

Charged pion analysis

π^\pm Production in transverse-single-spin asymmetries for midrapidity at pA collisions $\sqrt{s_{NN}} = 200$ GeV in Run15

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Jaehee Yoo

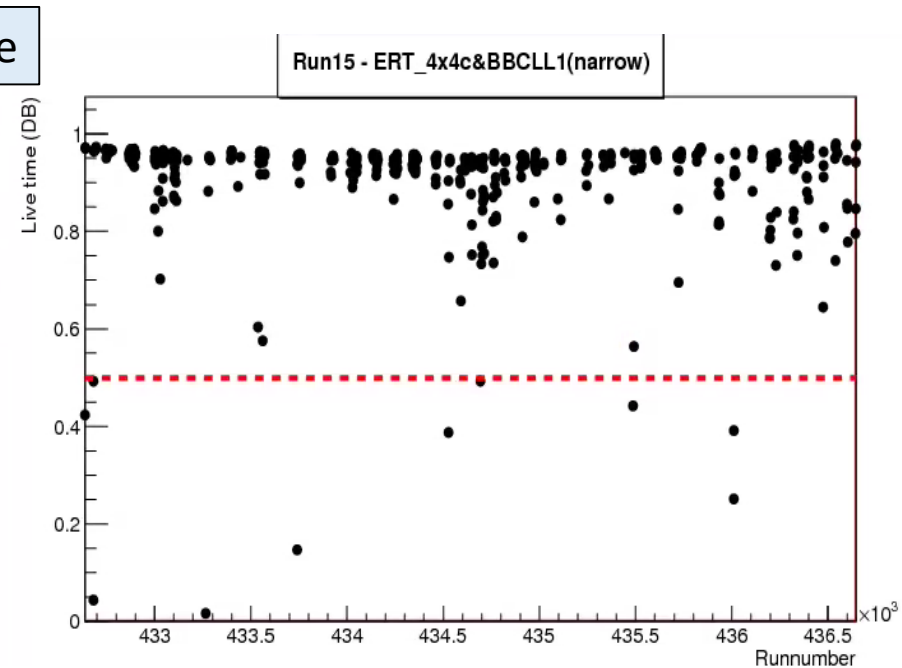
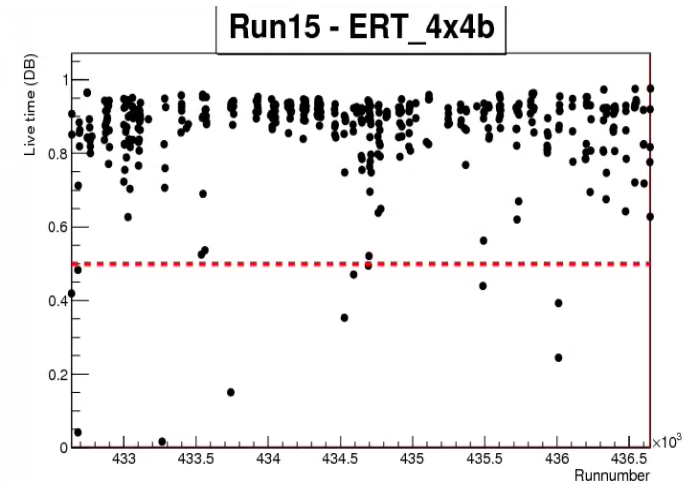
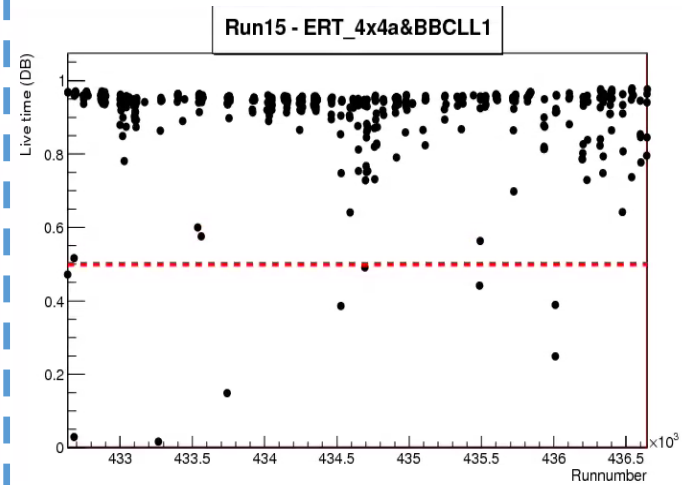
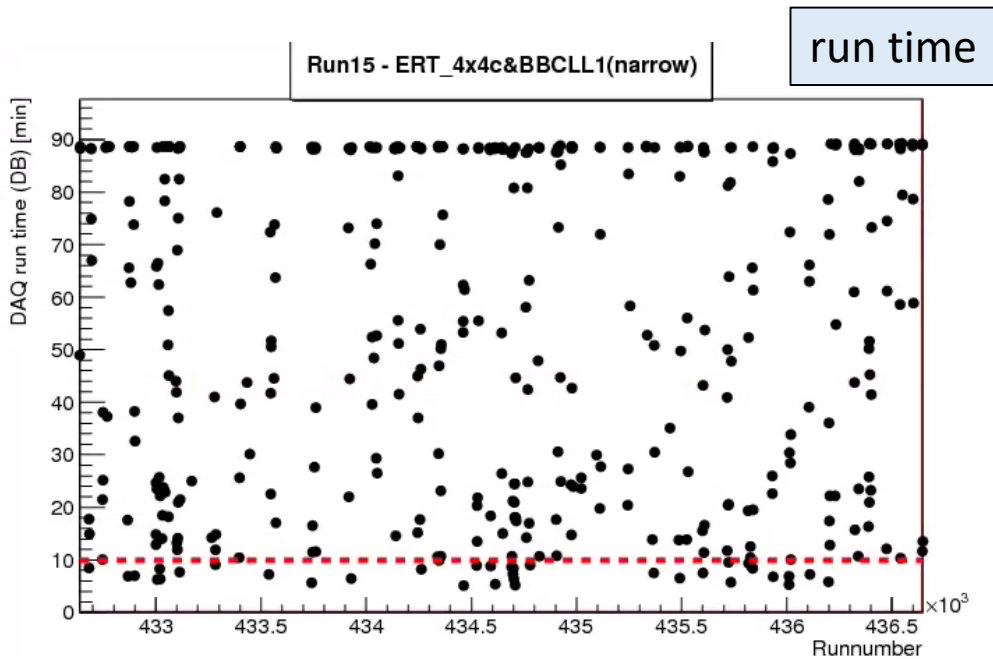
Runlist by ERT dataset

- Datasets: Run15pAu200CAERTPro108
- 330 runs survive in Analysis Train by using ERT dataset.

432639	432640	432684	432691	432692	432693	432694	432745	432746	432747	432762	432766	432767	432768	432780	432866	432872
432766	432767	432768	432780	432866	432872	432873	432874	432875	432881	432883	432884	432885	432886	432894	432895	432898
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433110	433111	433112	433113	433114	433116	433171	433283	433284	433285	433290	433396	433397	433538	433543	433546	433547
433396	433397	433538	433543	433546	433547	433548	433549	433562	433564	433567	433568	433570	433571	433572	433573	433741
433568	433570	433571	433572	433573	433741	433743	433744	433745	433746	433754	433756	433758	433759	433760	433761	433915
433756	433758	433759	433760	433761	433915	433917	433918	433921	433926	433927	433928	433929	433930	434017	434021	434024
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434153	434154	434156	434157	434160	434241	434242	434243	434244	434245	434246	434256	434257	434258	434259	434260	434261
434256	434257	434258	434259	434260	434261	434262	434341	434343	434344	434345	434346	434347	434351	434352	434353	434354
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434362	434363	434364	434459	434460	434461	434462	434463	434464	434467	434526	434527	434528	434529	434533	434534	434587
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435732	435735	435736	435737	435817	435818	435819	435826	435828	435832	435836	435841	435930	435931	435933	435934	435935
435841	435930	435931	435933	435934	435935	435936	435938	436013	436016	436017						

Run QA at daq in Database

- Trigger
 - ERTLL1_4x4a&BBCLL1
 - ERT_4x4b
 - ERT_4x4c&BBCLL1(narrow)
- Cut
 - DAQ Run time > 10 min
 - DAQ live time > 0.5



Run QA at daq in Database

- **Good run**

- 37 runs are rejected from 330 runs by Run QA from DAQ.
- 293 runs are passed Run QA from DAQ in the DB.

432639	432640	432684	432691	432692	432693	432694	432745	432746	432747	432762	432766	432767	432768	432780	432866	432872
432766	432767	432768	432780	432866	432872	432873	432874	432875	432881	432883	432884	432885	432886	432894	432895	432898
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433562	433564	433568	433570	433571	433572	433573	433741	433743	433744	433745	433746	433754	433756	433758	433759	433760
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435933	435934	435935	435938	436013	436016	436017										

Data information

- Datasets:

Run15pAu200CAERTPro108

- nDSTs: CNT

- Trigger : 'ert_4x4c==1'

- π^\pm Identification Cuts

I. $-2 < p_T < 25$ (GeV/c)

II. `quality == 31 or 63`

III. `n1 > 0`

IV. `|BBCZ| < 30 (cm)`

V. `|DCZed| < 70 (cm)`

VI. *Shower shape (prob) < 0.01*

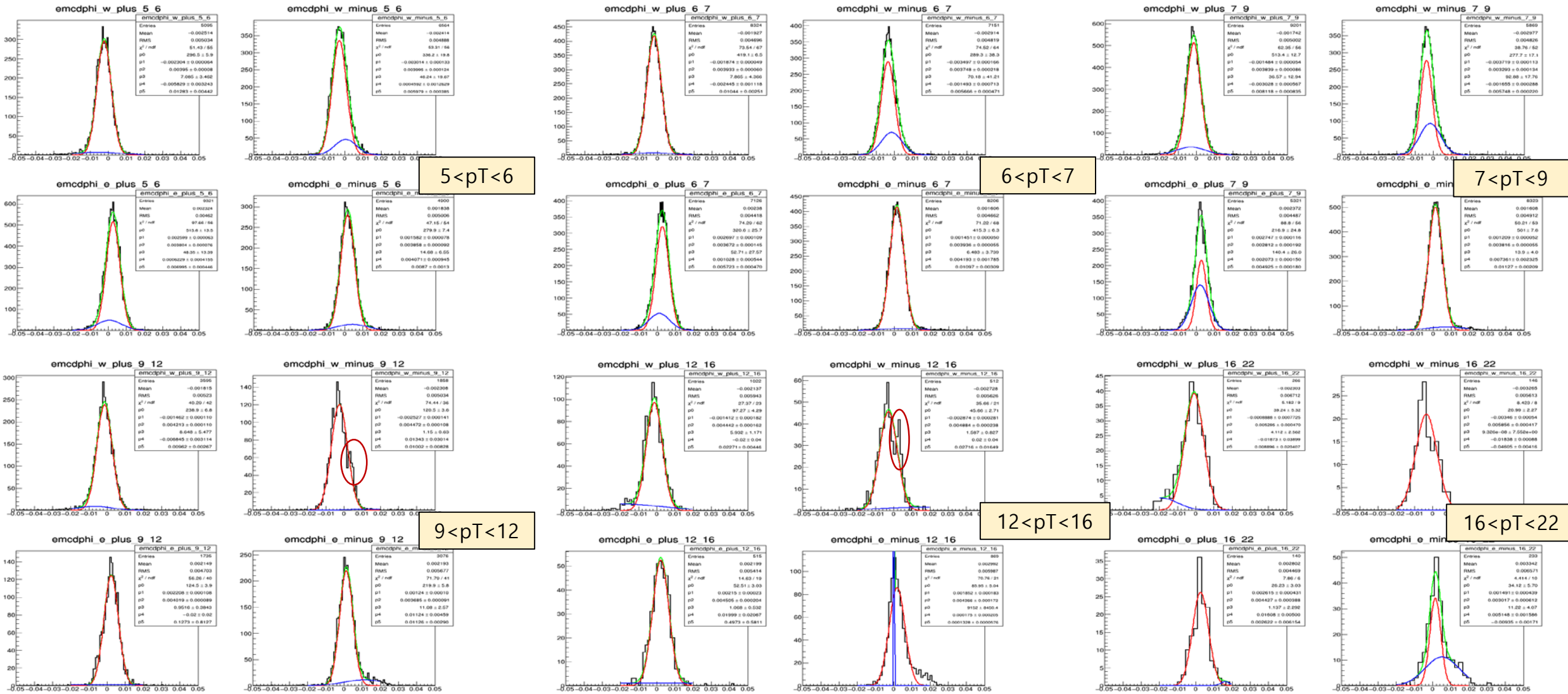
VII. $0.2 < emce/p < 0.8$

VIII. Warnmap Cut

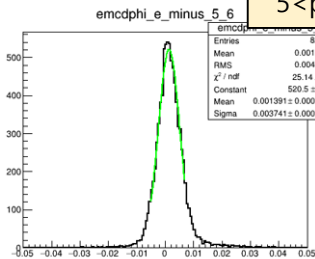
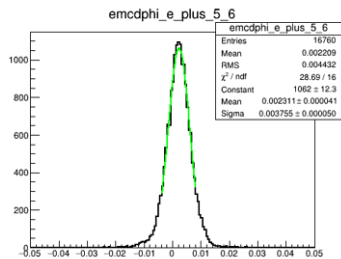
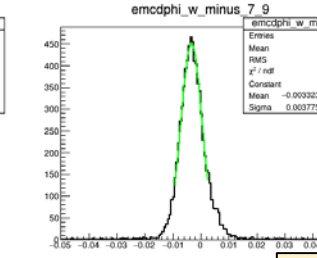
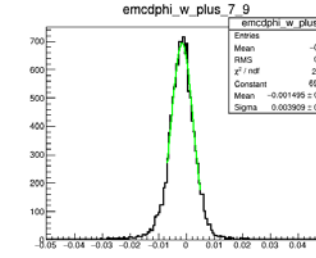
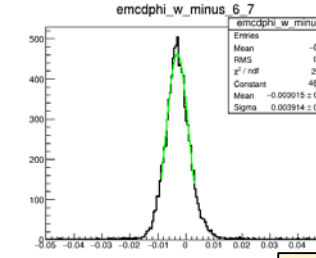
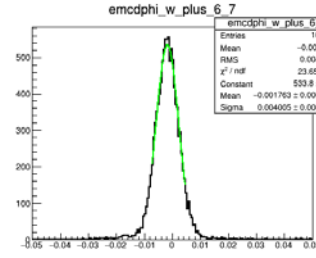
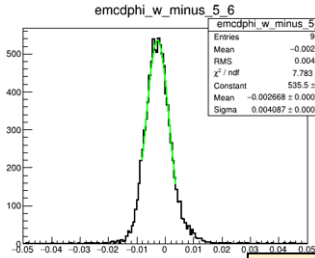
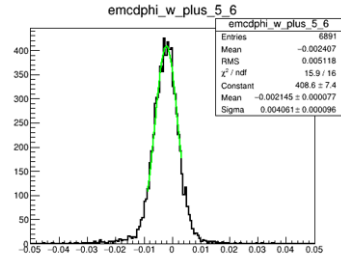
IX. `pc3dphi > -1000 && pc3dz > -1000`

X. `sect > -1000`

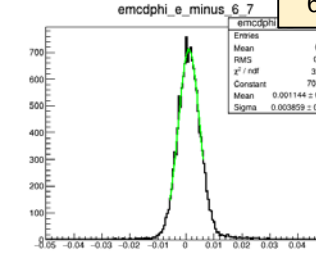
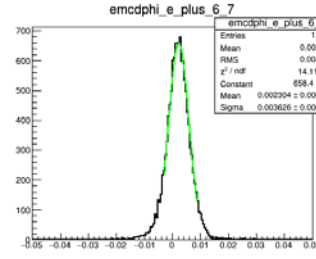
EMCal_dφ (Run15pAu200CAERTPro108)



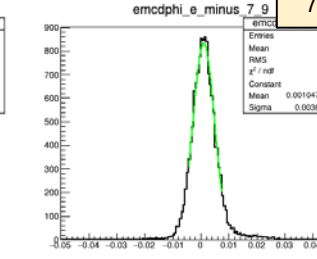
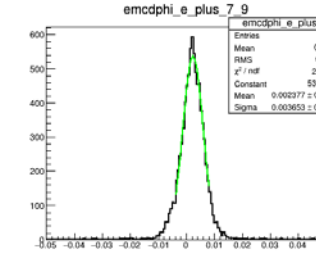
EMCa_dφ (Run 15 pAu 200C AnO VTXERTPro 104)



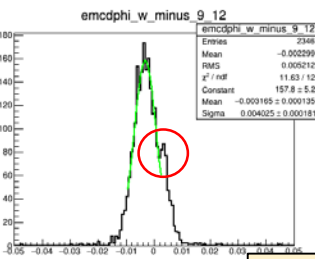
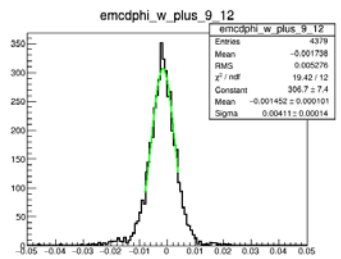
5 < pT < 6



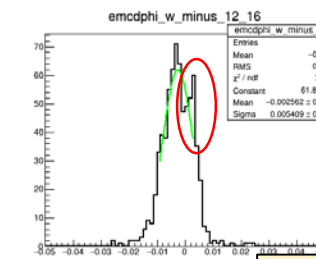
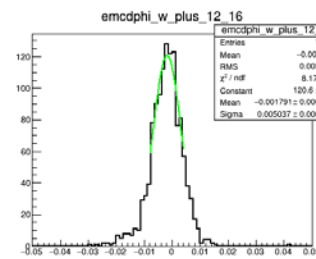
6 < pT < 7



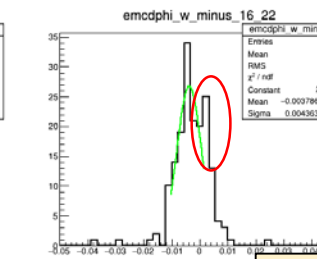
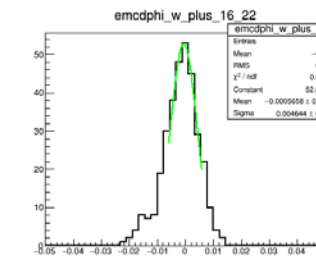
7 < pT < 9



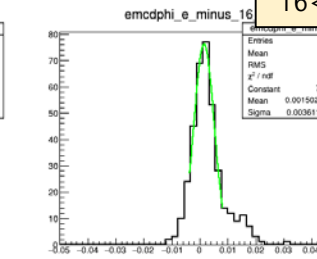
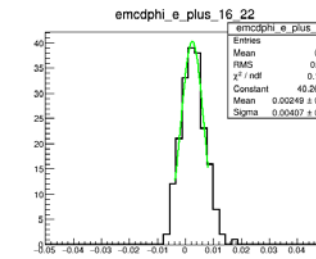
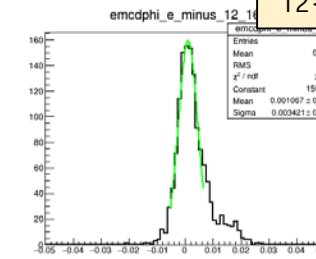
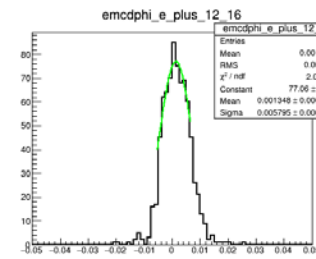
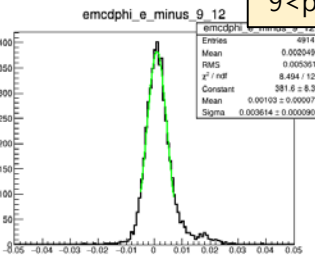
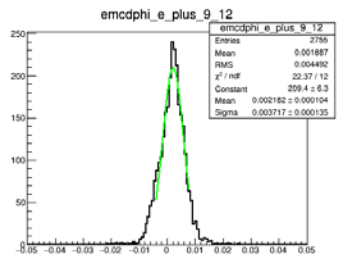
9 < pT < 12



12 < pT < 16



16 < pT < 22



Plan

- I will remove tracks close to the anode wires where the track position can not be well determined by a $W \rightarrow e$ analysis notes.

Thank you.