Incl. tag sample

Sample of 1.0M events
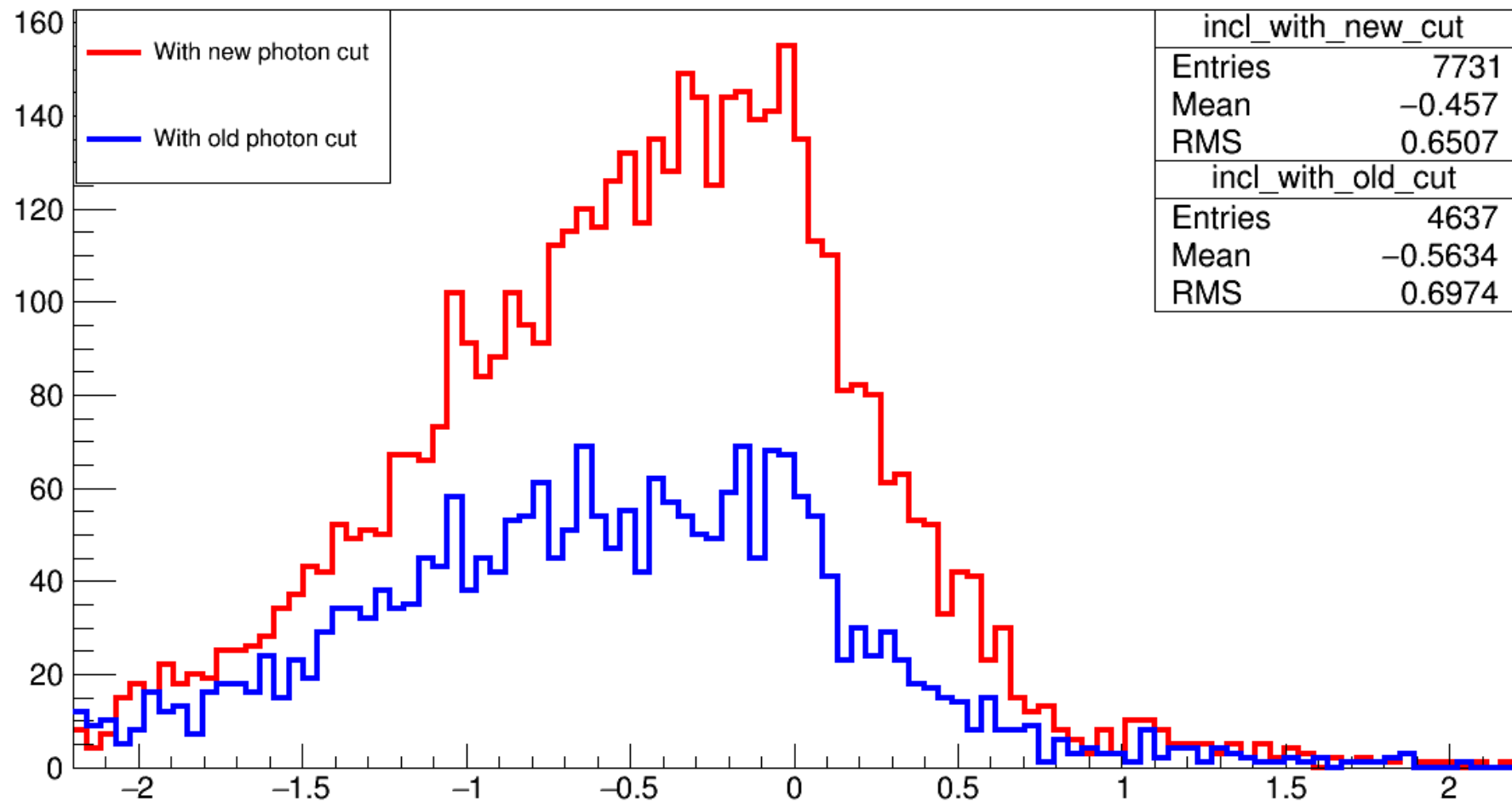
$B^+ \rightarrow K^+ \tau^- \mu^+$

$\tau^- \rightarrow \pi^- \nu_\tau$
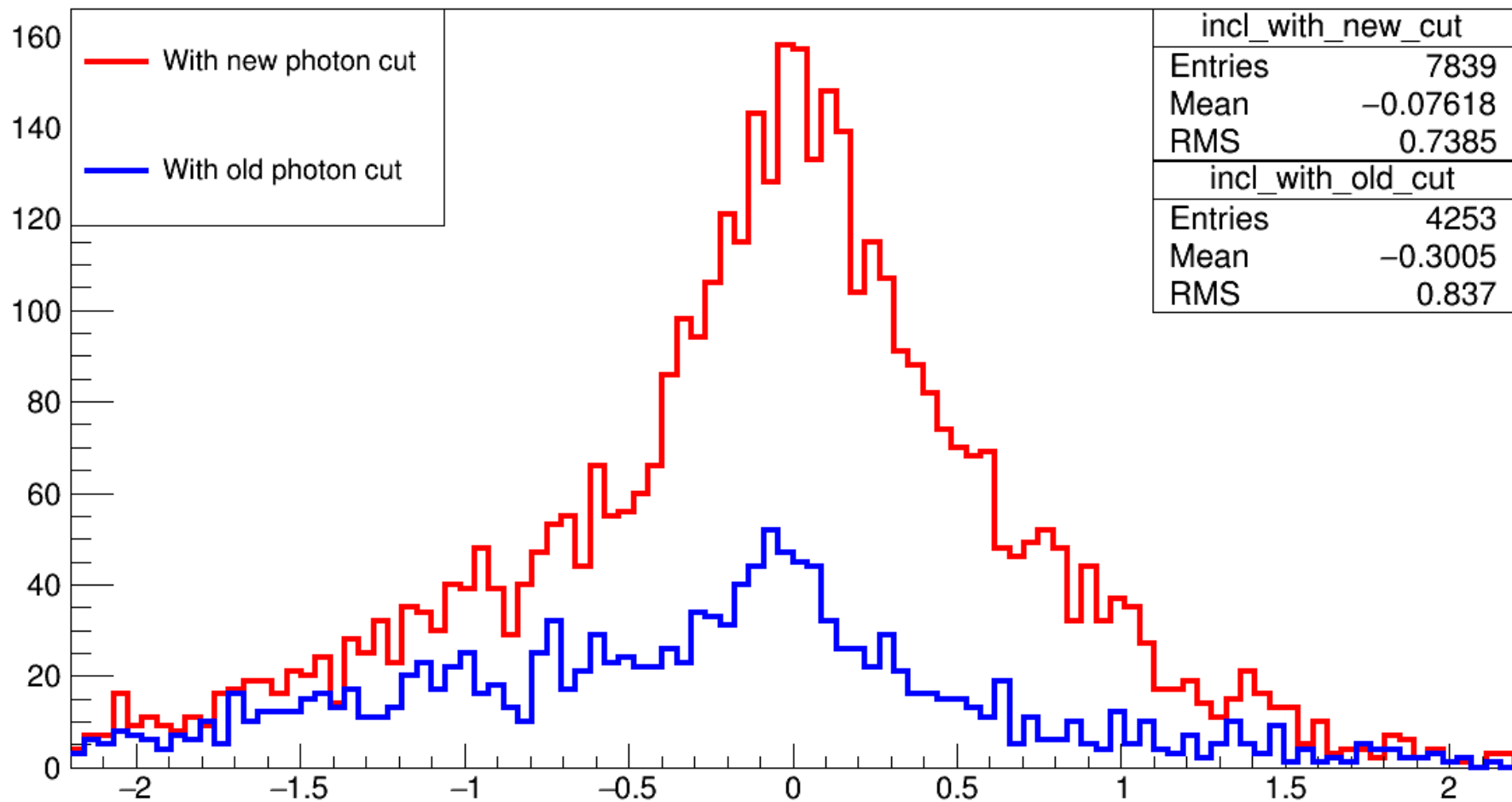
$B^- \rightarrow$ generic

31/10/2023

Best sum of cosine angles,rank1 m_D<1.86

incl_with_new_cut	
Entries	7731
Mean	−0.457
RMS	0.6507

incl_with_old_cut	
Entries	4637
Mean	−0.5634
RMS	0.6974

With new photon cut

With old photon cut

Best sum of cosine angles,rank1 m_D>2.006

incl_with_new_cut	
Entries	7839
Mean	−0.07618
RMS	0.7385
incl_with_old_cut	
Entries	4253
Mean	−0.3005
RMS	0.837

With new photon cut

With old photon cut

Excl. and Incl. D* reconstruction

Sample of 100K events

$$B^+ \rightarrow K^+ \tau^- \mu^+$$
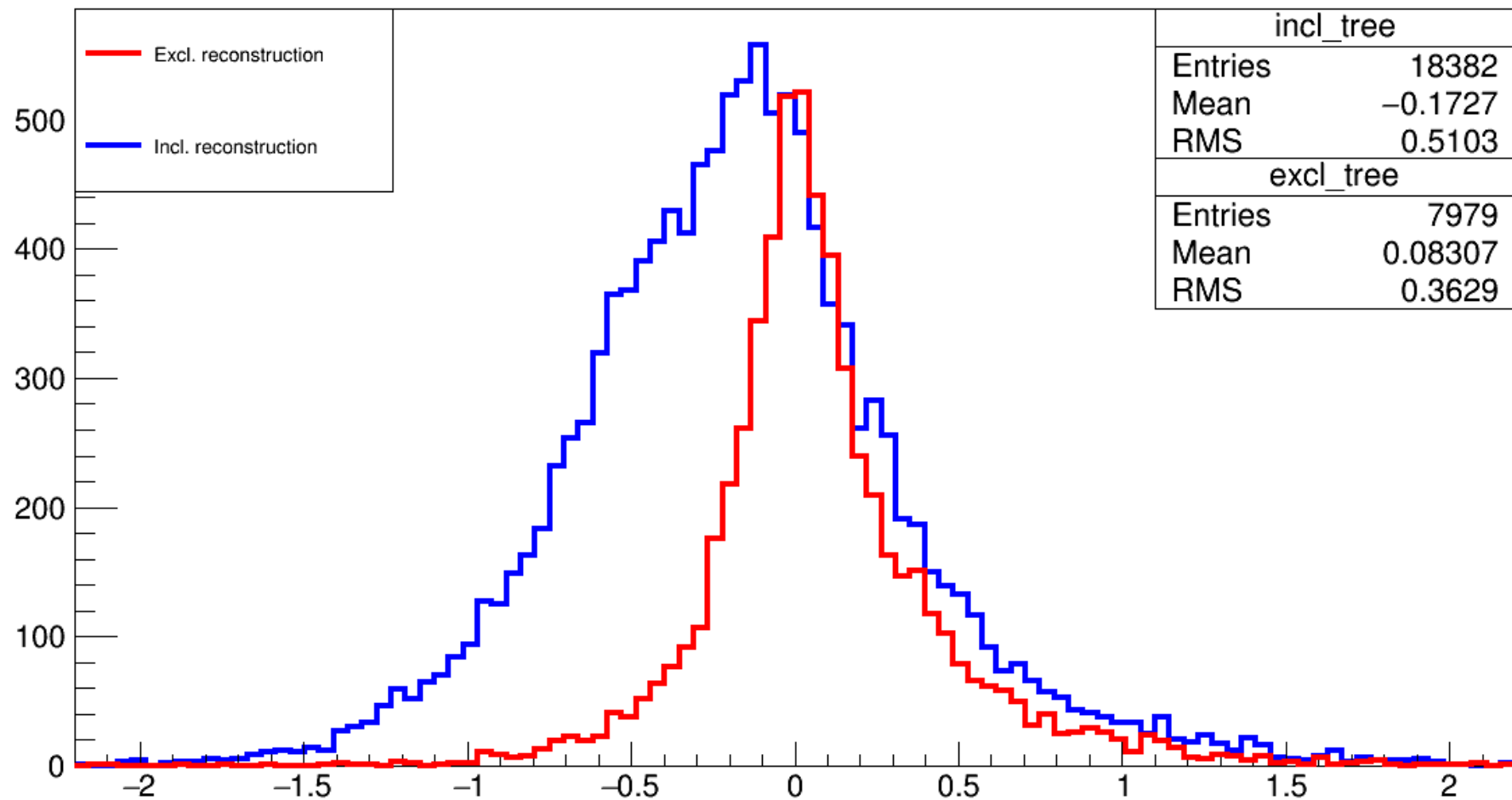
$$\tau^- \rightarrow \pi^- \nu_\tau$$

$$B^- \rightarrow D^* \mu^- \bar{\nu}_\mu$$
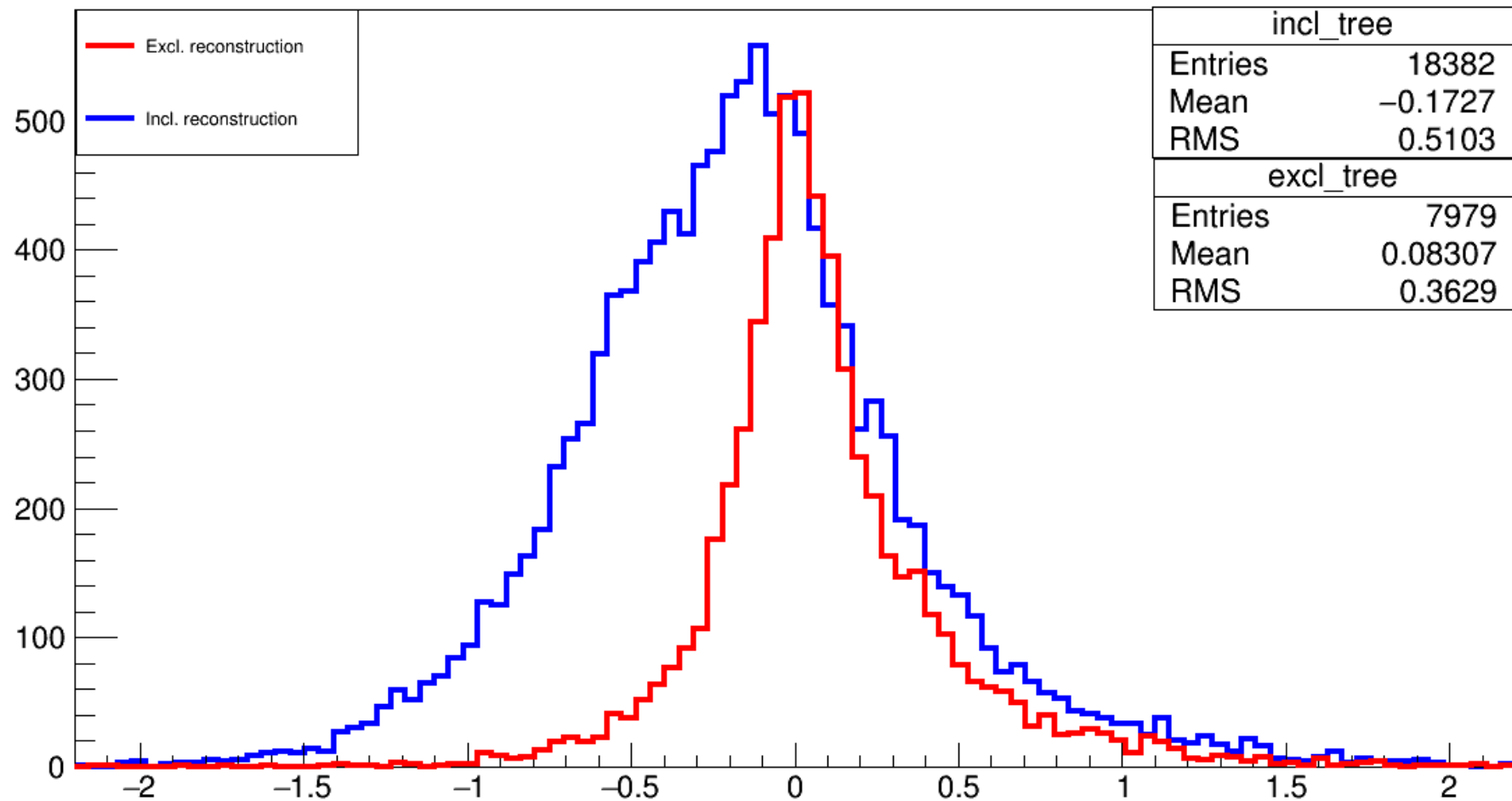
$$D^* \rightarrow D^0 \pi^0$$

$$D^0 \rightarrow K^- \pi^+$$

All the next graphs have the photon cuts included

Best sum of cosine angles,rank1 and 1.5 < m_D* < 2.42
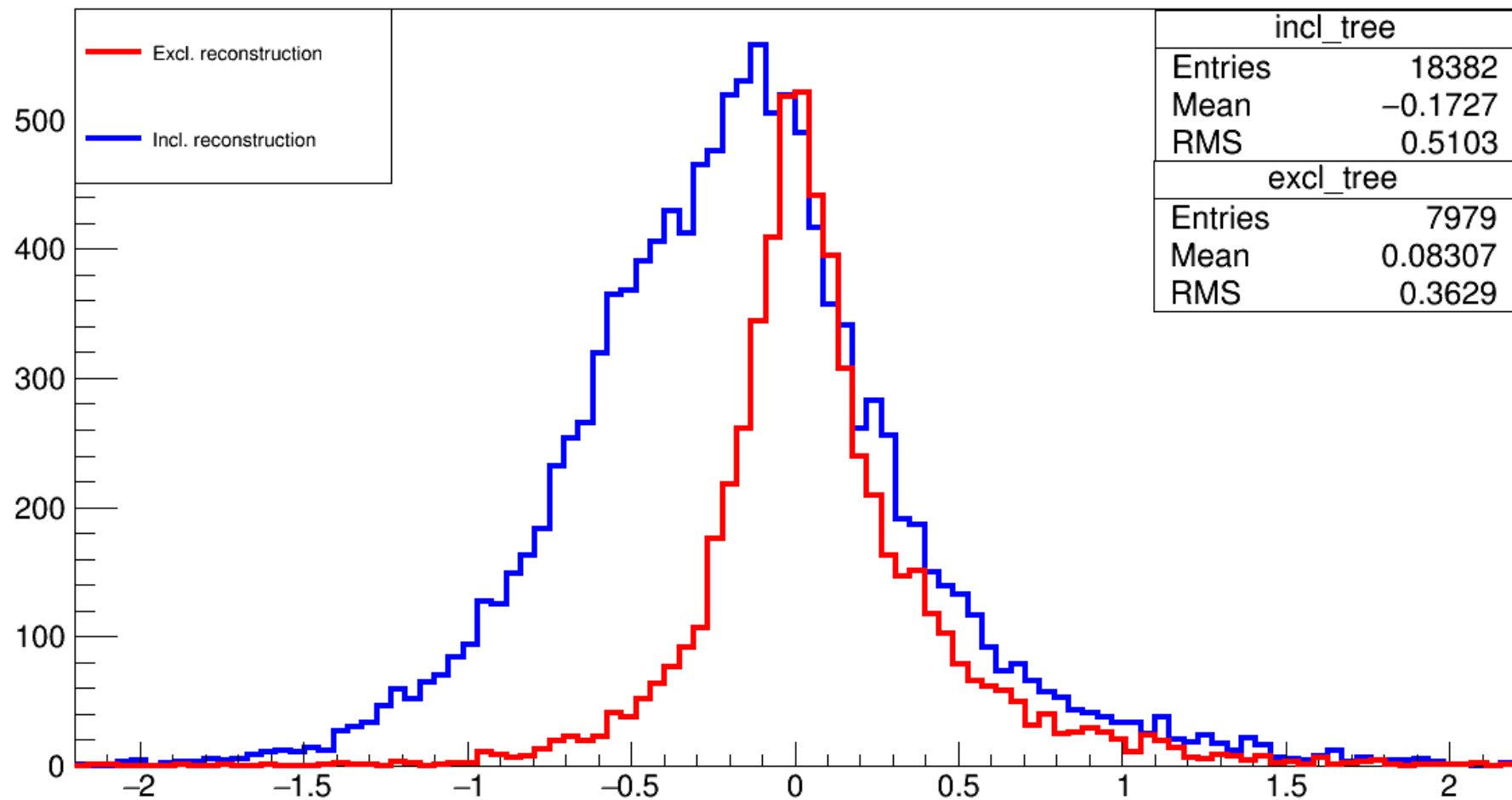

incl_tree	
Entries	18382
Mean	−0.1727
RMS	0.5103
excl_tree	
Entries	7979
Mean	0.08307
RMS	0.3629

Legend:
- Excl. reconstruction (red)
- Incl. reconstruction (blue)

Best sum of cosine angles,rank1 and 1.84 < m_D* < 1.88

incl_tree	
Entries	18382
Mean	−0.1727
RMS	0.5103

excl_tree	
Entries	7979
Mean	0.08307
RMS	0.3629

Excl. reconstruction

Incl. reconstruction

Best sum of cosine angles,rank1 and 1.98 < m_D* < 2.2

incl_tree	
Entries	18382
Mean	−0.1727
RMS	0.5103

excl_tree	
Entries	7979
Mean	0.08307
RMS	0.3629

Legend:
- Excl. reconstruction (red)
- Incl. reconstruction (blue)

Thanks