Subject: Re: Tutorial macro - tut_pid.C - crash due to kSigFloatingException Posted by Elisabetta Prencipe (2) on Tue, 13 Aug 2013 06:21:26 GMT View Forum Message <> Reply to Message

Hello Klaus and Stefano,

yes of course I can skip an event in such a way. I saw it. But this is not the matter. The problem is why this happens.

Yesterday I tried to simulate a few thousands events for the analysis of Y(4160), to study the interference with Y(4260), for instance, if they decay to the same channel. Well, in the usual 4-macro-process (sim-, digi-, rec-, pid-) of the first 5000 events everything looked running smooth. Then I run additional 7000 events. The same crash, with exactly the same error message, with exactly the same segmentation fault, occurs at the event number:

····

and several other events which I am taking a look right now. So, should I have to run the macro-pid interactively and see every fee events where it is stopping, and which event should I skip?

This looks a bug, in my limited experience.

The crash occurs at the level of the geanE routine lines:

#10 0xa00ff376 in ertrch () at erdecks/ertrch.F:134 #11 0xa010182c in ertrgo () at erdecks/ertrgo.F:249

I had a look, and it is where it is defined:

STOPP = -XCOEF2+SIGN(ONE,XCOEF1)* SQRT(XCOEF2 + **2 -(XCOEF3-GEKIN*RMASS/XCOEF1))

Now, if at that event a negative root square is evaluated or a coefficient is 0 and this produces a break, this must be further investigate from me. But one thing is sure: the crash occurs, and in my case (several analysis) it happens 50 per cent of times..

Why does it happen always at the level of the pid macro, and not in the simulation, for instance, this is still not clear to me. I can hardly think that these kind of problems happen to me, only.

I think we should discuss this during the next meeting.

Best regards, Elisabetta