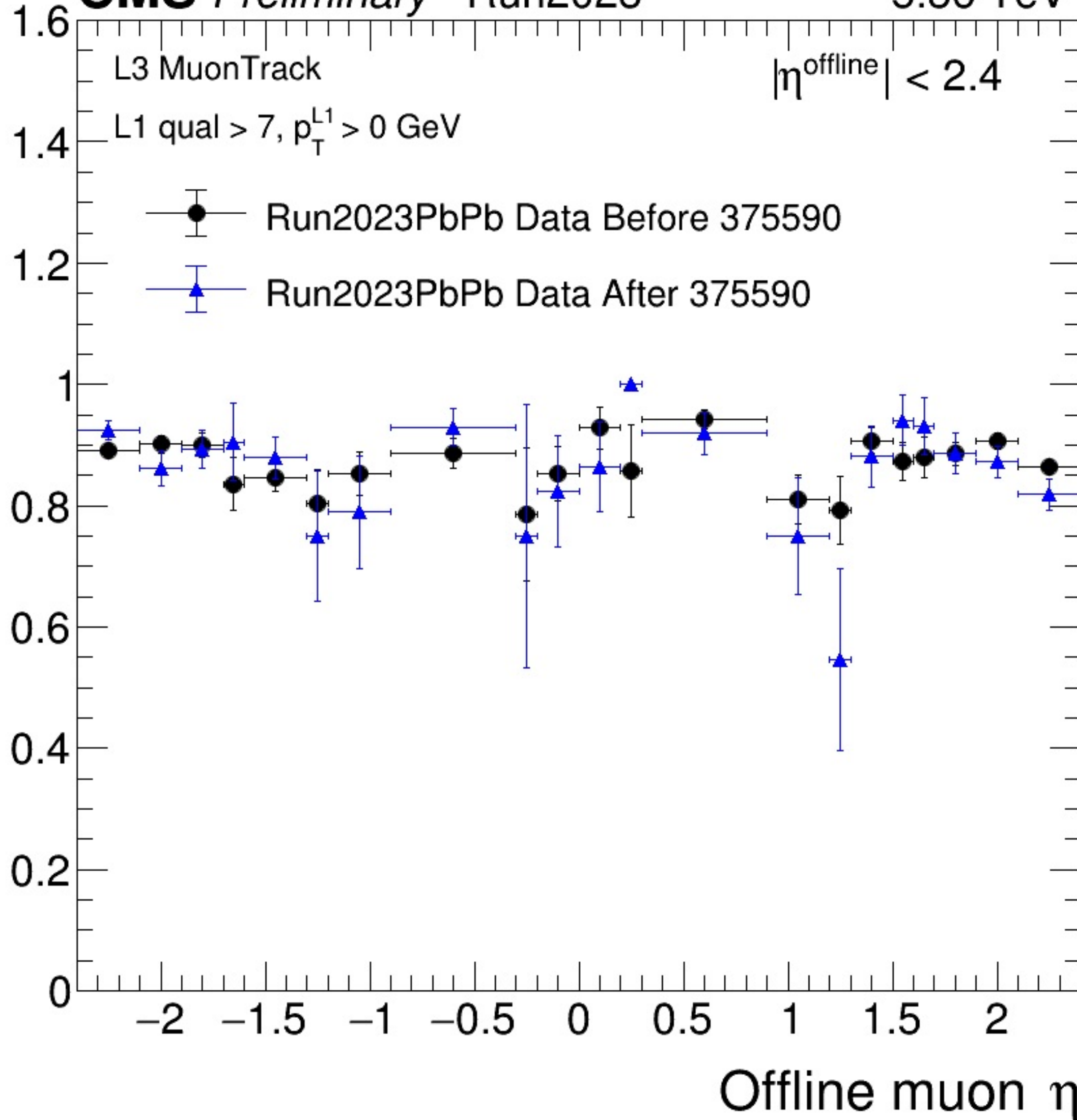


HLT efficiency

L3 MuonTrack

 $|\eta^{\text{offline}}| < 2.4$ L1 qual > 7,  $p_T^{\text{L1}} > 0$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590

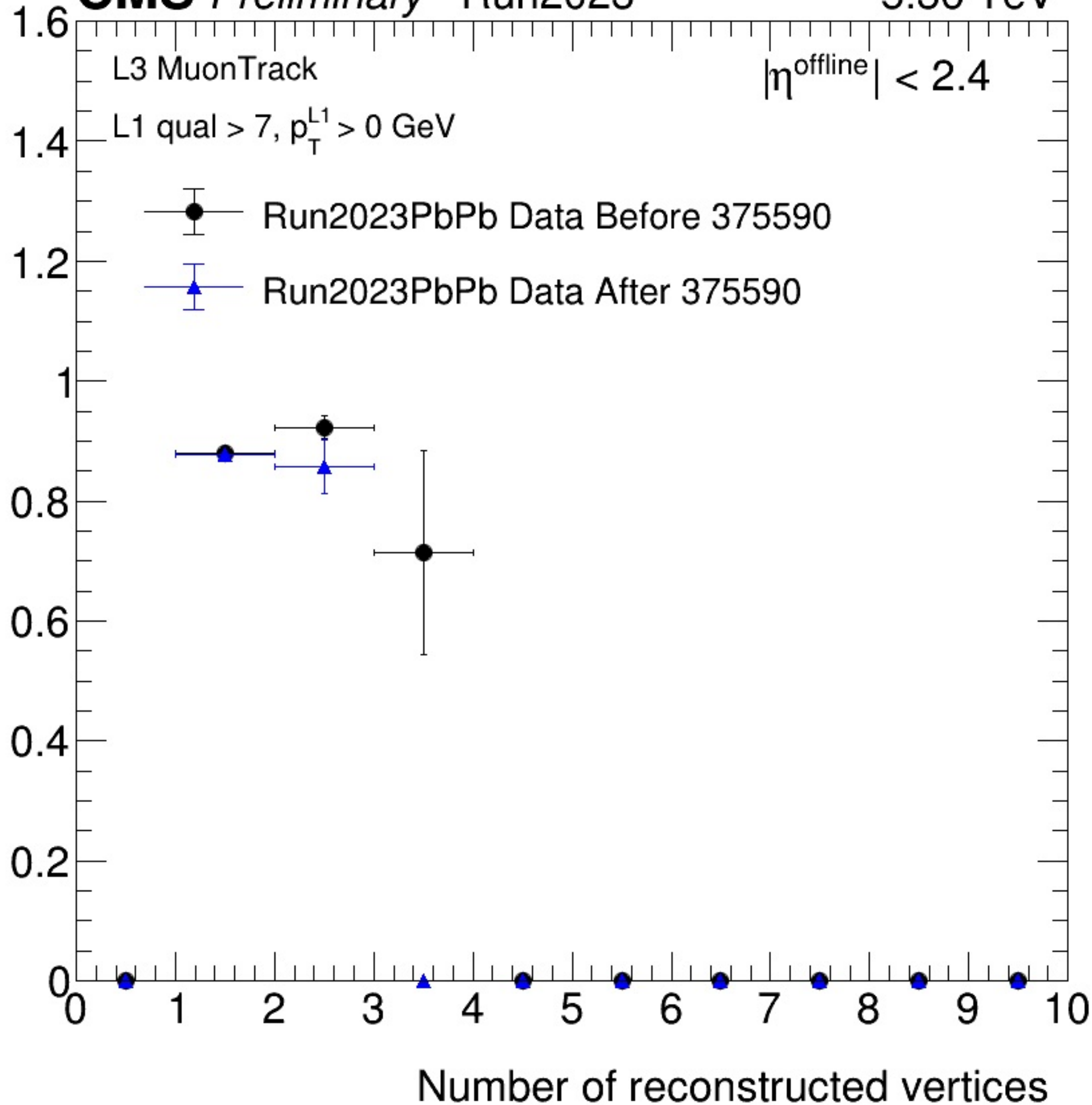


HLT efficiency

L3 MuonTrack

 $|\eta^{\text{offline}}| < 2.4$ L1 qual > 7,  $p_T^{\text{L1}} > 0$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590

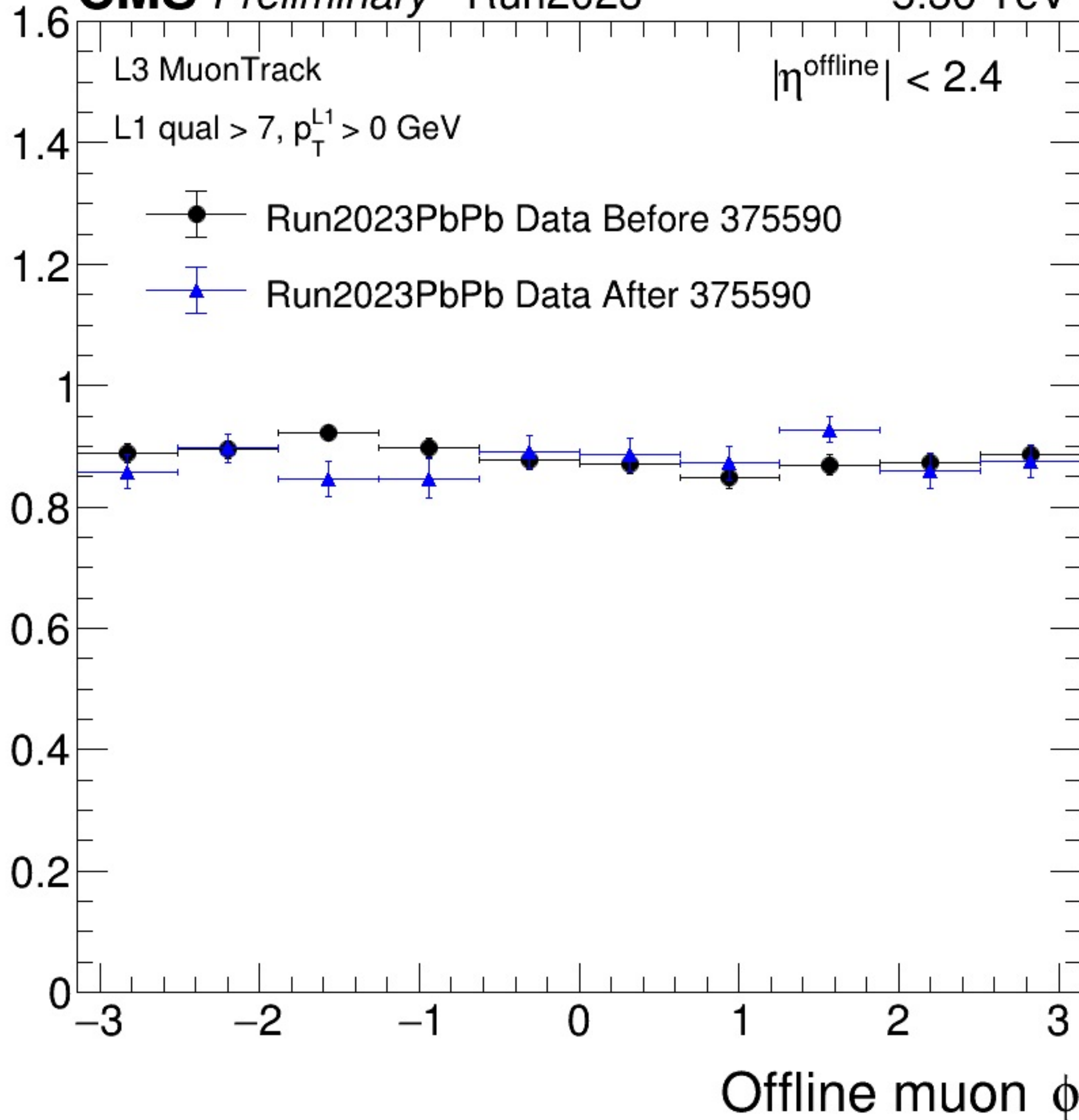


HLT efficiency

L3 MuonTrack

 $|\eta^{\text{offline}}| < 2.4$ L1 qual > 7,  $p_T^{\text{L1}} > 0$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590

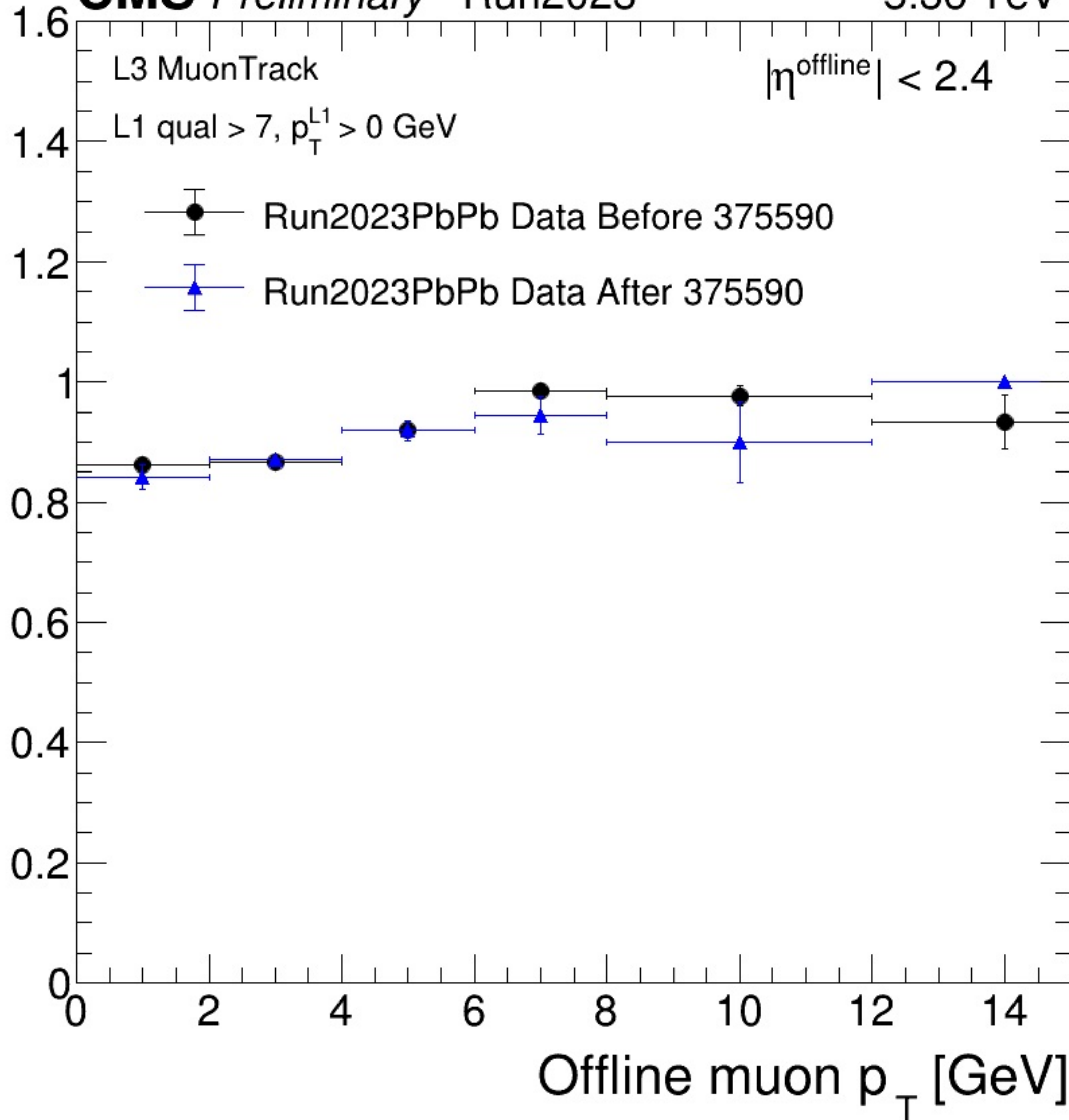


HLT efficiency

L3 MuonTrack

 $|\eta^{\text{offline}}| < 2.4$ L1 qual > 7,  $p_T^{\text{L1}} > 0$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590

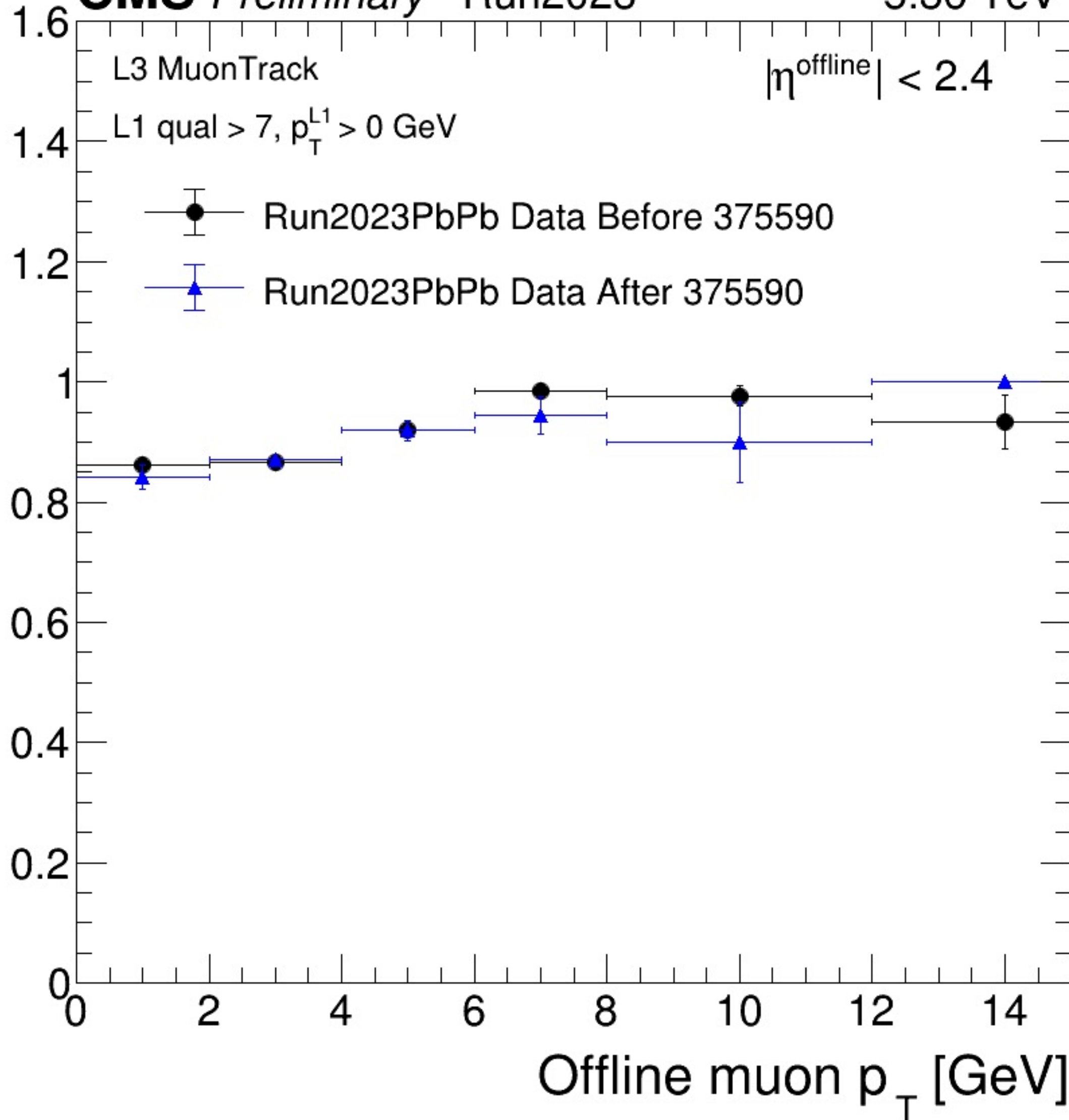


HLT efficiency

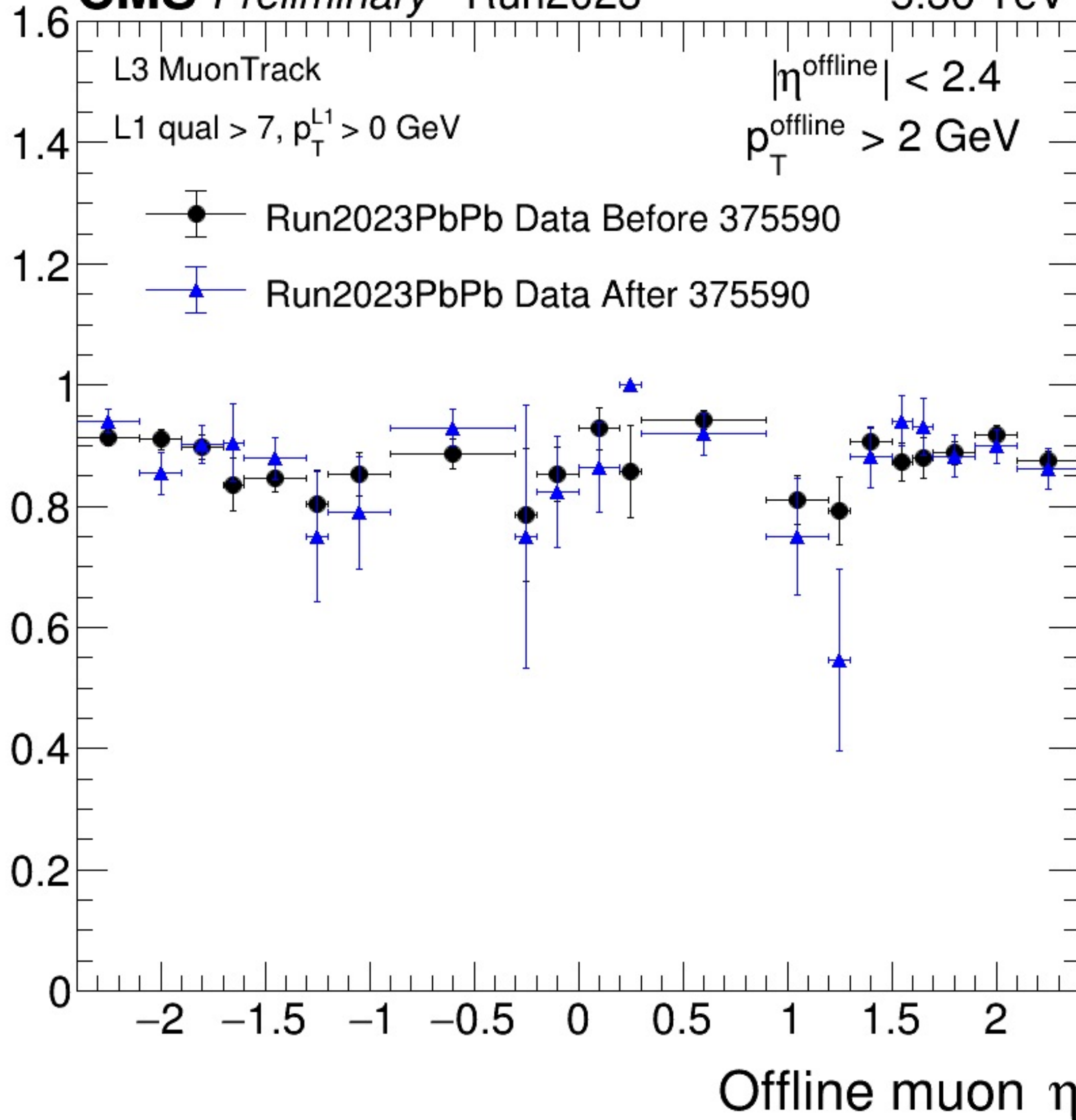
L3 MuonTrack

 $|\eta^{\text{offline}}| < 2.4$ L1 qual > 7,  $p_T^{\text{L1}} > 0$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590



HLT efficiency



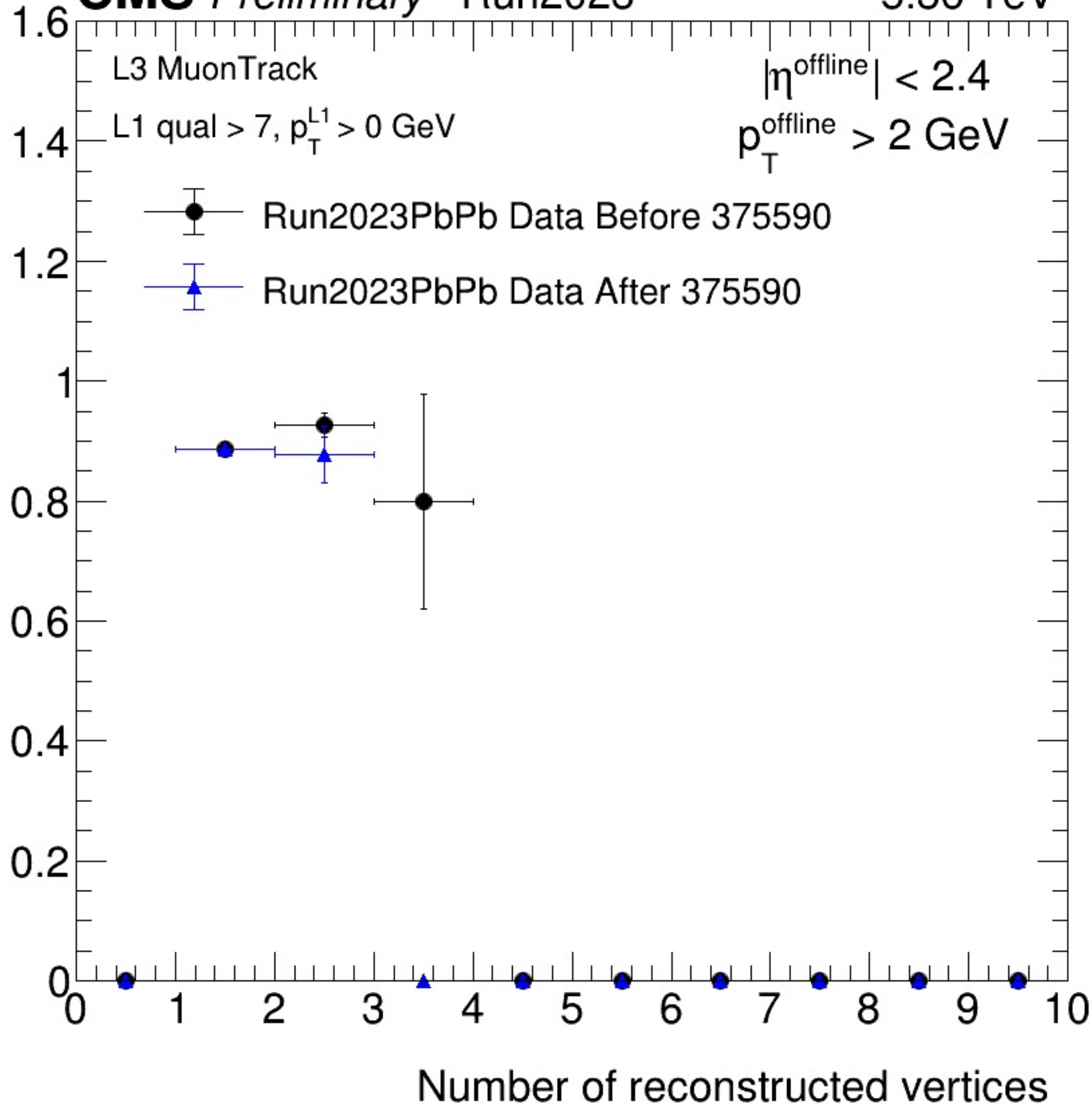


HLT efficiency

L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 2$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590



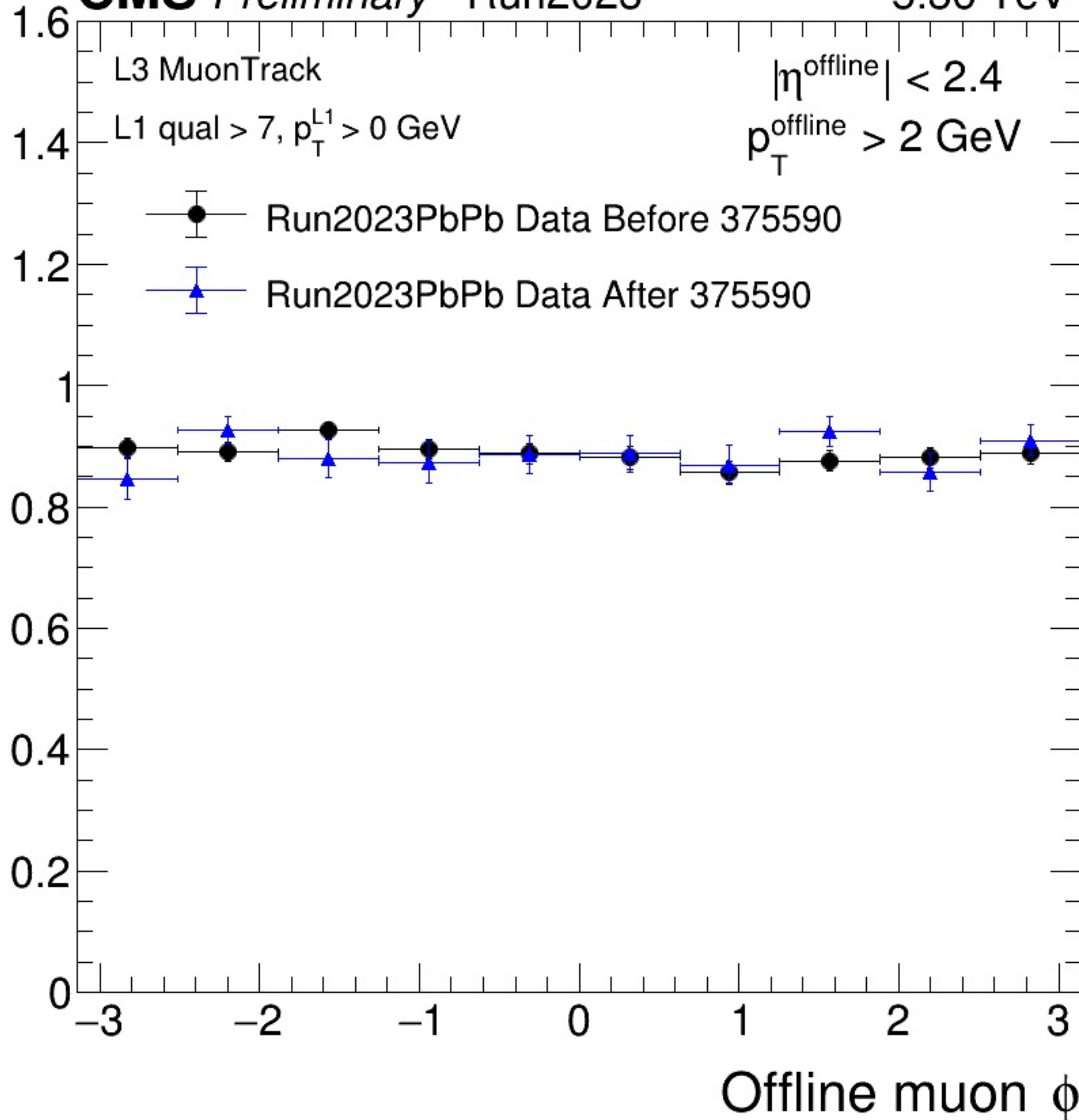
HLT efficiency

L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 2$  GeV

Run2023PbPb Data Before 375590

Run2023PbPb Data After 375590



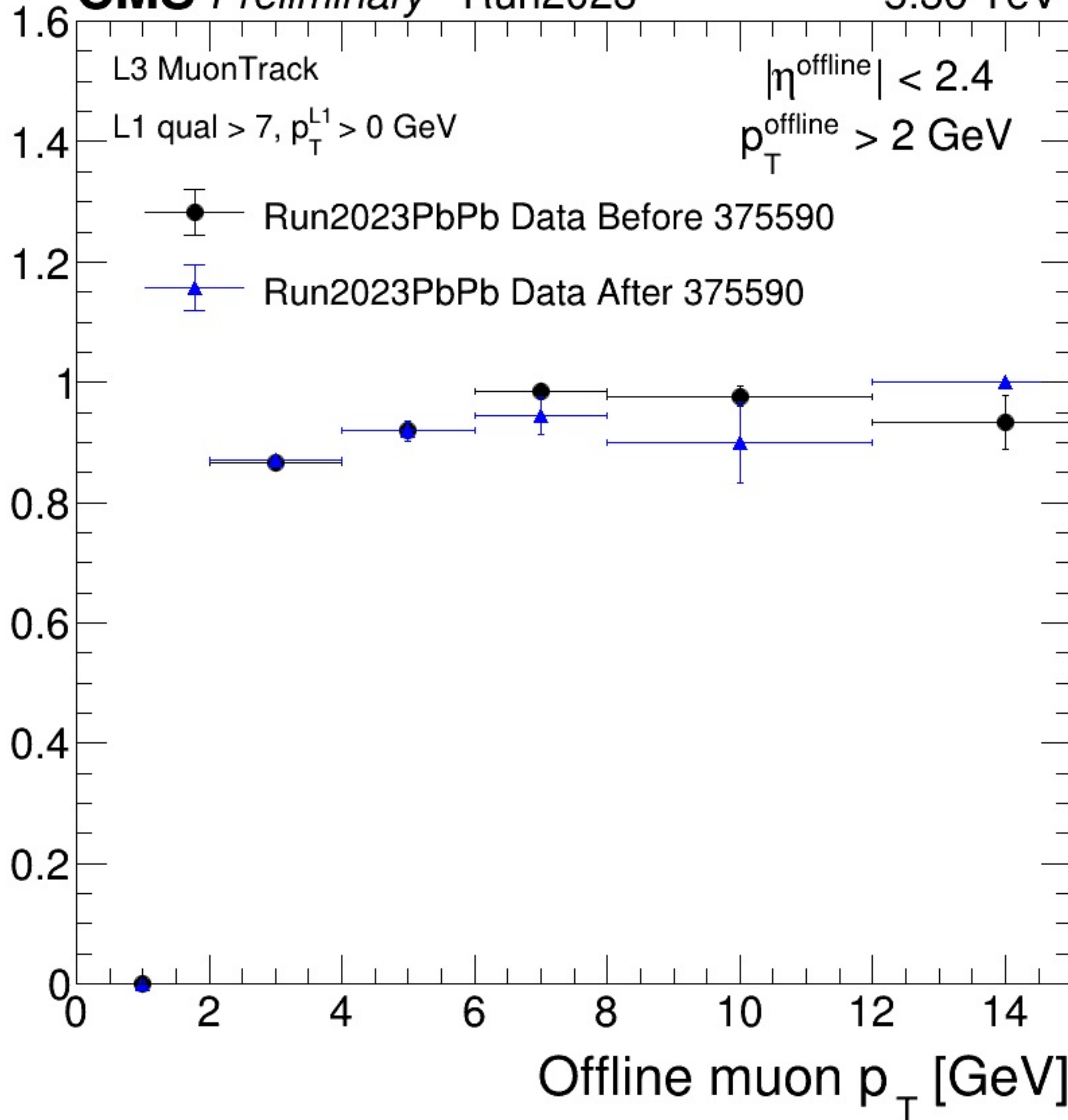


HLT efficiency

L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 2$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590

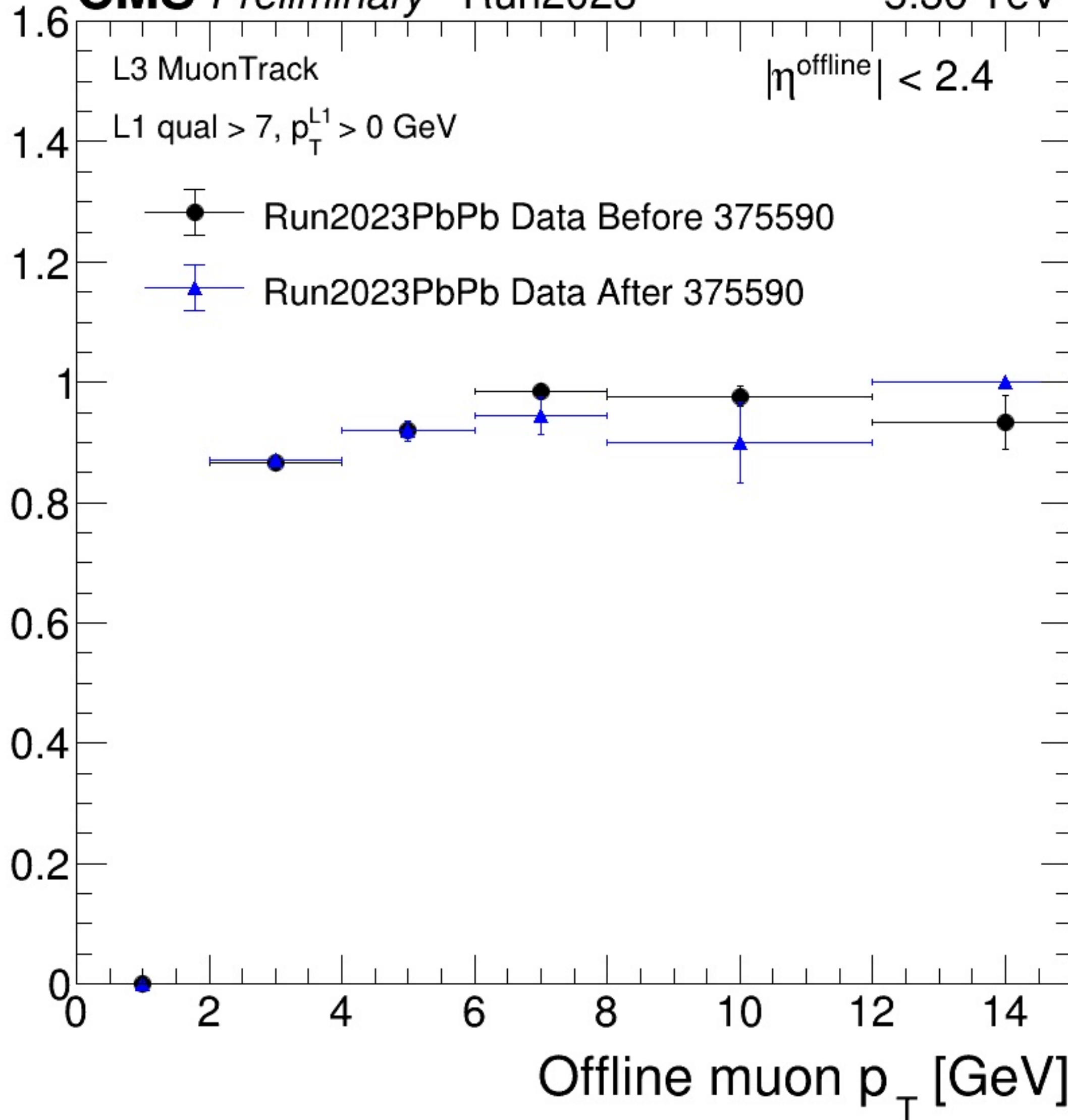


HLT efficiency

L3 MuonTrack

 $|\eta^{\text{offline}}| < 2.4$ L1 qual > 7,  $p_T^{\text{L1}} > 0$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590



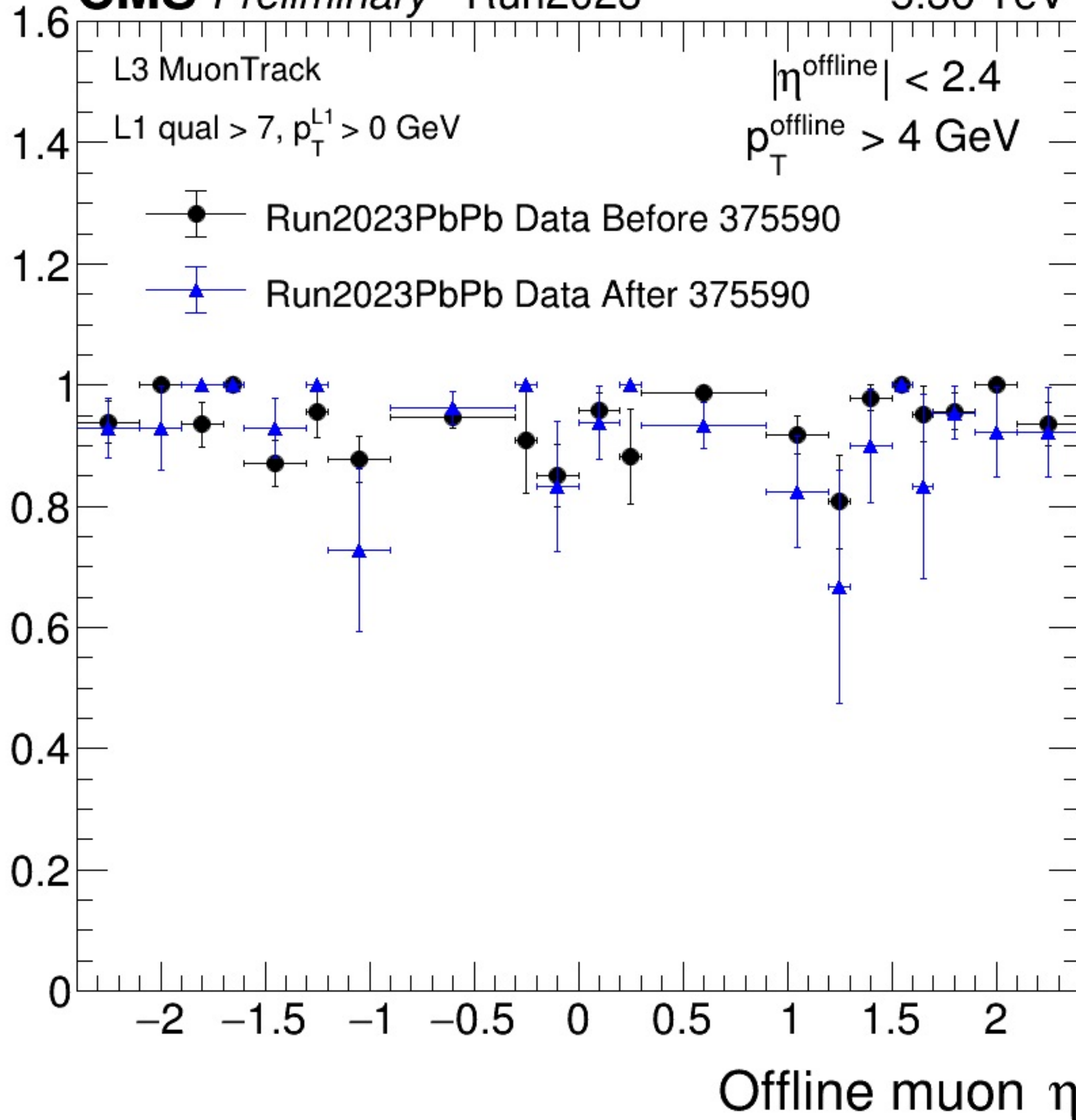
HLT efficiency

L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 4$  GeV

Run2023PbPb Data Before 375590

Run2023PbPb Data After 375590

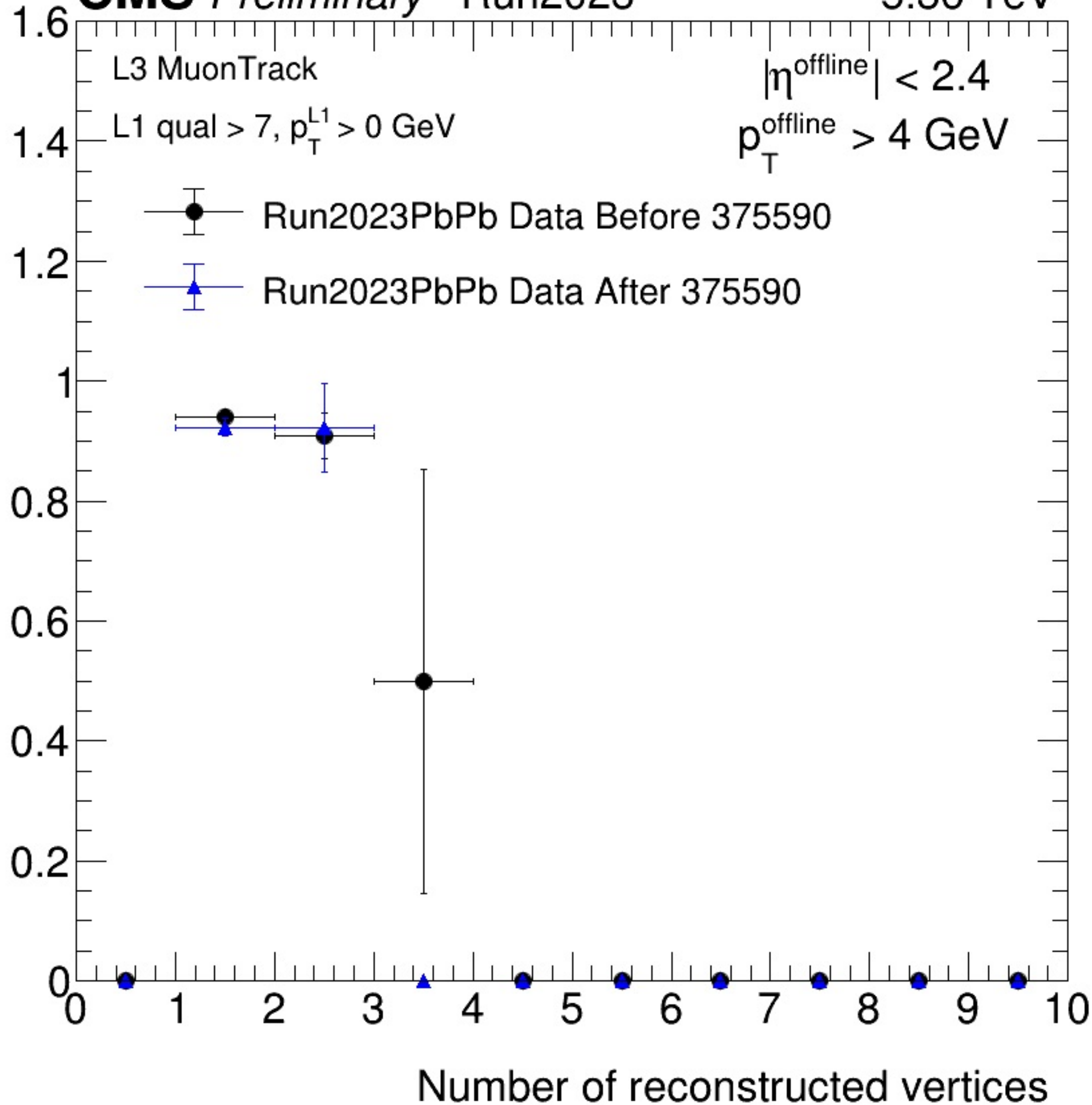


HLT efficiency

L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 4$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590



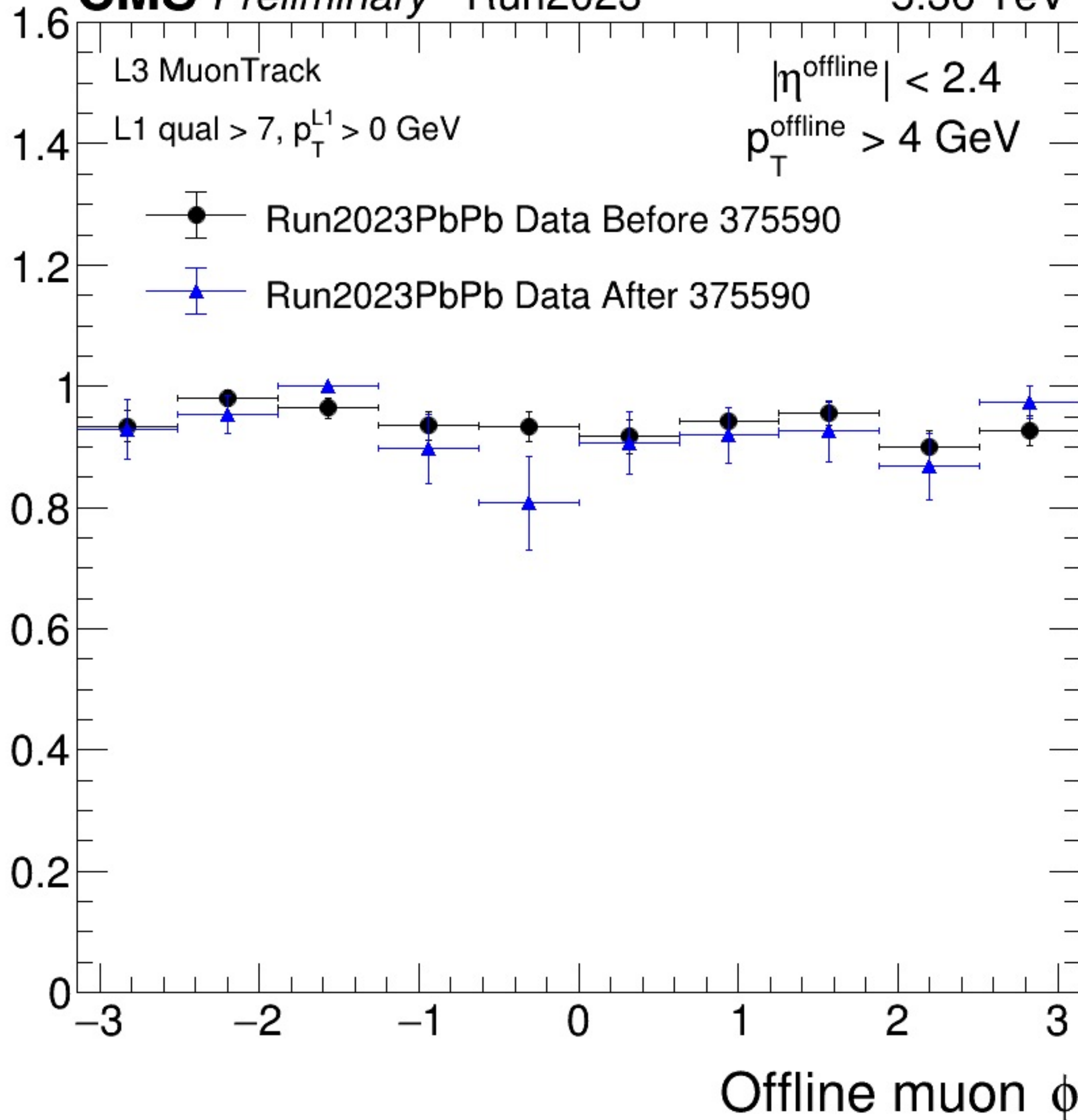
HLT efficiency

L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 4$  GeV

Run2023PbPb Data Before 375590

Run2023PbPb Data After 375590

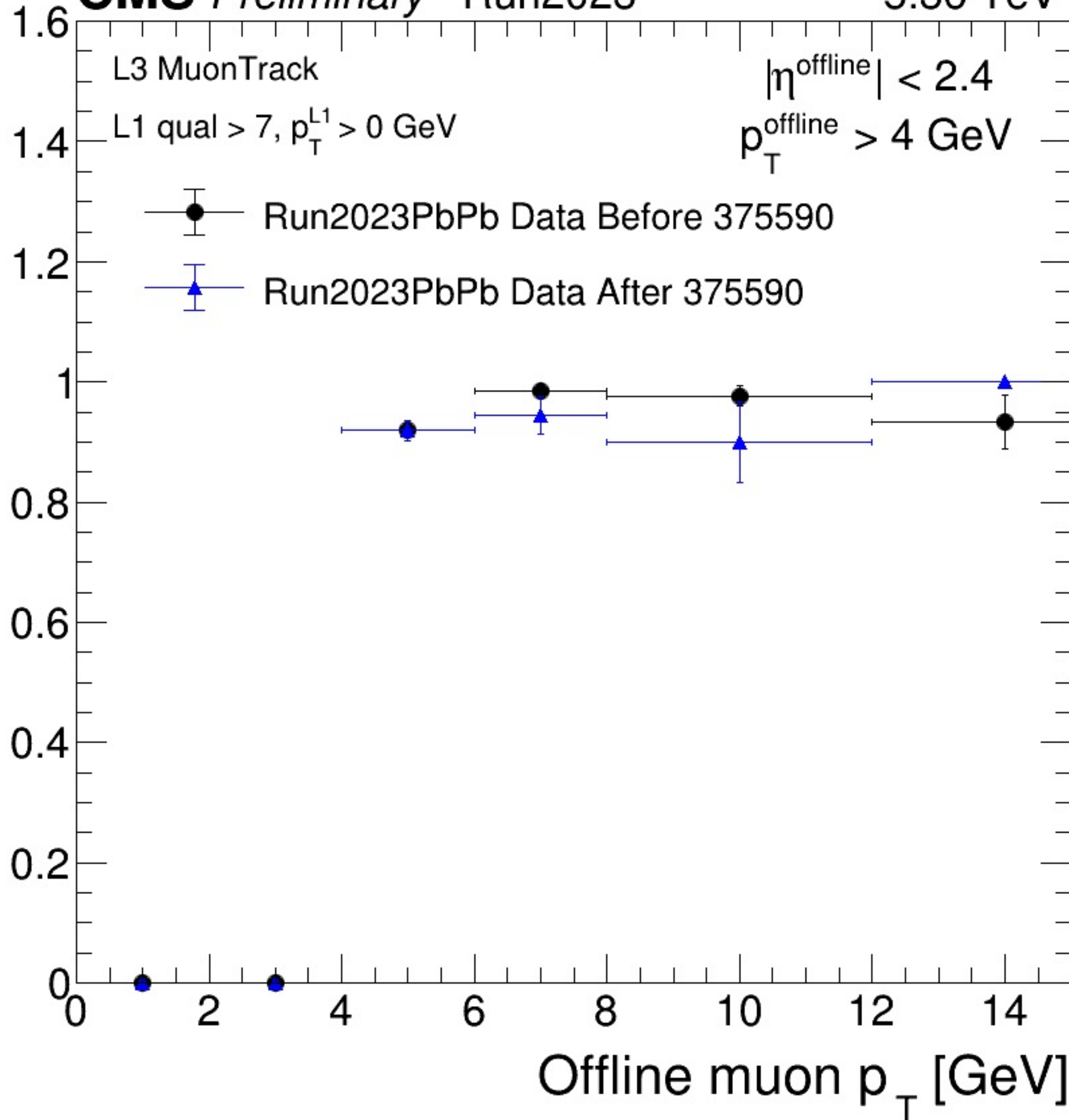


HLT efficiency

L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 4$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590



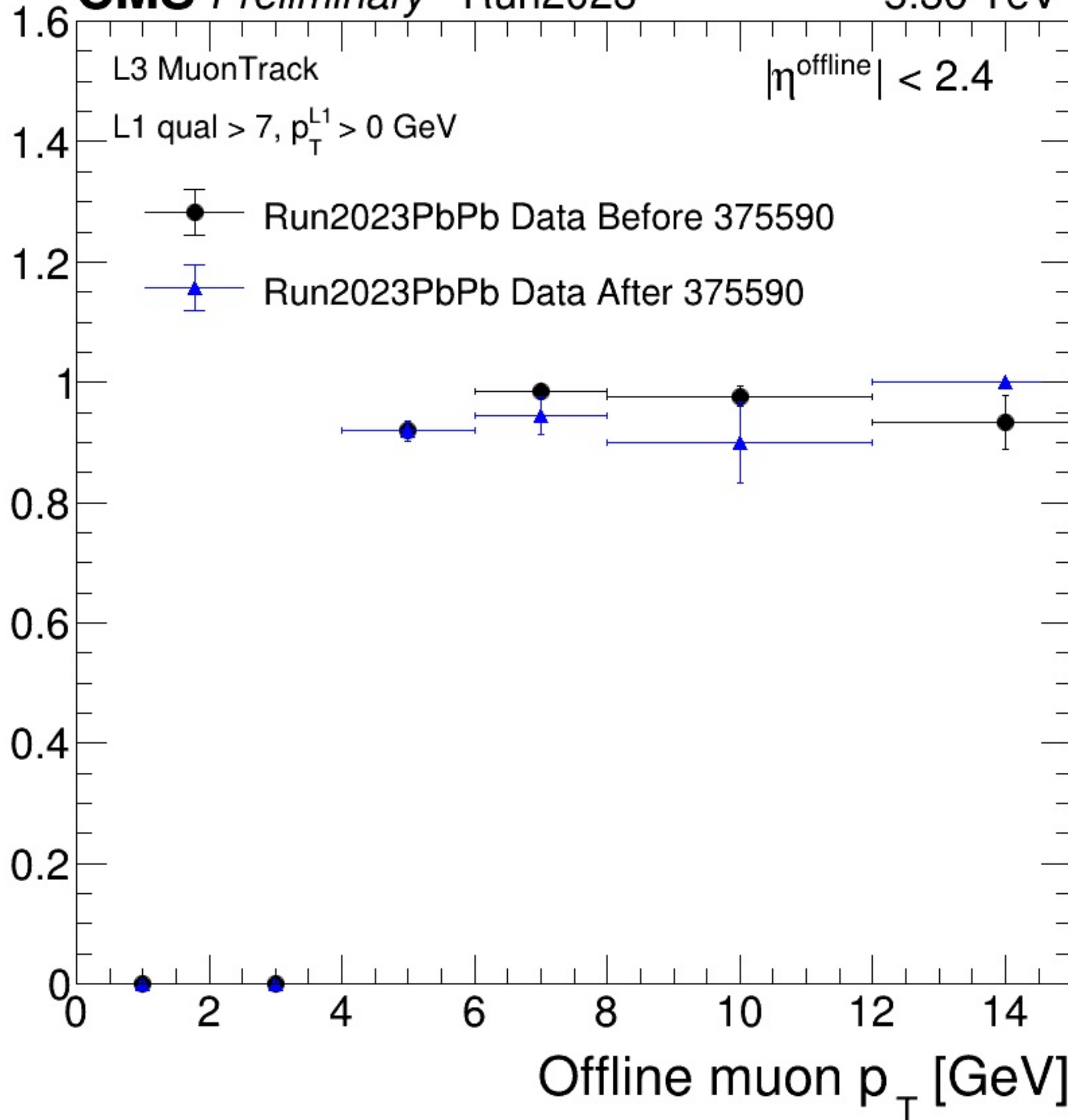


HLT efficiency

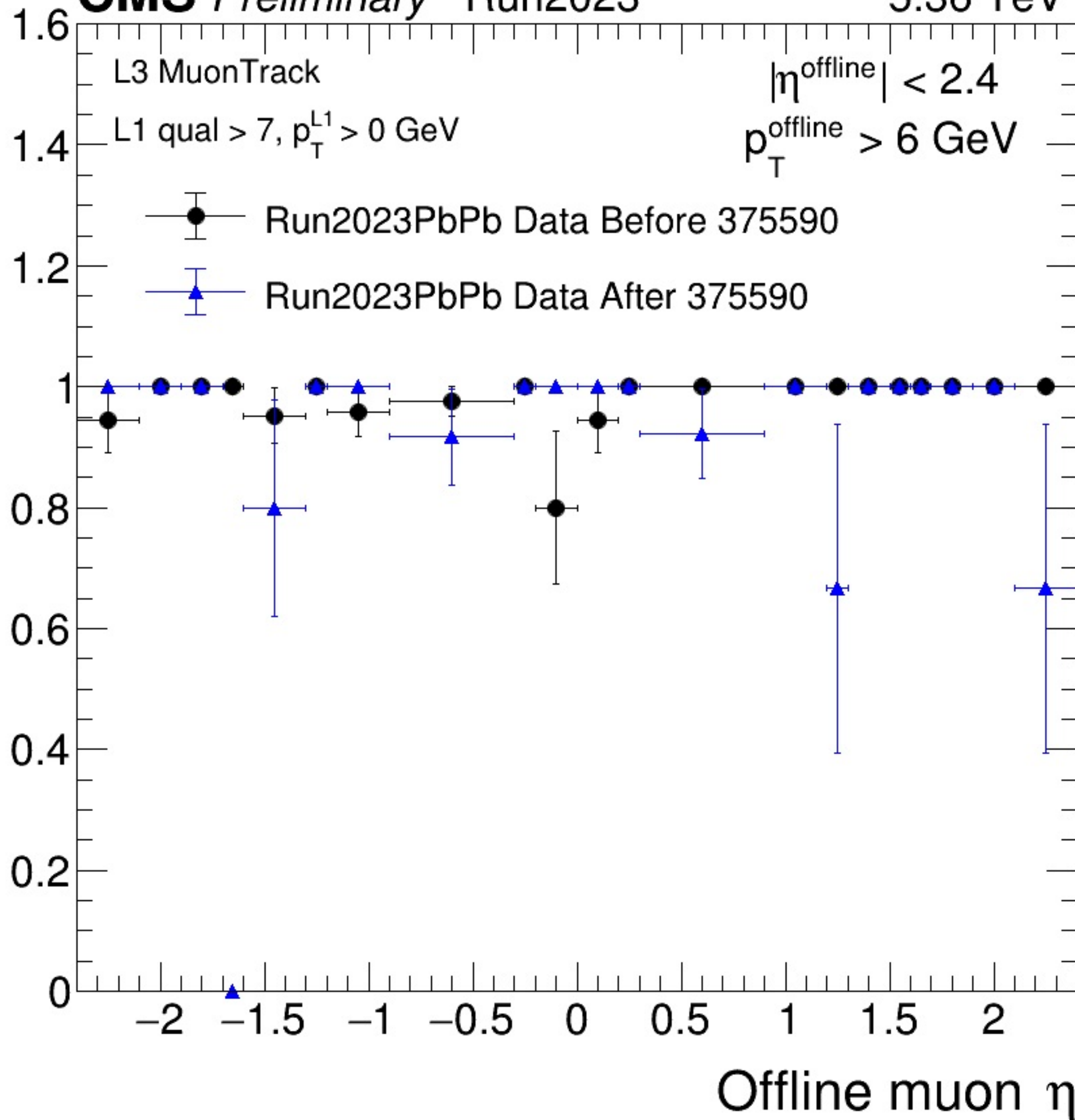
L3 MuonTrack

 $|\eta^{\text{offline}}| < 2.4$ L1 qual > 7,  $p_T^{\text{L1}} > 0$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590



HLT efficiency

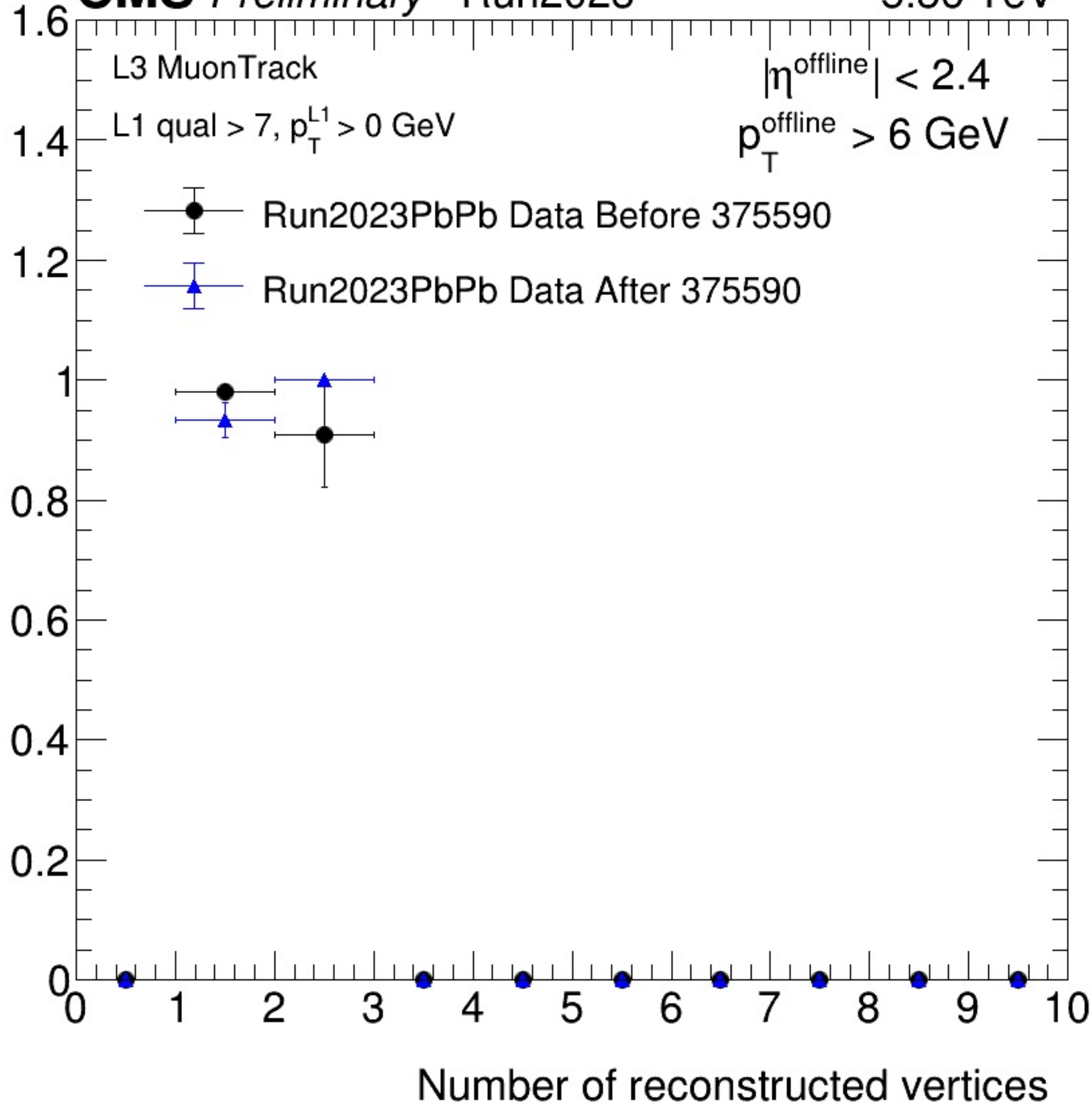


HLT efficiency

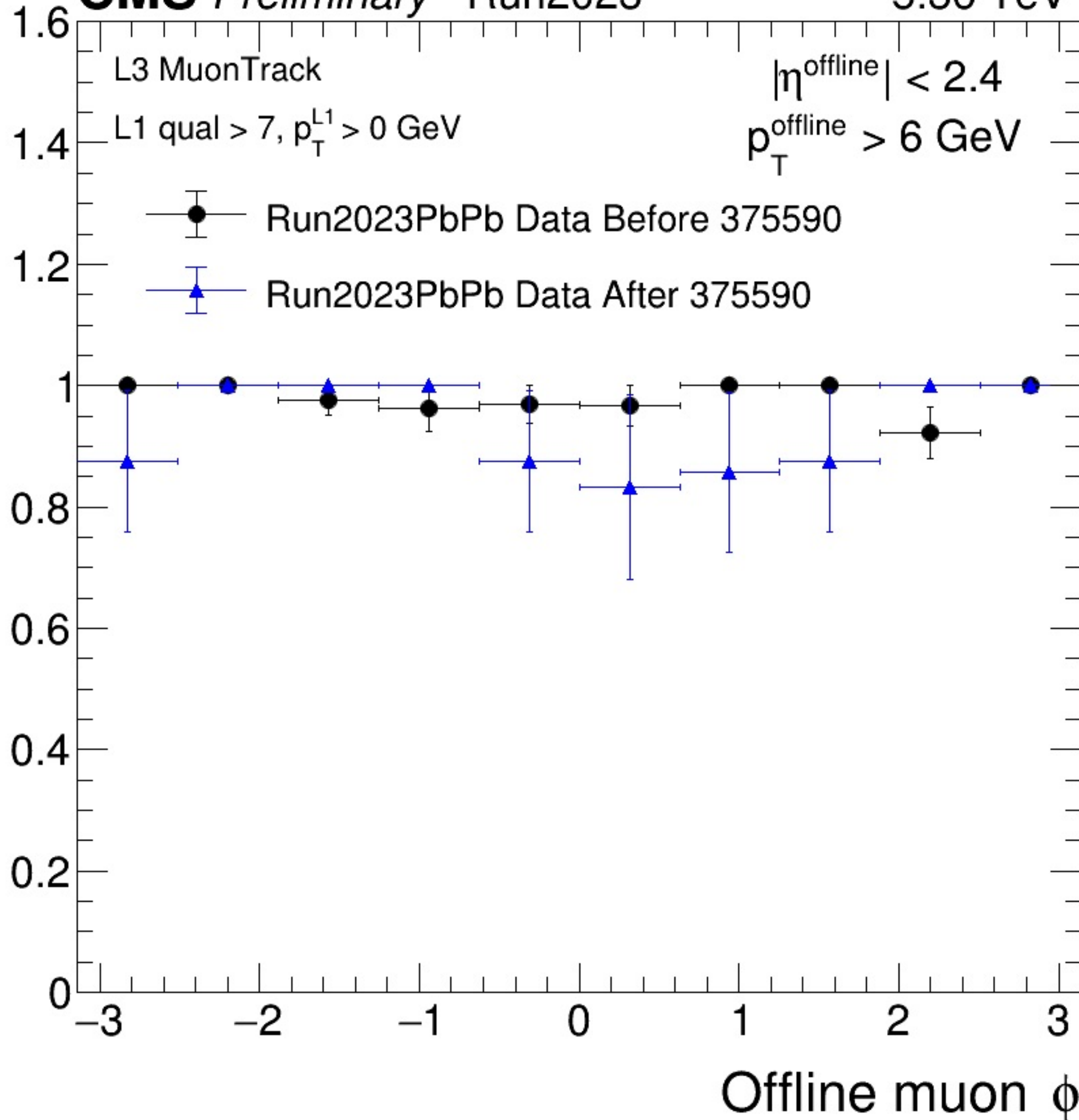
L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 6$  GeV

Run2023PbPb Data Before 375590  
Run2023PbPb Data After 375590



HLT efficiency



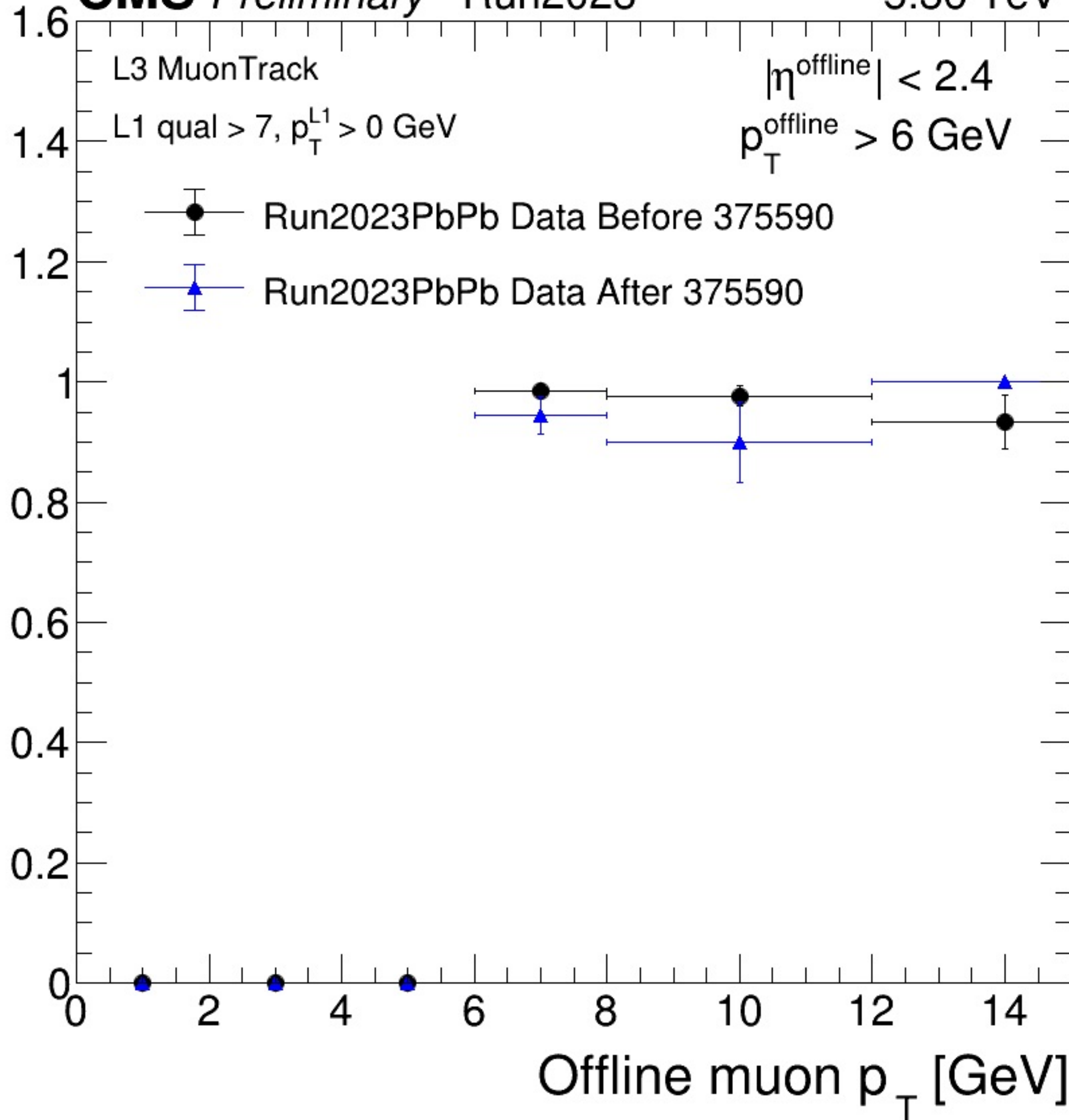
HLT efficiency

L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 6$  GeV

Run2023PbPb Data Before 375590

Run2023PbPb Data After 375590

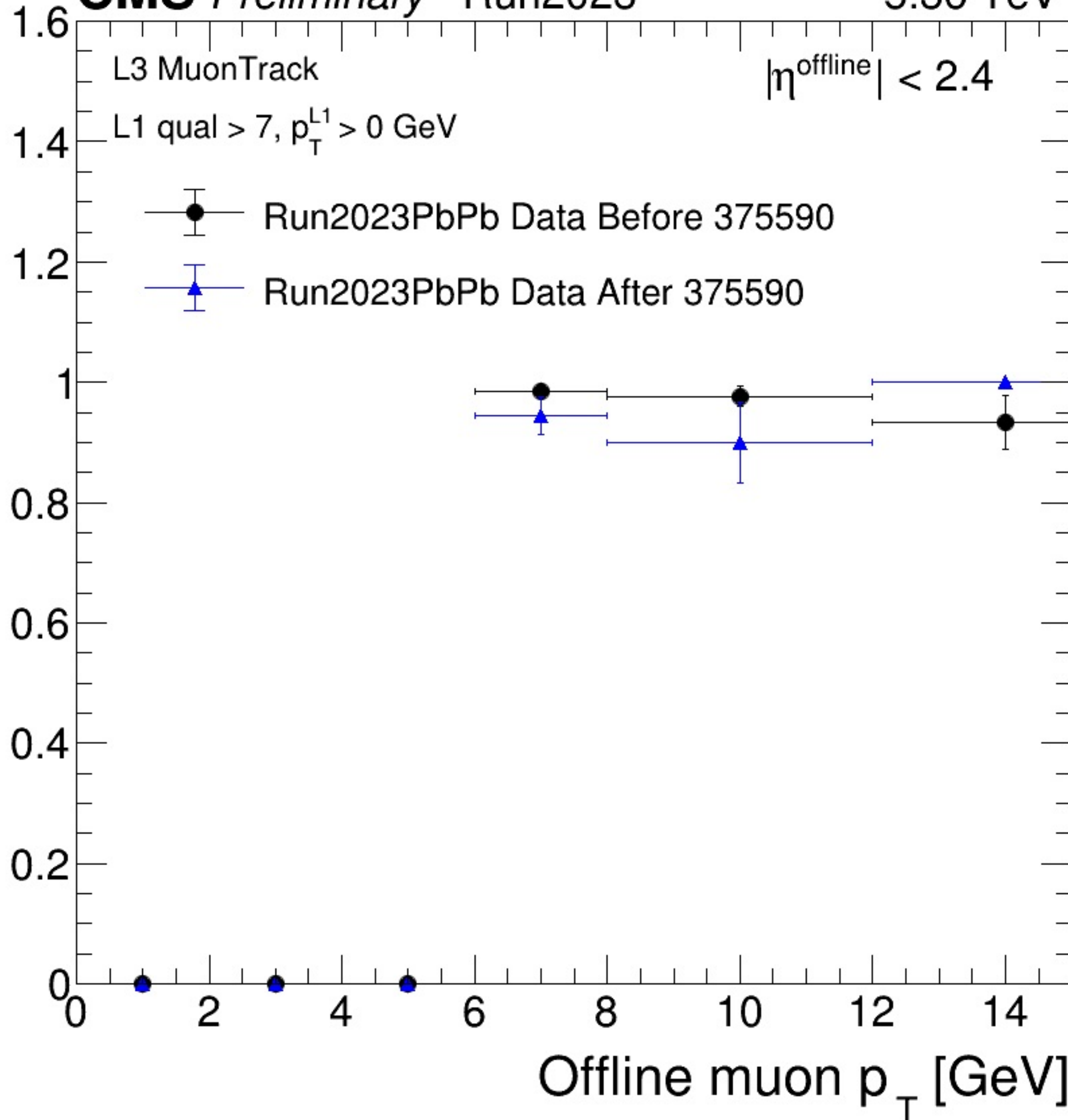


HLT efficiency

L3 MuonTrack

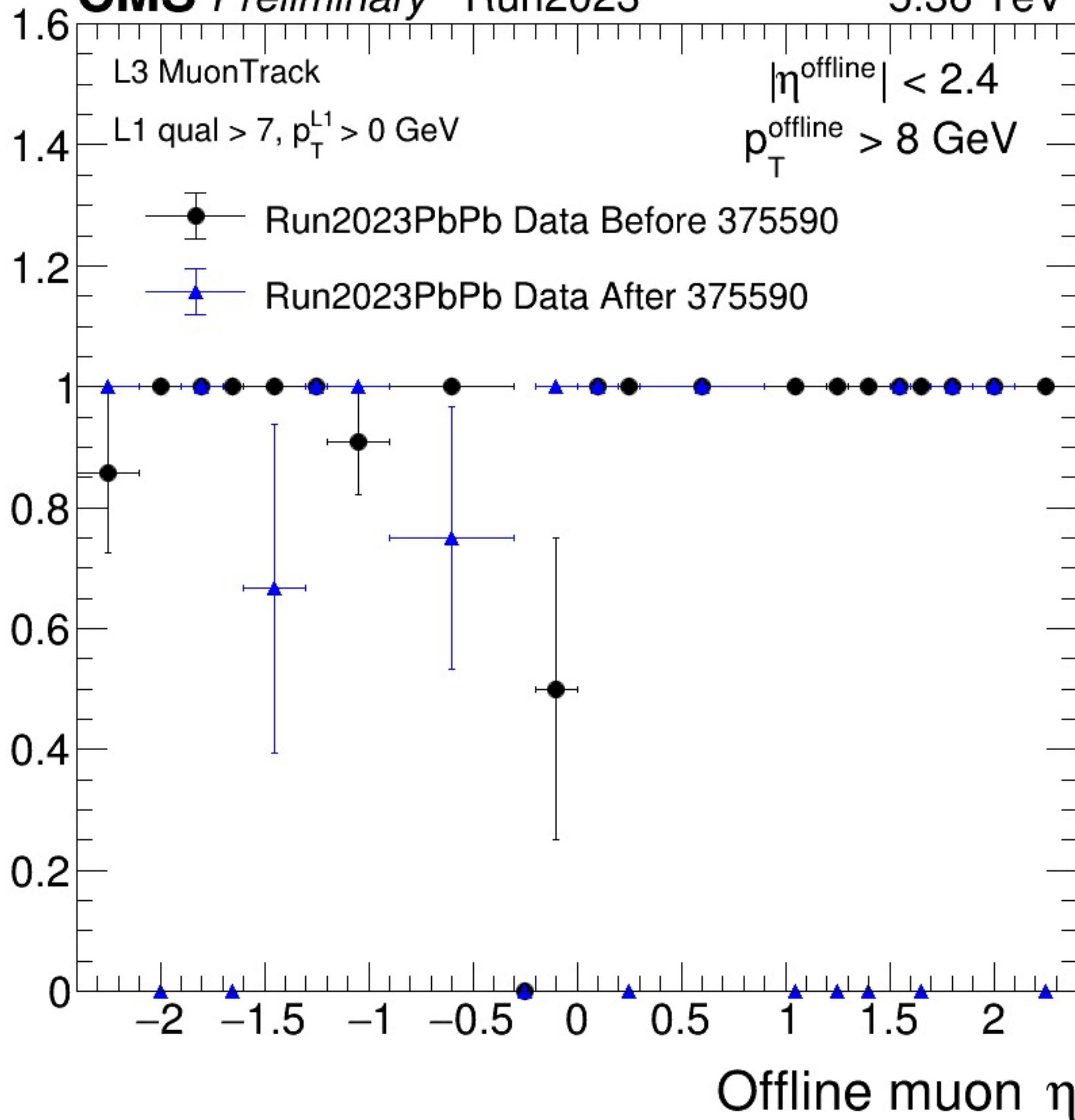
 $|\eta^{\text{offline}}| < 2.4$ L1 qual > 7,  $p_T^{\text{L1}} > 0$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590

Offline muon  $p_T$  [GeV]



HLT efficiency



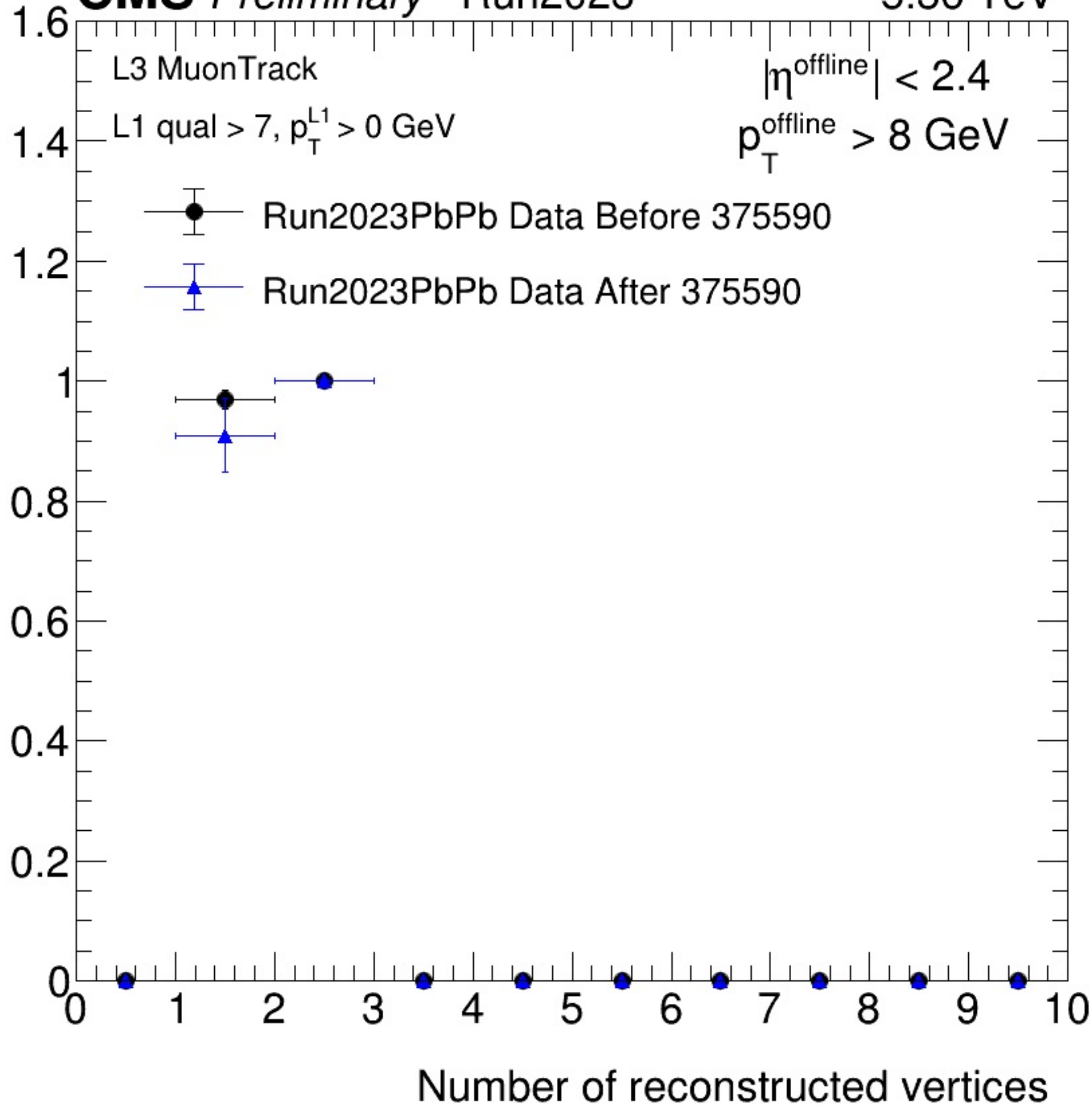
HLT efficiency

L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 8$  GeV

Run2023PbPb Data Before 375590

Run2023PbPb Data After 375590



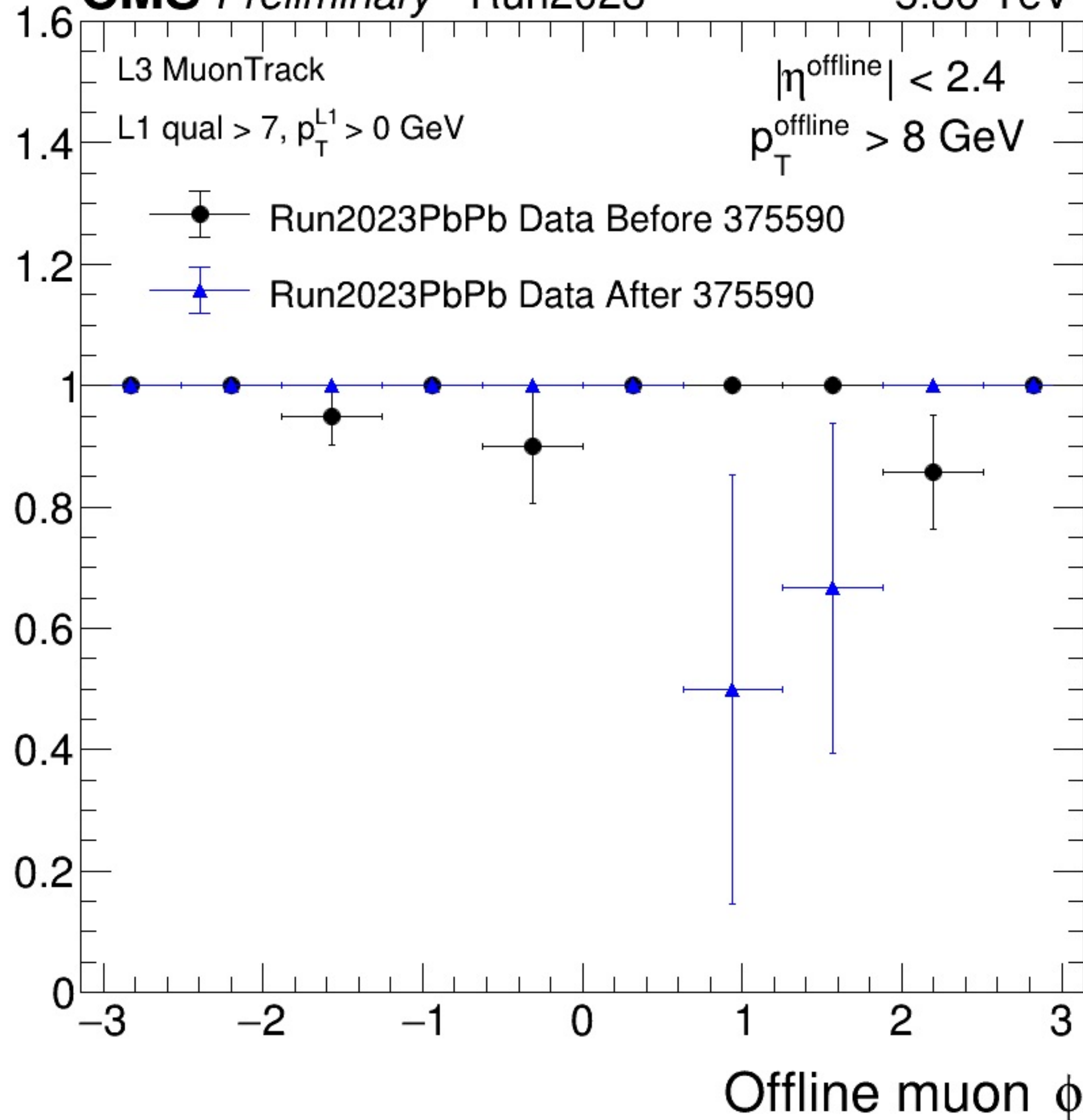
HLT efficiency

L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 8$  GeV

Run2023PbPb Data Before 375590

Run2023PbPb Data After 375590

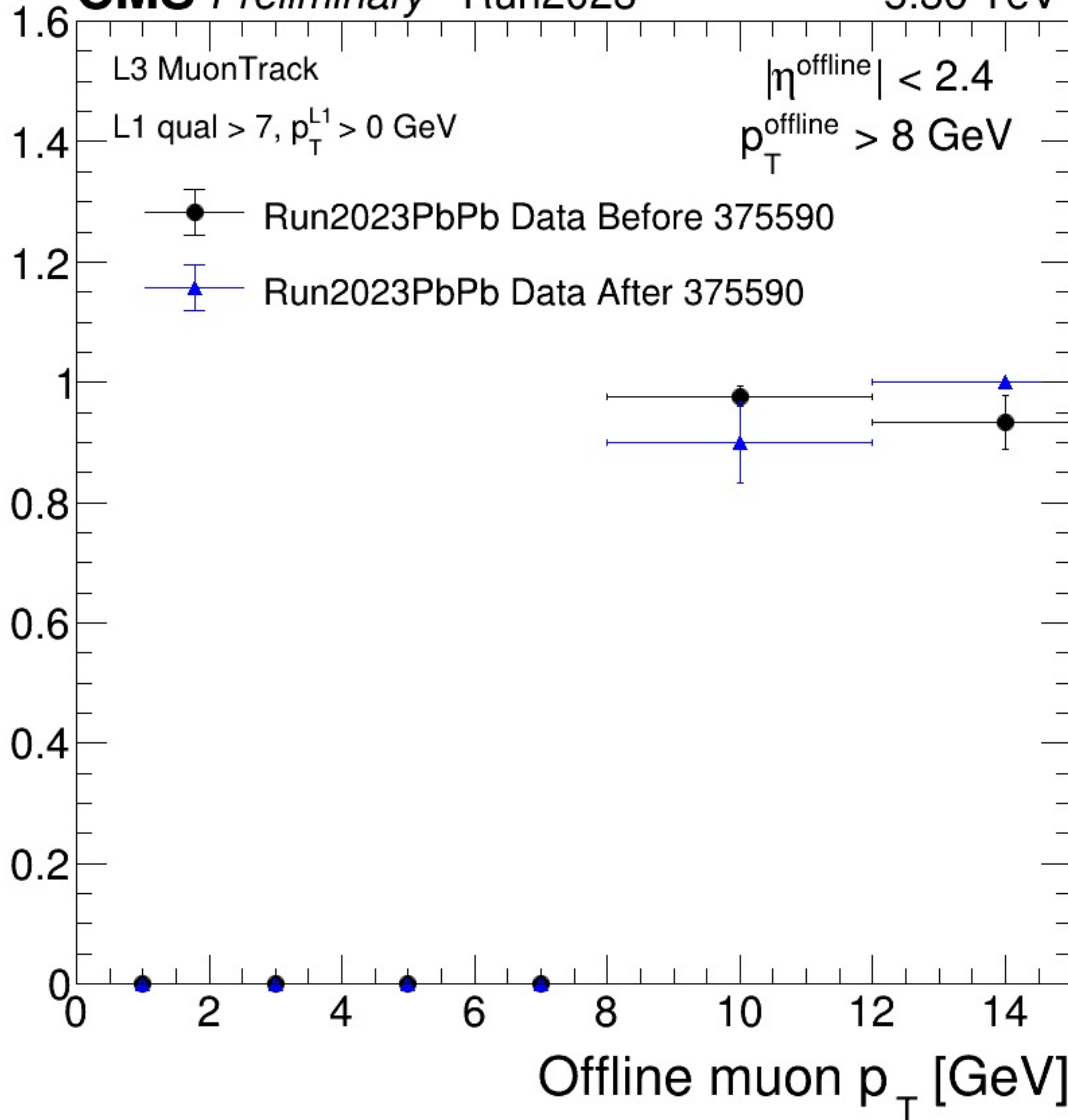


HLT efficiency

L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 8$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590

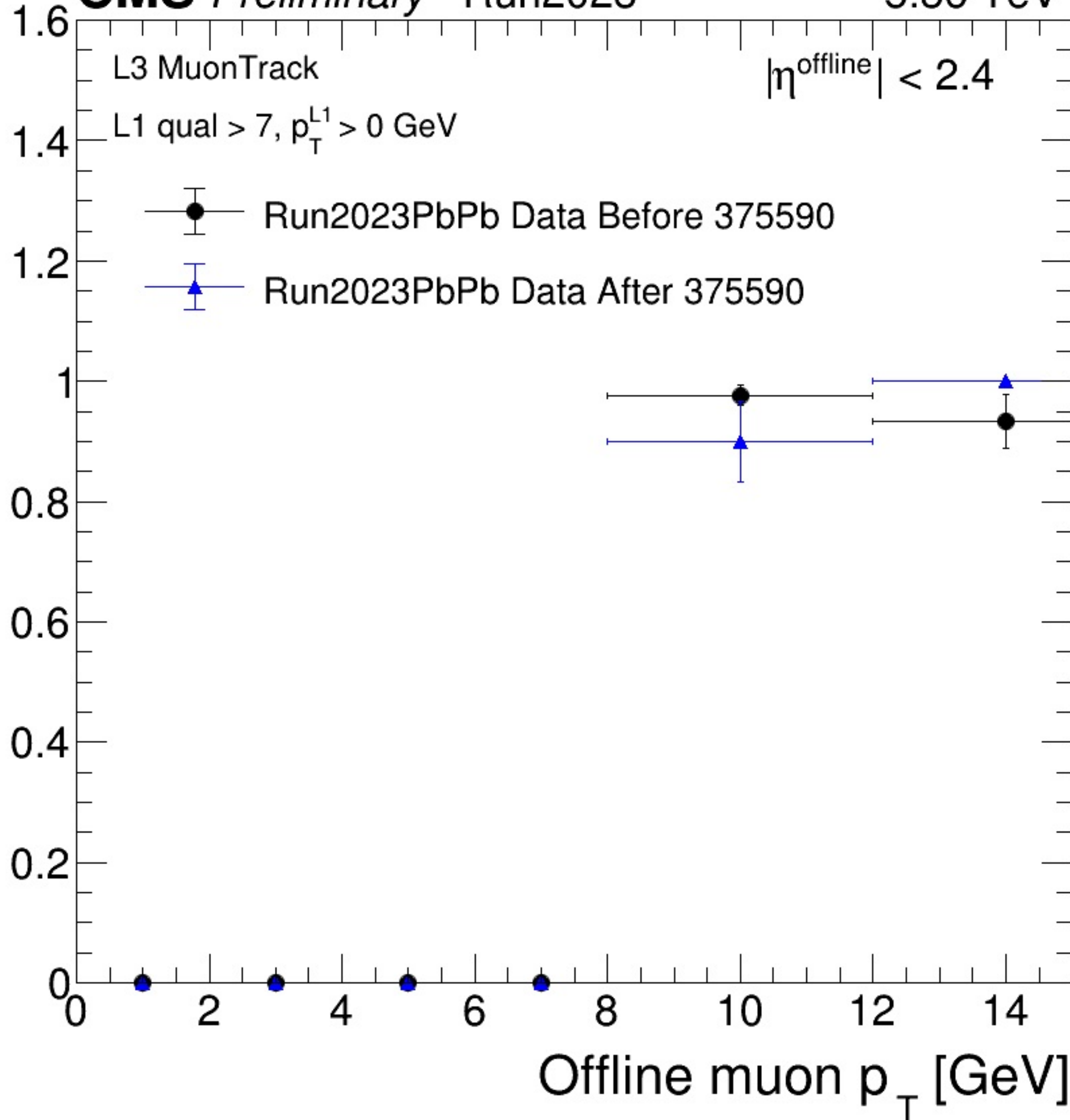


HLT efficiency

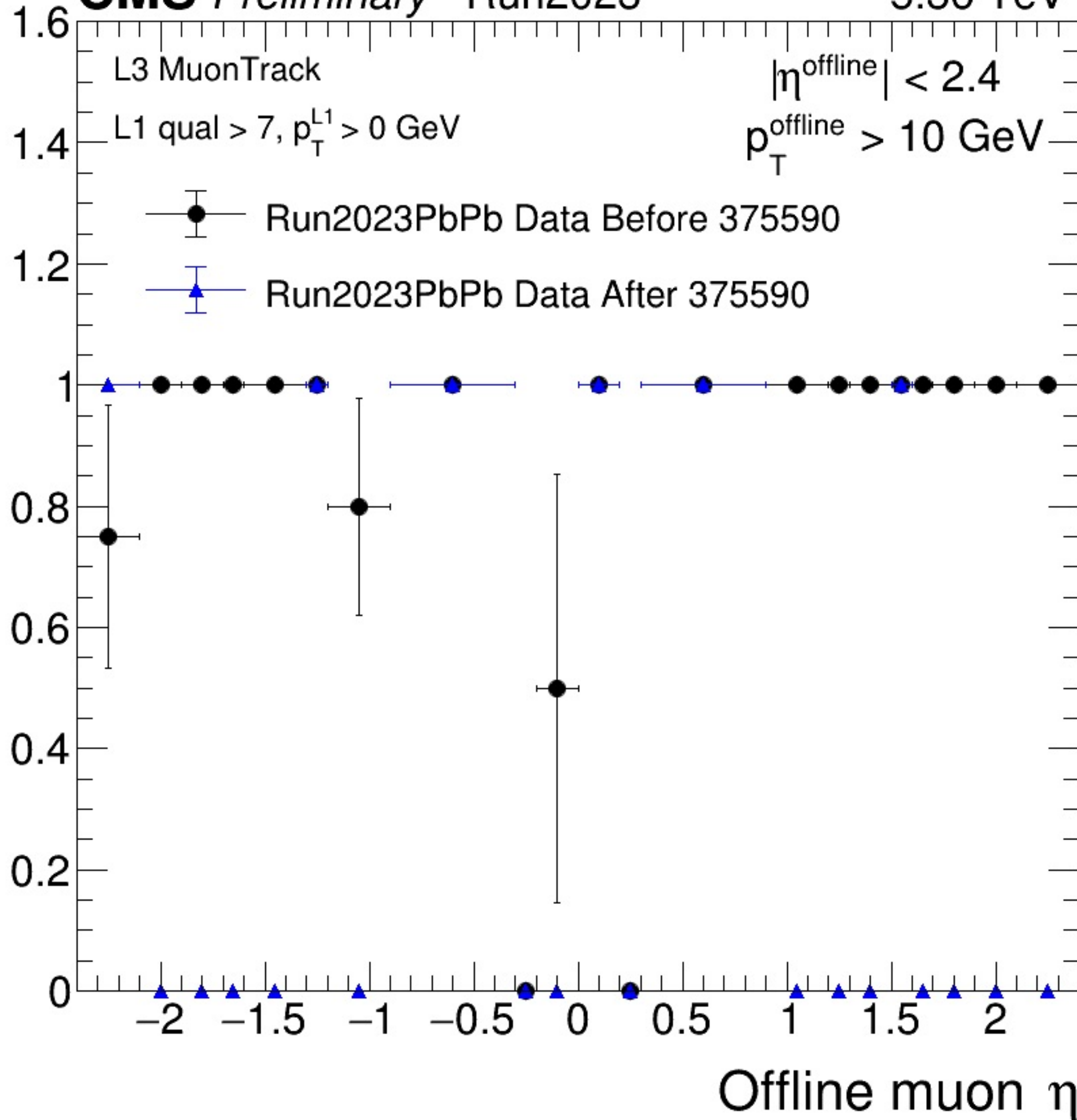
L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$ 

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590



HLT efficiency



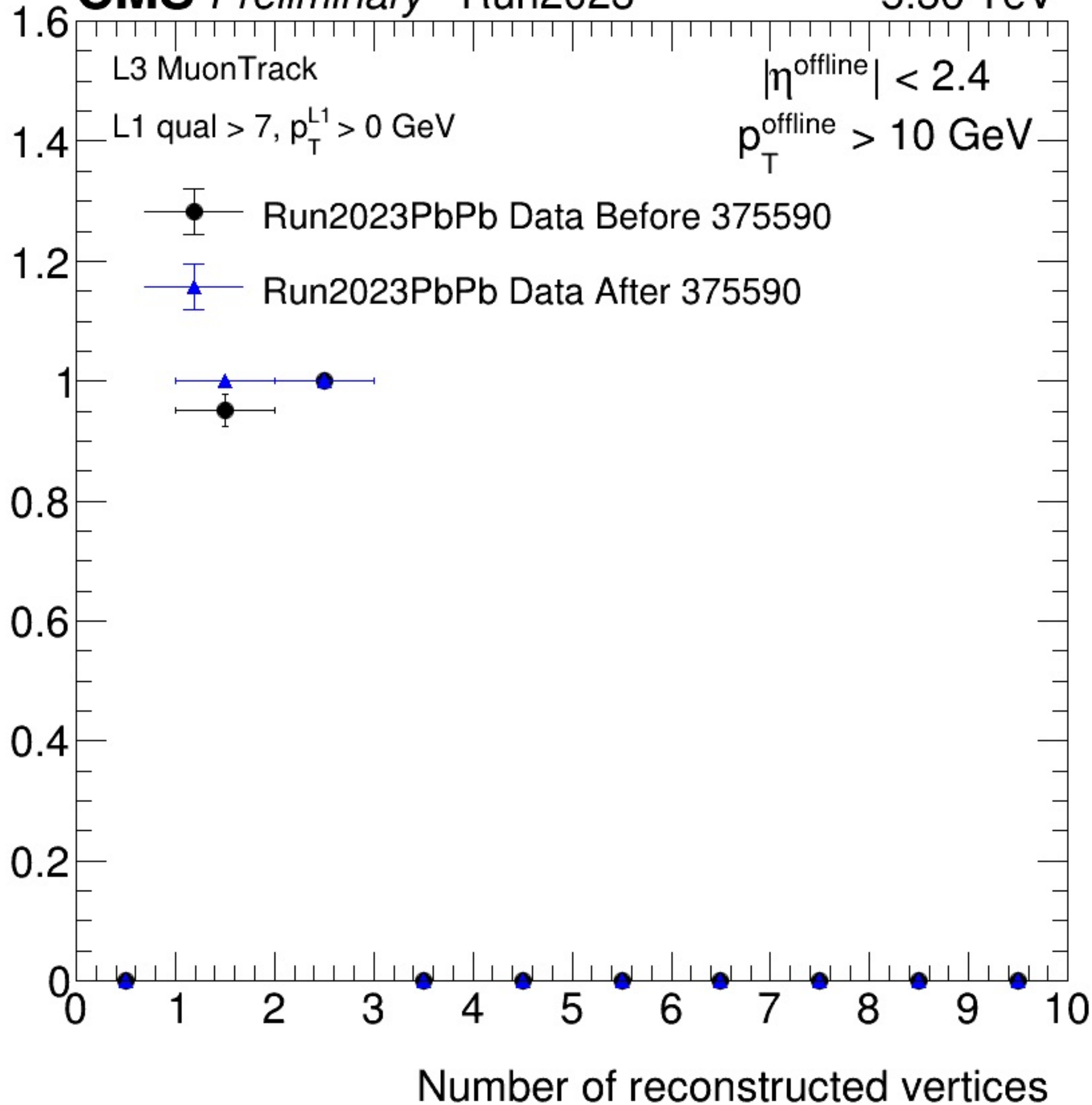


HLT efficiency

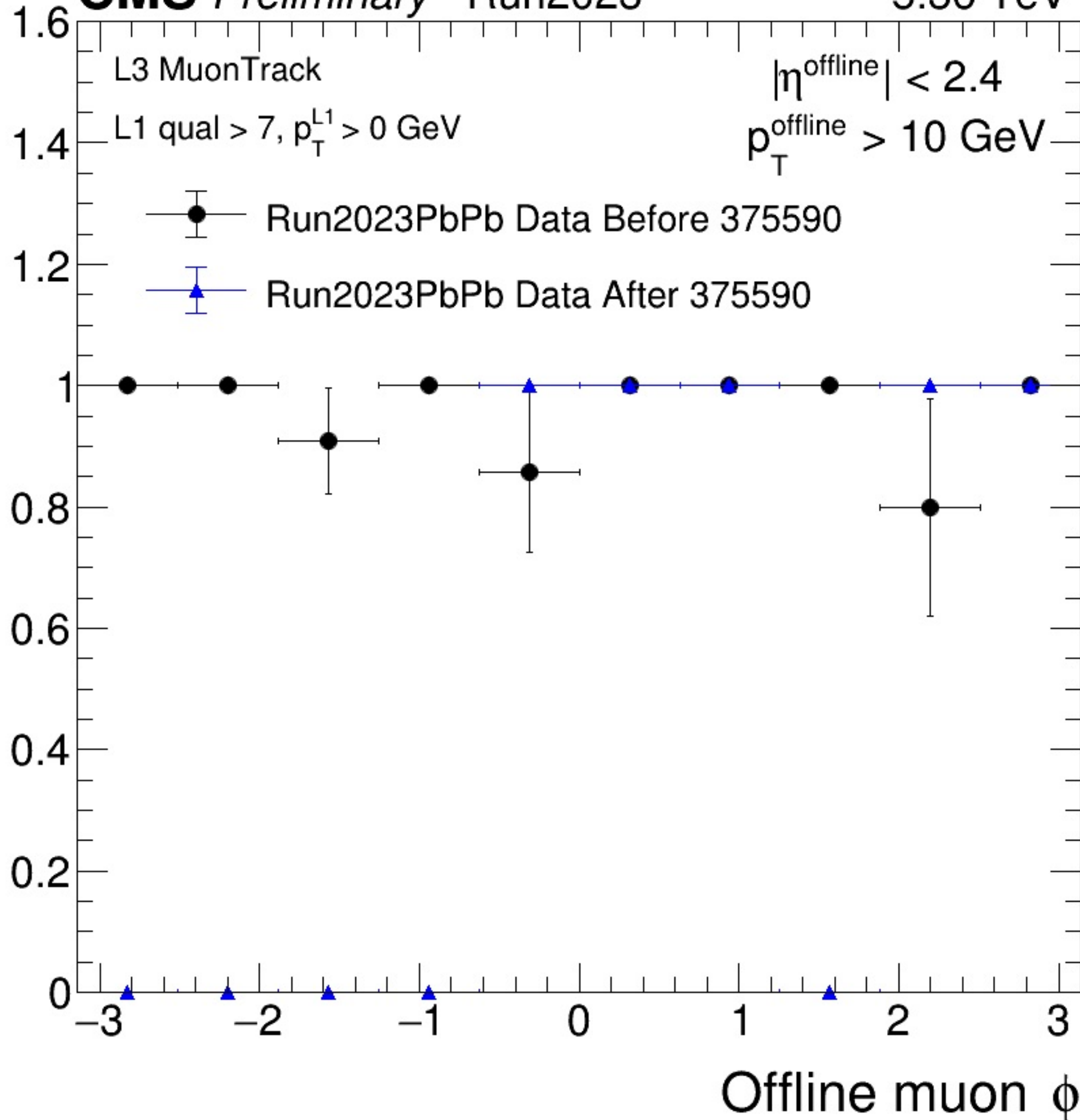
L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 10$  GeV

Run2023PbPb Data Before 375590  
Run2023PbPb Data After 375590



HLT efficiency

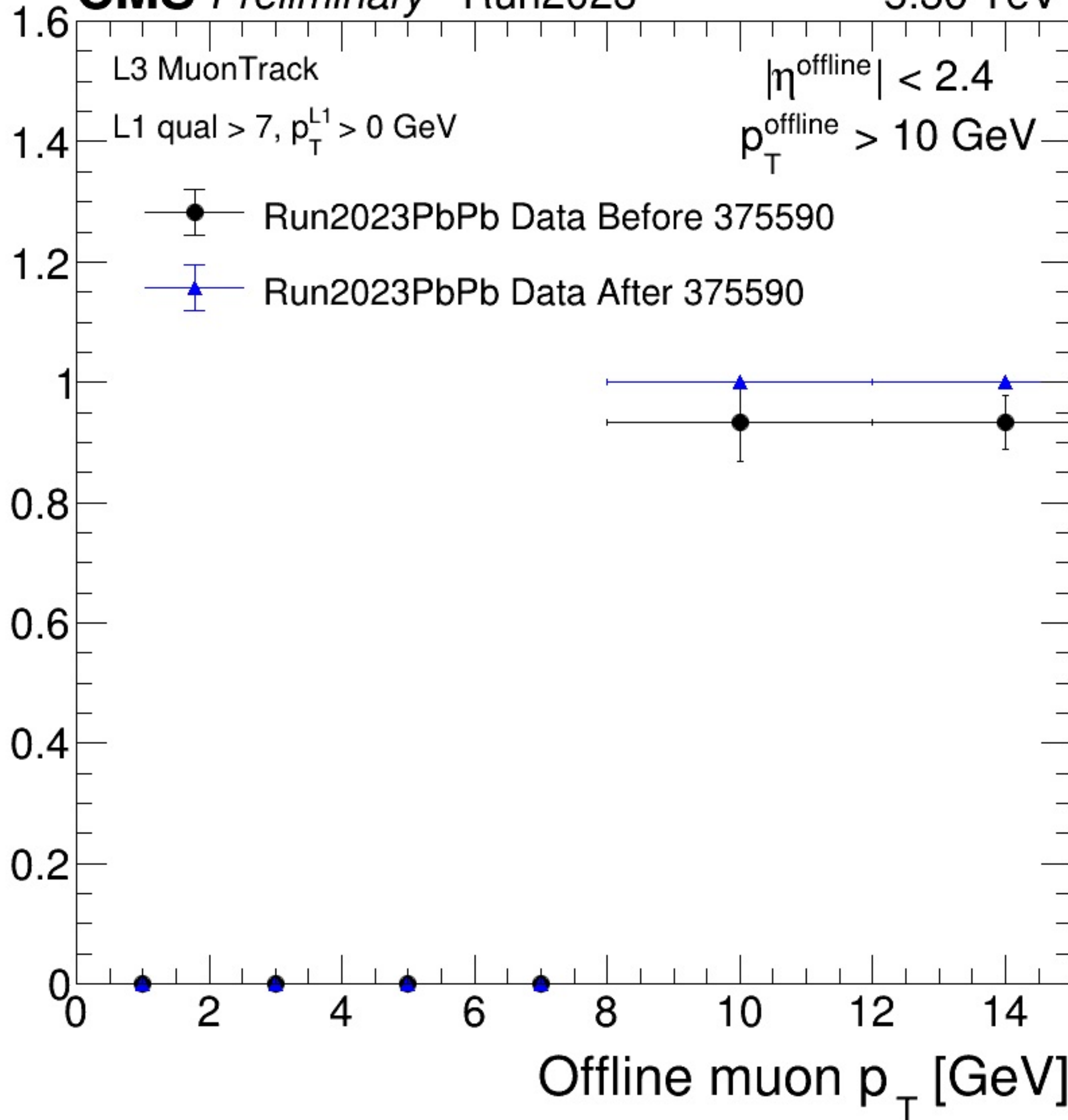


HLT efficiency

L3 MuonTrack

L1 qual > 7,  $p_T^{L1} > 0$  GeV $|\eta^{\text{offline}}| < 2.4$  $p_T^{\text{offline}} > 10$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590



HLT efficiency

L3 MuonTrack

 $|\eta^{\text{offline}}| < 2.4$ L1 qual > 7,  $p_T^{\text{L1}} > 0$  GeV

- Run2023PbPb Data Before 375590
- Run2023PbPb Data After 375590

