Subject: Re: Vertex Fitter in Fast simulation
Posted by Malte Albrecht on Thu, 17 Apr 2014 17:49:35 GMT
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Hi Klaus!

Ah, okay I see.
I looked a bit into fsim/PndFastSim.cxx and tried to understand how the covariances are handled. As far as I see this, smearTrack() is called for each particle from the main Exec()-loop. From there, cutAndSmear() is called - again for each particle. Further on in cutAndSmear() the function SetFlatCovMatrix(t,dp,dtheta,dphi,dE,dV.),dV.Y(),dV.Z()) is called with the appropriate values. Back in the main Exec()-loop the 7x7-covariance matrix (Cov7) is only set for charged particles (first time, that uncharged are cut out).

Wouldnt it be possible, to just call SetFlatCovMatrix with appropriate values for neutrals, and fill the Cov7 then? If so, what are good values for neutral tracks and where to get them from? Maybe you can point me into the right direction...

Best regards and happy easter,
Malte

P.S.: I tried that already with values similar to the ones for charged particles. Technically the mass constraint fit works then (Fitter does not produce any errors any more, and the gamma gamma spectrum shows a needle at the nominal eta-mass. However, the chi2 and pull-distributions look wrong. That must be due to the fact, that I simply used wrong values in the covariance matrix... therefore my question above