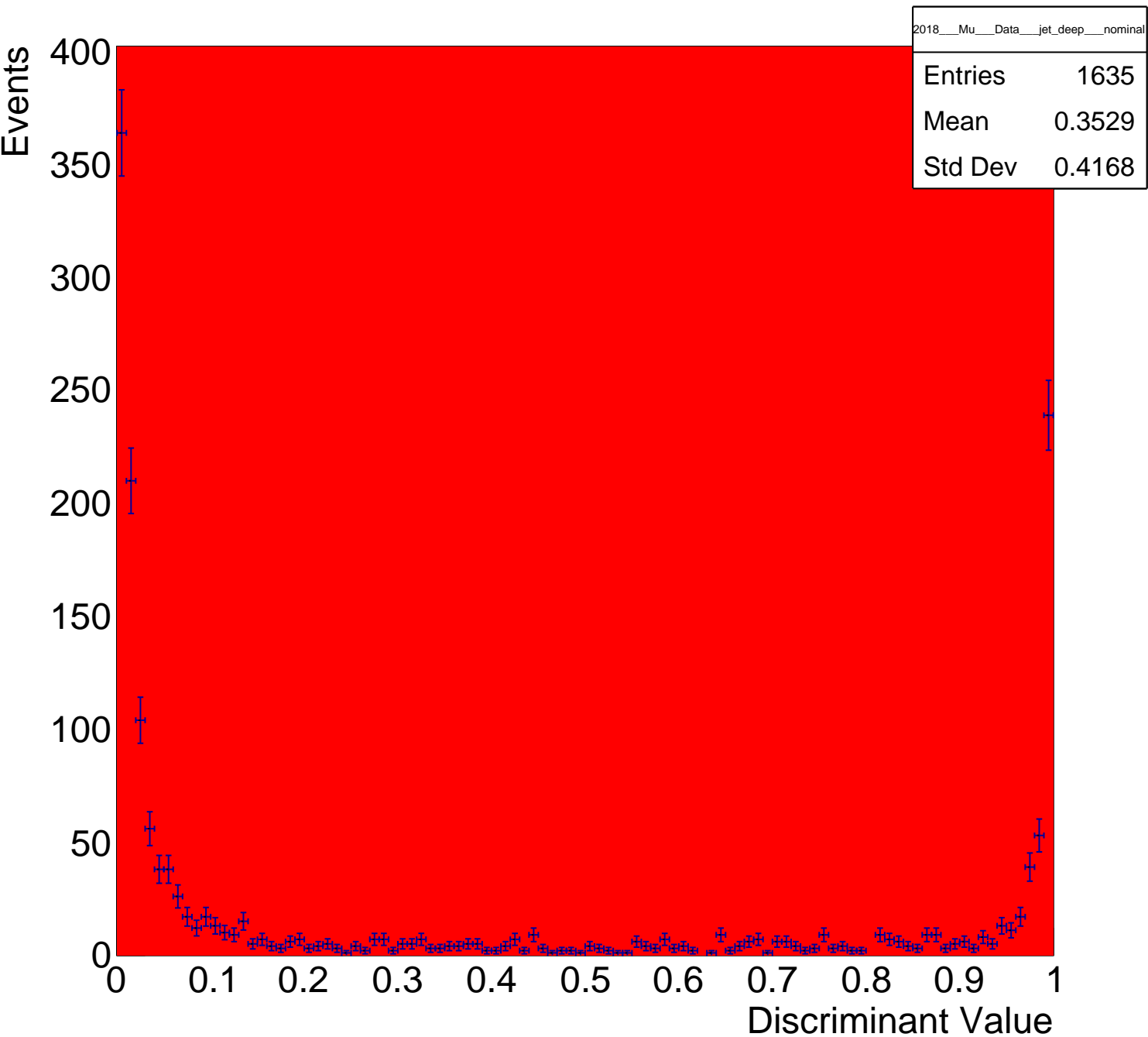
|                                   |         |
|-----------------------------------|---------|
| 2018__Mu__Data__jet1_phi__nominal |         |
| Entries                           | 1635    |
| Mean                              | 0.05958 |
| Std Dev                           | 1.787   |



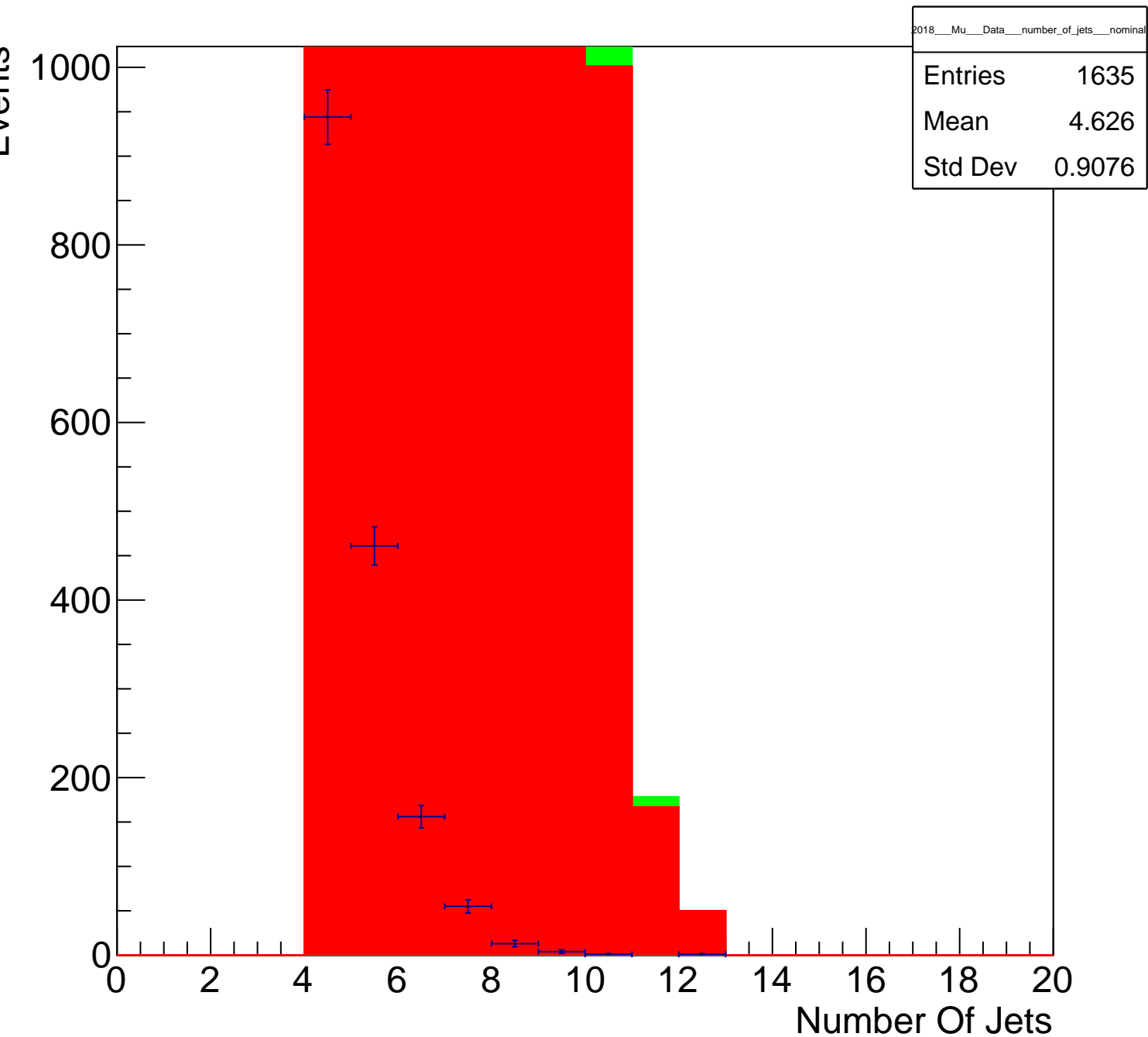
# Jet Angle for Subleading Jet



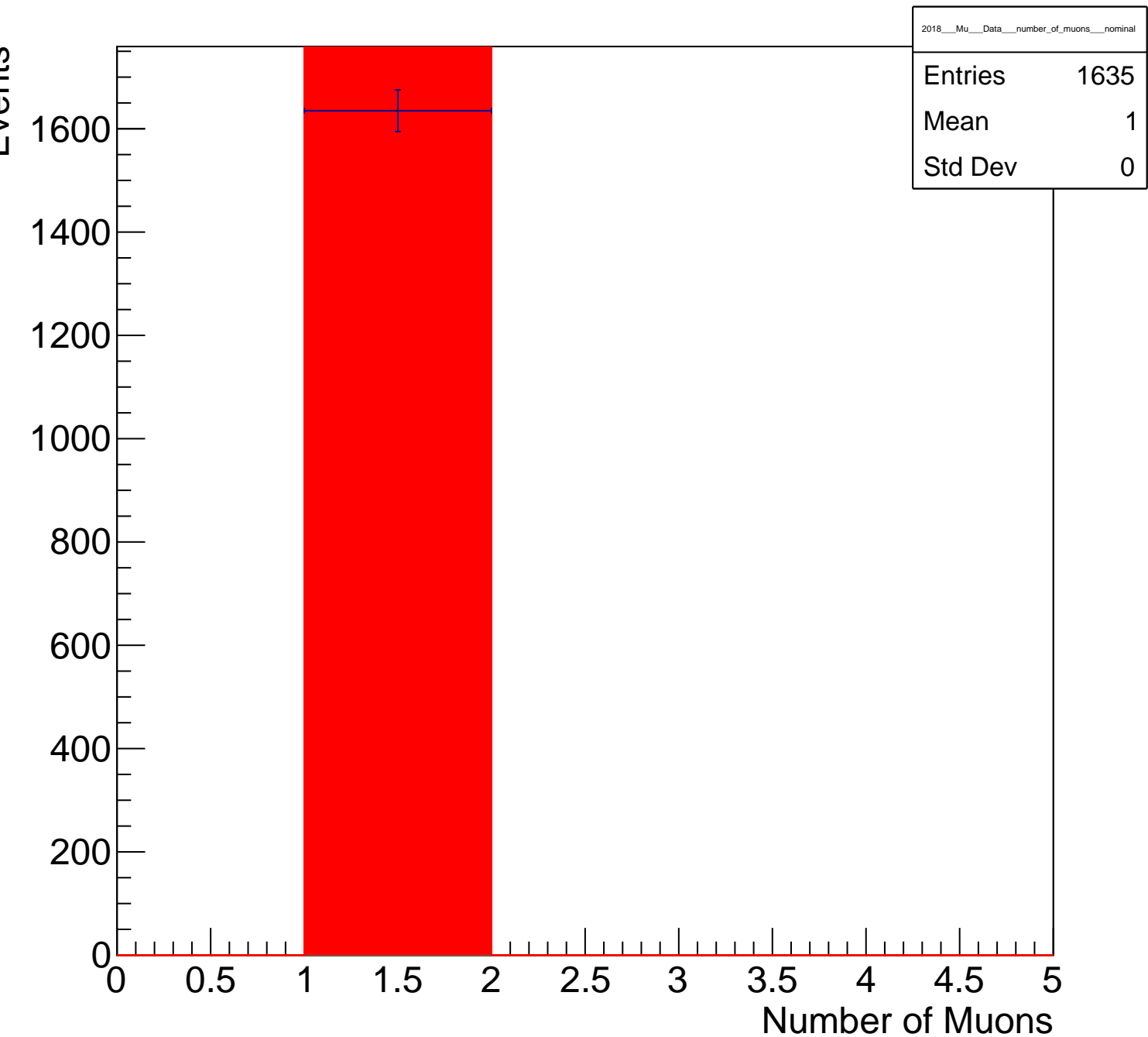
# Deep Jet B Discriminator



# Number of Jets



# Number of Muons



# Transverse Mass

Events

25

20

15

10

5

0

0

20

40

60

80

100

120

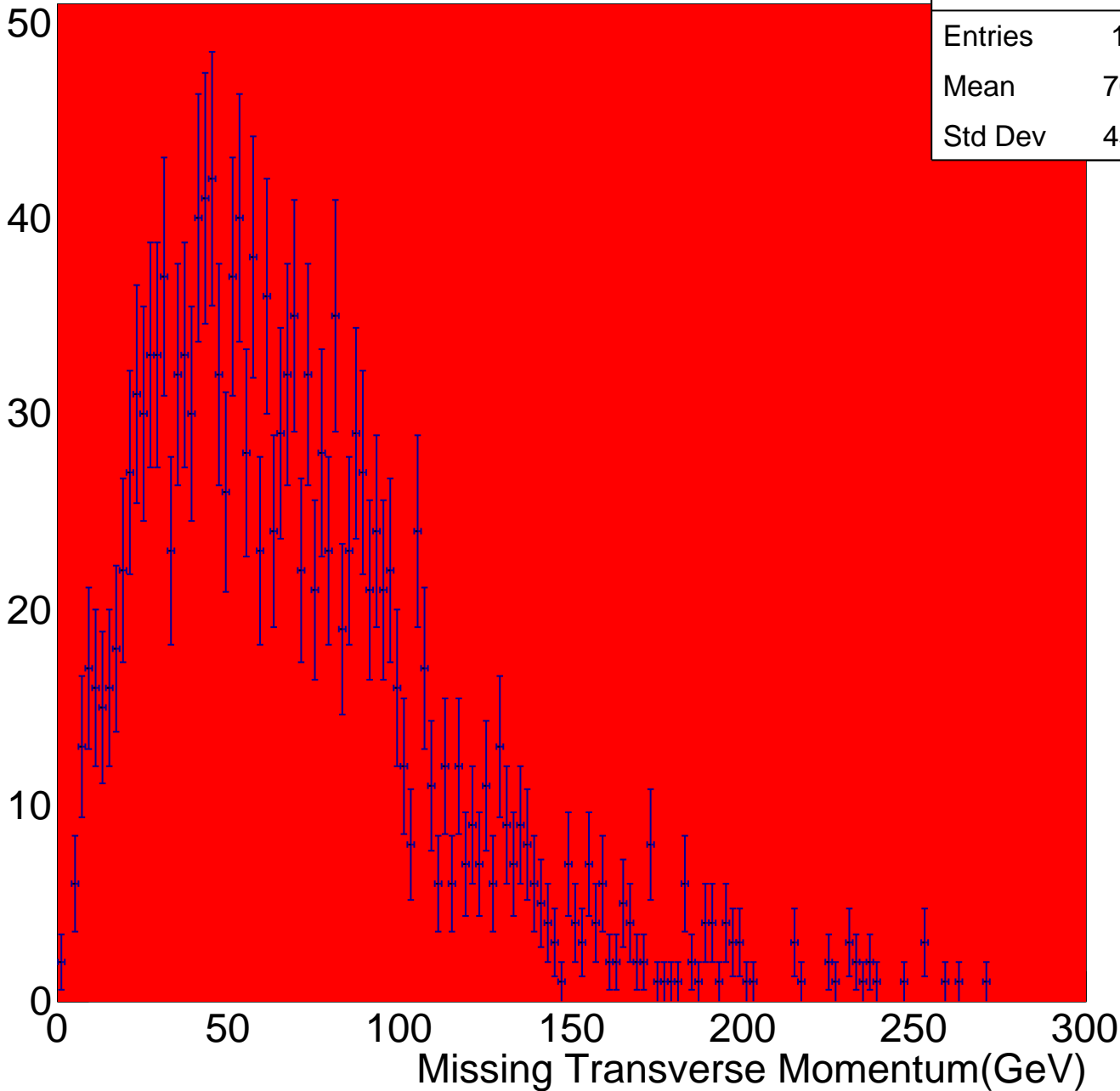
140

Transverse Mass (GeV)

|  |       |
|--|-------|
| 2018__Mu__Data__transverse_mass__nominal |       |
| Entries                                  | 1635  |
| Mean                                     | 64.82 |
| Std Dev                                  | 35.44 |

# Missing Transverse Momentum

Events



| 2018__Mu__Data__missing_transverse_momentum__nominal |       |
|--|-------|
| Entries  | 1635  |
| Mean   | 70.79 |
| Std Dev  | 45.17 |

# Ht

Events

45  
40  
35  
30  
25  
20  
15  
10  
5  
0

0

200

400

600

800

1000

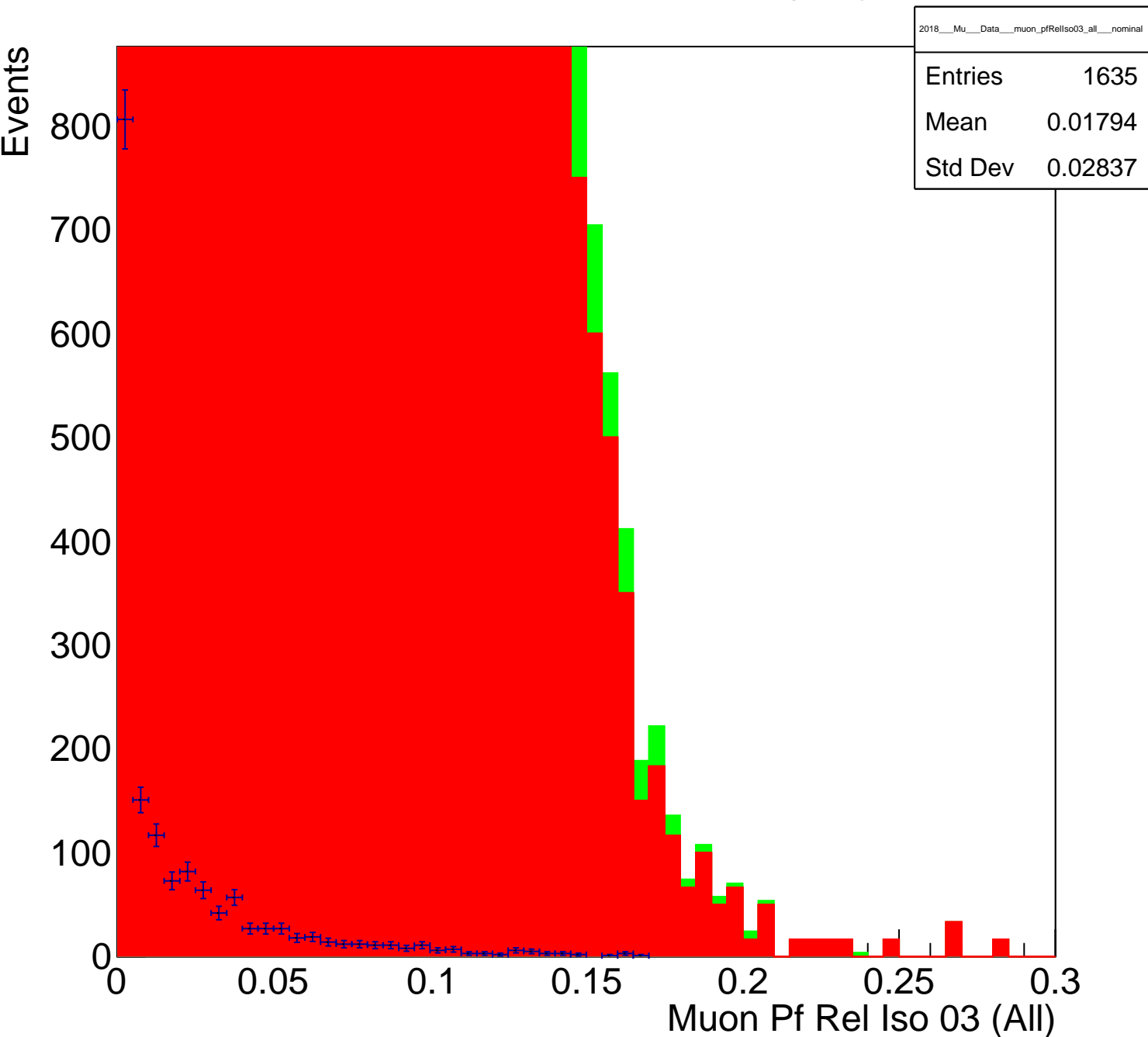
1200

1400

Ht

|                             |       |
|-----------------------------|-------|
| 2018__Mu__Data__ht__nominal |       |
| Entries                     | 1635  |
| Mean                        | 364.4 |
| Std Dev                     | 183.6 |

# Muon Pf Rel Iso 03 (All)



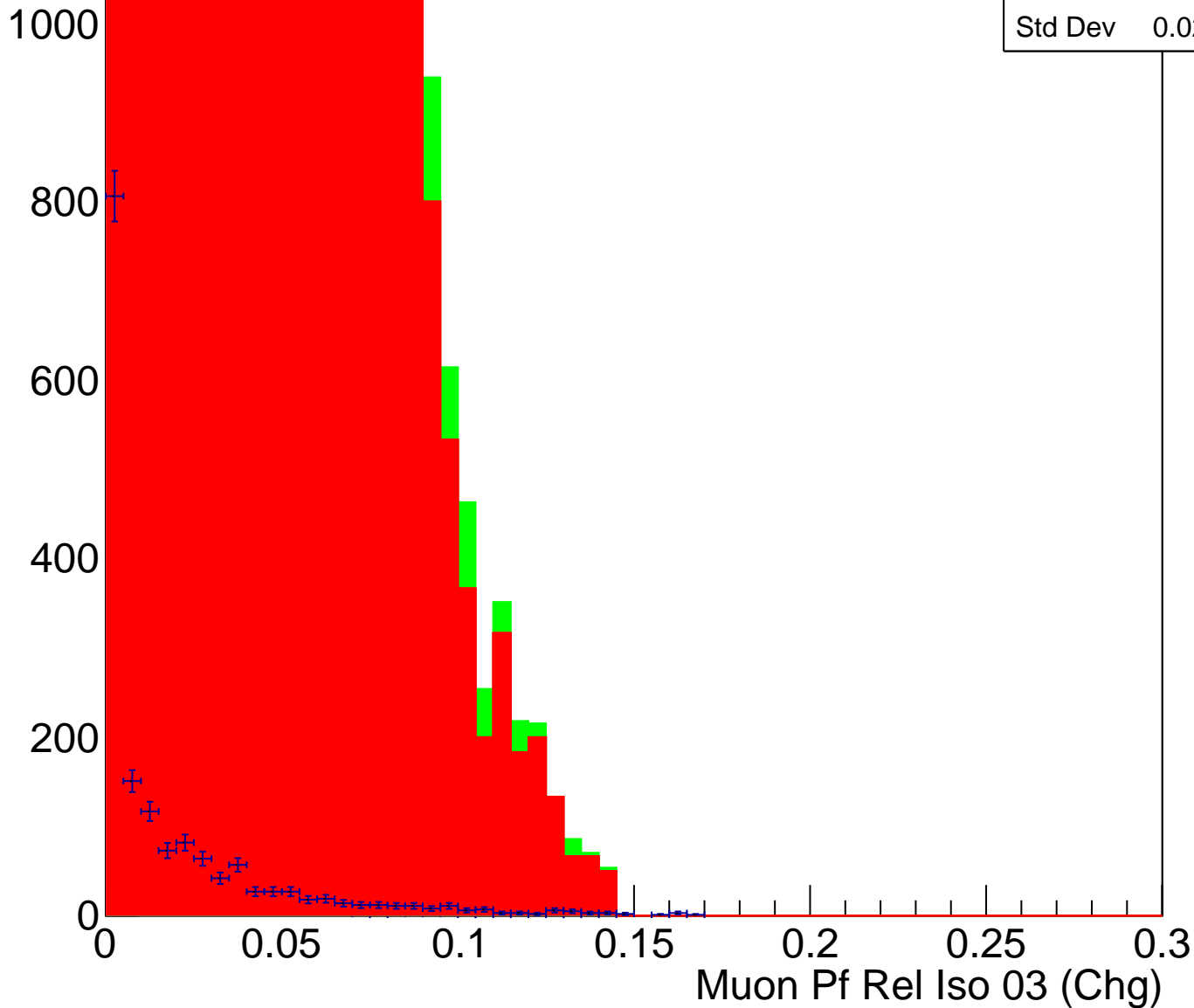


# Muon Pf Rel Iso 03 (Chg)

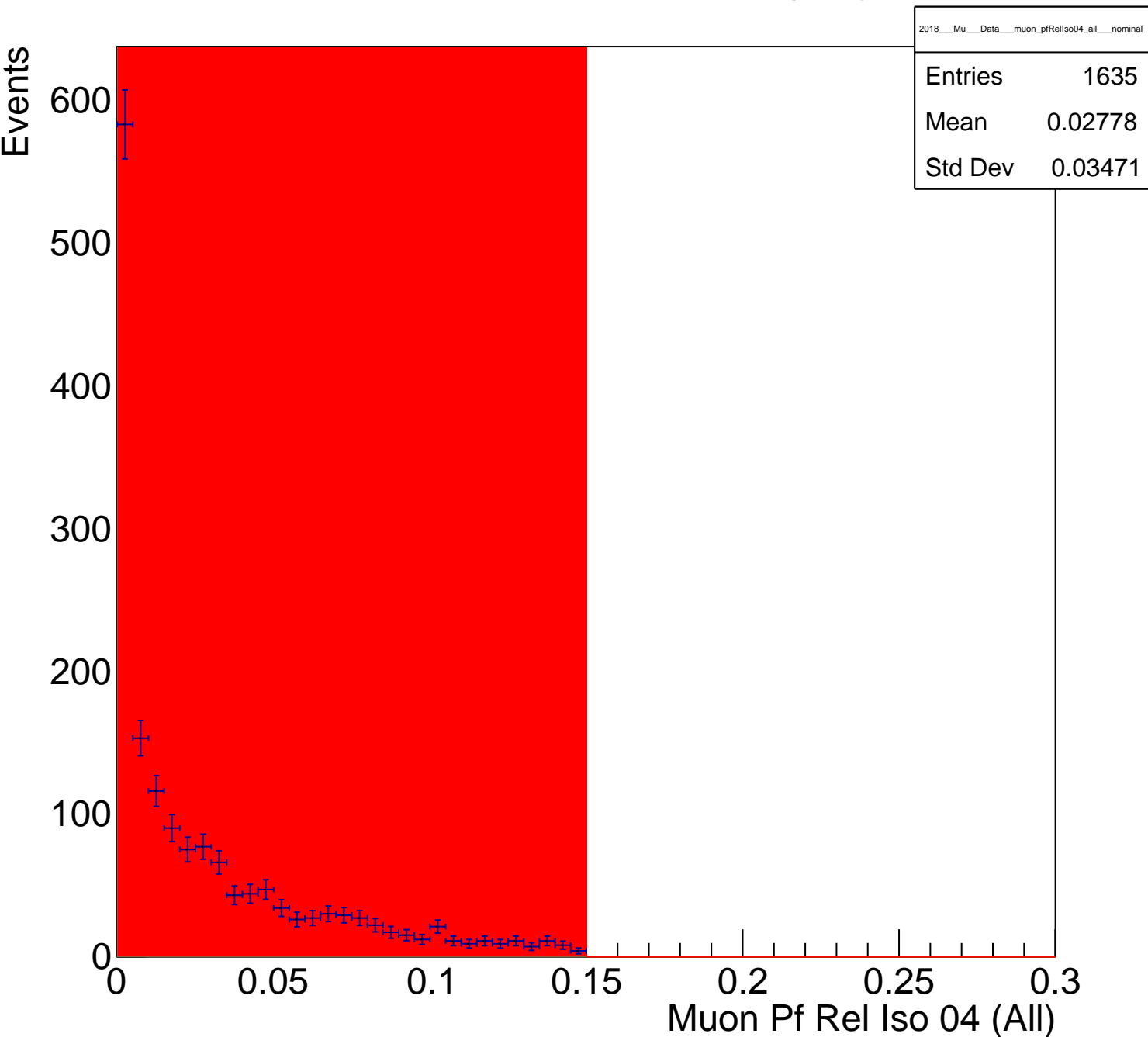
LEVC113

2018\_\_Mu\_\_Data\_\_muon\_pfRelIso03\_all\_\_nominal

|         |         |
|---------|---------|
| Entries | 1635    |
| Mean    | 0.01794 |
| Std Dev | 0.02837 |



# Muon Pf Rel Iso 04 (All)



# Invariant Masses

Events

600

500

400

300

200

100

2

4

6

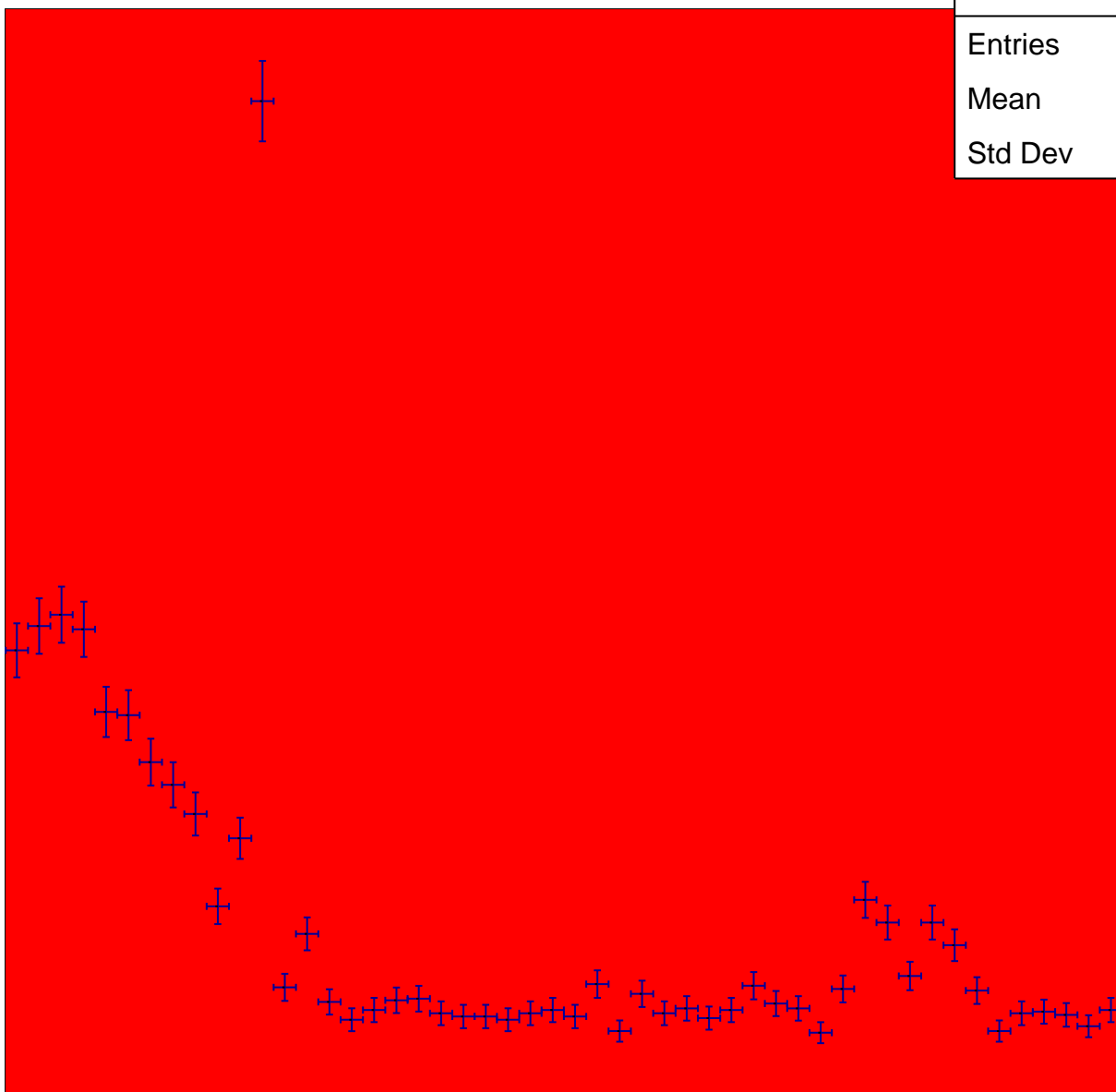
8

10

12

Invariant Masses

|   |       |
|---|-------|
| 2018__Mu__Data__invariant_masses__nominal |       |
| Entries                                   | 16170 |
| Mean                                      | 4.438 |
| Std Dev                                   | 3.397 |



# Invariant Masses

