Subject: double tracks in offline Pattern Recognition
Posted by Gianluigi Boca on Thu, 18 Sep 2014 14:26:13 GMT
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dear collaborator,
as I said at the last collaboration meeting, I am finalizing the offline pattern recognition.

Presently there is a version of it in svn not complete yet.
Because of that, for every MC truth physical track 2 tracks
are reconstructed by the pattern recognition, essentially one clone of the other.
So please don't be alarmed, I am finishing that piece of code right now and I think that in 1 week or 2
that feature will be eliminated

Gianluigi

Subject: Re: double tracks in offline Pattern Recognition
Posted by Gianluigi Boca on Mon, 29 Sep 2014 17:38:30 GMT
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dear collaborators,
please find in svn the new version of

tracking/PndTrkTracking2.cxx
tracking/PndTrkTracking2.h
trackitracking/PndTrkCTFindTrackInXY2.cxx

Now the problem of the double tracks was eliminated.
Please let me know if you have problems

Gianluigi

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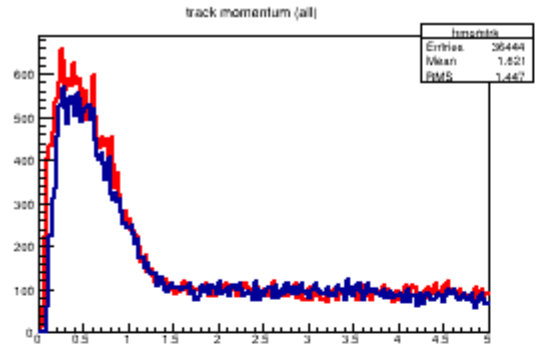
Gianluigi

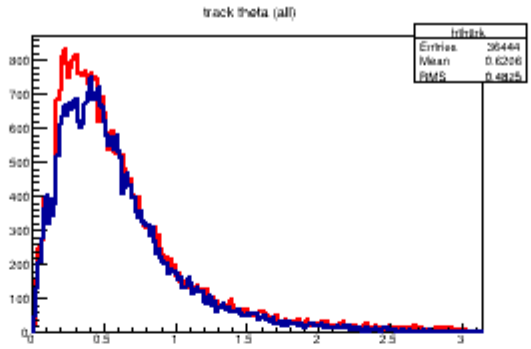
Subject: Re: double tracks in offline Pattern Recognition
Posted by StefanoSpataro on Wed, 01 Oct 2014 14:56:57 GMT

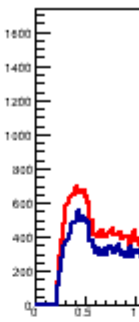
Hi all,
I run the new code and compared the results of the standard analysis macro (psi(2S)-> J/psi pi+ pi-), in blue you can see the "old" (february) results and in "red" the new ones.
You can see a bit of increase in efficiency, resolution is consistent. I would say that this version of the tracking code can be used by the analysts and can be included in the release.
Later I will check cleanup.

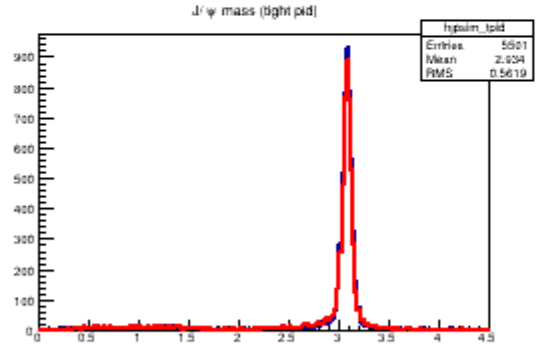
File Attachments

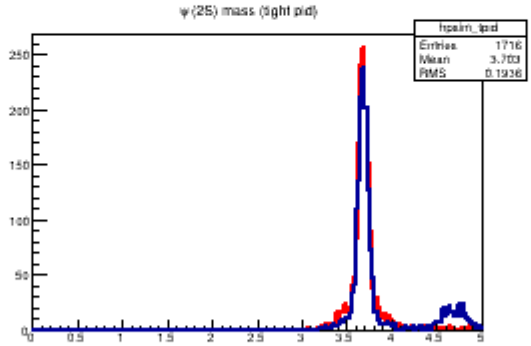
1) comp.gif, downloaded 1327 times

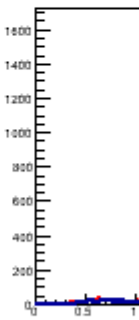

track momentum (all)
hmomtrk
Entries 36444
Mean 1.621
RMS 1.447

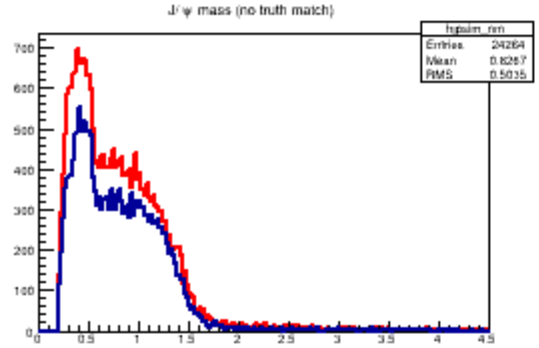

track theta (all)
hthtrk
Entries 36444
Mean 0.6206
RMS 0.4825

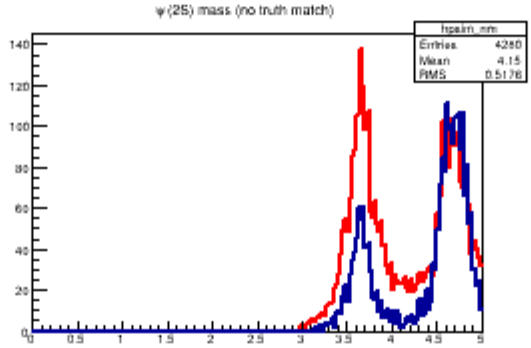



J/ψ mass (tight pid)
hpsimn_tpid
Entries 5501
Mean 2.934
RMS 0.5619

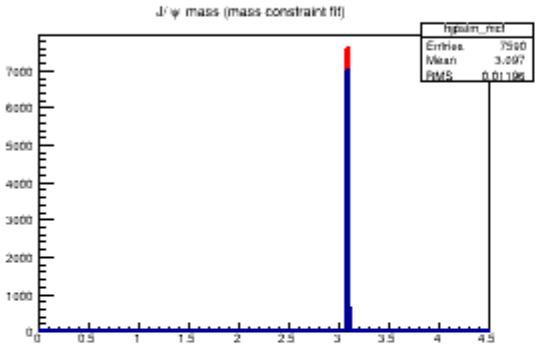

ψ(2S) mass (tight pid)
hpsimn_tpid
Entries 1716
Mean 3.703
RMS 0.1936

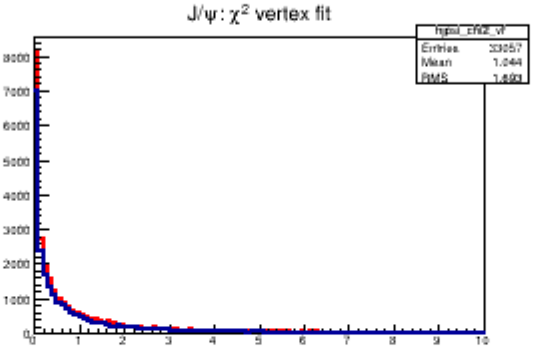


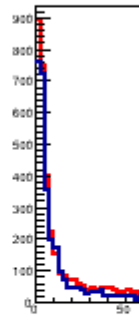

J/ψ mass (no truth match)
hpsimn_nm
Entries 24264
Mean 0.8267
RMS 0.5035

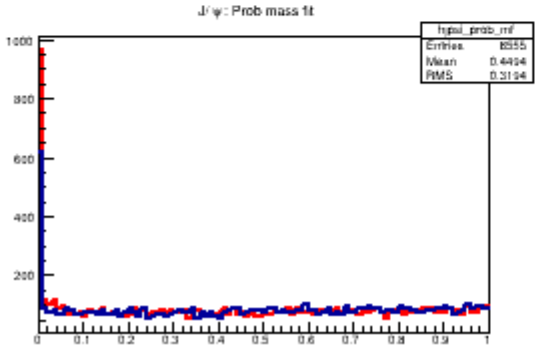

ψ(2S) mass (no truth match)
hpsimn_nm
Entries 4280
Mean 4.15
RMS 0.5176




J/ψ mass (mass constraint fit)
hpsimn_mcf
Entries 7590
Mean 3.097
RMS 0.01196


J/ψ: χ² vertex fit
hpsi_chiZ_vf
Entries 33857
Mean 1.044
RMS 1.493




J/ψ: Prob mass fit
hpsi_prob_mf
Entries 8555
Mean 0.4494
RMS 0.3194