
Subject: Vertex and kinematic fitter for full simulation.
Posted by [donghee](#) on Tue, 08 Apr 2014 11:52:25 GMT
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Hi Ralf,

Now I am trying to fit for full simulation data.

PndKinFitter with mass constraint is properly working, mass distribution is clearly improved but PndKinVtxFitter (vertex fitter) doesn't work! All entries in mass histogram are existing but content is empty.

Could you check below code where I made mistake during the fit?

I am talking about full simulation, all spectrum without fit are surely correct.

I used mar14 and test again in scrut14. results are same for both.

Quote:

```
//Pnd Kin Vertex fitter
PndKinVtxFitter vtxfitter(dp[j]); // instantiate a vertex fitter
vtxfitter.Fit();
double chi2_vtx = vtxfitter.GetChi2(); // access chi2 of fit
double prob_vtx = vtxfitter.GetProb(); // access probability of fit
RhoCandidate *dpfit_vtx = dp[j]->GetFit(); // access the fitted cand
TVector3 Vtx_kin=dpfit_vtx->Pos(); // and the decay vertex position
```

```
hdp_fit_mass_vtx_all->Fill( dpfit_vtx->M() );
if (fAnalysis->McTruthMatch(dp[j]))
{
    hdp_fit_mass_vtx_ftm->Fill( dpfit_vtx->M() );
}
```

```
//Pnd Kin Mass Fitter
PndKinFitter mfitter(dp[j]); // instantiate the kin fitter in psi(2S)
mfitter.AddMassConstraint(DpmMass); // set 4 constraint
mfitter.Fit(); // do fit
double chi2_m = mfitter.GetChi2(); // get chi2 of fit
double prob_m = mfitter.GetProb(); // access probability of fit
RhoCandidate *dpfit_mass = dp[j]->GetFit(); // get fitted J/psi
hdp_fit_mass_mass_all->Fill( dpfit_mass->M() );
if (fAnalysis->McTruthMatch(dp[j]))
{
    hdp_fit_mass_mass_ftm->Fill( dpfit_mass->M() );
}
```

Thank you in advance...

Yours,
donghee