Updtae on W signal in High Pt Muon Data Sample

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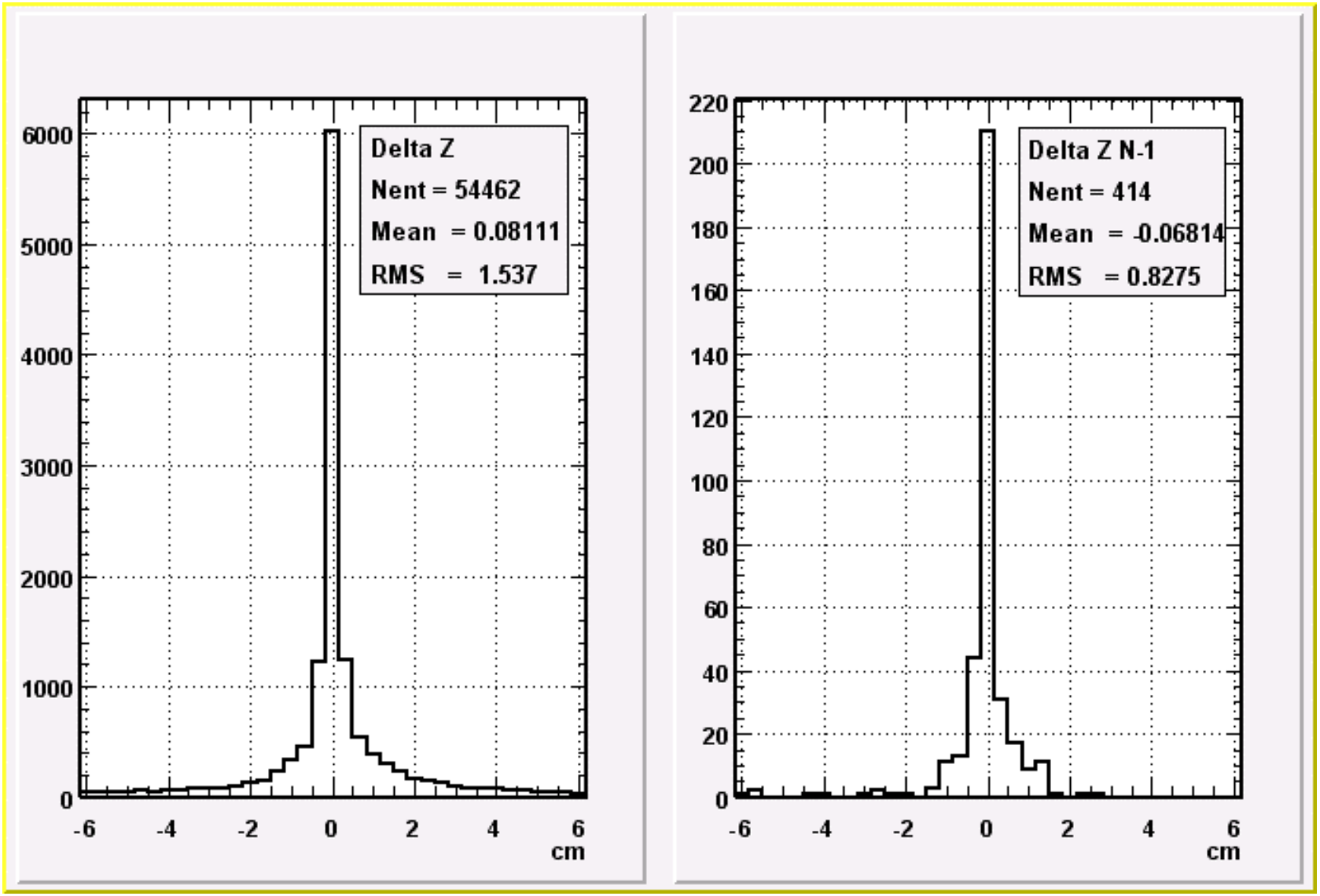
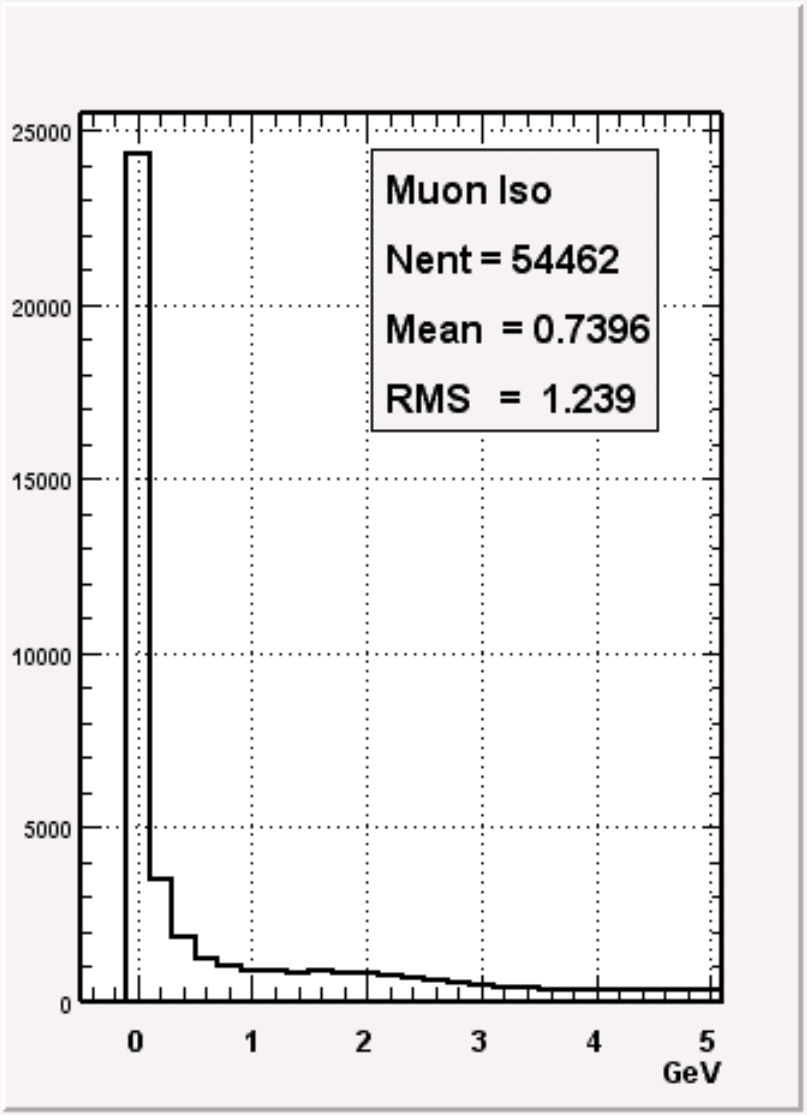
Muon High Pt Data Sample Stream A

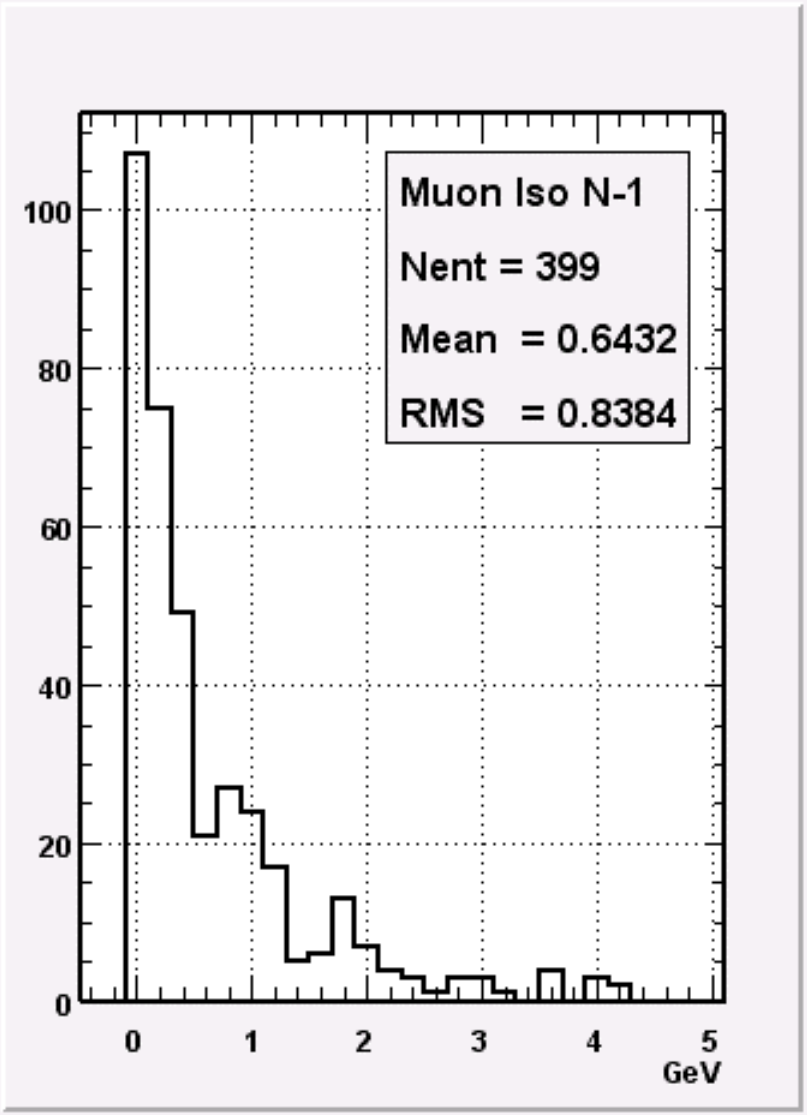
- 8x20 Express Stream A Data are */cdf/data05/s7/data_val/HighPtMuons/MuonSample_lookarea** files that can be found on fcdfsgi2
- Data were processed by v 4.3.0 muon reconstruction code
- Skimmed by Greg Veramendi based on Level 3 filter info (CMUP muons with Pt > 18 GeV/c)
- Corresponding luminosity for quality data, taken after February 9, 2002 (run 138798) is about 2.5 inverse picobarn

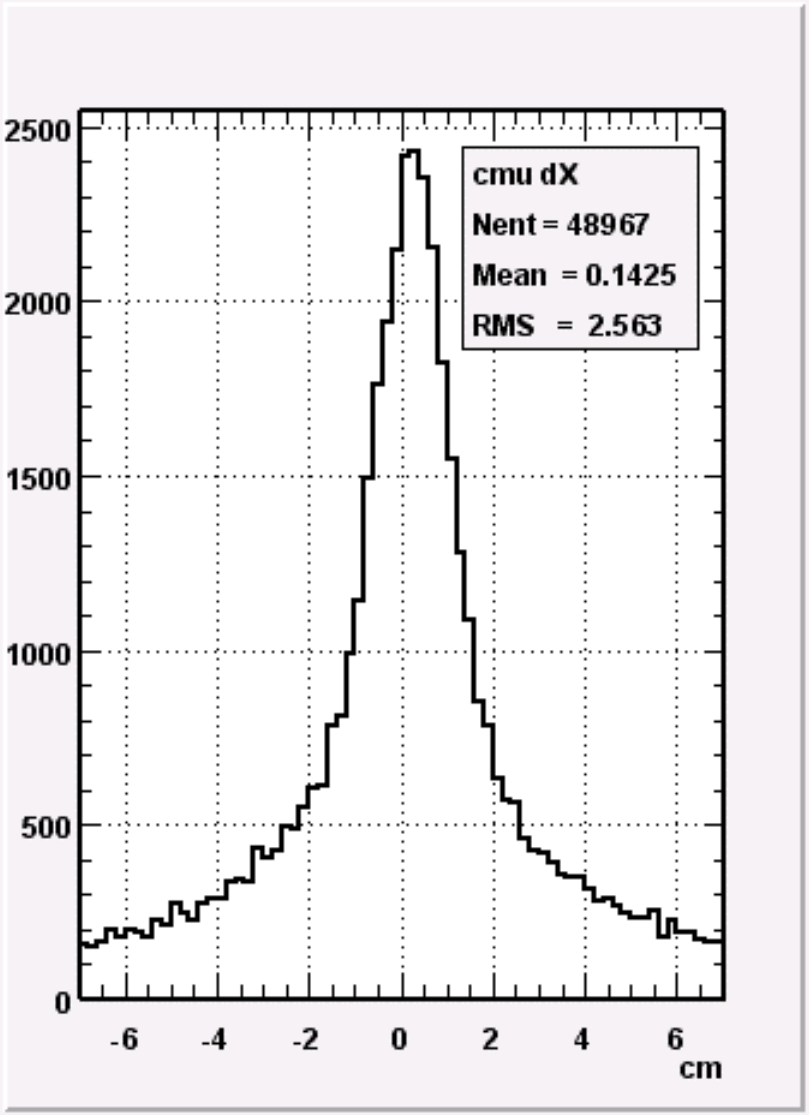
Selections

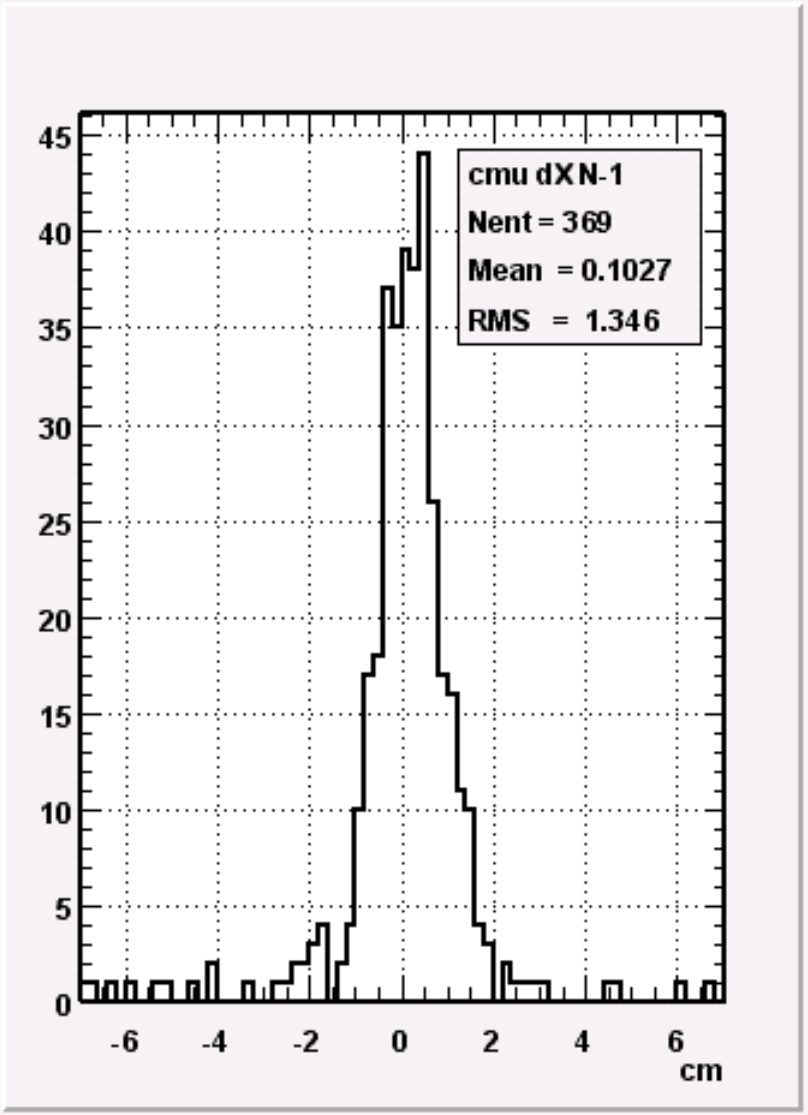
- *Event should have a primary vertex*
- *Primary vertex Z position: |Z|<60 cm*
- *Transverse momentum of muon: Pt>12 GeV/c*
- *Missing transverse energy: missEt > 20 GeV (with muon energy corrections)*
- *One and only one CdfMuon in event*
- *Track impact parameter: |d| < 0.2 cm (with beam position correction)*
- *Muon tower energy: em < 2 GeV, hadron < 6 GeV*
- *Track delta z: |z-Z| < 1.5cm*
- *Number of track axial hits >= 25*
- *Presence of both CMU and CMP stubs and matching: |dXcmu| < 3 cm*
- *Isolation coneR4Et : (Et in cone 0.4 - Et of Muon) < 2 GeV*

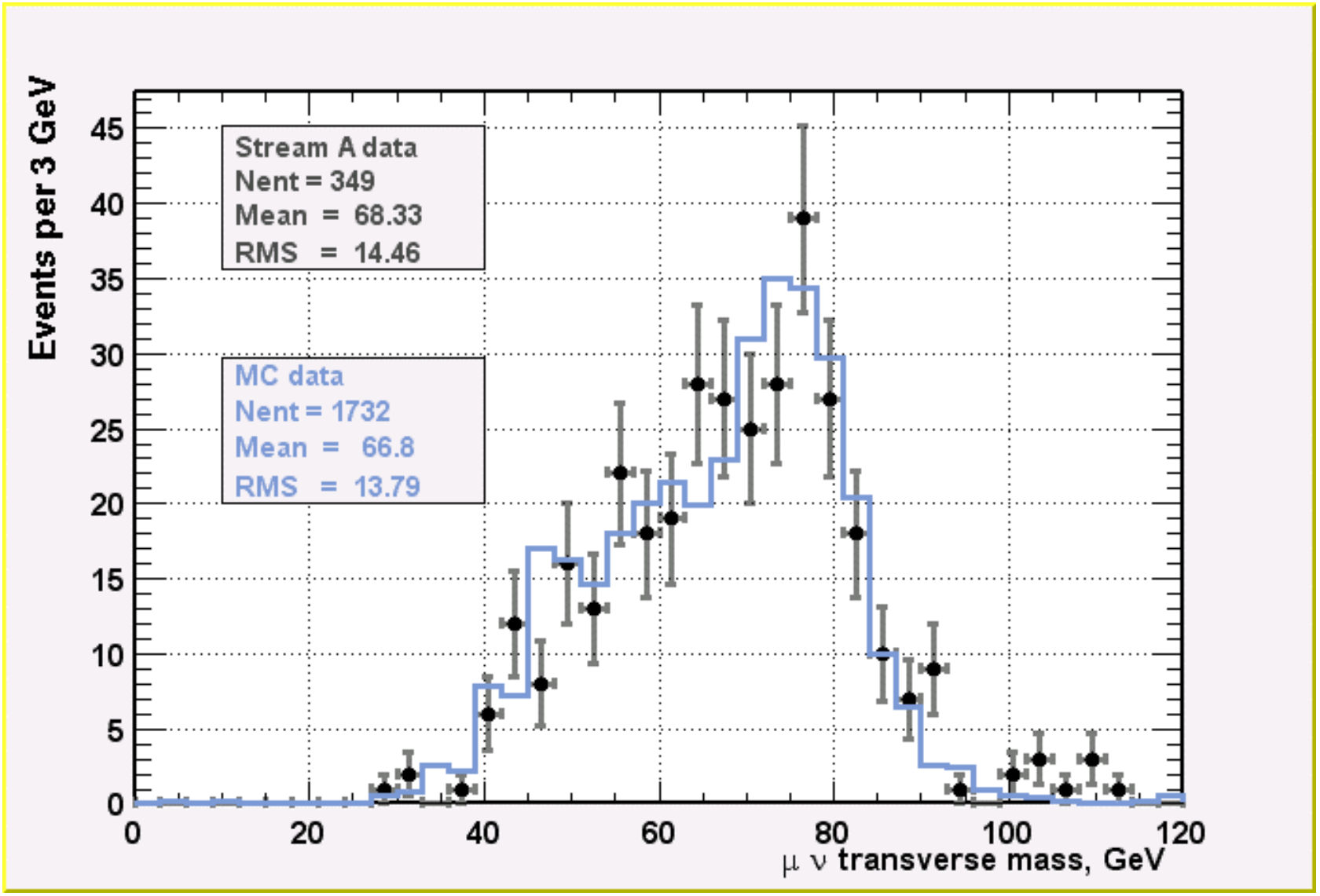

Delta Z
Nent = 54462
Mean = 0.08111
RMS = 1.537
6000
5000
4000
3000
2000
1000
0
-6
-4
-2
0
2
4
6
cm
Delta Z N-1
Nent = 414
Mean = -0.06814
RMS = 0.8275
220
200
180
160
140
120
100
80
60
40
20
0
-6
-4
-2
0
2
4
6
cm


Muon Iso
Nent = 54462
Mean = 0.7396
RMS = 1.239
25000
20000
15000
10000
5000
0
0
1
2
3
4
5
GeV


Muon Iso N-1
Nent = 399
Mean = 0.6432
RMS = 0.8384
100
80
60
40
20
0
0
1
2
3
4
5
GeV


cmu dX
Nent = 48967
Mean = 0.1425
RMS = 2.563
2500
2000
1500
1000
500
0
-6
-4
-2
0
2
4
6
cm


cmu dXN-1
Nent = 369
Mean = 0.1027
RMS = 1.346
45
40
35
30
25
20
15
10
5
0
-6
-4
-2
0
2
4
6
cm


Stream A data
Nent = 349
Mean = 68.33
RMS = 14.46
MC data
Nent = 1732
Mean = 66.8
RMS = 13.79
Events per 3 GeV
0
5
10
15
20
25
30
35
40
45
0
20
40
60
80
100
120
μ ν transverse mass, GeV