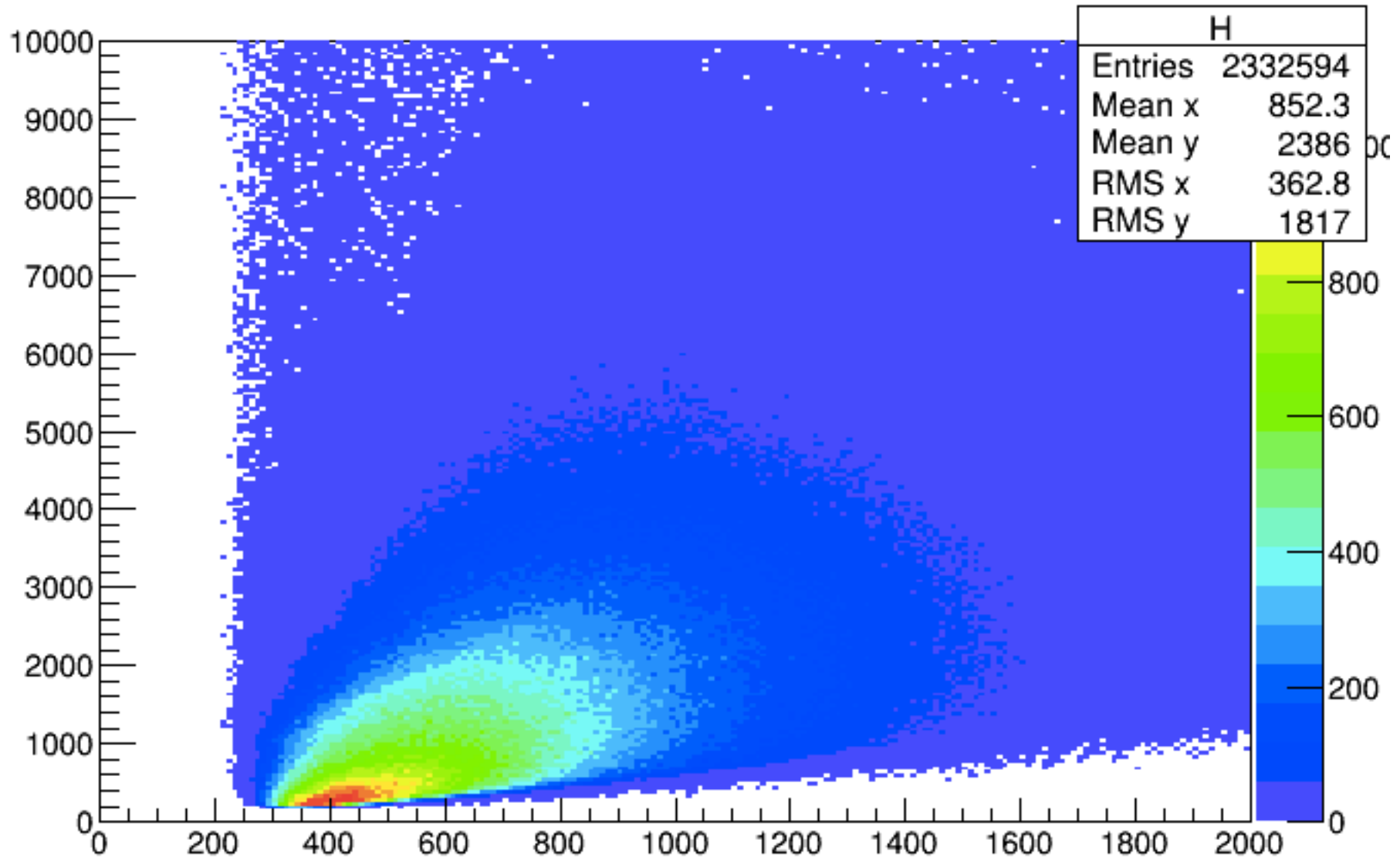


Report_161115

recZsig2 vs E (4gdef)



Vertex estimation from time (MC True)

```
-----5g-----  
-----True-----  
-636.032, -305.394, 6150.73, 434.291  
705.551, 26.2678, 0.217231  
TOF : 11.0765  
15.1837 : 26.2678 - 11.0765  
-----  
599.87, -289.711, 6157.64, 290.151  
666.165, 26.2819, 0.21309  
TOF : 11.0719  
15.1837 : 26.2819 - 11.0719  
-----  
645.426, -575.307, 6148.29, 243.836  
864.612, 26.4122, 0.276192  
TOF : 11.1932  
15.1837 : 26.4122 - 11.1932  
-----  
-696.733, 765.32, 3609.35, 31.3144  
1034.97, 19.2732, 1.4203  
TOF : 4.17572  
15.1837 : 19.2732 - 4.17572  
-----  
-38.0873, 532.503, 6219.92, 806.665  
533.863, 26.3725, 0.151688  
TOF : 11.1969  
15.1837 : 26.3725 - 11.1969  
-----  
268.964, -731.976, 6157.19, 143.596  
779.827, 26.3706, 0.249963  
TOF : 11.1526  
15.1837 : 26.3706 - 11.1526  
-----  
*****MB*****  
1, 16.1303, 3571.47  
-----Reco-----  
MeanTimeOnCsI : 4.61883, CBART0 : 24.5828  
Corrected MeanTimeOnCsI : 26.2188, Corrected CBART0 : 19.4828  
T_vertex from CsI : 26.2188 - 10.9715 : 15.2473  
T_vertex from MB : 19.4828 - 4.19885 : 15.284
```

Pos(x,y,z), Pz

Radial distance, GenEndTime, Pt/Pz

ToF

VertexTime = GenEndTime - ToF

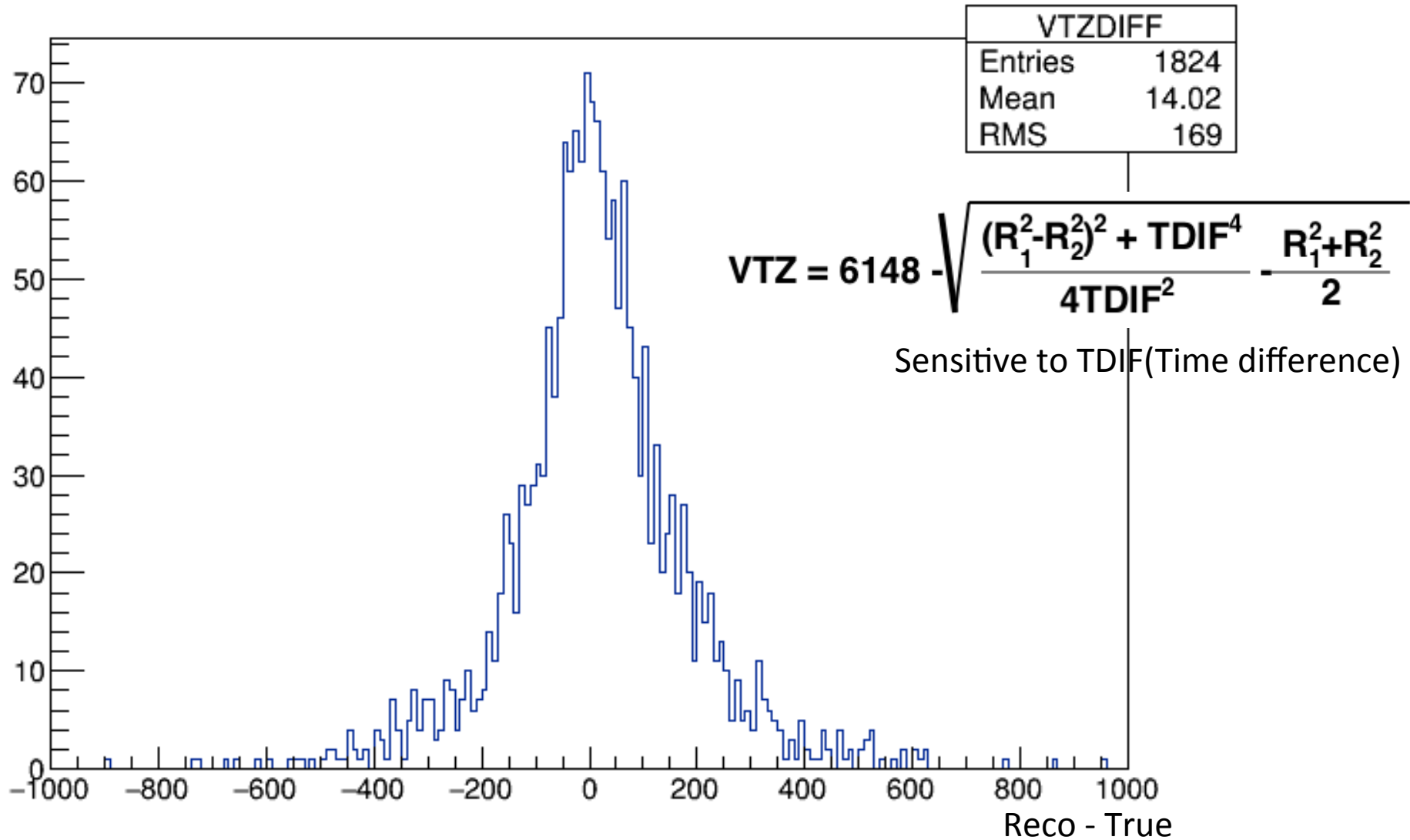
Module ID, Energy Deposit,

Hit position from Time difference

TO shift

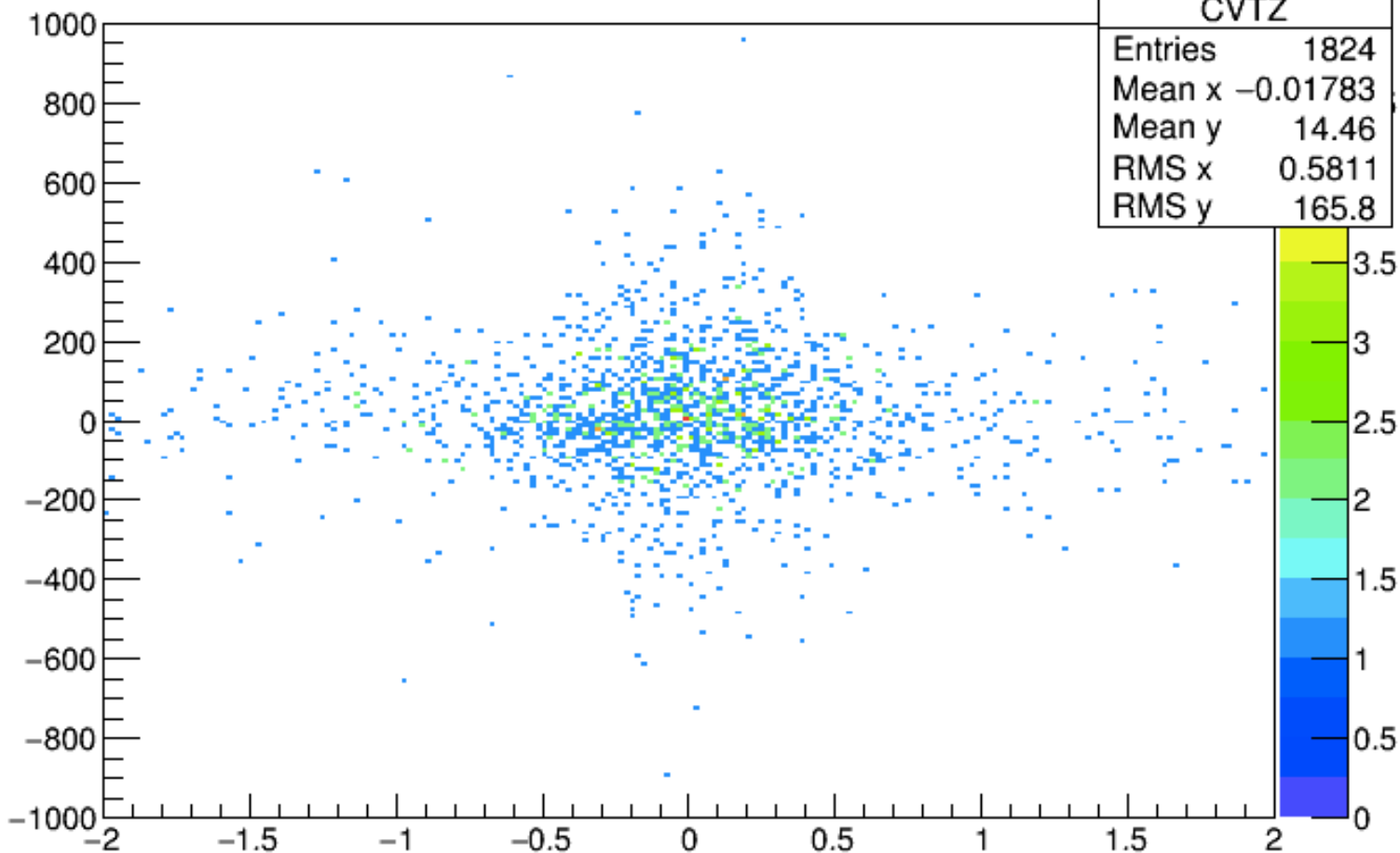
Reconstructed Vertex

VTZDIFF



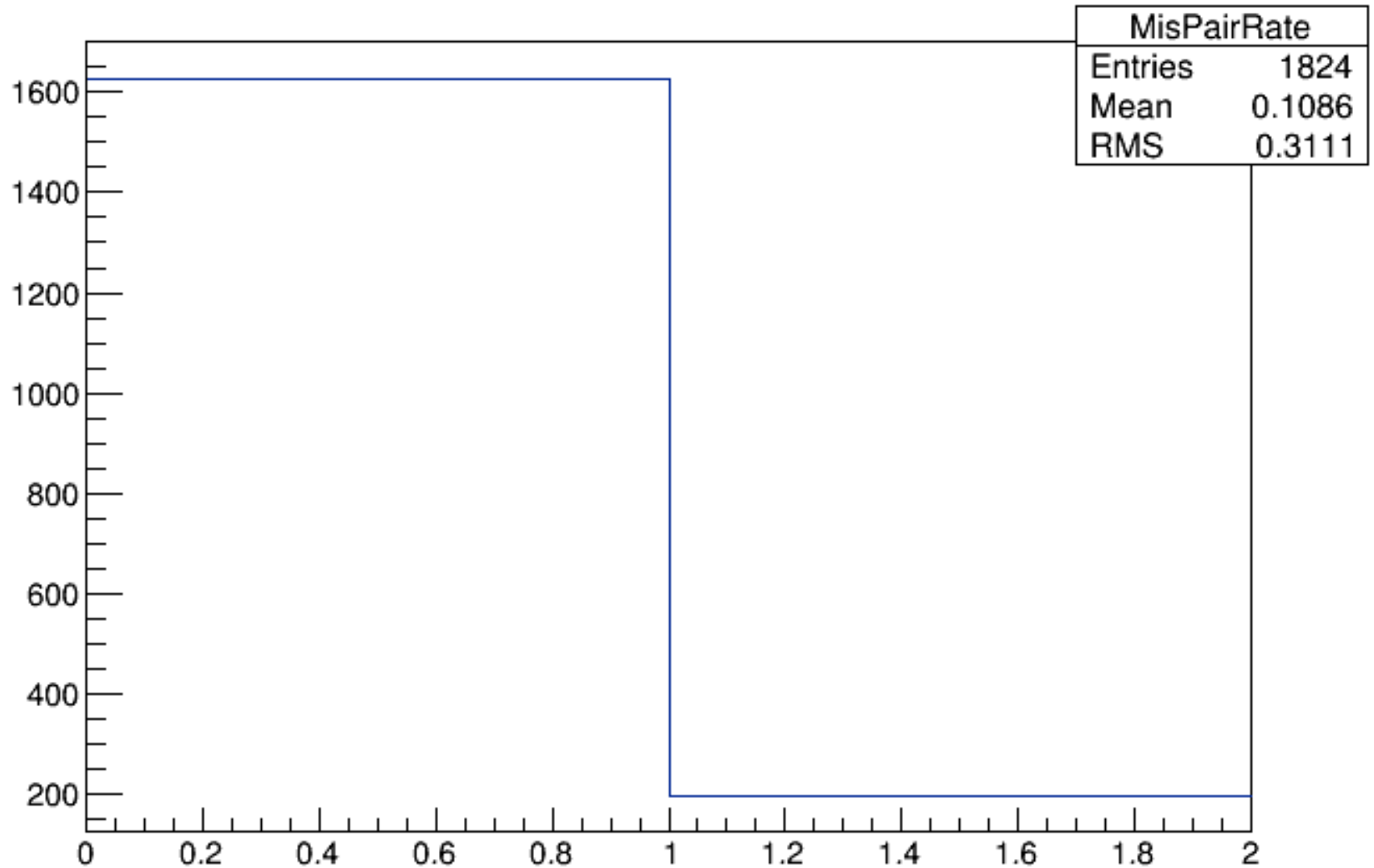
Reco - True

CVTZ

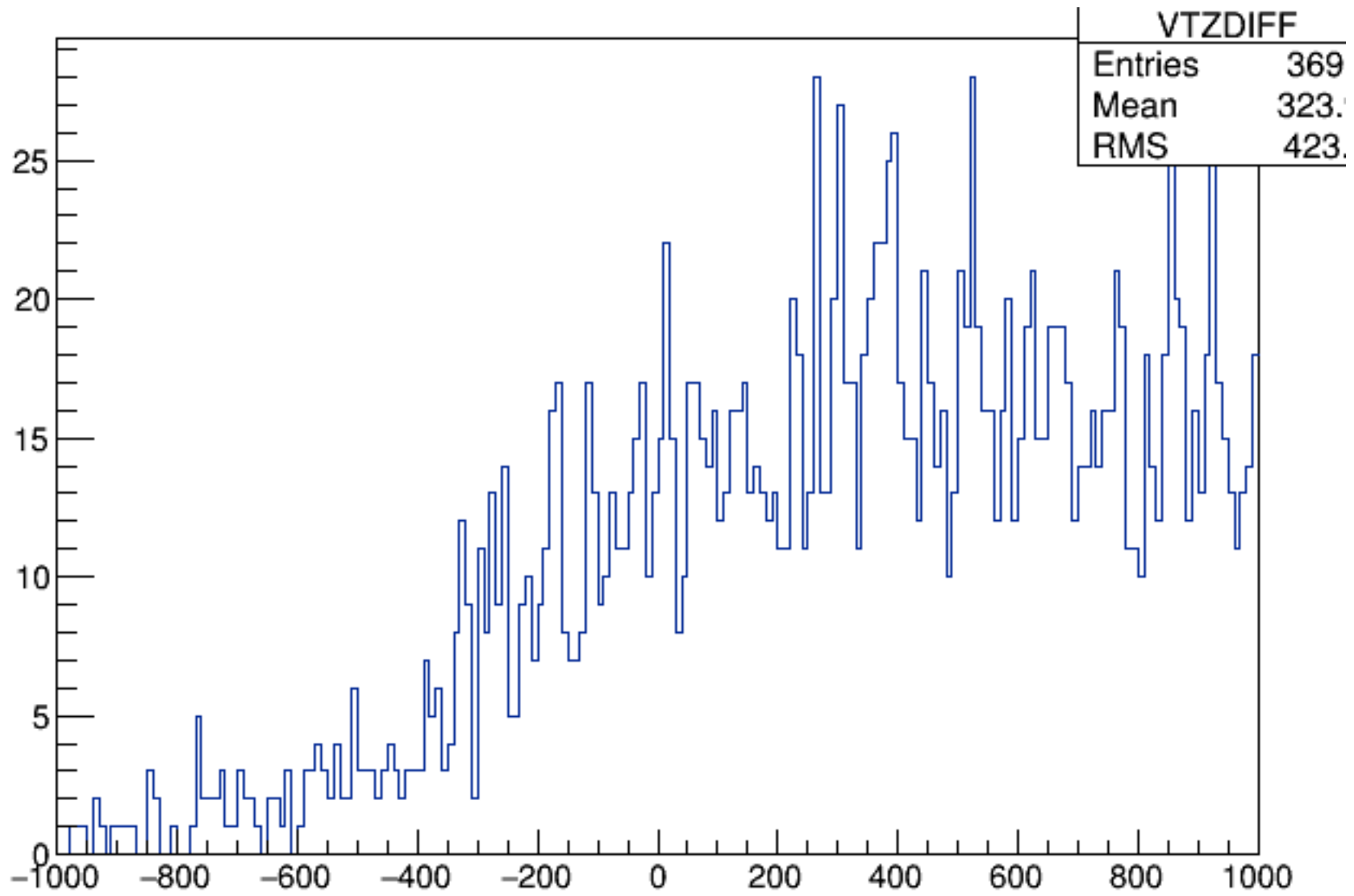


TDIF

MisPairRate ~ 0.11

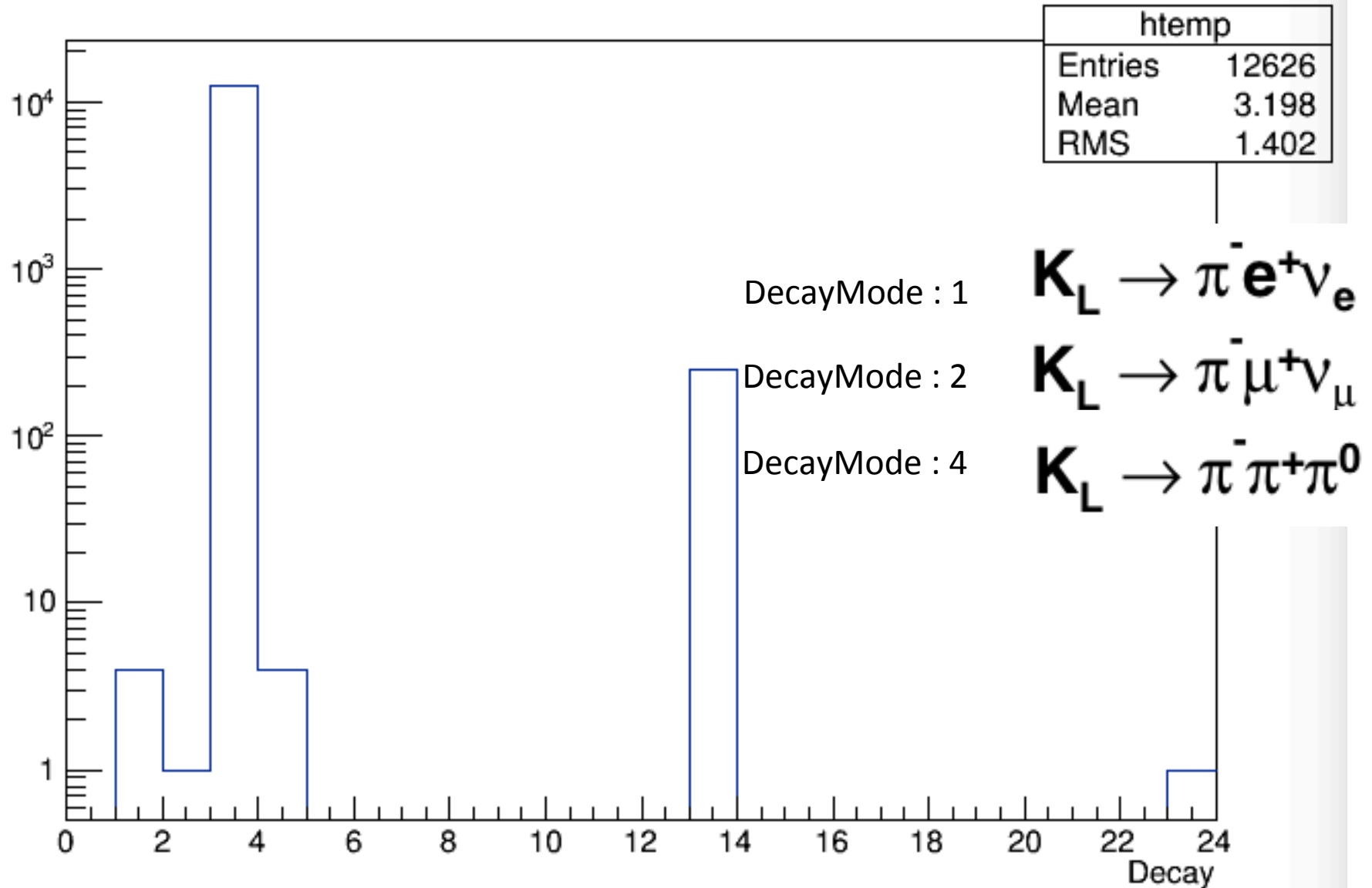


with gamma reconstruction

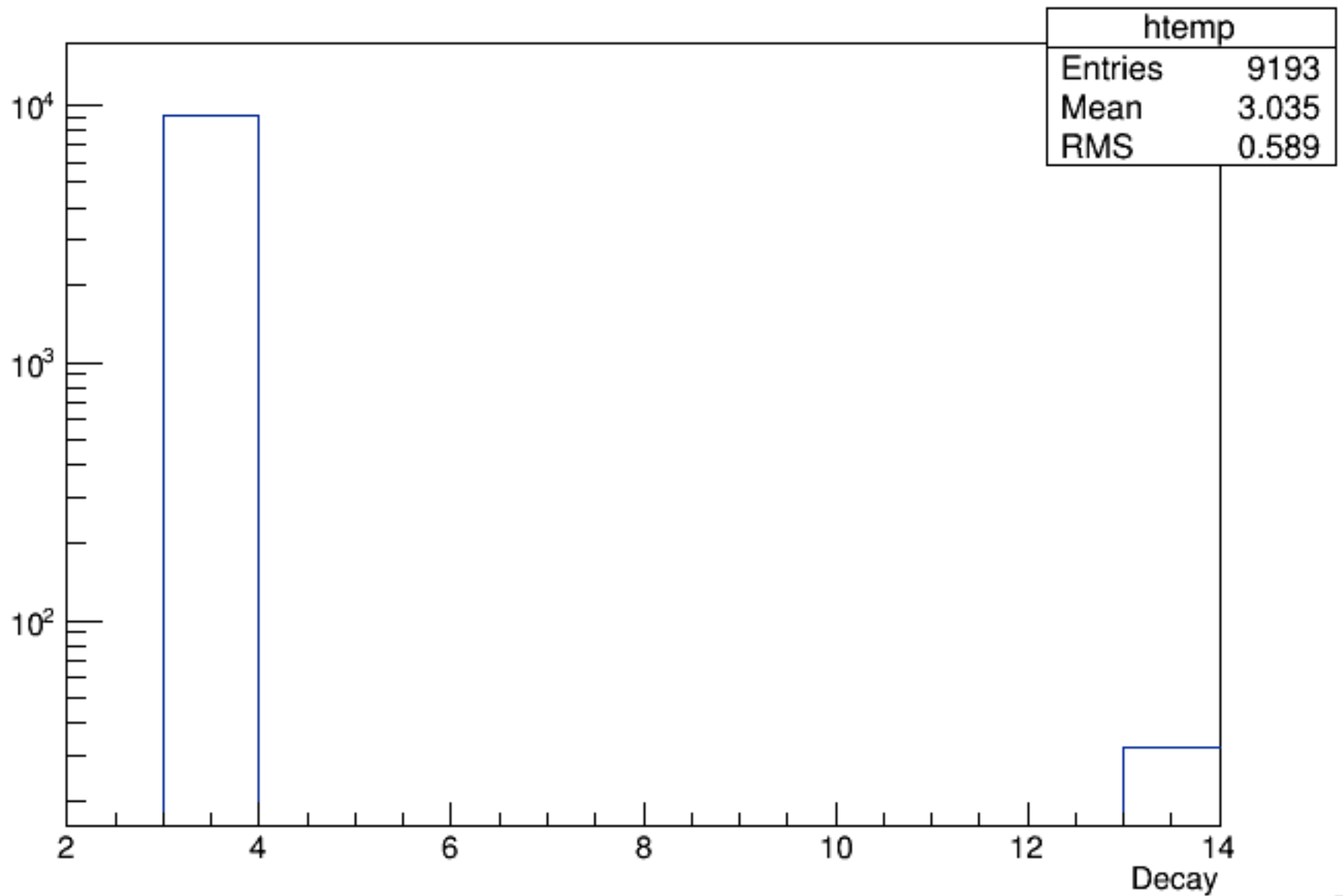


DecayMode (Kin. Cut)

Decay {KLmass>0&&MassTag>0&&CutBit==0}

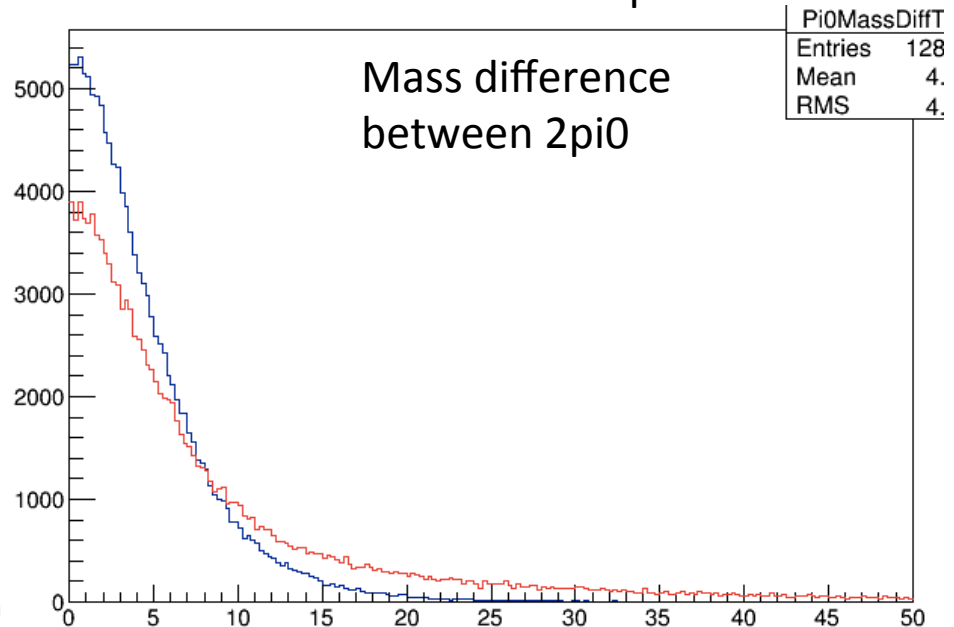
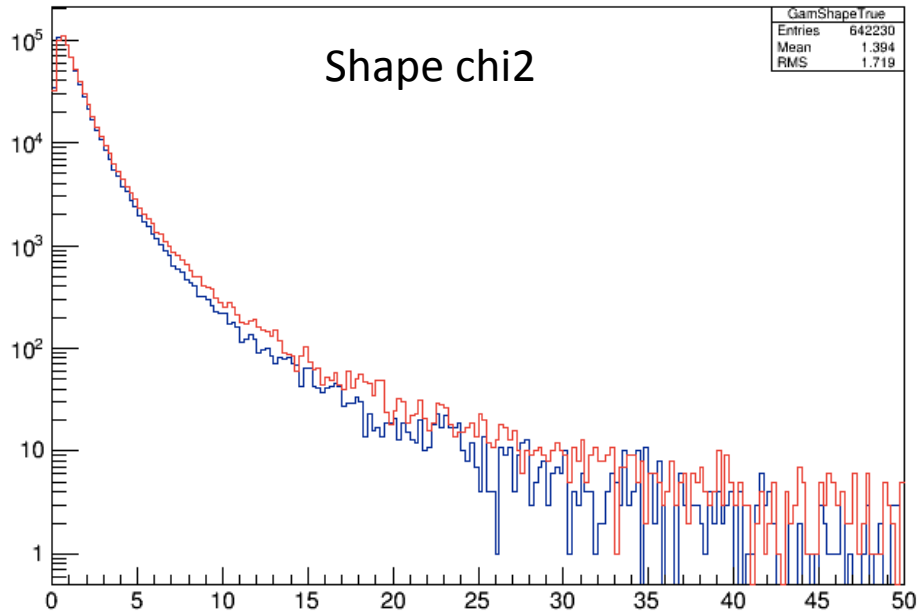


DecayMode (Kin. Cut + Veto On)

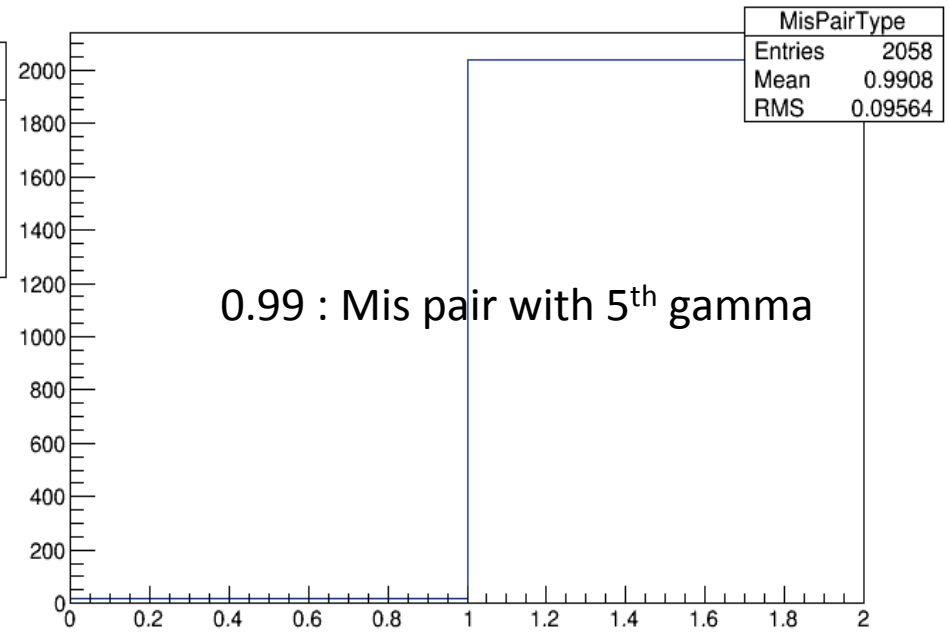
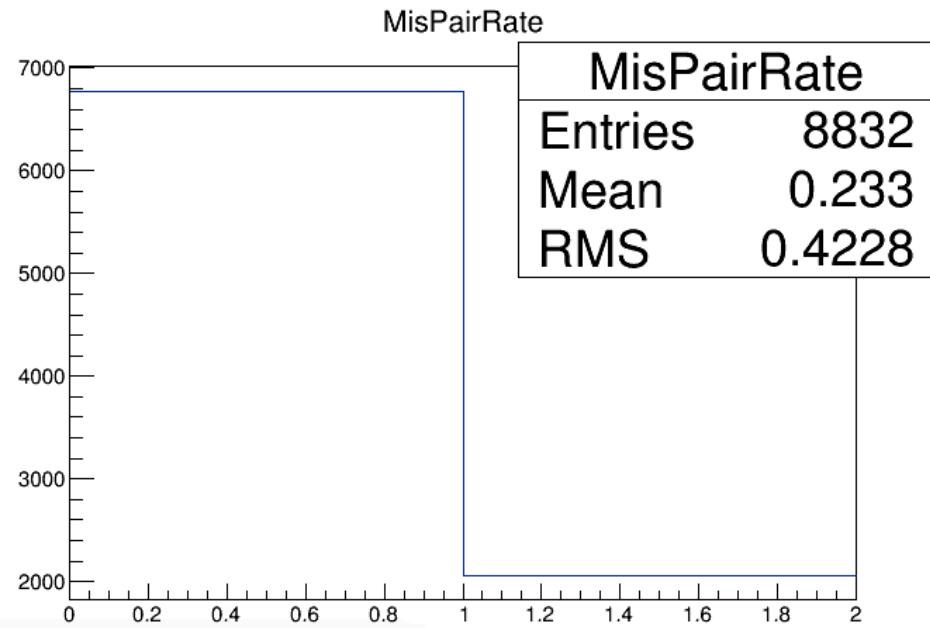


Shape Chi2, Pi0 Mass difference

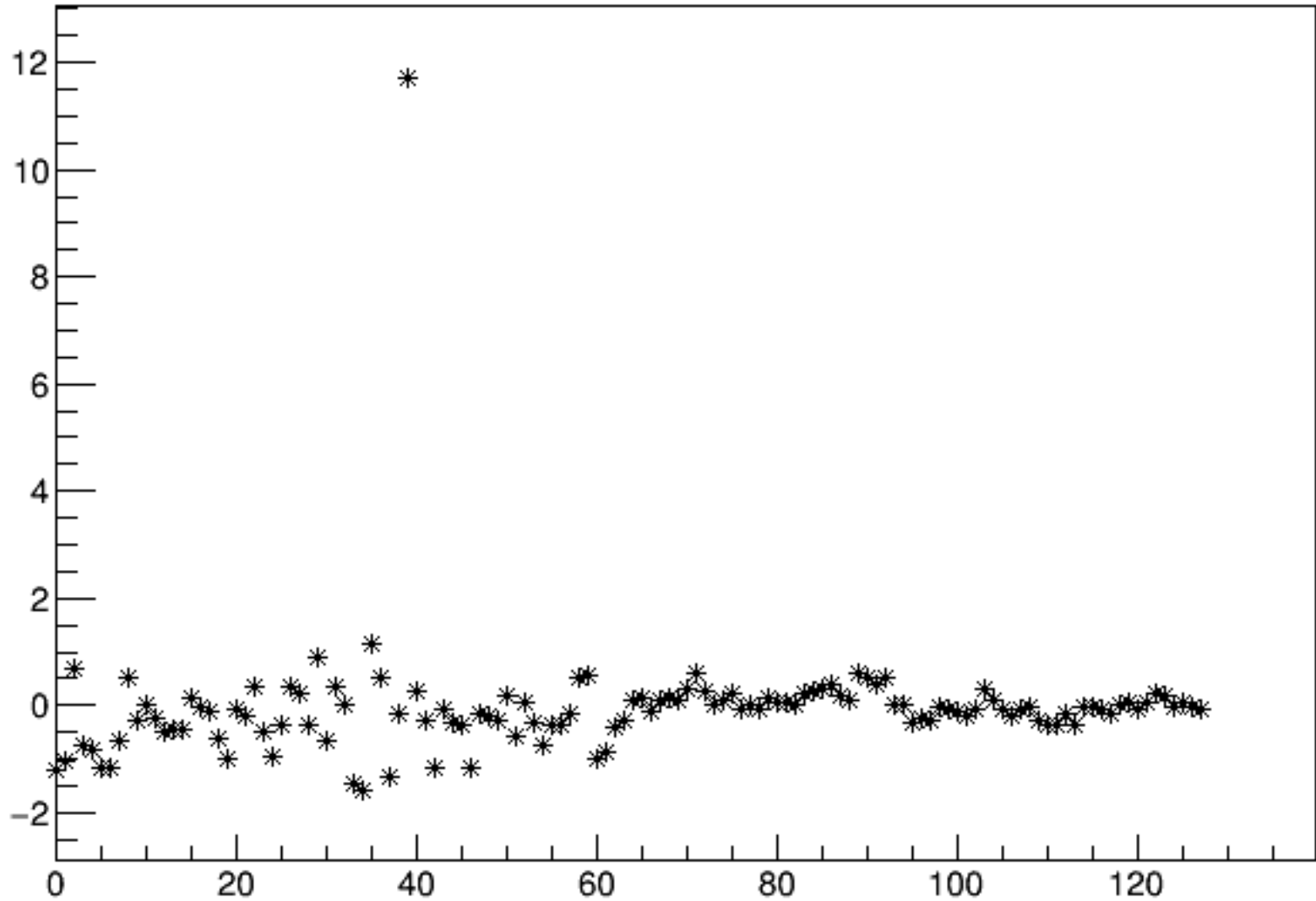
Blue : good pair
Red : bad pair



MisPairRate after Kin. Cut & Veto



Run64



Things to do

- Vertex estimation from time
 - Bug in code?
- Check upstream calibration