Subject: Re: Update of lhetrack
Posted by StefanoSpataro on Fri, 06 Jun 2008 16:03:08 GMT
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Dear all,
in svn you can find the latest version of lhetrack code.

By using the geometrical extrapolation, a correlation with TOF and EMC detectors is now provided: the object PndLhePidTrack contains together the informations from TPC, MVD, EMC and TOF.

The following plot shows the tof vs momentum distribution for protons (the top one), kaons (intermediate), pions, muons, and electrons (the lower bands almost horizontal):

and here you are the E/P (energy loss in EMC divided by momentum) versus momentum plot for electrons (the horizontal line at 1), protons (the band which is going up), pions and muons (the band which is going down) and kaons (mixed with the pions, but a higher momenta)

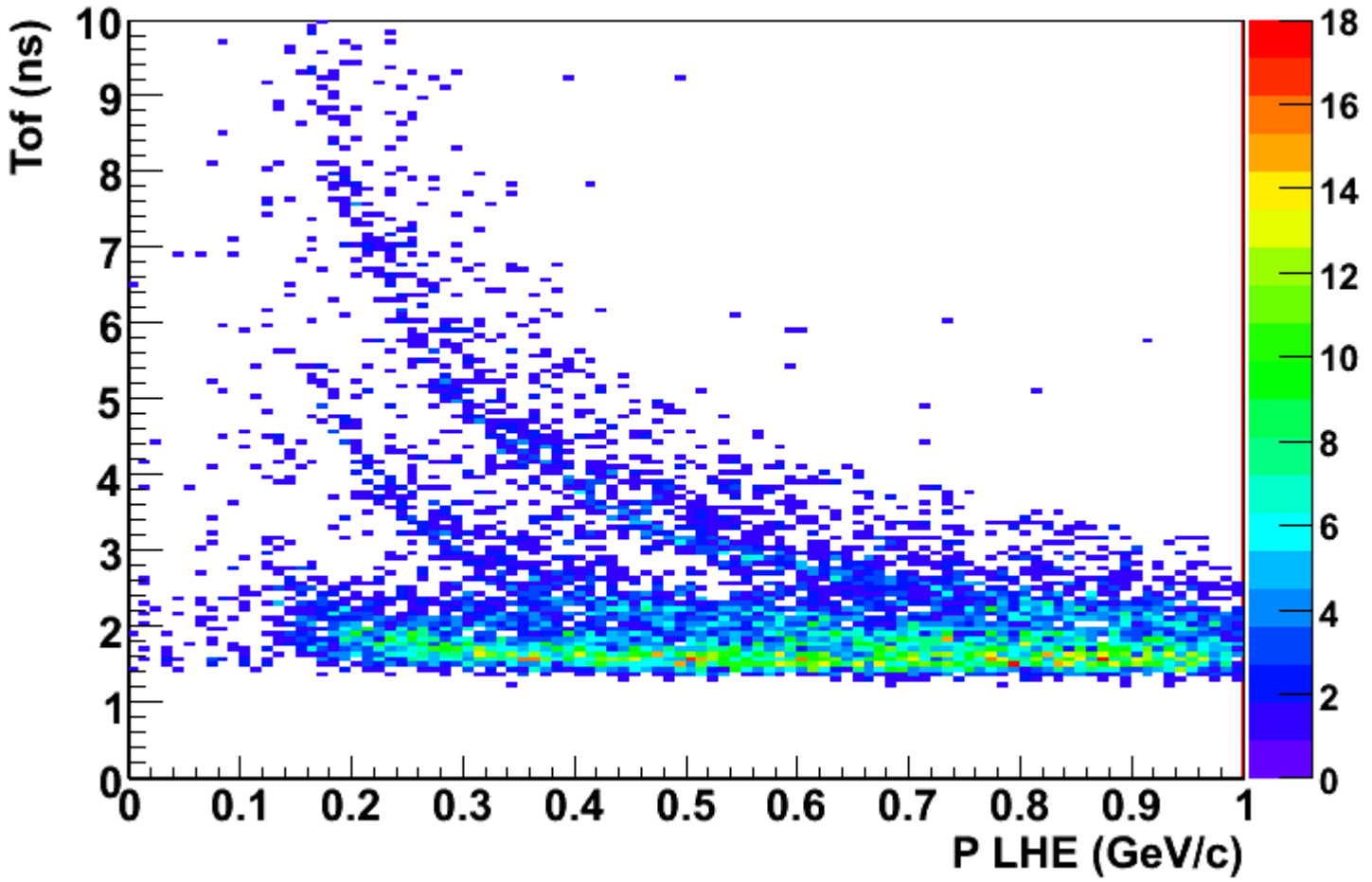
The bump at E/B~0.8 should be due to secondary pions generated by the decay of a primary kaon.

No MonteCarlo information was used for the previous plots, everything comes from full simulation and full reconstruction.

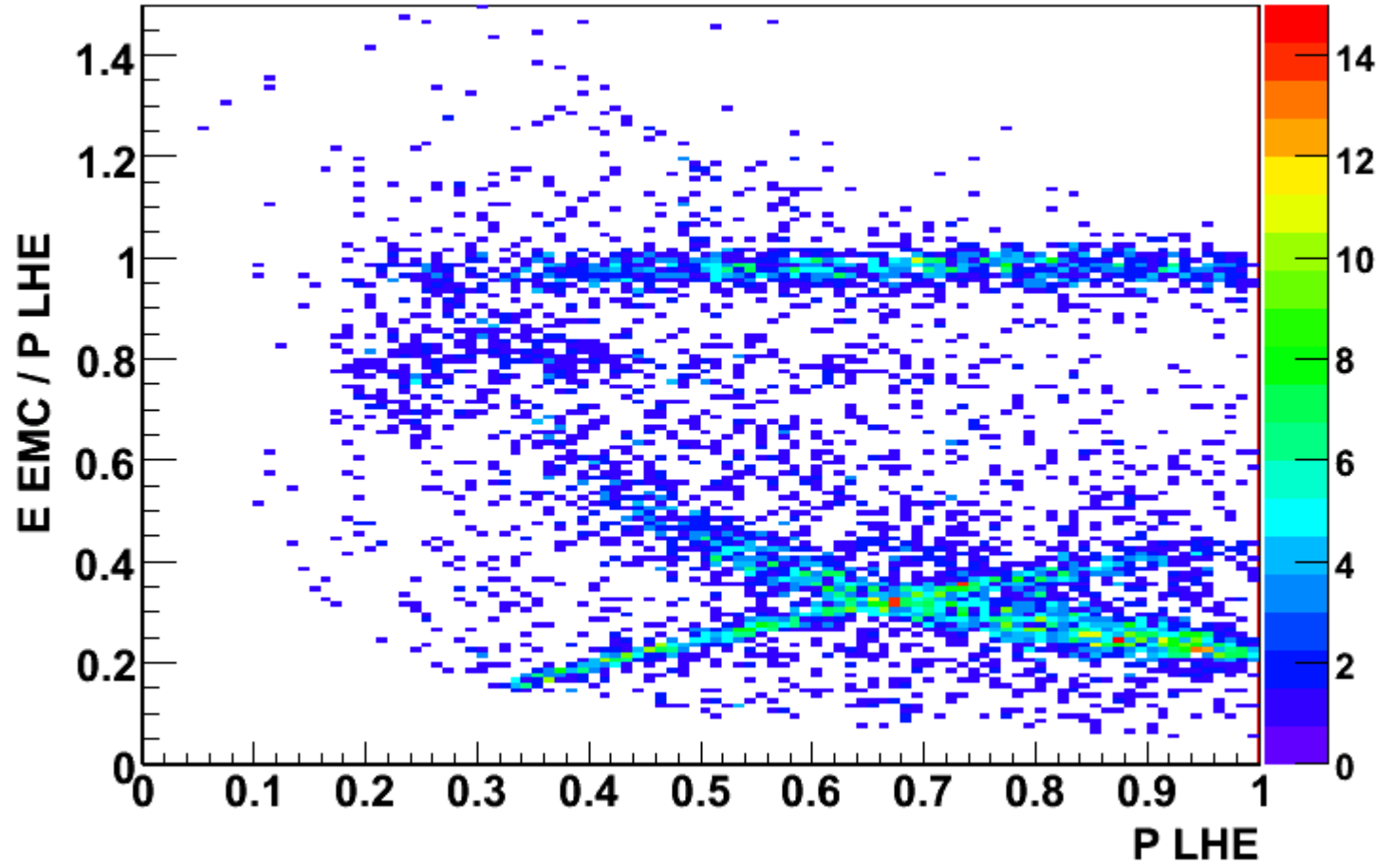
Still the extrapolation should be improved, and the path lenght to the tof detector has to be calculated.

File Attachments

1) TofTof.gif, downloaded 1087 times



2) EmcEloss.gif, downloaded 1071 times


E EMC / P LHE
P LHE
0
0.2
0.4
0.6
0.8
1
1.2
1.4
0.1
0.3
0.5
0.7
0.9
2
4
6
8
10
12
14