

Table of Contents

HLT mode C - LHC11h.....	1
November 23, 2011.....	1
Run 167920.....	1
1 - Cluster distributions: Energy, Eta and Phi.....	1
2 - Preliminary Conclusions.....	3
Run 167920 (Track Matching).....	3
3 - Track Matching: E/P, dEta, dPhi.....	3
4 - Preliminary Conclusions.....	5

HLT mode C - LHC11h

We have been studying some runs from LHC11h which contains the the EMCAL-HLT inside the reconstruction chain. The purposes of these studies is to check how the HLT reconstruction looks like and also do some track-cluster matching QA. For the latest runs, there are also the HLT trigger decision for Gamma and electron trigger, which need to be validated.

November 23, 2011

Run 167920

1 - Cluster distributions: Energy, Eta and Phi

For this purpose, some jobs were submitted to the GRID, using AliESDInputHandler:GetHLTEvent(), so that one could look into both HLT and ESD event (examples are provided attached to this page).

Around 5k Events were analyzed after L1(Gamma trigger selected -kEMCEGA).

Figure 1.1 - Cluster Energy HLT and ESD

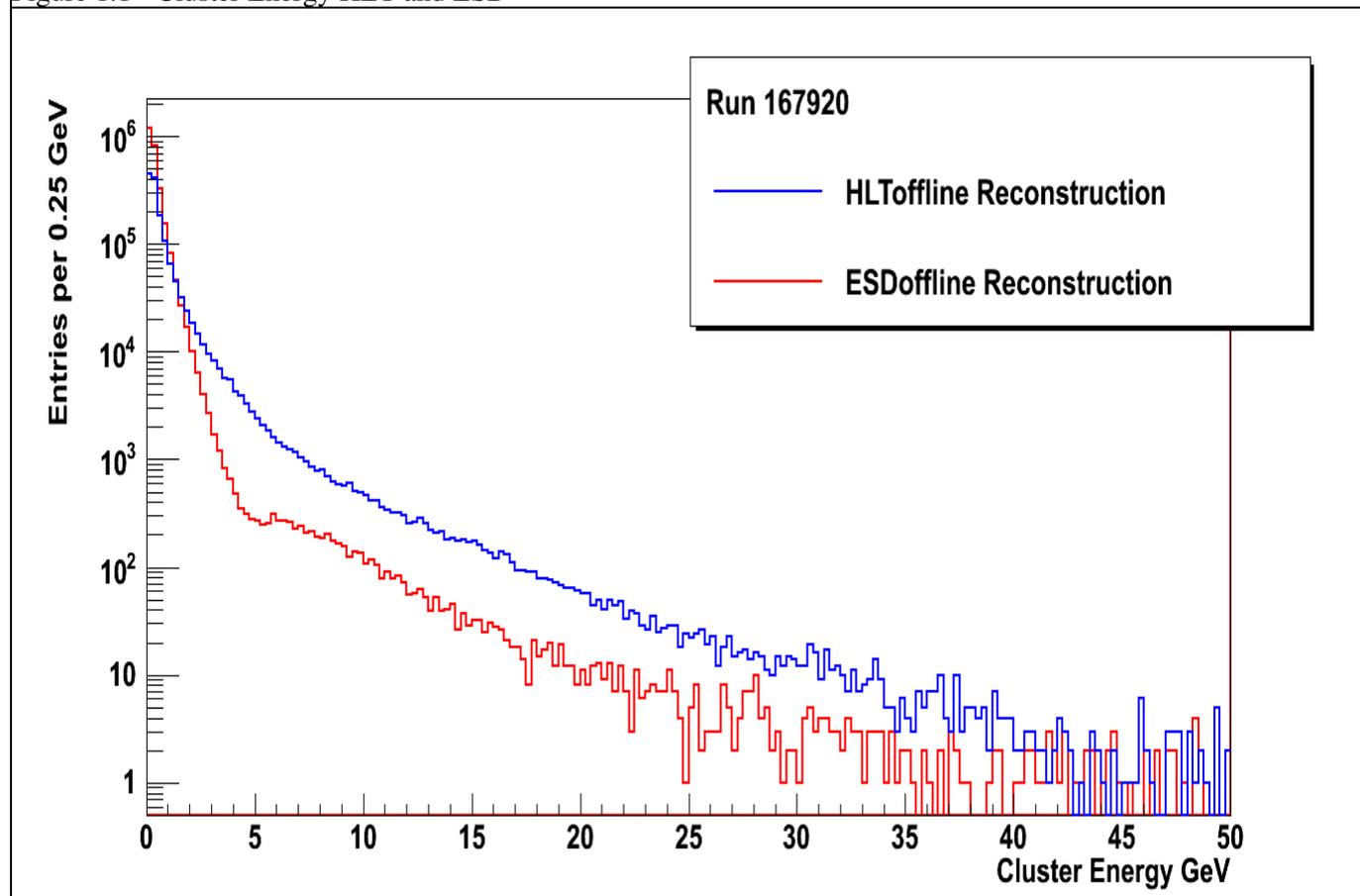


Figure 1.2 - Cluster Eta for ESD and HLT reconstruction

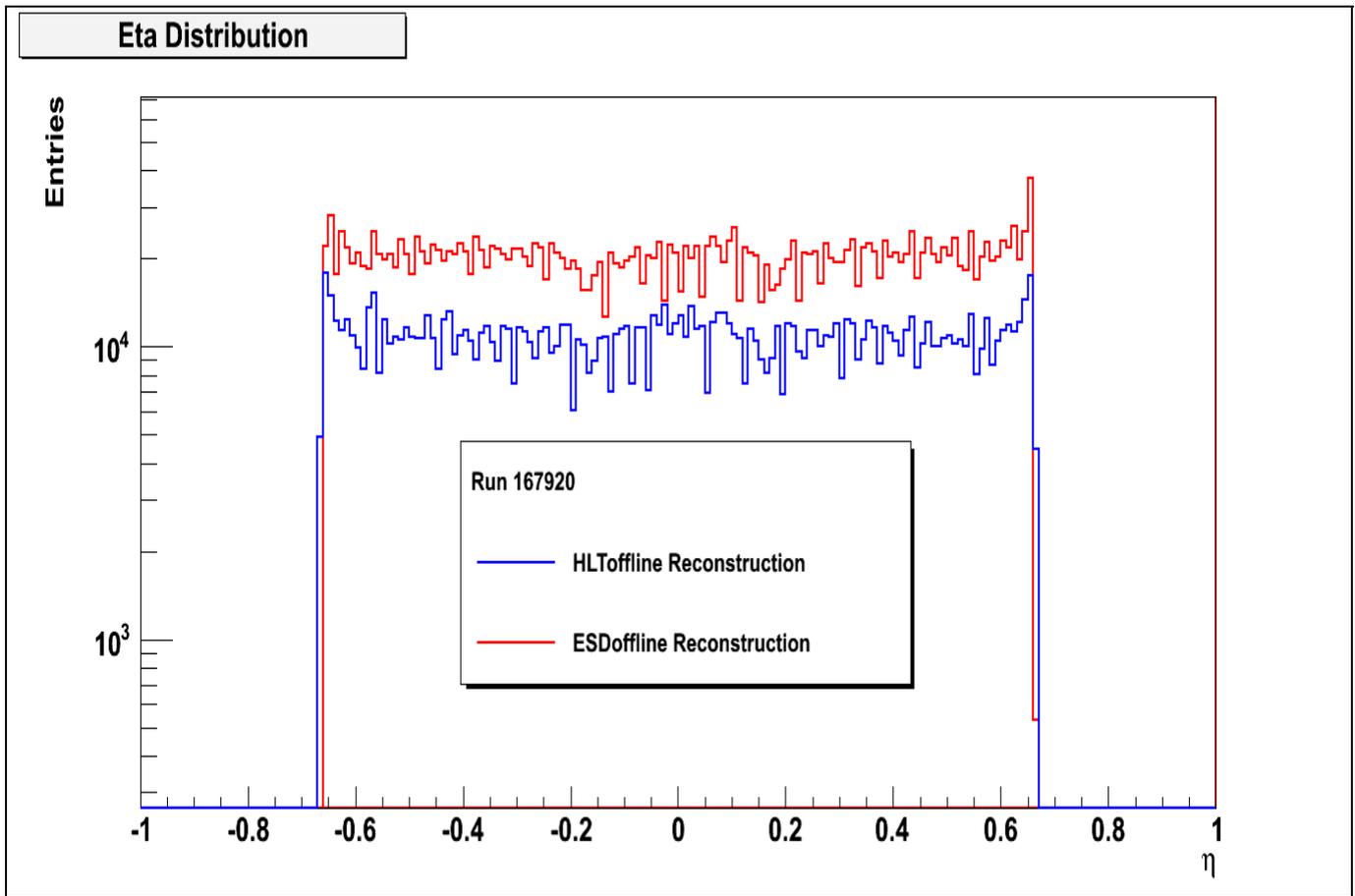
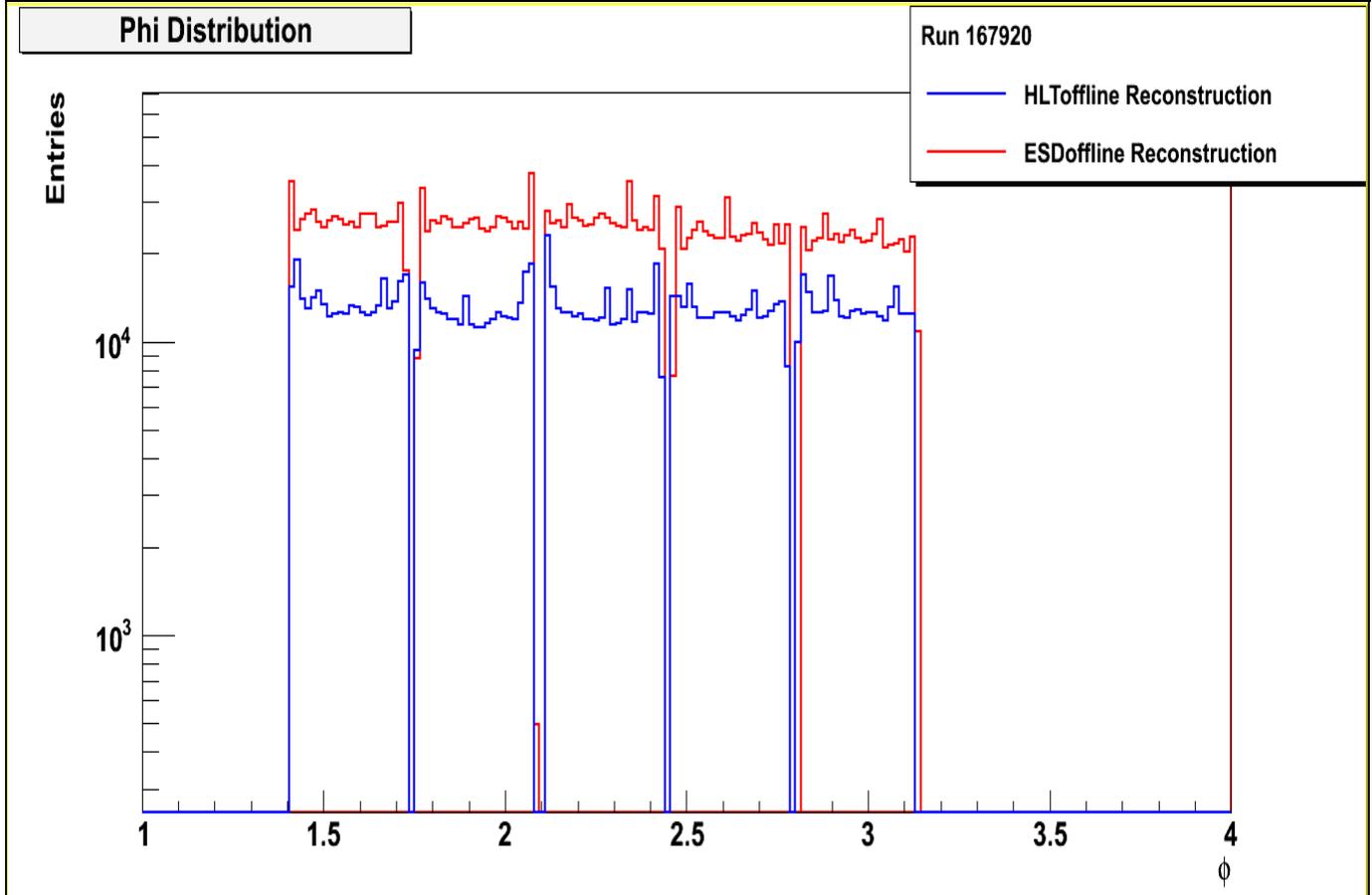


Figure 1.3 - Cluster Phi for ESD and HLT reconstruction



2 - Preliminary Conclusions

The behavior for the angular distribution of the HLT-clusters(EMCAL) reconstructed seems to be ok(no clear difference). The behavior of the cluster energy seems not not be ok. We do not clearly see the bump do trigger region, as one can clearly see for the ESD case. We need to investigate what is happening with the reconstruction.

Run 167920 (Track Matching)

3 - Track Matching: E/P, dEta, dPhi.

For this purpose, some jobs were submitted to the GRID, using AliESDInputHandler:GetHLTEvent(), so that one could look into both HLT and ESD event (examples are provided attached to this page).

Around 500 Events were analyzed after L1(Gamma trigger selected -kEMCEGA).

Figure 3.1 - Cluster Energy HLT and ESD

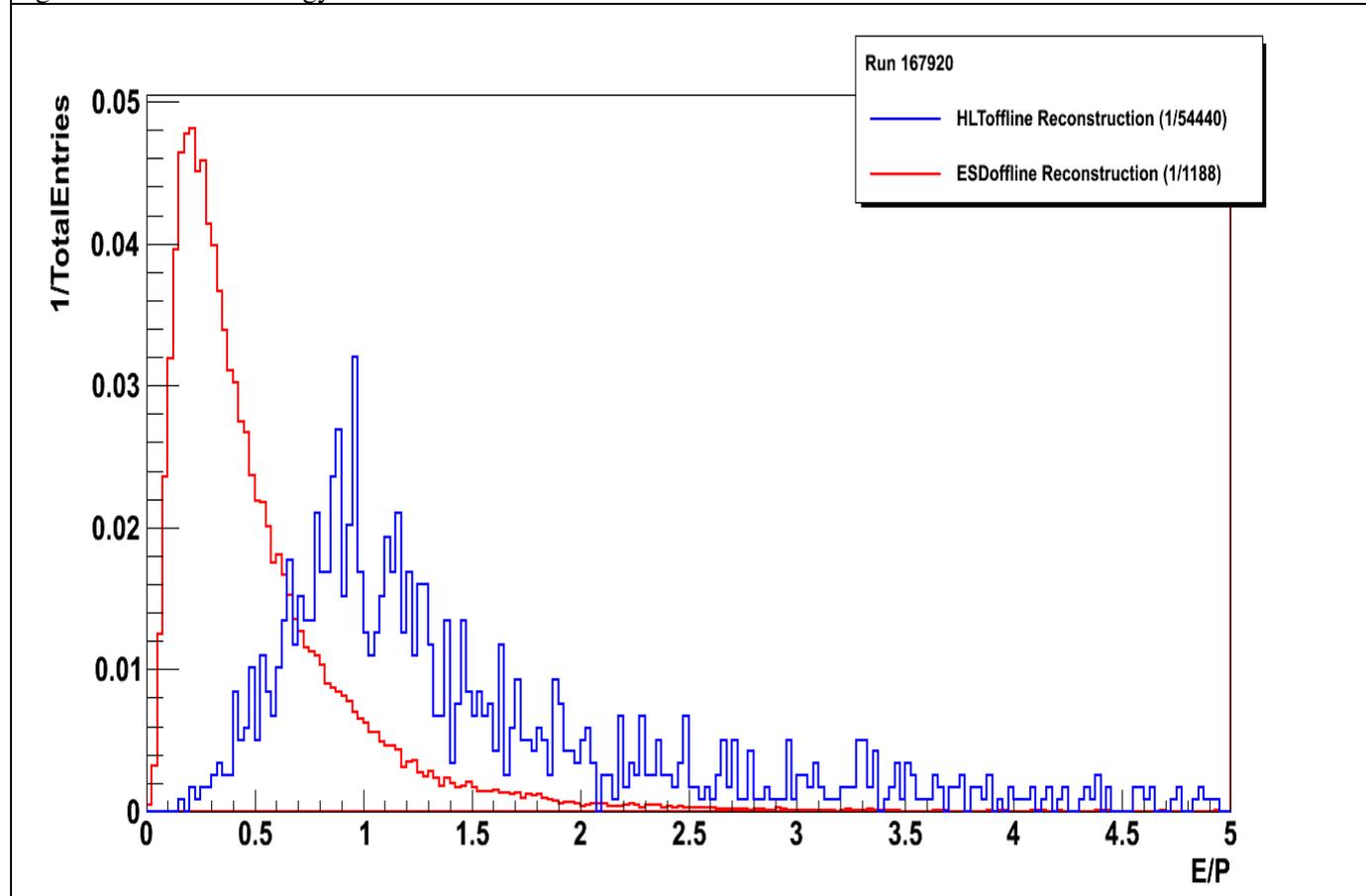
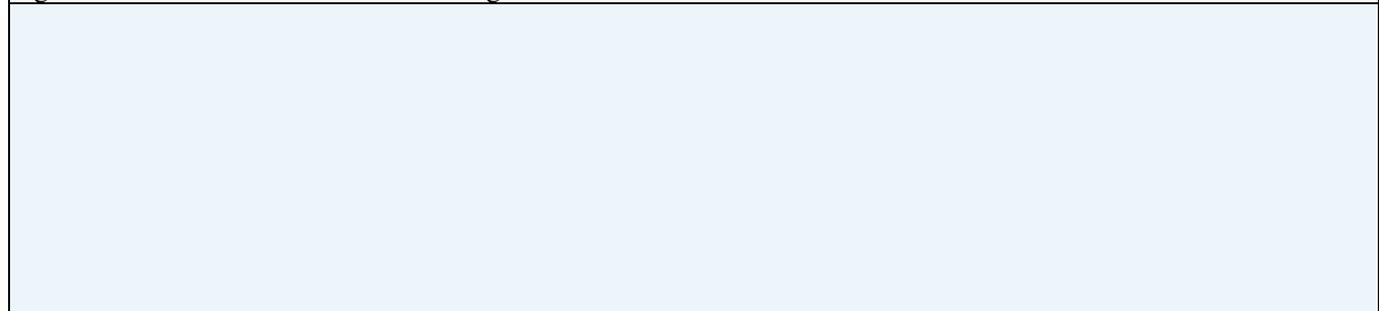


Figure 3.2 - dEta Track-Cluster Matching ESD and HLT reconstruction



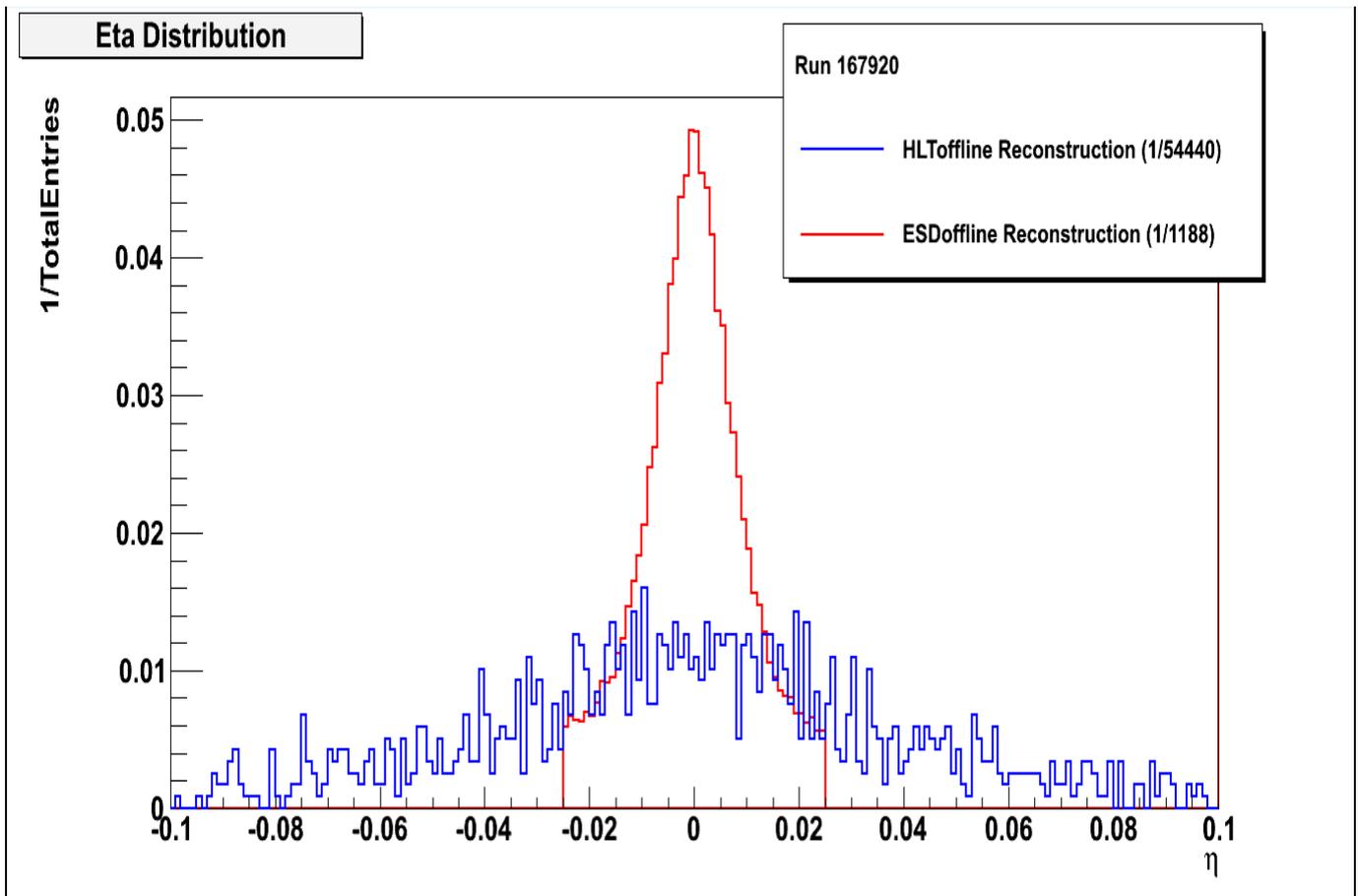
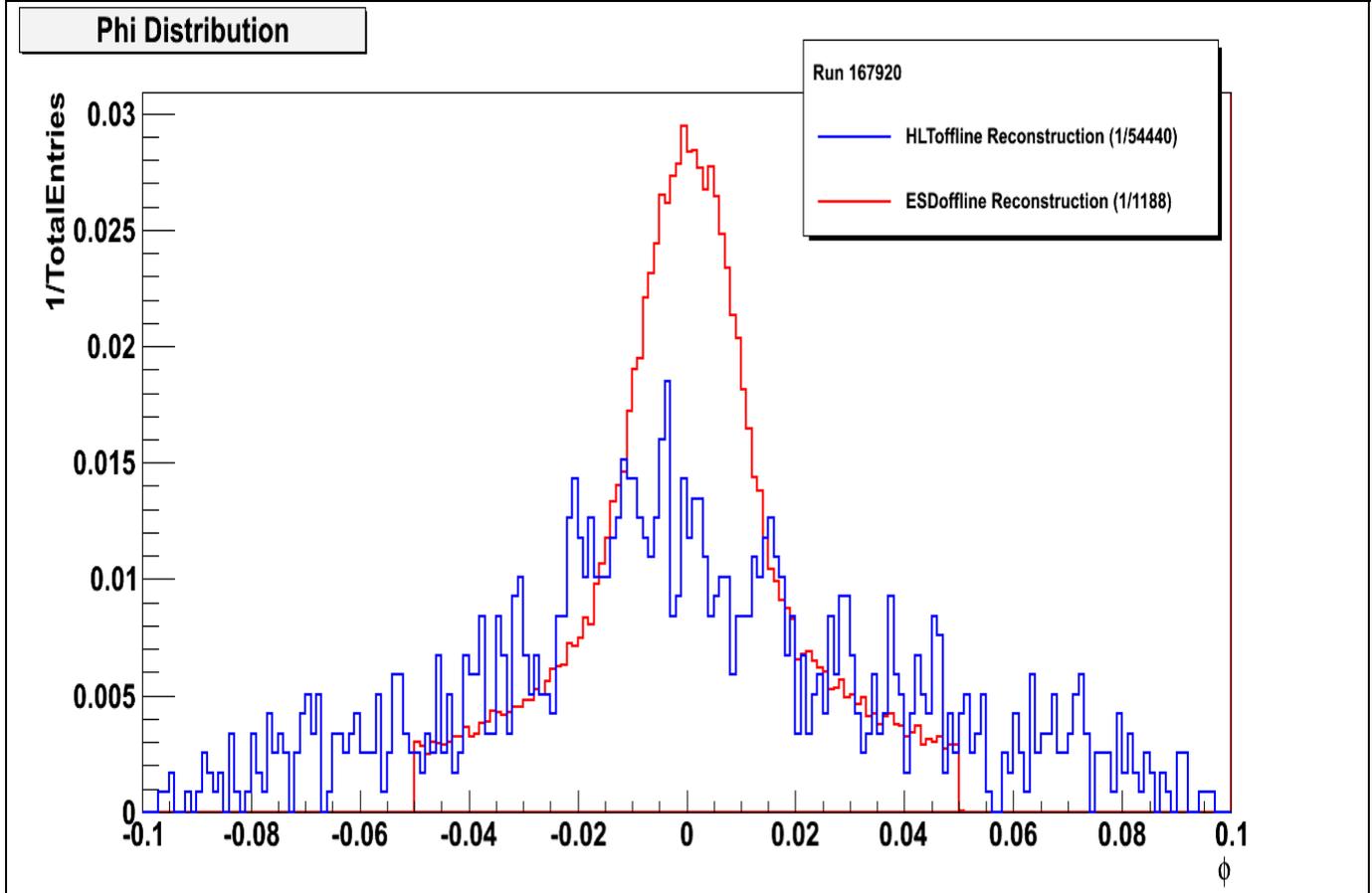


Figure 3.3 - dPhi Track-Cluster Matching ESD and HLT reconstruction



4 - Preliminary Conclusions

The behavior of the track matching needs to be carefully studied with more statistics. Some efficiencies studies to be done. One important fact is that we have a factor of 50 less entries than in the ESDoffline. Part of this comes from the fact that we have a cut in ClusterE=1 GeV and pt=1 GeV in the global track matched due to some cpu performance improvement we introduced some time ago. We really need to check if this is the only reason for that.

This topic: Main > HLT-Rec-ModeCPbPb

Topic revision: r2 - 2011-11-23 - Marcellfiguereo



Copyright &© 2008-2019 by the contributing authors. All material on this collaboration platform is the property of the contributing authors.

Ideas, requests, problems regarding TWiki? Send feedback