

Group Meeting Update

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Updates

- Purity behavior after applying VR when identifying exactly the same number of B hadrons.
- Apply changes in steering file for VR.

Updates

- NotUsedTracksCollectionName
TracksFailBothCanFormPfoFlags → MarlinTrkTracks
- UseTracks
0 → 1

of Tracks

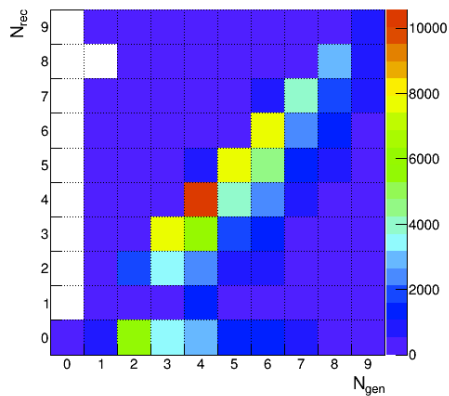


Figure: Number of tracks from SV before VR.

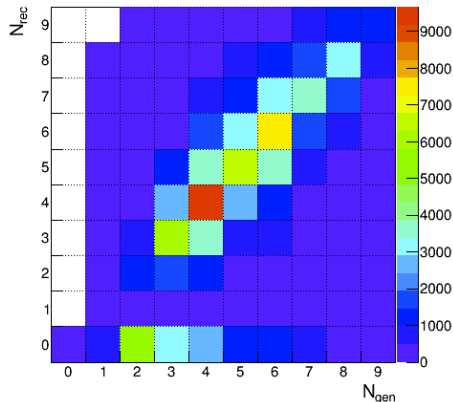


Figure: Number of tracks from SV after VR.

Charge Purity

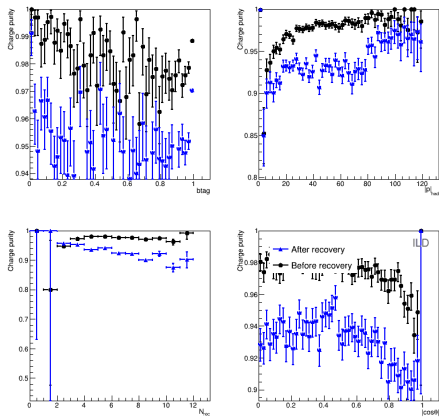


Figure: Charge purity after selecting event s.t. $MC\ b\# = RC\ b\#$.

Charge Purity

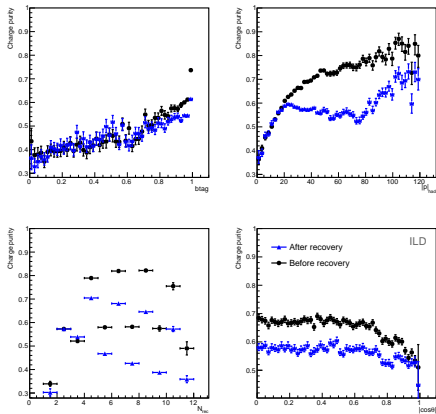


Figure: Charge purity before changing setting in steering file

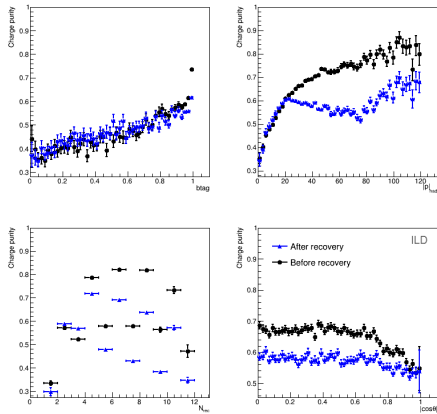


Figure: Charge purity after changing setting in steering file

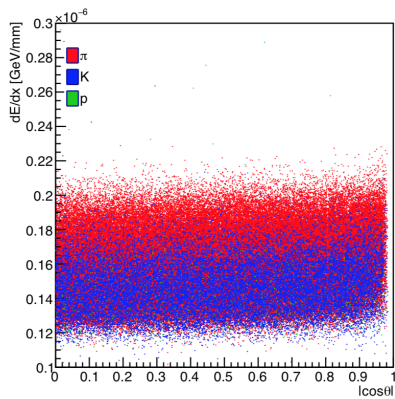
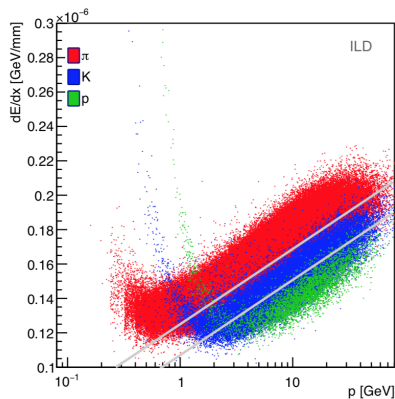


Figure: The energy deposition per track length dE/dx as function of the particle momentum, the particle polar angle $|\cos\theta|$ for different particles. Two gray lines separate out the region with a maximal kaon concentration.

Nkaons: 54303, nprotons: 4842, npions: 319905

Conclusion

- Purity reduction is independent on number of track that is associated with SV
- Awaiting Adrian's macro on kaon selection