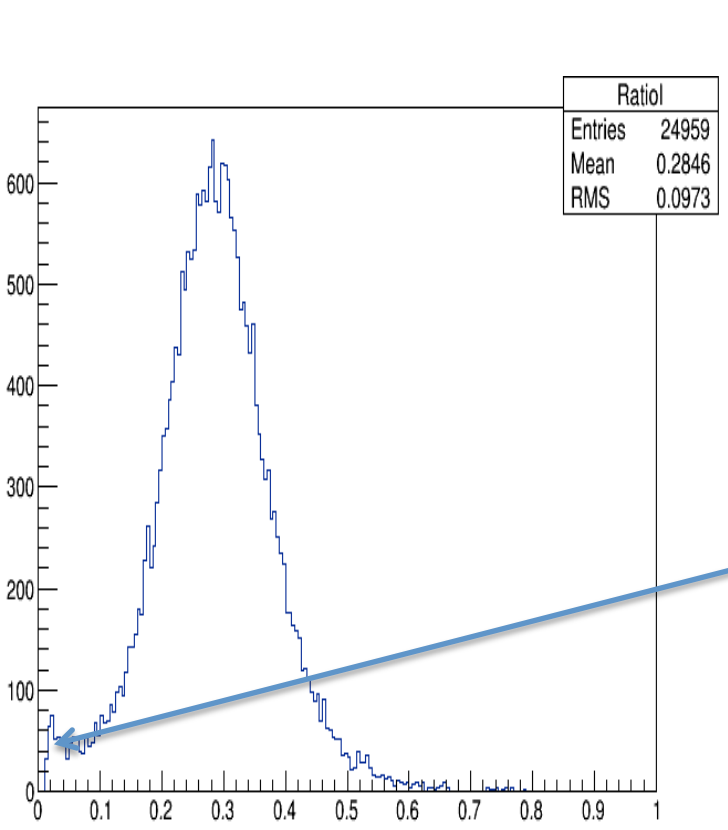
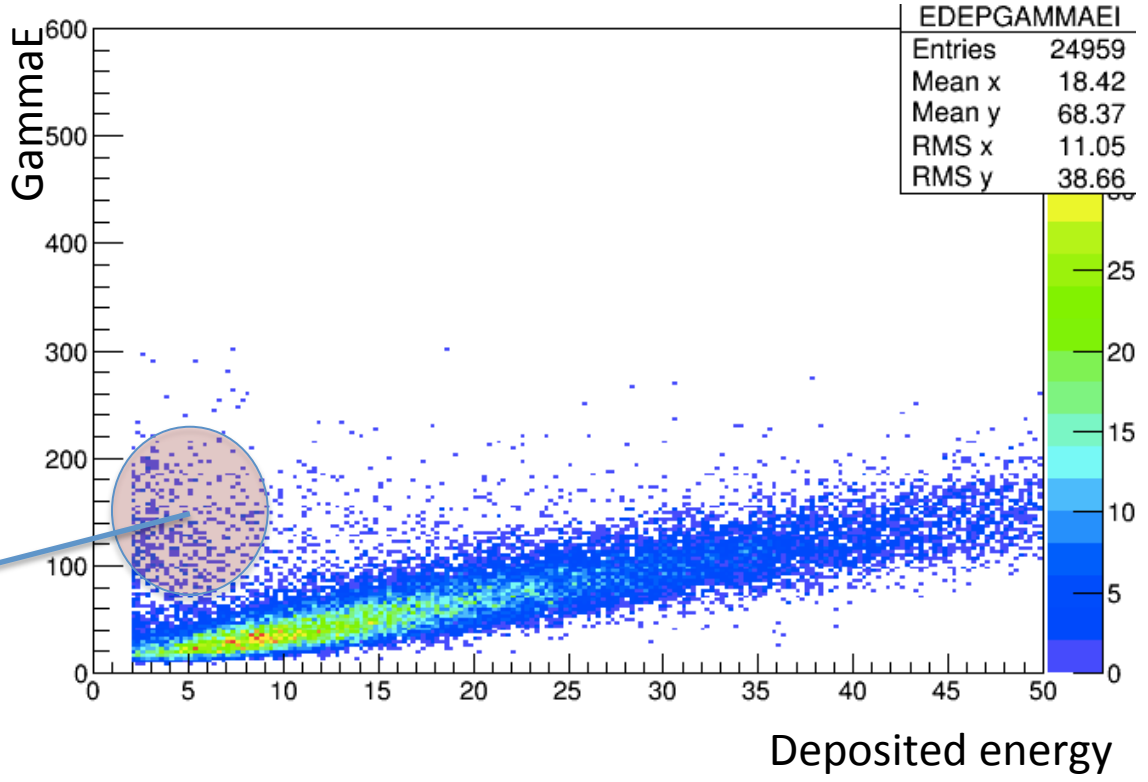
Relation between energy deposit & incident photon energy

MC
After all cuts
+ DetectorVeto

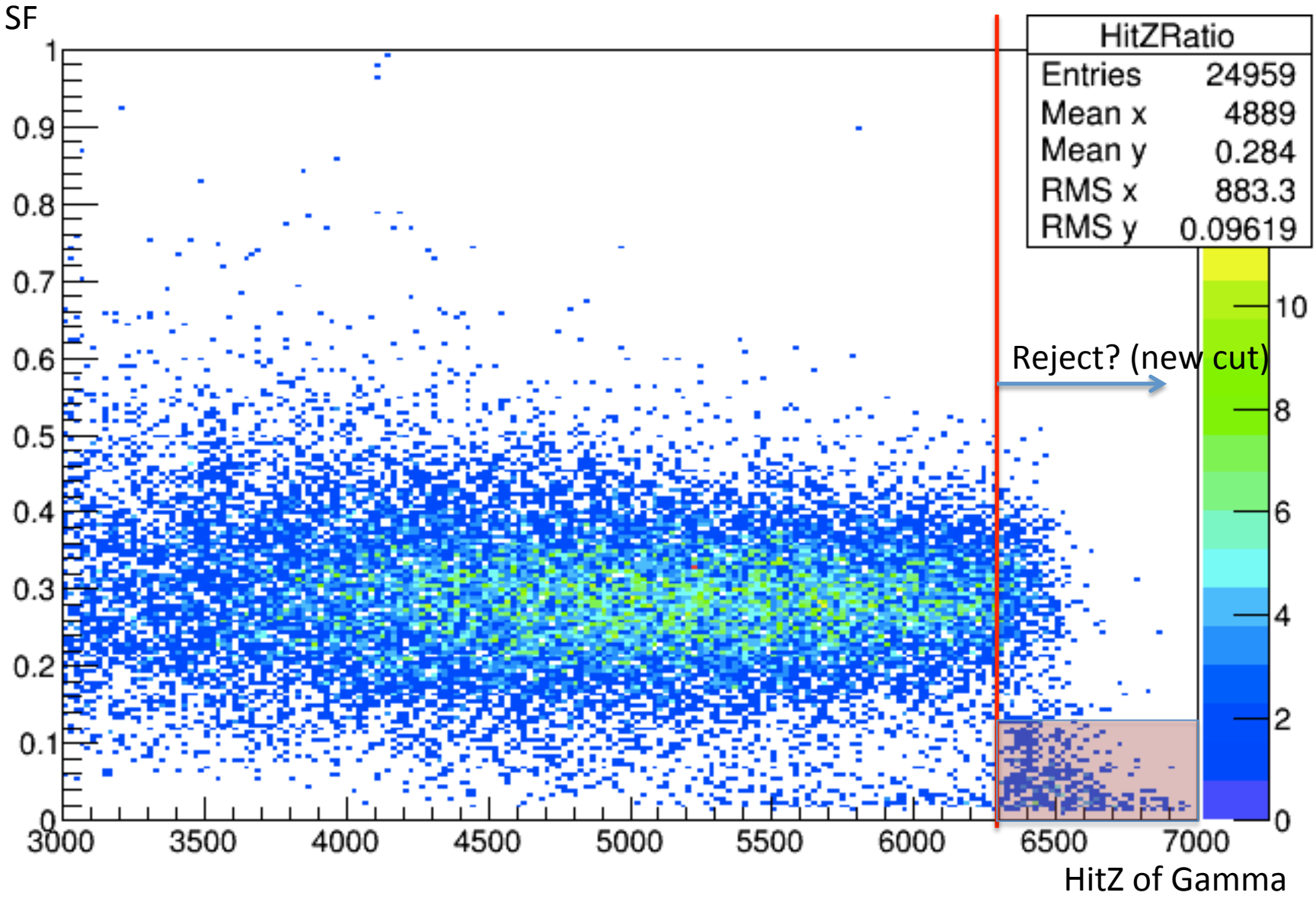
Sampling Fraction (SF)

- SF = Energy deposit / Incident energy



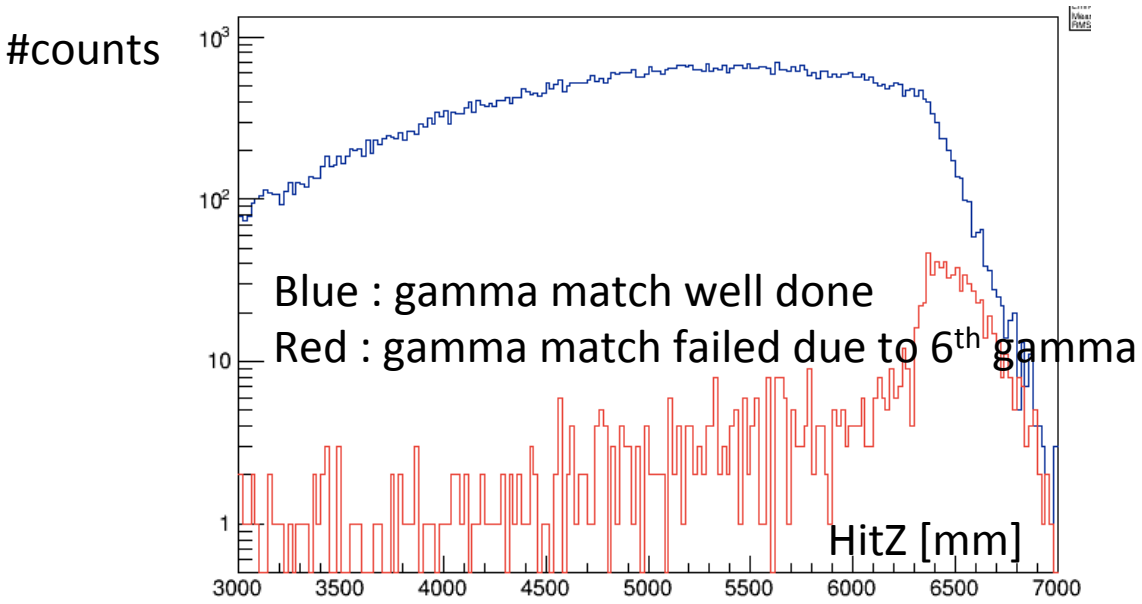


SF vs HitZ

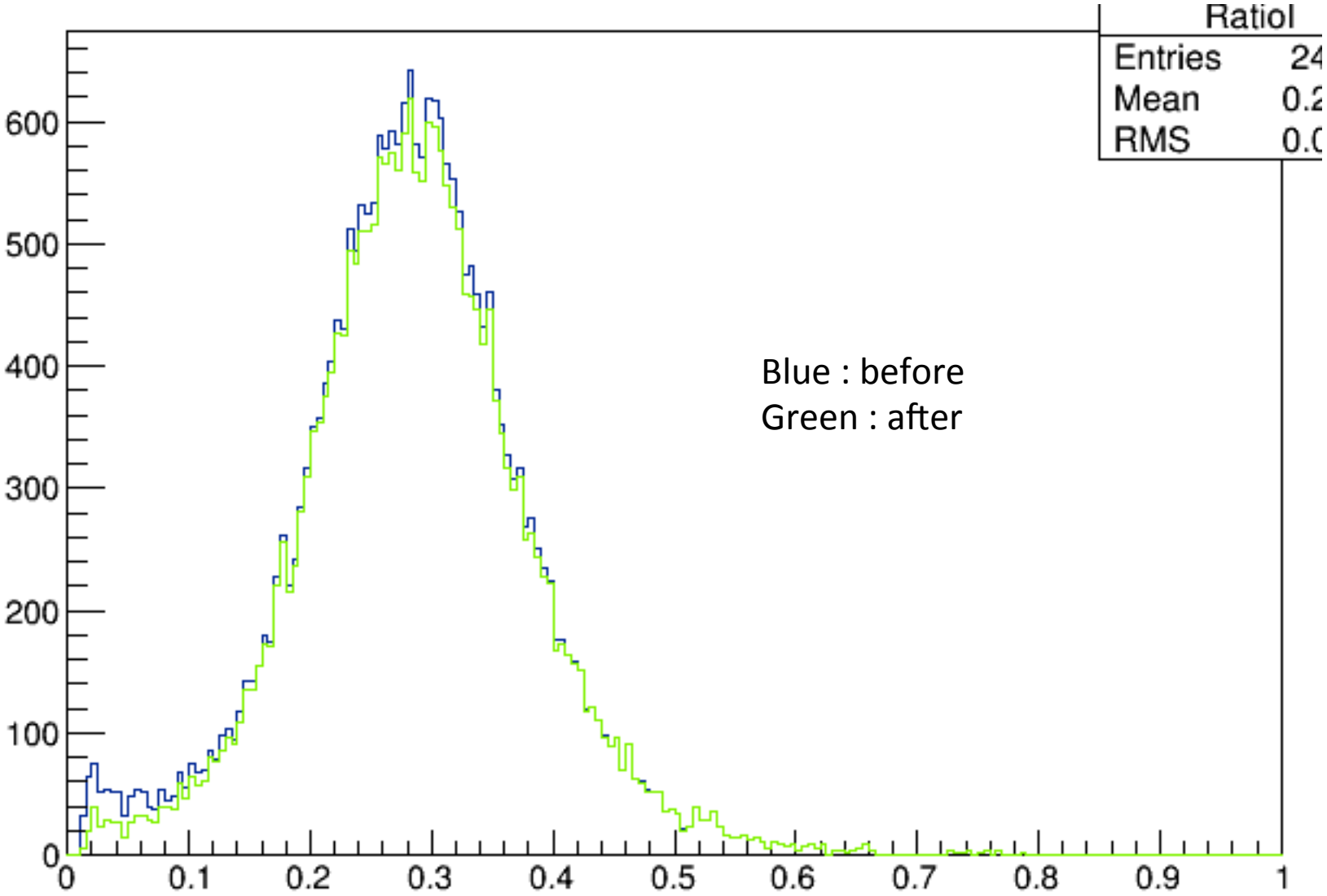

SF
HitZRatio
Entries 24959
Mean x 4889
Mean y 0.284
RMS x 883.3
RMS y 0.09619
Reject? (new cut)
HitZ of Gamma
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
3000
3500
4000
4500
5000
5500
6000
6500
7000
0
2
4
6
8
10

At r.GenEndPos < 1060,

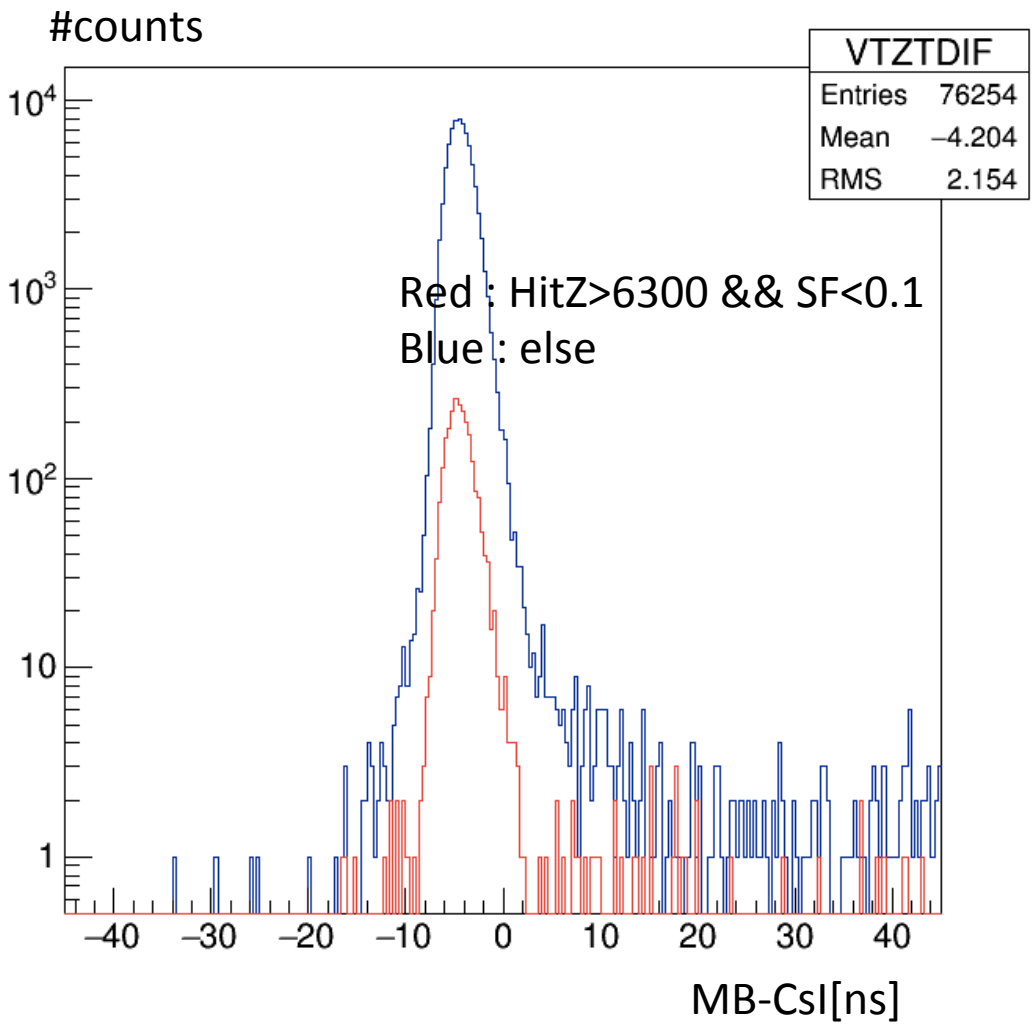
- Checking one gamma which goes to barrel
  - GendPos_r > 1000
- Some events survive after applying all cuts even if there is no gamma going to barrel
  - Inefficiency of gamma match



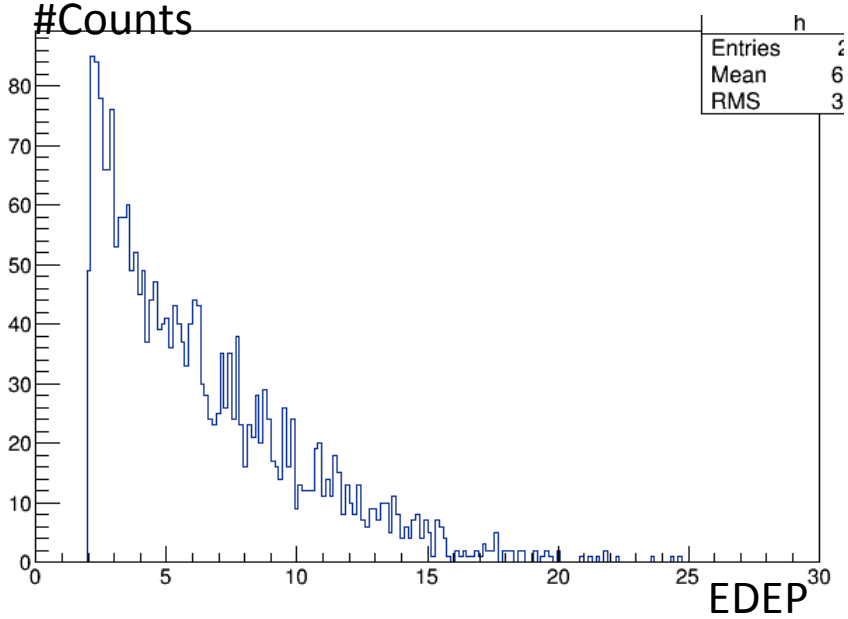
After rejecting HitZ>6300,



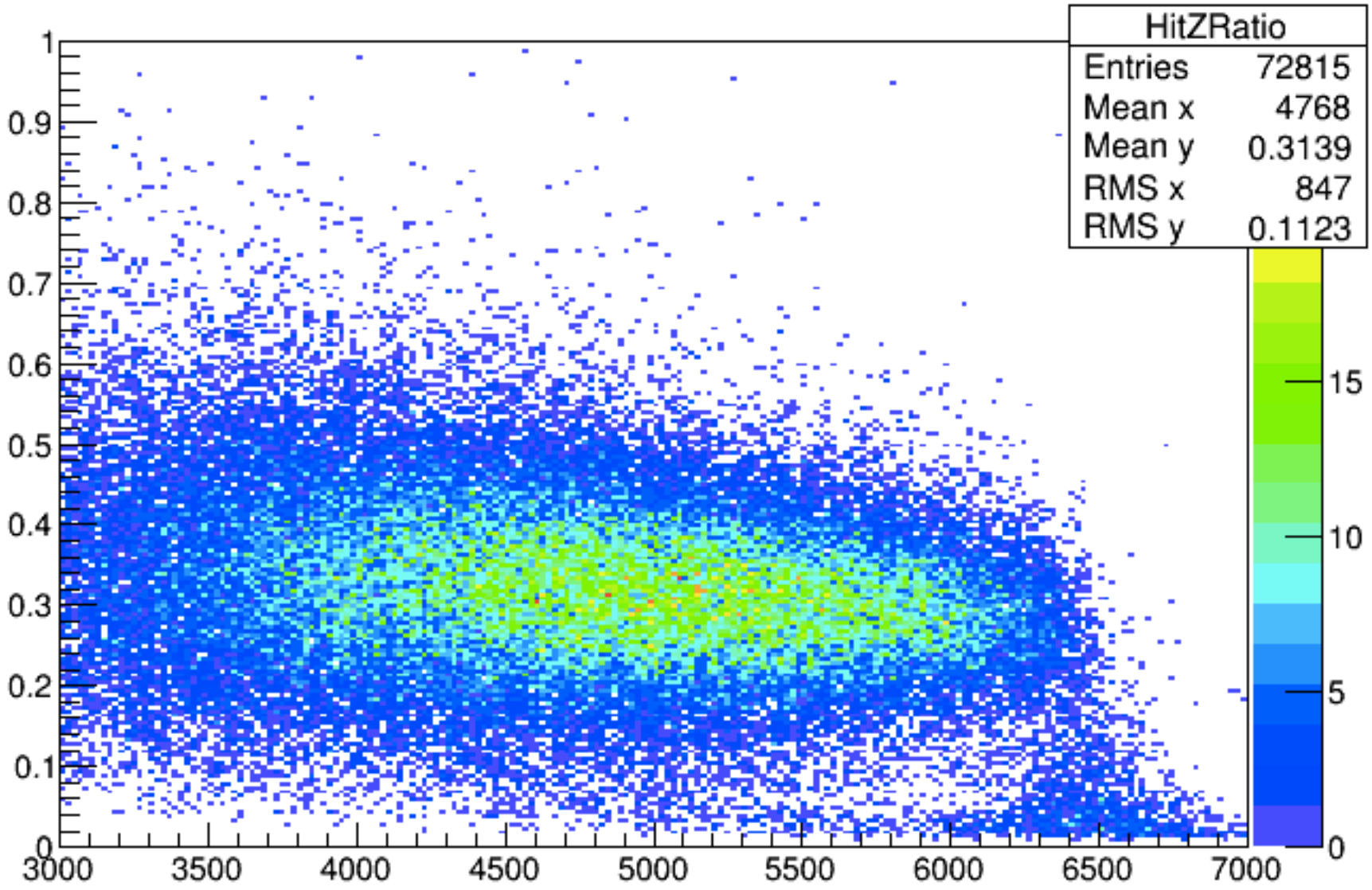
Change in vertex time difference?



Energy Deposit @
HitZ>6300 && SF<0.1



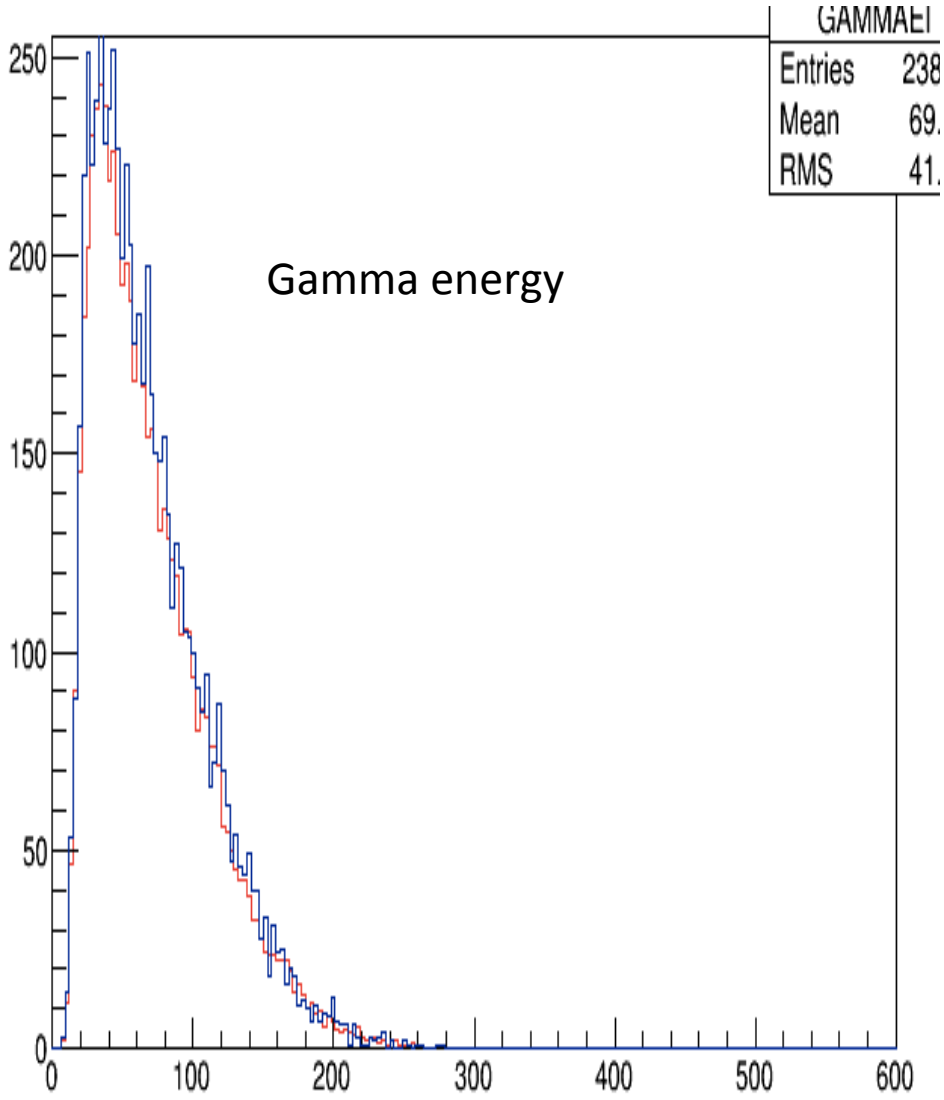
In data, (Run62)

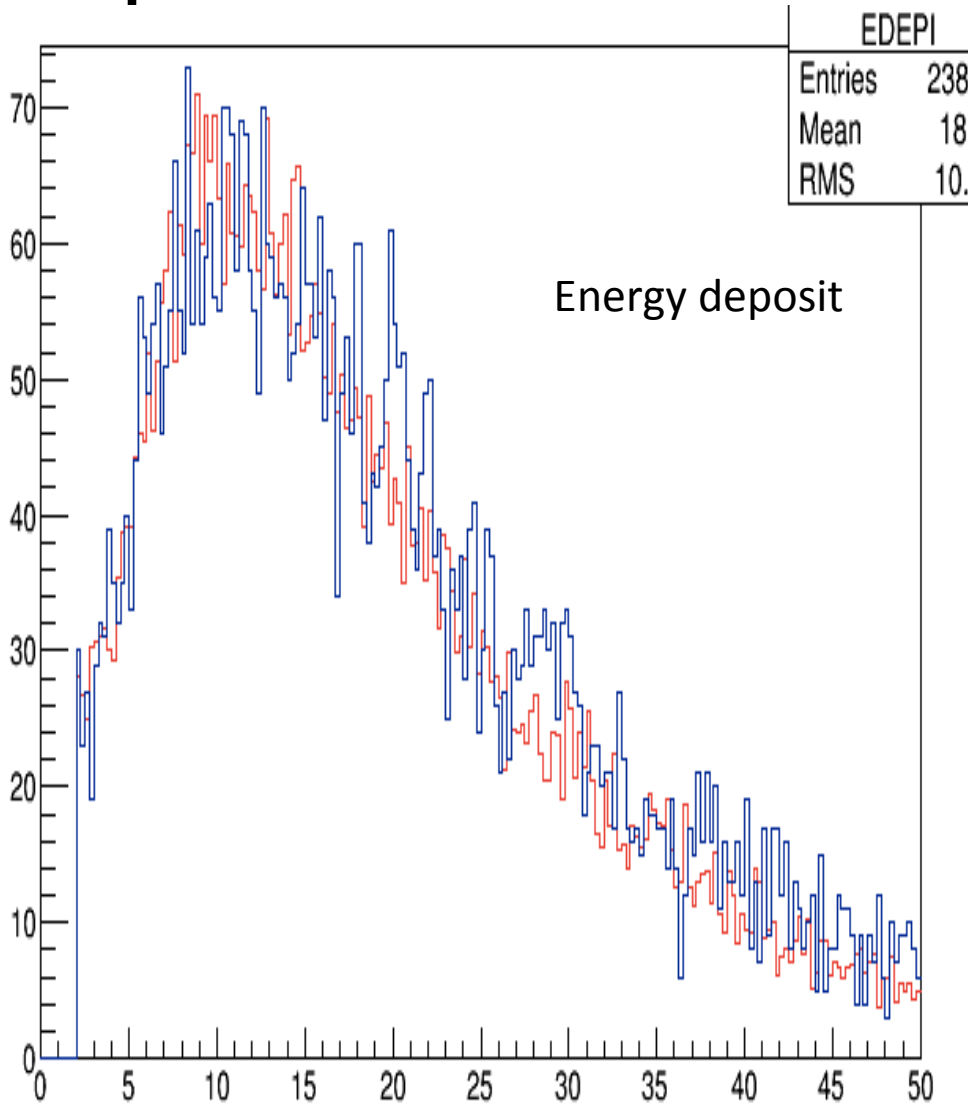


Gamma energy energy deposit

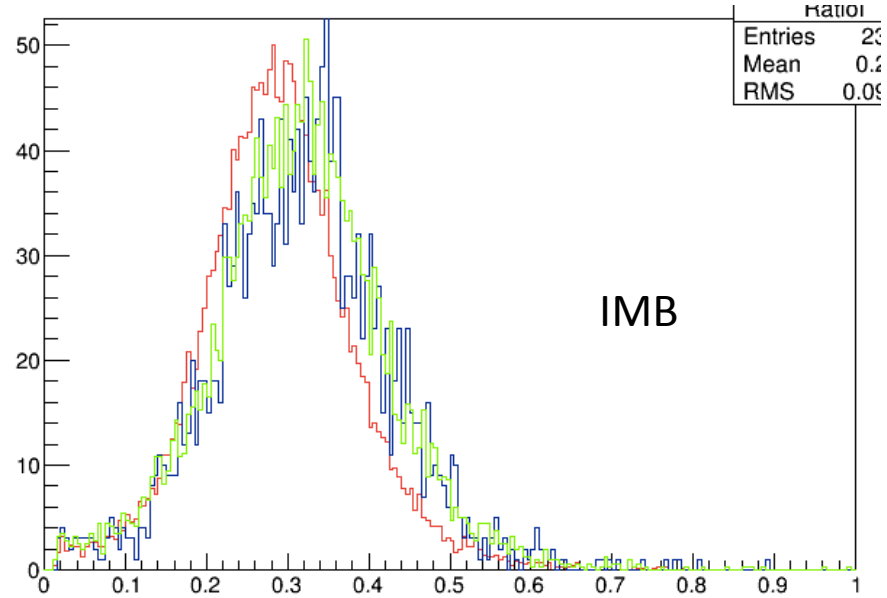
Blue : data (Run64)
Red : MC
Normalized with P.O.T.

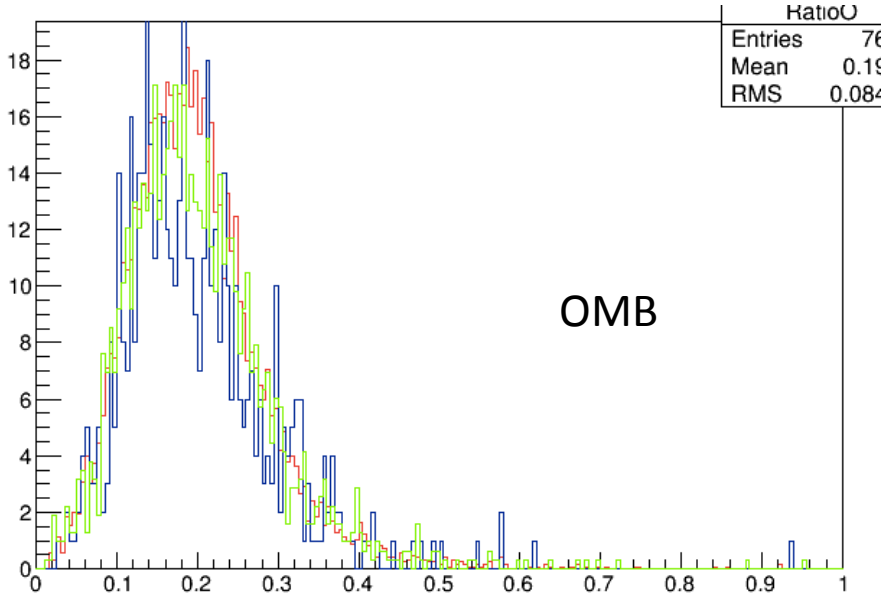
Inner Main Barrel Hit only

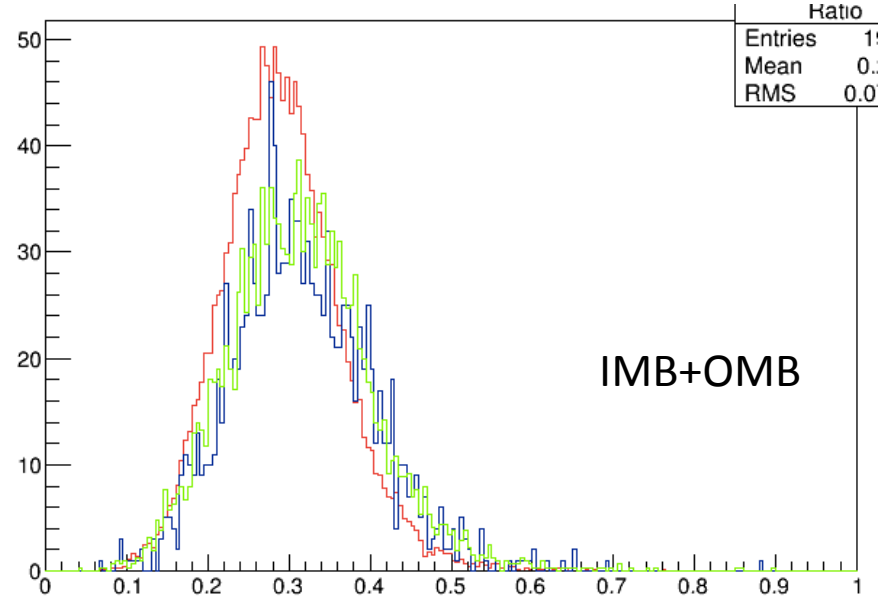




Sampling Fraction







- OMB Fit well
- Discrepancy in IMB