Subject: Psi3770 study
Posted by donghee on Fri, 01 Jul 2011 14:19:36 GMT
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Hi all,

I have a look the Psi3770 data on the gridka.
The names are psi3770 run701 and run705.
I'm not still clear the unit of vertex position.

In the plot of "invariant mass of D.eps", D+ and D- are shown from the reconstruction with combination of charged particles.
And following bottom plots, I have found MC true matched D+ D- mass distributions.

And corresponding decay vertex distributions are compared with generated true values in "vertex position of Dmeson.eps".
Upper two plots are true D+D- vertex.
Below two are reconstructed one after matching MC true association.
In here, y(y-axis) vs z(x-axis) position are plotted.
What is the unit of that?

Thanks...

File Attachments
1) Invariant_Mass_of_D.eps, downloaded 332 times
2) vertex_position_of_dmeson.eps, downloaded 342 times

Subject: Re: Psi3770 study
Posted by StefanoSpataro on Fri, 01 Jul 2011 15:02:57 GMT
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The standard units are "GeV" for energy/momentum and "cm" for position/lenght.

Subject: Re: Psi3770 study
Posted by donghee on Fri, 01 Jul 2011 20:43:25 GMT
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Hi all,

I'm slightly confusing for decay vertex.

z-position of D+ or D- should be positive, but data show even negative z, is it possible?

What about vertex smearing in the data, is it applied to the simulation, already?

Then I can understand the shape of D vertex, otherwise the distribution couldn't explain any more in my knowledge.

Thank you!

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Subject: Re: Psi3770 study
Posted by StefanoSpataro on Fri, 01 Jul 2011 23:38:43 GMT
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If you are using tdrct macros, then you have vertex smearing, 1 mm on x & y, 5/2.35 mm on z

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