
Subject: Re: Inconsistency geant3/gcons/gpart.F and TGean3.cxx

Posted by [Lia Lavezzi](#) on Mon, 18 May 2009 10:07:24 GMT

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Hi Alicia,

I had a look to the propagation of a deuteron in GEANE and actually I see that GEANE can propagate it: the problem is in the conversion from the PDG code to the Geant code of the particle, which is performed before calling ertrak, precisely in the line (in FairGeanePro.cxx):
`GeantCode=fdbPDG->ConvertPdgToGeant3(PDG);`

Here TDatabasePDG is called to make the conversion, but when the PDG of the deuteron is put as input it returns as GeantCode the default value 0 instead of the right one (45).

In TDatabasePDG::ConvertPdgToGeant3 no line for the deuteron is present; if TDatabasePDG is set to handle correctly the deuteron, I think GEANE will have no more problem in tracking it.

As a test, I "bypassed" the TDatabasePDG adding by hand a line just after

`GeantCode=fdbPDG->ConvertPdgToGeant3(PDG);`

to set the correct code:

`if(PDGCode == 1000010020) GeantCode=45;`

and I see GEANE does not crash anymore.

Ciao,

Lia.