Subject: [FIXED] Recontruction of neutrals - macro is very slow
Posted by Elisabetta Prencipe (2) on Tue, 03 Sep 2013 09:45:52 GMT
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Dear Klaus, dear rho-experts,

I am running the reconstruction of the chain:

p barp---->
Ds- Ds(2317)+

Ds- --->K+K-pi-

Ds(2317)+ ----> Ds*+ pi0

Ds*+ --------> Ds+ gamma

Ds+ --------> K+ K- pi+

pi0 -------->2 photons

I am doing a very basic study, asking for the mass constraint fit for the Ds(2317)+, and plotting the full truth match value of mass and momentum, and the the combinatorial with "best" pid selection. When I run a similar decay chain, but no gammas were involved, the macro was running quickly. Now I have the same number of chain steps, but with photons. The speed of macro becomes worse and worse especially if I apply some selection cuts (e.g., I require for photons that the maximum candidate per event should not be larger than 100, or the momentum should be >0.150 GeV/c, in order to reduce noisy-gammas).

Just to give some numbers: to run a similar decay, but only charged particles got involved: 5000 events --->~4 hours (analysis macro, only); in this new case: in 4 hours I get 600 events only...is this a known problem or am I doing something really wrong here? Do you have by chance any suggestion how to modify this macro in order to run it faster? I attach my very simple macro to this email. There are many histograms initialized here, but only few of them are filled. I had to exclude many, because of problem with time.

Thanks in advance for your useful suggestions,
Elisabetta

File Attachments

1) tut_anaDs2317.C, downloaded 437 times