

A quick check of incl. Recon.

400,000 sig. events with excl. generated tag side
 $B^+ \rightarrow K^+ \tau^- \mu^+$

13 Oct. 2023

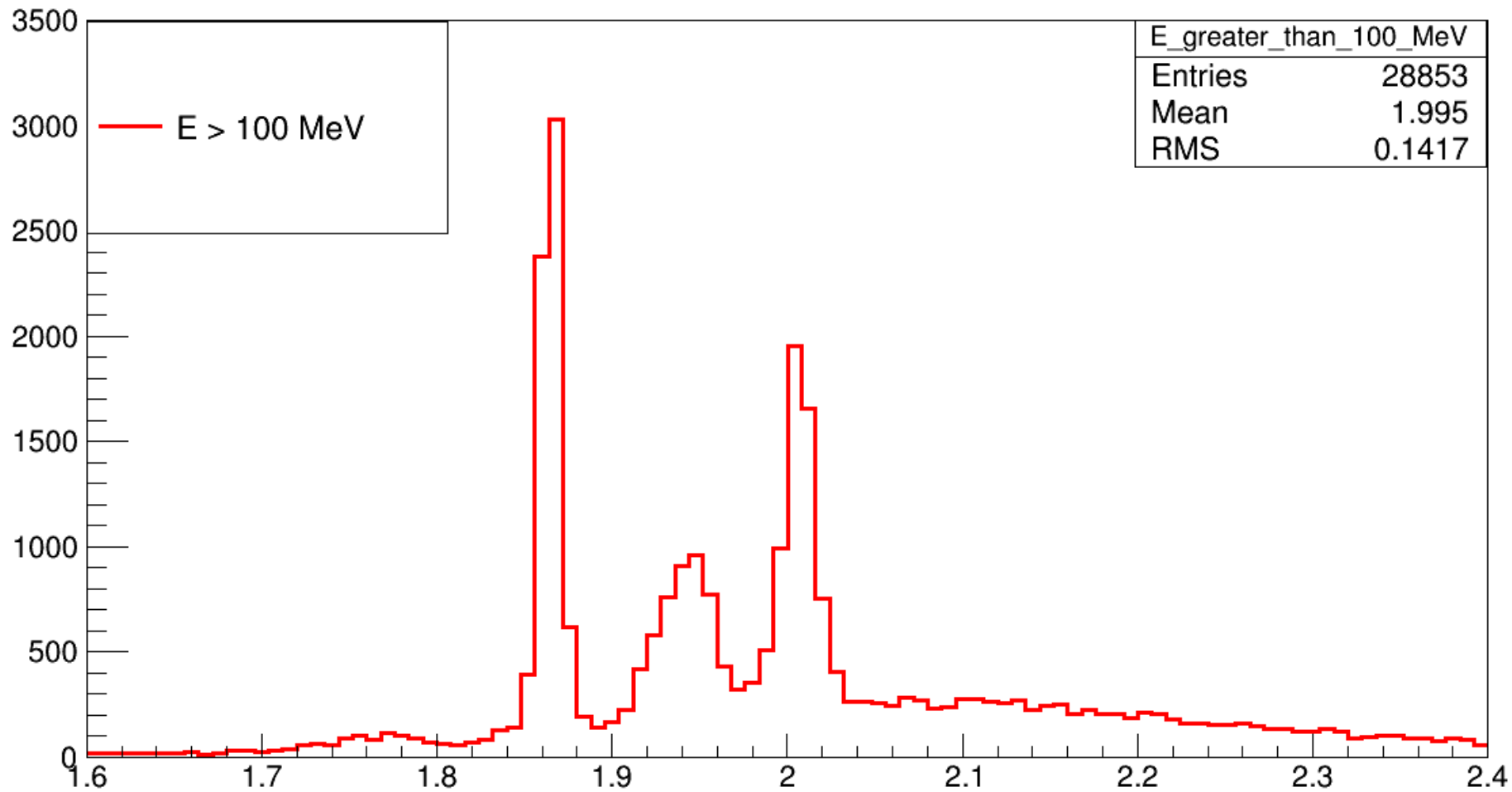
Tag side decay chain

```
# Decay B-tag
Decay B-tag
0.5 D*0      e-   anti-nu_e  PHOTOS  HQET2  1.3  1.18  0.71;
0.5 D*0      mu-  anti-nu_mu  PHOTOS  HQET2  1.3  1.18  0.71;
Enddecay
CDecay B+tag

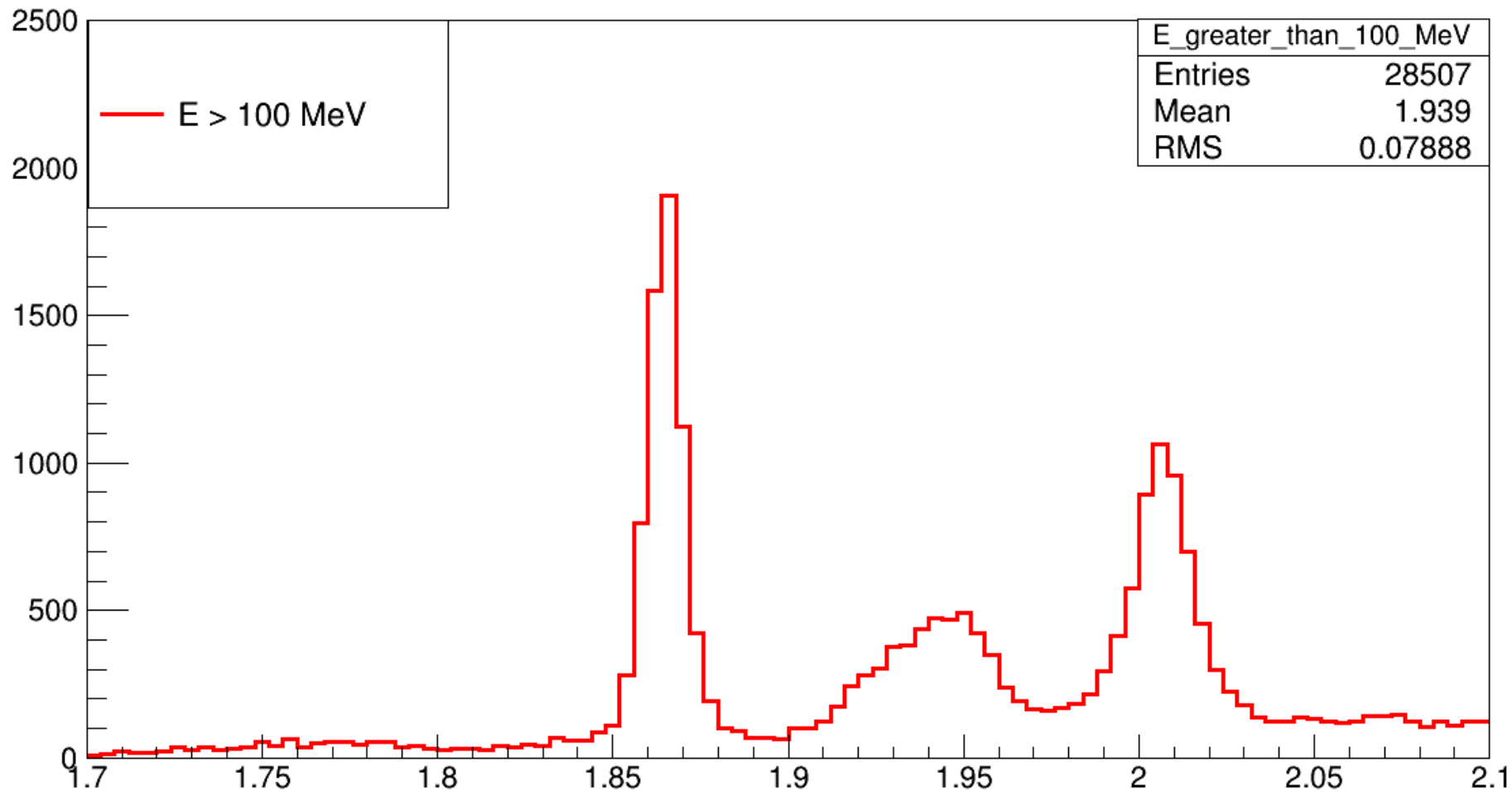
# Decay D*0
Decay D*0
0.5 D0       gamma                VSP_PWAVE; #[Reconstructed PDG2011]
0.5 D0       pi0                 VSS; #[Reconstructed PDG2011]
Enddecay
CDecay anti-D*0

#Decay D0
Decay D0
1.0 K-       pi+                 PHSP;
Enddecay
CDecay anti-D0
```

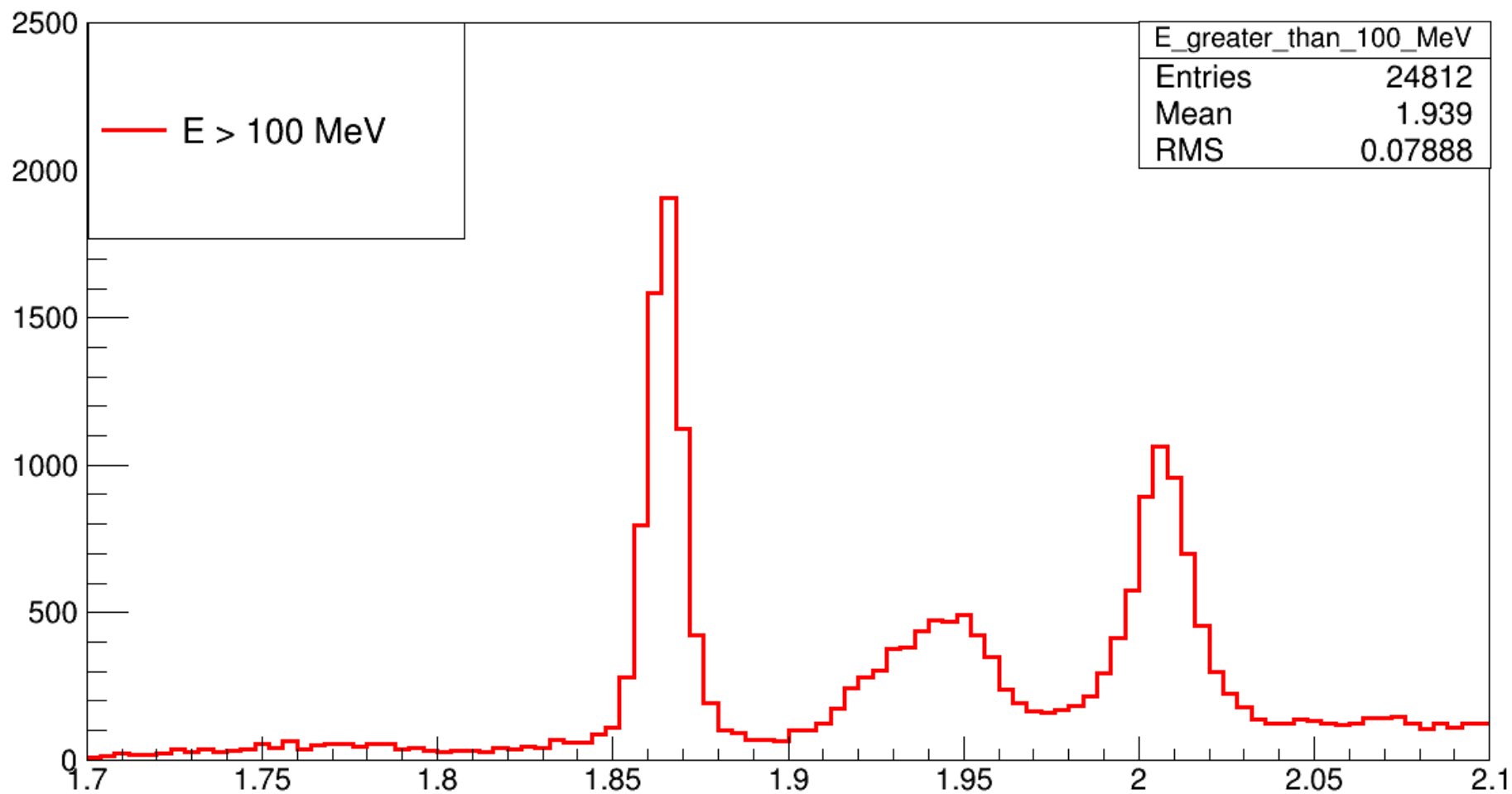
m_D



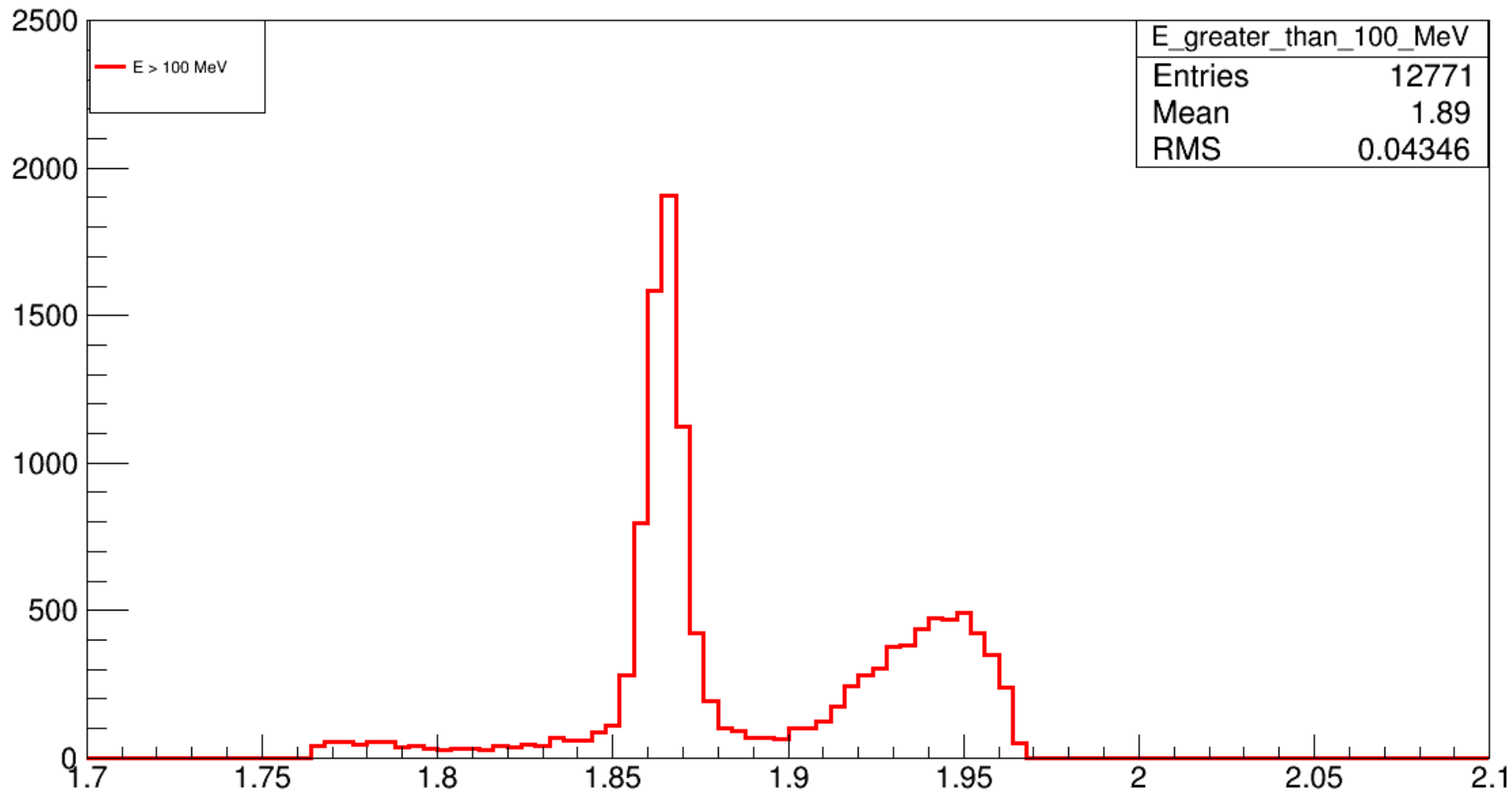
m_D with $\text{abs}(m_D - 1.865) < 0.5$



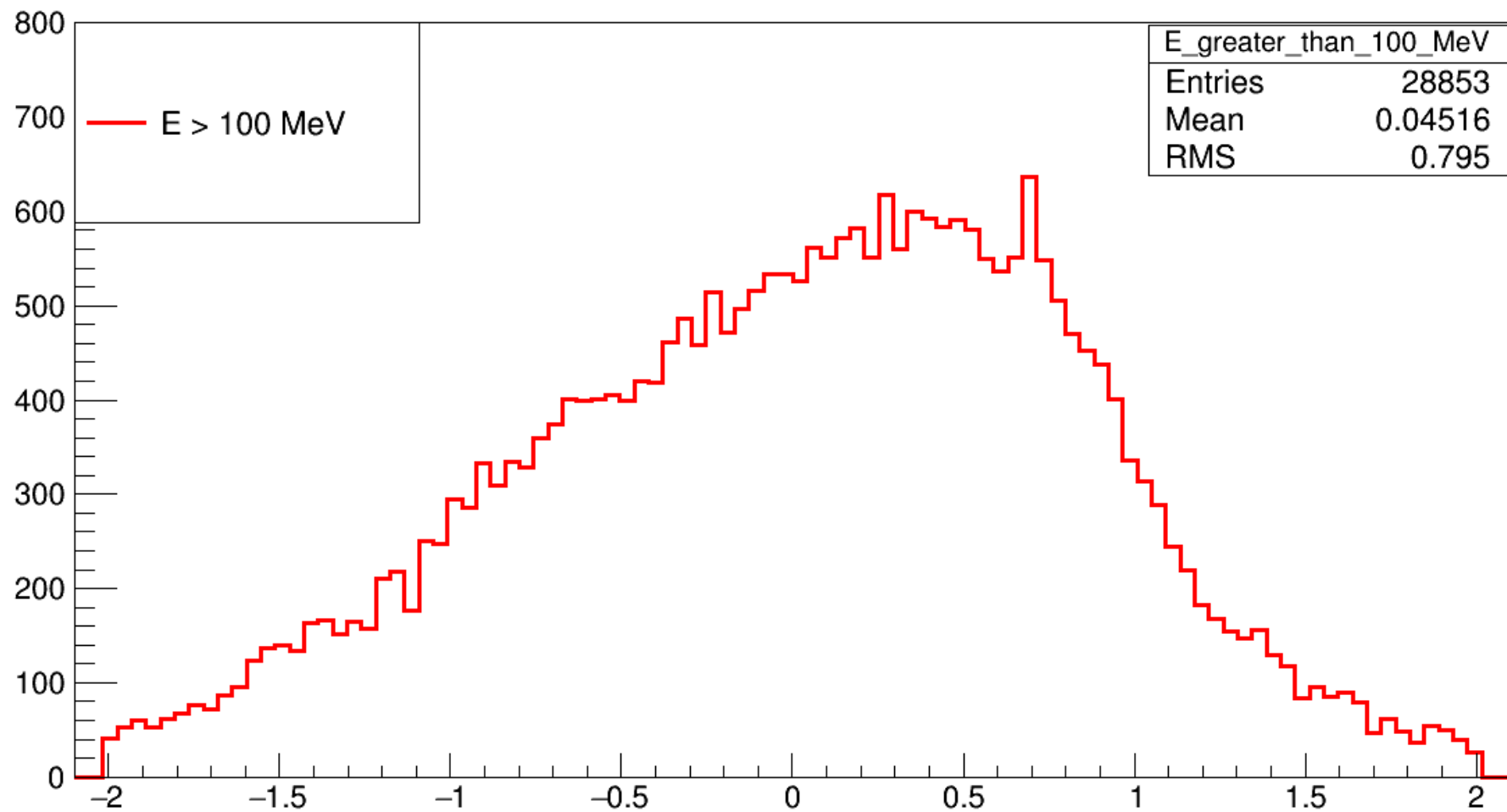
m_D with $\text{abs}(m_D - 1.865) < 0.3$



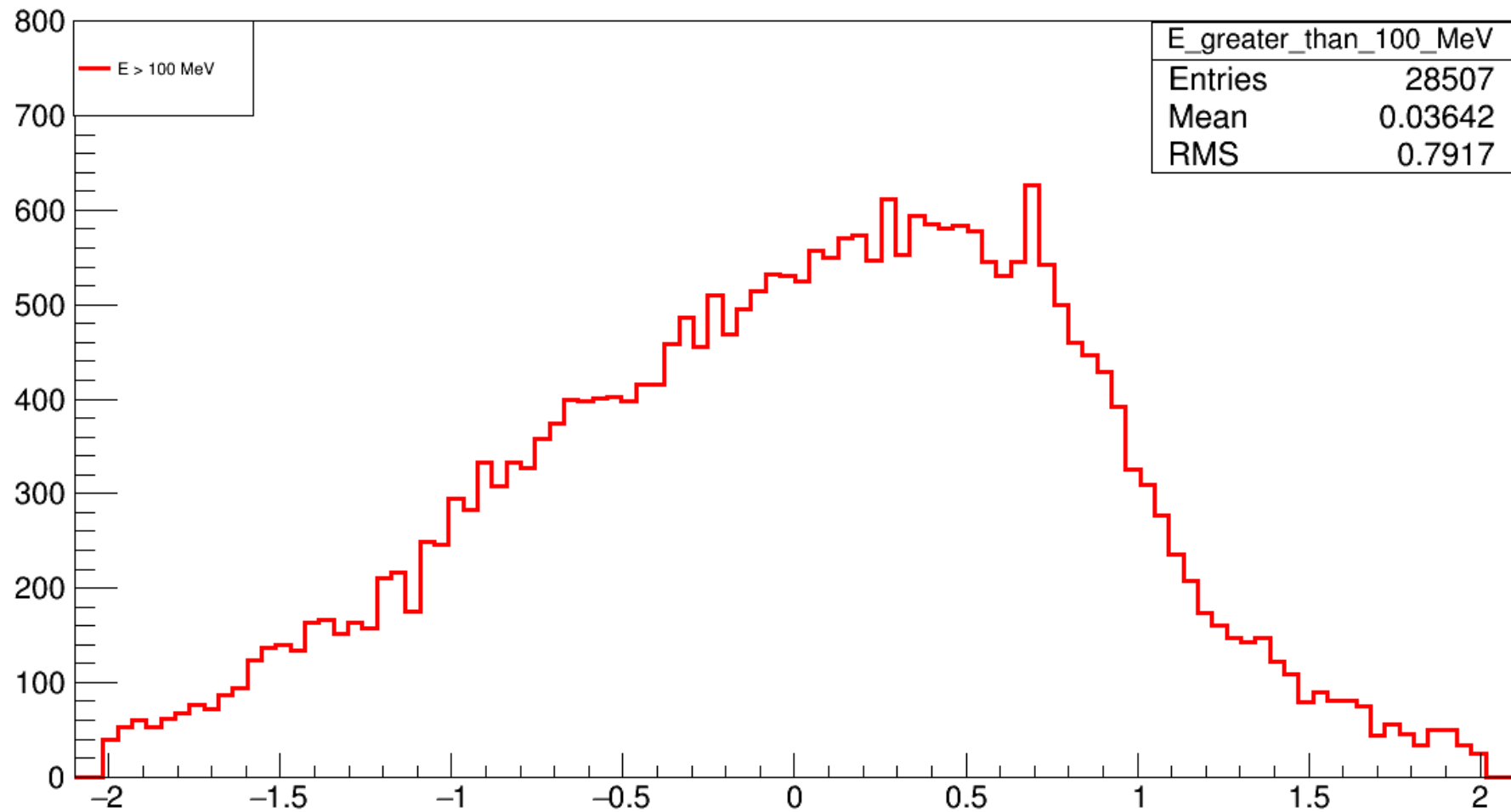
m_D with $\text{abs}(m_D - 1.865) < 0.1$



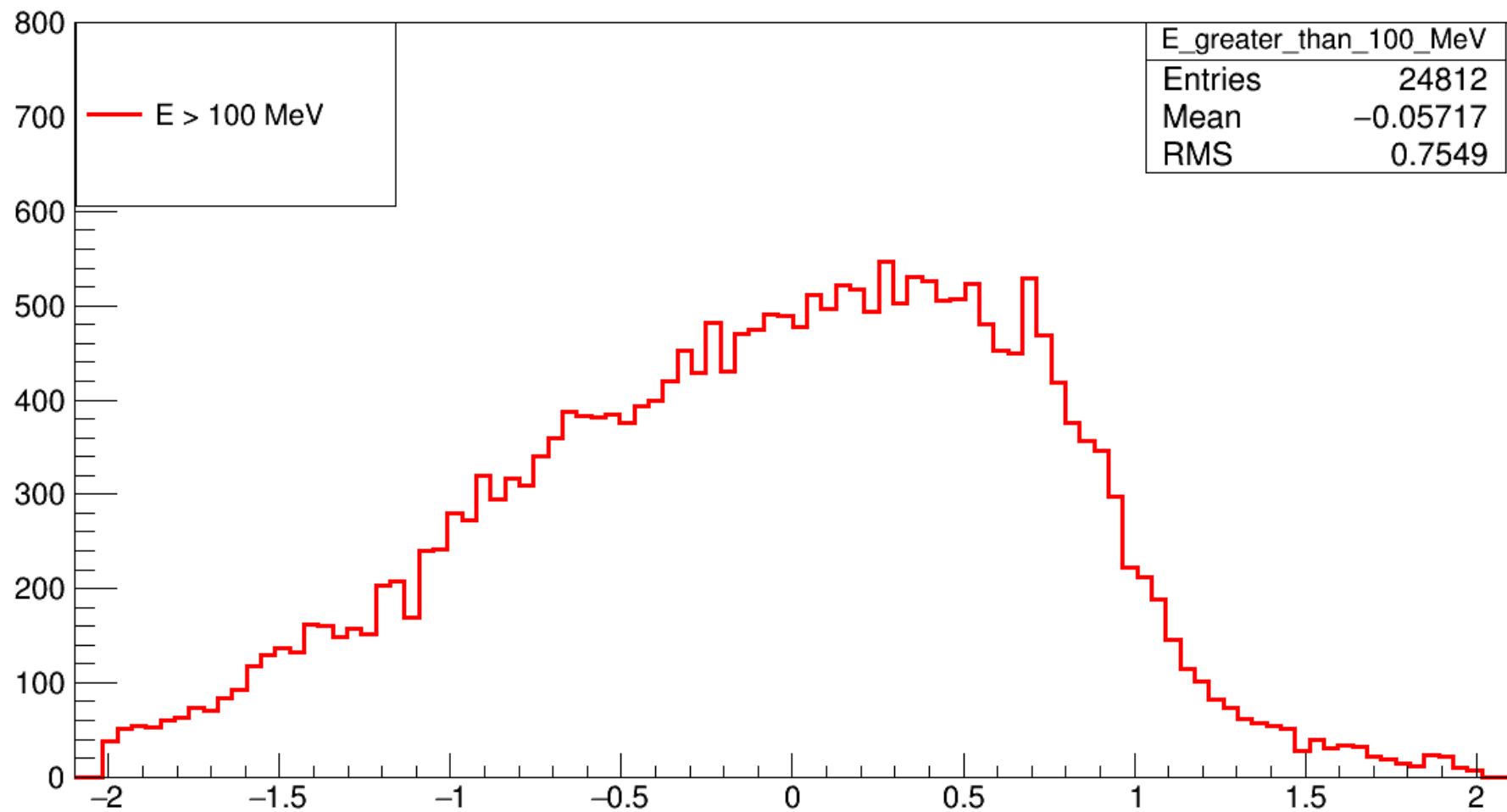
cos(PBtag,Pvis)



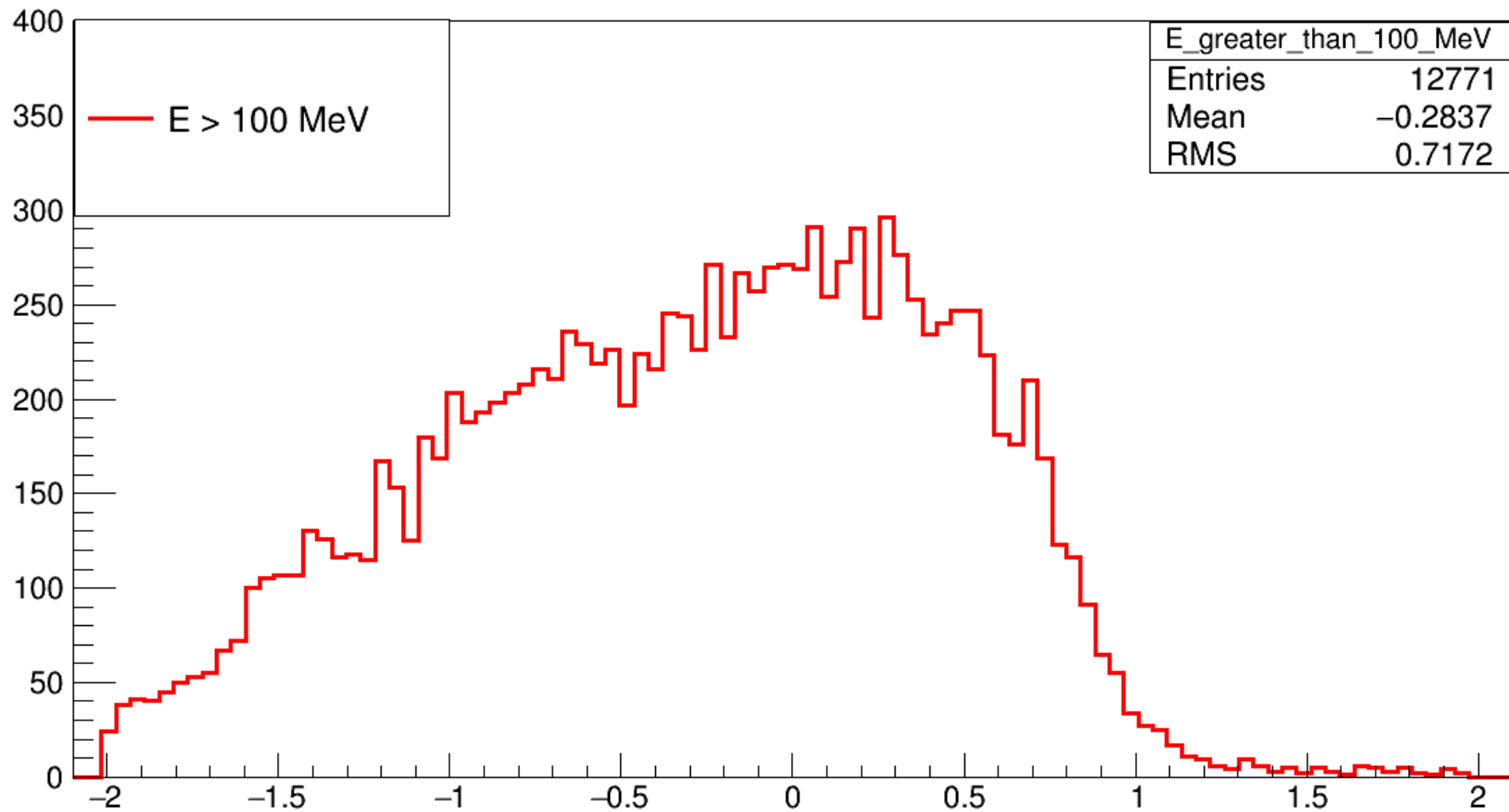
$\cos(\text{PBtag}, \text{Pvis})$ with $\text{abs}(m_D - 1.865) < 0.5$



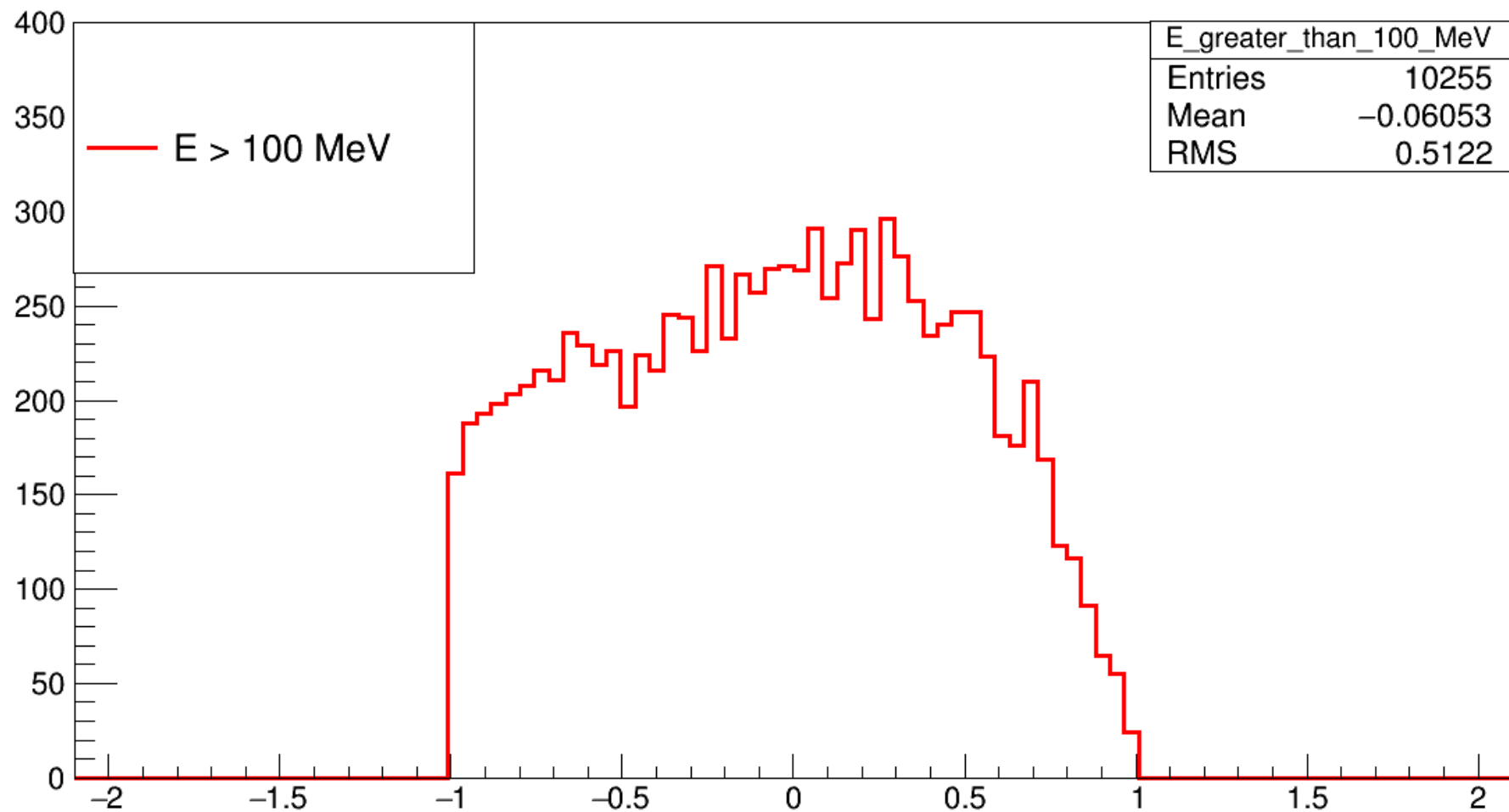
$\cos(\text{PBtag}, \text{Pvis})$ with $\text{abs}(m_D - 1.865) < 0.3$



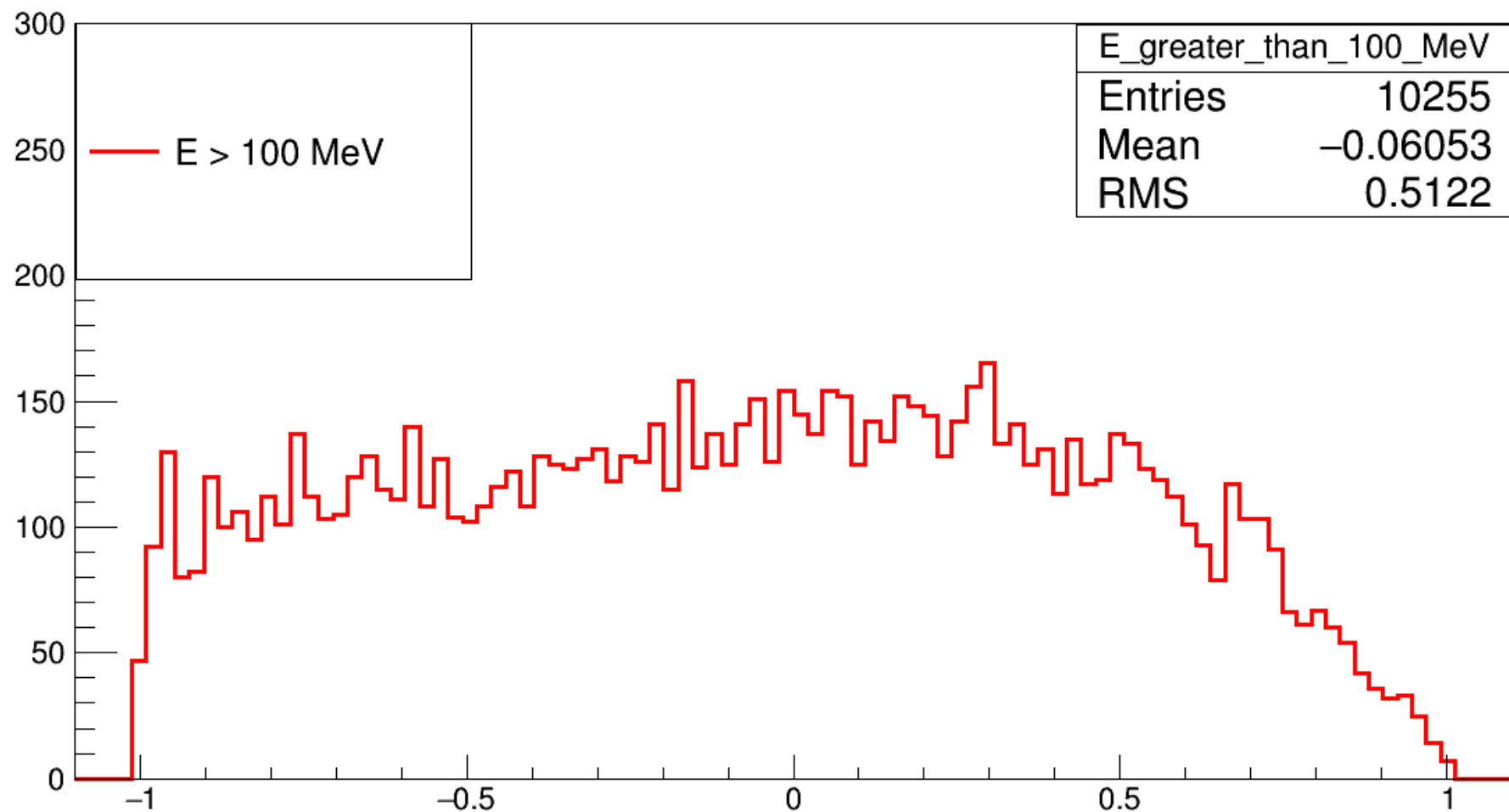
$\cos(\text{PBtag}, \text{Pvis})$ with $\text{abs}(m_D - 1.865) < 0.1$



$\cos(\text{PBtag}, \text{Pvis})$ with $\text{abs}(m_D - 1.865) < 0.1$ and $\text{abs}(\cos_{\text{pBtag}} \Delta\text{tag}) < 1$



$\cos(\text{PBtag}, \text{Pvis})$ with $\text{abs}(m_D - 1.865) < 0.1$ and $\text{abs}(\cos_{\text{pBtag_Dltag}}) < 1$



Thanks