Subject: Re: Beam profile or interaction point
Posted by Aida Galoyan on Tue, 02 Jun 2009 13:43:21 GMT
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Hi,

in the root-file produced after work of generator DPMGen
we have for coordinate x,y,z of event vertex: Particles.fVx, Particles.fVy, Particles.fVz.
They are equal 0.

To study of the effect of different beam profile, you have to
smear the Particles.fVx, Particles.fVy, Particles.fVz,
generate them by yourself.
If beam is directed along axis Z, Particles.fVx and Particles.fVy must be sampled according to
proposed beam profile. Particles.fVz must be sumpled according to assumed thickness of
target.

In generator PndJRGen, smearing of vertex is doing in the macro-files. For example (in
macros PndPi0PhiPhi.C),

>>>
// mean location of the target
//Vertex.SetXYZT(0,0,0,0); // zero by default

/* smearing of the primary vertex (Gauss with the above mean, and this sigma) */

/* TVector3 VtxRes(.1,.1,.2); // what target smearing do you want??? */
TVector3 VtxRes(0.0,0.0,0.0);

TParticle BeamTarget(999,1,0,0,0,0,s,Vertex);

PndReaction reaction(BeamTarget, VtxRes, "Gen_Pi02Phi.root");
>>>

 Aida