Subject: Re: Psi analysis as a cross check from donghee kang
Posted by donghee on Mon, 22 Aug 2011 11:48:27 GMT
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Hi Felix,

I will try to explain for TPC first.

step 1.
Let assume that we have only 6 tracks in final psi sample.
I have only 6 final tracks after psi vertex fitting and have compared all 6 tracks with MC true index.

step II,
As you suggested, PndTpcPoints for identified each tracks are counted for 6 individual tracks.
Then I required each point for 6 tracks have to have more than 100 points.(see in detail below).
If I made some mistake, please just correct me.

Remark, STT case we have an information about hits directly at pid file.
Therefore, I could access it from MicroCandidate.
But TPC has no same info in pid file.
So PndTpcPoint from *.sim.root file has been accessed and asked whether psi final tracks are associated with true one.
Most of them are correlated with true one, then required points cut for each track component.

Quote:

```
int fmcid[6];
fmcid[0]  = fvtxkmfit ->GetMcIdx();
fmcid[1]  = fvtxpp1fit->GetMcIdx();
fmcid[2]  = fvtxpp2fit->GetMcIdx();
fmcid[3]  = fvtxkpfit ->GetMcIdx();
     fmcid[4]  = fvtxpm1fit->GetMcIdx();
fmcid[5]  = fvtxpm2fit->GetMcIdx();


        //loop over tpc points to make counting!
int tpc_counter[6];
tpc_counter[0] =0;
tpc_counter[1] =0;
tpc_counter[2] =0;
  tpc_counter[3] =0;
tpc_counter[4] =0;
tpc_counter[5] =0;

        //cout<< "TPC hits = "<< tpc_hit->GetEntriesFast()<<endl;
        for (Int_t ll=0; ll<tpc_hit->GetEntriesFast(); ll++)
   {
        int trackID = ((PndTpcPoint*)tpc_hit->At(ll))->GetTrackID();
   if(trackID < 0) continue;
        if(trackID == mcid[0]) tpc_counter[0] ++;
   if(trackID == mcid[1]) tpc_counter[1] ++;
```

```
        if(trackID == mcid[2]) tpc_counter[2] ++;
        if(trackID == mcid[3]) tpc_counter[3] ++;
        if(trackID == mcid[4]) tpc_counter[4] ++;
        if(trackID == mcid[5]) tpc_counter[5] ++;
    }
    if( (tpc_counter[0] >= 100) && (tpc_counter[1] >= 100) && (tpc_counter[2] >= 100) &&

(tpc_counter[3] >= 100) && (tpc_counter[4] >= 100) && (tpc_counter[5] >= 100)){
        histograms..........here
    }
```

Best wishes,
Donghee