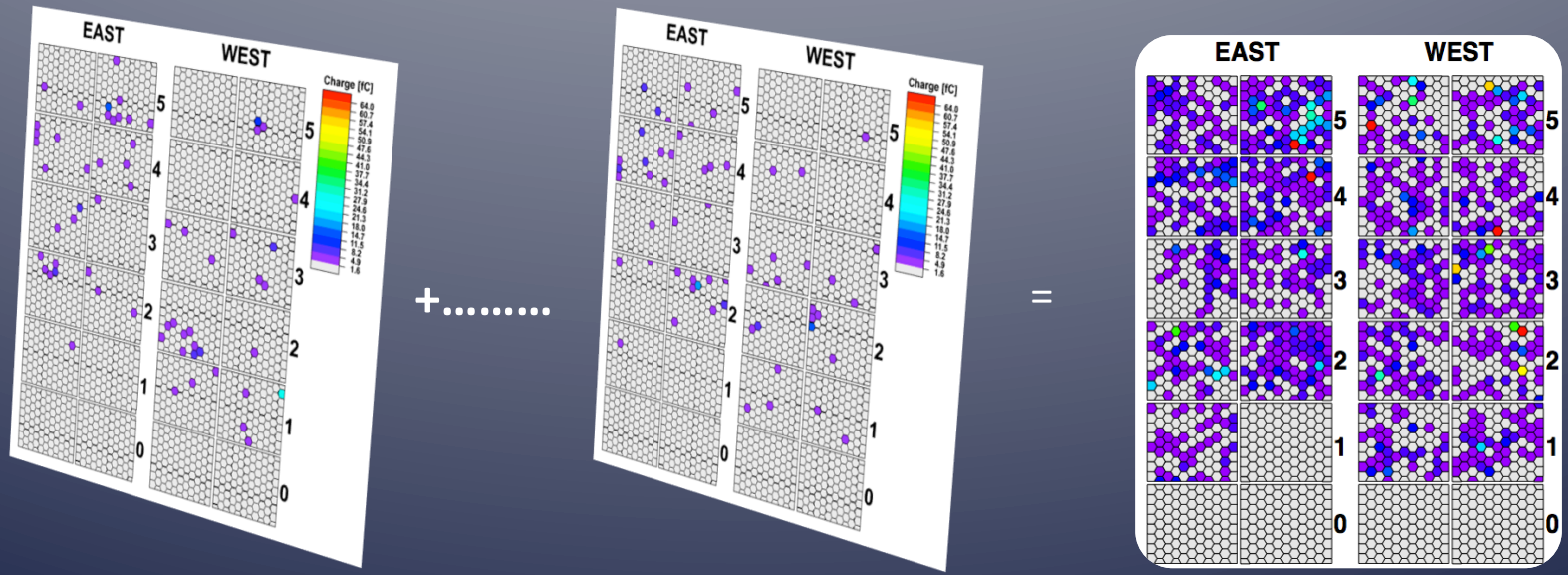
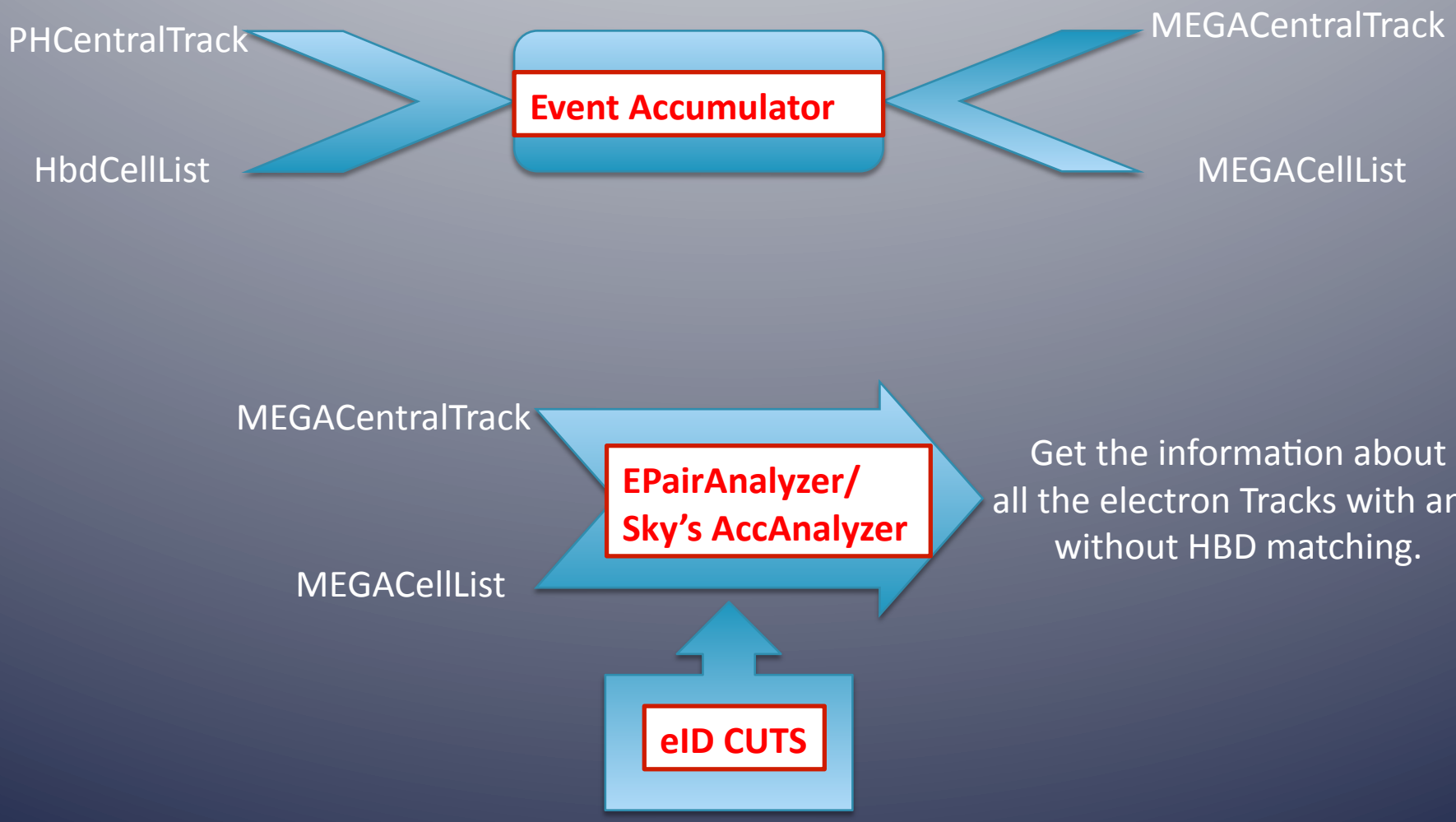
Creating High Multiplicity Events by accumulating p+p events of run09.

RUN09@200GeV # 286756 minimum bias data.
Module ES1 was not operational in this run.




PHCentralTrack
HbdCellList
Event Accumulator
MEGACentralTrack
MEGACellList
MEGACentralTrack
MEGACellList
EPairAnalyzer/
Sky's AccAnalyzer
Get the information about all the electron Tracks with and without HBD matching.
eID CUTS

SANITY CHECK

Table for Central Arm electron tracks & HBD Matched for Single Accumulated Event and without accumulator

No of Entries = 100000	No of Central Arm Electrons	HBD Matching
Without Accumulation	486	104
accumulated Event = 1	486	102

All have Exactly same Central Arm Variables

eID cuts used :

Quality=31,63 & n0>=3 & ecore/mom>0.6
(emc_dz +1.0)<10 or (emc_dphi+0.0005)<0.030

HBD Matching:

fabs(hbd_dz)<4.2 cm
fabs(hbd_dphi)<0.35 rad

BUT.....

For HBD Matching of electron Tracks

For 10000 Entries

eID cuts :

Quality=31,63 & n0>=3 & (ecore/mom)>0.6
(emc_dz +1.0)<10 or (emc_dphi+0.0005)<0.030

Matching Window:

fabs(hbd_dz)<4.2 cm
fabs(hbd_dphi)<0.35 rad

single Accumulated Event (single Event acc & EpairAnalyzer)

Evnt no containing elaectron	1340	2838	3176	3737	4638	4953	6151	7446
trks	3	5	2	5	178	8	3	6
n0	3	3	3	3	3	5	5	7
hbd_dphi	-0.000429414	0.026797	0.033945	-0.00404324	-0.0307964	0.00572862	-0.00637971	-0.0079187
hbd_dz	0.718325	0.719816	-0.963151	0.49329	-1.62258	1.23979	-1.98923	-3.06423
Energy	0.572477	0.154499	0.193917	0.170251	0.128699	0.285912	0.291323	0.88223
mom	0.632126	0.16402	0.188442	0.207805	0.175151	0.357879	0.334999	0.987984
quality	63	63	63	63	63	63	63	63

Without Accumulator (only EpairAnalyzer)

Event no containing electron	1340	2838	3176	3737	4638	4953	6151	7446
trks	3	5	2	5	178	8	3	6
n0	3	3	3	3	3	5	5	7
hbd_dphi	-0.000429414	0.0211303	0.033945	-0.00404324	-0.0307964	0.00375046	-0.00637971	-0.00914155
hbd_dz	0.718327	0.631014	-0.963151	0.49329	-1.62258	1.37128	-1.98923	-2.77954
Energy	0.572477	0.154499	0.193917	0.170251	0.128699	0.285912	0.291323	0.88223
mom	0.632126	0.16402	0.188442	0.207805	0.175151	0.357879	0.334999	0.987984
quality	63	63	63	63	63	63	63	63

Summary

All the hbd_dz and hbd_dphi variables should be the same for the electrons in both Situations, without any accumulator and with the accumulation of one single event.

There may be some mismatch in the indexing of cells ?

Thank you …