Subject: eta_c with event mixing for STT
Posted by Dima Melnychuk on Mon, 29 Aug 2011 22:35:11 GMT
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Dear colleagues,

I have analaised the eta_c data produced on the GRID with event mixing, and at the moment I still do not understand the results.

But I just want to share some plots to show the current status.

So multiplicity of charged tracks:

Only 8% of events have >=4 tracks which is much lower than 72% without event mixing.

Invariant mass of phi and eta_c with preselection on phi mass window:

Here there is no indication of phi or eta_c peak.

And aplying MC Truth PID does not change this distribution much.

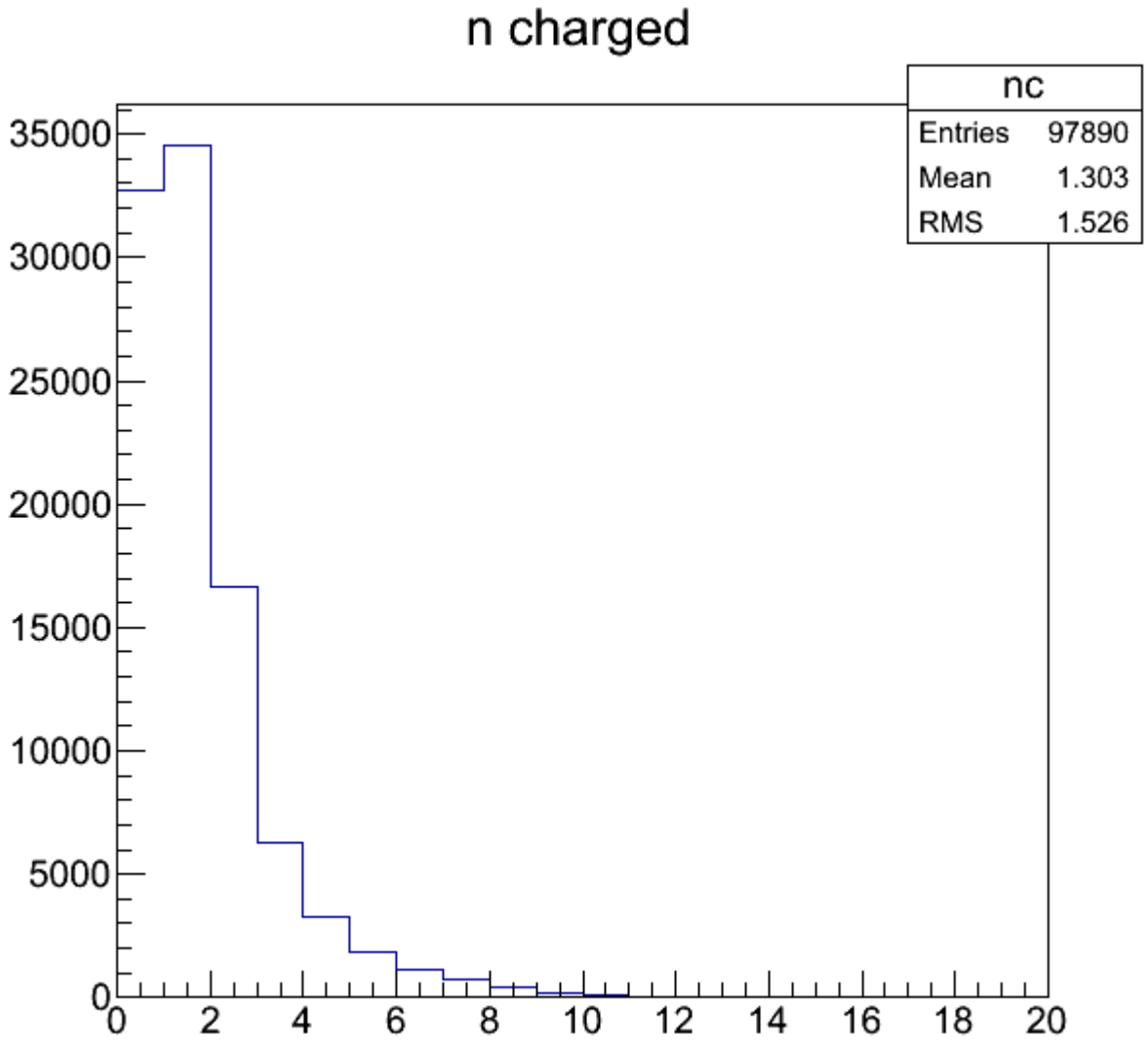
And finaly only 4 events out of 100k pass the selection cuts.

So the results still have to be understood.

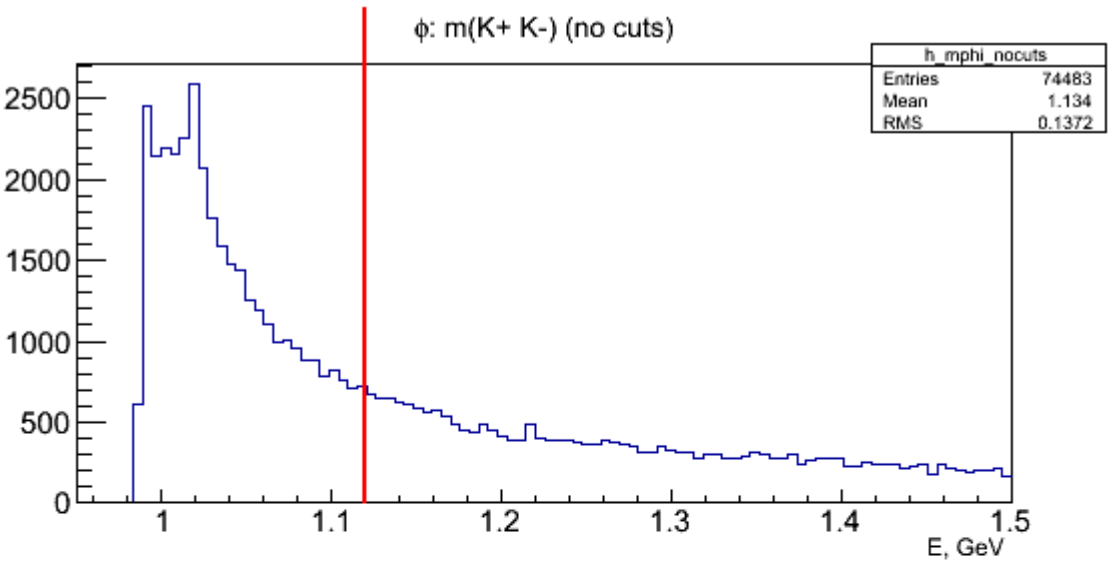
Dima

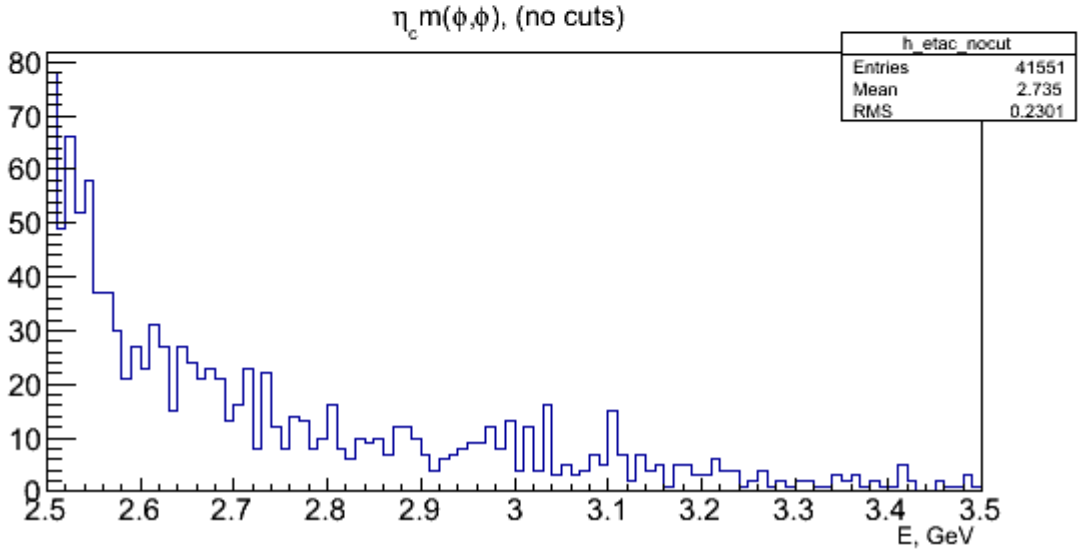
File Attachments

1) n_charged_stt.png, downloaded 1485 times



2) m_nocuts_stt.png, downloaded 1587 times


ϕ: m(K+ K-) (no cuts)
h_mphi_nocuts
Entries 74483
Mean 1.134
RMS 0.1372
2500
2000
1500
1000
500
0
1
1.1
1.2
1.3
1.4
1.5
E, GeV


η_c m(ϕ,ϕ), (no cuts)
h_etac_nocut
Entries 41551
Mean 2.735
RMS 0.2301
80
70
60
50
40
30
20
10
0
2.5
2.6
2.7
2.8
2.9
3
3.1
3.2
3.3
3.4
3.5
E, GeV