Subject: Re: MisID vs Impurity
Posted by donghee on Fri, 23 Nov 2012 16:29:10 GMT
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Dear Gosia,

First of all, thank you for your great effort.
You showed to me the good guide line for PID study.

But as usual, I have still few question to better understand your definition of impurity.
pi_imp = PID_{e} > X / pi_all
I can understand about the nominator, that is reconstructed true pion, which is tested MC true PID matching.

I'm wondering about the PID_{e} > X.
Is it "selected true pion after doing MC PID match and requiring PID probability"
or
"any kind of tracks just passed given probability condition"?
I am not clear for this which one have to be applied to see whatever impurity or misID.

concerning single and more tracks
You have selected only one reconstructed particle, which has a closest momentum value to MC one.
We can have usually more than one track after reconstruction even from one event.
That means, all values of impurity shown in your categories are too ideal in some point. Could you tell me the number, how much % of such event can we have from tracking?

Thank you for your teaching.
Donghee