
Subject: Reconstruction macro crash

Posted by [Elisa Fioravanti](#) on Thu, 19 May 2011 14:49:03 GMT

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Hello,

running un_reco_stt_evt.C in macro/run/tdrct I have the following error.
I have it in may11 package but also in feb11 package.

Could you please help me?

Thanks,
Elisa

Found Tracks: 0 in event no. 33

```
*** Break *** floating point exception
Generating stack trace...
0xb0eea6c7 in ertrch_ + 0xd93 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb0eec4a5 in ertrgo_ + 0xf29 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb0ee98b9 in ertrak_ + 0xc15 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb0fcb450 in TGeant3::Ertrak(float const*, float const*, float const*, float const*, int, char
const*) + 0x62 from /home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0x08f1008a in FairGeanePro::Propagate(int) at
/home/fioravanti/fairsoft/pandaroot/geane/FairGeanePro.cxx:327 from
/home/fioravanti/fairsoft/buildPanda/lib/libGeane.so
0x08f10c71 in FairGeanePro::Propagate(FairTrackParP*, FairTrackParP*, int) at
/home/fioravanti/fairsoft/pandaroot/geane/FairGeanePro.cxx:275 from
/home/fioravanti/fairsoft/buildPanda/lib/libGeane.so
0x050db6be in PndSttMvdGemTracking::PropagateToGemPlane(FairTrackParP*,
FairTrackParP*, int) at
/home/fioravanti/fairsoft/pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx:949 from
/home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
0x050de15a in PndSttMvdGemTracking::Retrack() at
/home/fioravanti/fairsoft/pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx:1435 from
/home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
0x050e2441 in PndSttMvdGemTracking::Exec(char const*) at
/home/fioravanti/fairsoft/pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx:648 from
/home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
0x0027e9e8 in TTask::ExecuteTasks(char const*) + 0x108 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x0027e3d9 in TTask::ExecuteTask(char const*) + 0x159 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x05824386 in FairRunAna::Run(int, int) at
/home/fioravanti/fairsoft/pandaroot/base/FairRunAna.cxx:273 from
/home/fioravanti/fairsoft/buildPanda/lib/libBase.so
0x05882f34 in <unknown> from /home/fioravanti/fairsoft/buildPanda/lib/libBase.so
```

0x00bd3d7a in Cint::G__ExceptionWrapper(int (*)(G__value*, char const*, G__param*, int), G__value*, char*, G__param*, int) + 0x6a from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c8e786 in G__execute_call + 0x56 from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c92d3d in G__call_cppfunc + 0x26d from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c65628 in G__interpret_func + 0x1458 from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c52cf8 in G__getfunction at func.cxx:0 from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00d5391c in G__getstructmem(int, G__FastAllocString&, char*, int, char*, int*, G__var_array*, int) + 0x5fc from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00d49708 in G__getvariable at var.cxx:0 from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c26f41 in G__getitem at expr.cxx:0 from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c309a9 in G__getexpr at expr.cxx:0 from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00cc438f in G__exec_statement at parse.cxx:0 from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c1178b in <unknown> from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c11ac6 in G__exec_tempfile + 0x16 from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00cd5c26 in G__process_cmd at pause.cxx:0 from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x002bb6d3 in TCint::ProcessLine(char const*, TInterpreter::EErrorCode*) + 0x3c3 from /home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x002bb2ef in TCint::ProcessLineSynch(char const*, TInterpreter::EErrorCode*) + 0x9f from /home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x002046c2 in TApplication::ExecuteFile(char const*, int*, bool) + 0x752 from /home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00204c5c in TApplication::ProcessFile(char const*, int*, bool) + 0x2c from /home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x002015eb in TApplication::ProcessLine(char const*, bool, int*) + 0x86b from /home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x0084a8c4 in TRint::Run(bool) + 0x2e4 from /home/fioravanti/fairsoft/tools/root/lib/libRint.so.5.29
0x08048d93 in main + 0x83 from /home/fioravanti/fairsoft/tools/root/bin/root.exe
0x00990e9c in __libc_start_main + 0xdc from /lib/libc.so.6
0x08048bf1 in __gxx_personality_v0 + 0x65 from /home/fioravanti/fairsoft/tools/root/bin/root.exe

Subject: Re: Reconstruction macro crash
Posted by [Lia Lavezzi](#) on Thu, 19 May 2011 15:00:00 GMT
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Ciao Elisa,

does it happen on a specific event or does it happen always?

Lia.

Subject: Re: Reconstruction macro crash

Posted by [Elisa Fioravanti](#) on Thu, 19 May 2011 15:02:05 GMT

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Ciao Lia,

it is completely random,
yesterday I got it on 670 event, then about 300 event, today 33 event...

thanks

Elisa

Subject: Re: Reconstruction macro crash

Posted by [Lia Lavezzi](#) on Thu, 19 May 2011 15:21:59 GMT

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Ok, I will try to reproduce it... just give me the time to install the last external packages...

I will let you know,

ciao,

Lia.

Subject: Re: Reconstruction macro crash

Posted by [Elisa Fioravanti](#) on Thu, 19 May 2011 15:37:58 GMT

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Ciao Lia,

I have the same problem also in the feb11 package, if I simulate 500 or 1000 events,

Elisa

Subject: Re: Reconstruction macro crash

Posted by [Lia Lavezzi](#) on Fri, 20 May 2011 13:46:01 GMT

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Hi Elisa,

I simulated and reconstructed 1000 events without the crash... now I am doing the same with others 1000 events (different seed) to see whether it was just luck!

In the meanwhile, can you please try the reco with

```
PndSttMvdGemTracking * SttMvdGemTracking = new PndSttMvdGemTracking(1);
```

with the 1 instead of 0, i.e. in verbosity mode, and send me the log file of the crashing event?

Maybe I can find out the problem in the log messages...

Thanks,
Lia.

Subject: Re: Reconstruction macro crash
Posted by [Elisa Fioravanti](#) on Fri, 20 May 2011 14:07:44 GMT
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Hello Lia,

I simulated again 1000 events, and I have the same crash at the same event number.
The following is the error.

Thanks
Elisa

Found Tracks: 0 in event no. 2

```
-----  
PROBLEM HAS NO FEASIBLE SOLUTION  
===== EVENT 2  
stt + mvd track array 5  
gem hits 8  
***** PndSttMvdGemTracking::Reset *****  
not assig 8 8  
npositions/nhits 6 8  
hit 0 @ 13.61 -26.95 116.4 1 1  
11 0 0  
hit 1 @ -4.861 21.76 116.4 1 1  
11 1 0  
hit 2 @ 12.97 -27.11 117.6 1 2  
12 0 1  
hit 3 @ -5.010 22.05 117.6 1 2  
12 1 1  
hit 4 @ -6.395 30.94 152.4 2 1  
21 0 2  
hit 5 @ -6.510 31.25 153.6 2 2  
22 0 3  
hit 6 @ -7.312 40.21 188.4 3 1  
31 0 4  
hit 7 @ -7.490 40.51 189.6 3 2  
32 0 5  
pos 0 1  
pos 1 1  
pos 2 1  
pos 3 1  
pos 4 1  
pos 5 1  
PRIMA iHit 7 detId 16(36)
```

PRIMA iHit 8 detId 16(36)
PRIMA iHit 9 detId 16(36)
PRIMA iHit 10 detId 16(36)
PRIMA iHit 11 detId 16(36)
PRIMA iHit 12 detId 16(36)
PRIMA iHit 13 detId 16(36)
PRIMA iHit 14 detId 16(36)
PRIMA iHit 15 detId 16(36)
PRIMA iHit 16 detId 16(36)
PRIMA iHit 17 detId 16(36)
PRIMA iHit 18 detId 16(36)
PRIMA iHit 19 detId 16(36)
PRIMA iHit 20 detId 16(36)
PRIMA iHit 21 detId 16(36)
PRIMA iHit 22 detId 16(36)
PRIMA iHit 23 detId 16(36)
PRIMA iHit 24 detId 16(36)
PRIMA iHit 25 detId 16(36)
PRIMA iHit 26 detId 16(36)
PRIMA iHit 27 detId 16(36)
PRIMA iHit 28 detId 16(36)
PRIMA iHit 29 detId 16(36)
PRIMA iHit 30 detId 16(36)
PRIMA iHit 31 detId 16(36)
PRIMA iHit 32 detId 16(36)

start from

TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)

(rho,theta,phi)=(49.954598,52.698661,-8.135506)

lastpar error 0.02000 0.02000 1.000

OUT OF SENSOR 107.4 -89.38 45.00

CANNOT PROPAGATE

PRIMA iHit 34 detId 16(36)
PRIMA iHit 35 detId 16(36)
PRIMA iHit 36 detId 16(36)
PRIMA iHit 37 detId 16(36)
PRIMA iHit 38 detId 16(36)
PRIMA iHit 39 detId 16(36)
PRIMA iHit 40 detId 16(36)
PRIMA iHit 41 detId 16(36)
PRIMA iHit 42 detId 16(36)
PRIMA iHit 43 detId 16(36)
PRIMA iHit 44 detId 16(36)

start from

TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)

(rho,theta,phi)=(57.865117,43.426841,78.899868)

lastpar error 0.02000 0.02000 1.000

OUT OF SENSOR 71.88 54.15 45.00

CANNOT PROPAGATE

PRIMA iHit 78 detId 16(36)
PRIMA iHit 79 detId 16(36)
PRIMA iHit 80 detId 16(36)
PRIMA iHit 81 detId 16(36)

PRIMA iHit 82 detId 16(36)
PRIMA iHit 83 detId 16(36)
PRIMA iHit 84 detId 16(36)
PRIMA iHit 85 detId 16(36)
PRIMA iHit 86 detId 16(36)
PRIMA iHit 87 detId 16(36)
PRIMA iHit 88 detId 16(36)
PRIMA iHit 89 detId 16(36)
PRIMA iHit 90 detId 16(36)
PRIMA iHit 91 detId 16(36)
start from
TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)
lastpar error 0.02000 0.02000 1.000
OUT OF SENSOR 36.03 144.1 45.00
CANNOT PROPAGATE
PRIMA iHit 45 detId 16(36)
PRIMA iHit 49 detId 16(36)
PRIMA iHit 50 detId 16(36)
PRIMA iHit 51 detId 16(36)
PRIMA iHit 52 detId 16(36)
PRIMA iHit 53 detId 16(36)
PRIMA iHit 54 detId 16(36)
PRIMA iHit 55 detId 16(36)
PRIMA iHit 56 detId 16(36)
PRIMA iHit 57 detId 16(36)
PRIMA iHit 58 detId 16(36)
PRIMA iHit 59 detId 16(36)
PRIMA iHit 60 detId 16(36)
PRIMA iHit 60 detId 16(36)
PRIMA iHit 61 detId 16(36)
PRIMA iHit 61 detId 16(36)
PRIMA iHit 63 detId 16(36)
PRIMA iHit 62 detId 16(36)
PRIMA iHit 64 detId 16(36)
PRIMA iHit 73 detId 16(36)
PRIMA iHit 73 detId 16(36)
PRIMA iHit 71 detId 16(36)
PRIMA iHit 71 detId 16(36)
PRIMA iHit 70 detId 16(36)
PRIMA iHit 70 detId 16(36)
PRIMA iHit 69 detId 16(36)
PRIMA iHit 69 detId 16(36)
PRIMA iHit 68 detId 16(36)
PRIMA iHit 68 detId 16(36)
TOO LOW MOMENTUM 3
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
(rho,theta,phi)=(0.091133,90.000000,-159.047625)
start from
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)

(rho,theta,phi)=(30.445771,97.859966,-62.180759)
lastpar error 0.02000 0.02000 1.000
propagation from
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)

```
*** Break *** floating point exception
Generating stack trace...
0xb11746c7 in ertrch_ + 0xd93 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb11764a5 in ertrgo_ + 0xf29 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb11738b9 in ertrak_ + 0xc15 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb1255450 in TGeant3::Ertrak(float const*, float const*, float const*, float const*, int, char
const*) + 0x62 from /home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0x061e808a in FairGeanePro::Propagate(int) at
/home/fioravanti/fairsoft/pandaroot/geane/FairGeanePro.cxx:327 from
/home/fioravanti/fairsoft/buildPanda/lib/libGeane.so
0x061e8c71 in FairGeanePro::Propagate(FairTrackParP*, FairTrackParP*, int) at
/home/fioravanti/fairsoft/pandaroot/geane/FairGeanePro.cxx:275 from
/home/fioravanti/fairsoft/buildPanda/lib/libGeane.so
0x04d9681e in PndSttMvdGemTracking::PropagateToGemPlane(FairTrackParP*,
FairTrackParP*, int) at
/home/fioravanti/fairsoft/pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx:949 from
/home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
0x04d9ce91 in PndSttMvdGemTracking::Exec(char const*) at
/home/fioravanti/fairsoft/pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx:601 from
/home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
0x0031e9e8 in TTask::ExecuteTasks(char const*) + 0x108 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x0031e3d9 in TTask::ExecuteTask(char const*) + 0x159 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x01ef3386 in FairRunAna::Run(int, int) at
/home/fioravanti/fairsoft/pandaroot/base/FairRunAna.cxx:273 from
/home/fioravanti/fairsoft/buildPanda/lib/libBase.so
0x01f51f88 in <unknown> from /home/fioravanti/fairsoft/buildPanda/lib/libBase.so
0x00bd3d7a in Cint::G__ExceptionWrapper(int (*)(G__value*, char const*, G__param*, int),
G__value*, char*, G__param*, int) + 0x6a from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c8e786 in G__execute_call + 0x56 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c92d3d in G__call_cppfunc + 0x26d from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c65628 in G__interpret_func + 0x1458 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c52cf8 in G__getfunction at func.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00d5391c in G__getstructmem(int, G__FastAllocString&, char*, int, char*, int*,
G__var_array*, int) + 0x5fc from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00d49708 in G__getvariable at var.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
```

0x00c26f41 in G__getitem at expr.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c309a9 in G__getexpr at expr.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00cc438f in G__exec_statement at parse.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c1178b in <unknown> from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c11ac6 in G__exec_tempfile + 0x16 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00cd5c26 in G__process_cmd at pause.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x0035b6d3 in TCint::ProcessLine(char const*, TInterpreter::EErrorCode*) + 0x3c3 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x0035b2ef in TCint::ProcessLineSynch(char const*, TInterpreter::EErrorCode*) + 0x9f from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x002a46c2 in TApplication::ExecuteFile(char const*, int*, bool) + 0x752 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x002a4c5c in TApplication::ProcessFile(char const*, int*, bool) + 0x2c from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x002a15eb in TApplication::ProcessLine(char const*, bool, int*) + 0x86b from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x0011d8c4 in TRint::Run(bool) + 0x2e4 from
/home/fioravanti/fairsoft/tools/root/lib/libRint.so.5.29
0x08048d93 in main + 0x83 from /home/fioravanti/fairsoft/tools/root/bin/root.exe
0x05c34e9c in __libc_start_main + 0xdc from /lib/libc.so.6
0x08048bf1 in __gxx_personality_v0 + 0x65 from
/home/fioravanti/fairsoft/tools/root/bin/root.exe
Root >

Subject: Re: Reconstruction macro crash
Posted by [Elisa Fioravanti](#) on Fri, 20 May 2011 14:37:51 GMT
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Hello,

I look into:

pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx

and I try to print out the value of fpdgCode,tmppar and gempar.

I run again the reconstruction macro and before the crash (that I have at the same event as before) I find this following value.

I read e-248. Is it not strange? The other value are e-17.

Hope it helps,

thanks
Elisa

propagation from

TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
pdg: -13
Position : (14., -27., -4.2)
Slopes : dx/dz = -1.5e-17, dy/dz = 1.5e-248
q/p = 11.
Position : (0.0, 0.0, 0.0)
Slopes : dx/dz = 0.0, dy/dz = 0.0
q/p = 0.0

*** Break *** floating point exception

Subject: Re: Reconstruction macro crash
Posted by [Lia Lavezzi](#) on Fri, 20 May 2011 15:27:18 GMT
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Hi Elisa,
Quote:I read e-248. Is it not strange? The other value are e-17.
yes, that' s should not happen...
I still do not see the crash in my events, but I was able to force it just putting as starting values the ones from your log (thank you for posting it). Now I should be able to see directly what is the problem and (hopefully) fix it.
Stay tuned,
Lia.

Subject: Re: Reconstruction macro crash
Posted by [Lia Lavezzi](#) on Fri, 20 May 2011 15:47:20 GMT
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Hi again,
I really think the problem is that the z component of the start momentum is 0, but I need to make one further check to be sure.

Can you please update your sttmvdtracking directory, rerun the reco in verbose mode and post the new log file? I added to the PndSttMvdGemTracking a few more print outs to understand what happens...

Thank you, sorry if I ask you to run all this stuff but the change I put by hand in my code is not enough to test this part.

Lia.

Subject: Re: Reconstruction macro crash
Posted by [Elisa Fioravanti](#) on Sat, 21 May 2011 15:43:32 GMT
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Hello Lia,

sorry for the delay in my answer but I'm travelling (and my flight was post-poned on this afternoon).

So I update my sttmvdtracking directory, and I rerun the reco in verbose mode.

Here you can see the log file. The crash is in the event number 2, but I post also the log file about the event number 1, so you can compare the two events.

Thanks a lot

Elisa

Found Tracks: 2 in event no. 1

===== EVENT 1

stt + mvd track array 2

gem hits 6

***** PndSttMvdGemTracking::Reset *****

not assig 6 6

npositions/nhits 6 6

hit 0 @ -31.20 -21.33 116.4 1 1

11 0 0

hit 1 @ -31.55 -21.51 117.6 1 2

12 0 1

hit 2 @ -41.68 -26.57 152.4 2 1

21 0 2

hit 3 @ -41.97 -26.87 153.6 2 2

22 0 3

hit 4 @ -52.23 -31.57 188.4 3 1

31 0 4

hit 5 @ -52.51 -31.91 189.6 3 2

32 0 5

pos 0 1

pos 1 1

pos 2 1

pos 3 1

pos 4 1

pos 5 1

PRIMA iHit 0 detld 21(36)

PRIMA iHit 1 detld 21(36)

PRIMA iHit 0 detld 23(36)

PRIMA iHit 1 detld 23(36)

PRIMA iHit 0 detld 16(36)

PRIMA iHit 1 detld 16(36)

PRIMA iHit 2 detld 16(36)

PRIMA iHit 3 detld 16(36)

PRIMA iHit 4 detld 16(36)

PRIMA iHit 5 detld 16(36)

PRIMA iHit 6 detld 16(36)

PRIMA iHit 7 detld 16(36)

PRIMA iHit 8 detld 16(36)

PRIMA iHit 9 detld 16(36)

PRIMA iHit 10 detld 16(36)

PRIMA iHit 11 detId 16(36)
 PRIMA iHit 12 detId 16(36)
 PRIMA iHit 13 detId 16(36)
 PRIMA iHit 14 detId 16(36)
 PRIMA iHit 15 detId 16(36)
 PRIMA iHit 16 detId 16(36)
 PRIMA iHit 17 detId 16(36)
 PRIMA iHit 18 detId 16(36)
 PRIMA iHit 19 detId 16(36)
 PRIMA iHit 20 detId 16(36)
 PRIMA iHit 21 detId 16(36)
 PRIMA iHit 22 detId 16(36)
 PRIMA iHit 23 detId 16(36)
 start from
 TVector3 A 3D physics vector (x,y,z)=(27.493812,28.485022,13.169421)
 (rho,theta,phi)=(41.722175,71.600207,46.014423)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius -1 -131.2 154.3 202.5
 TVector3 A 3D physics vector (x,y,z)=(0.914593,0.800286,0.403600)
 (rho,theta,phi)=(1.280559,71.628634,41.186545)
 TVector3 A 3D physics vector (x,y,z)=(2.140019,1.838233,0.935000)
 (rho,theta,phi)=(2.972038,71.663396,40.661909)
 TVector3 A 3D physics vector (x,y,z)=(0.754780,0.952495,0.403600)
 (rho,theta,phi)=(1.280559,71.628634,51.605833)
 TVector3 A 3D physics vector (x,y,z)=(27.493812,28.485022,13.169421)
 (rho,theta,phi)=(41.722175,71.600207,46.014423)
 Phi0 -49.61
 alpha1, Fi1 -48.81 0.7980
 TVector2 A 2D physics vector (x,y)=(133.381074,-152.432183)
 (rho,phi)=(202.548961,311.186545)
 alpha2, Fi2 -38.39 11.22
 TVector2 A 2D physics vector (x,y)=(158.734867,-125.785394)
 (rho,phi)=(202.530796,321.605833)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(2.140019,1.838233,0.935000)
 (rho,theta,phi)=(2.972038,71.663396,40.661909)
 TVector3 A 3D physics vector (x,y,z)=(27.493812,28.485022,13.169421)
 (rho,theta,phi)=(41.722175,71.600207,46.014423)
 scosfirst/scoslast 2.821 39.65
 fitm/fitp 0.3321 -0.0009598
 z1/z2 0.9360 13.17
 GET INITIAL PARAMS
 charge/xc/yc/radius -1 -131.2 154.3 202.5
 TVector3 A 3D physics vector (x,y,z)=(0.914593,0.800286,0.403600)
 (rho,theta,phi)=(1.280559,71.628634,41.186545)
 TVector3 A 3D physics vector (x,y,z)=(2.140019,1.838233,0.935000)
 (rho,theta,phi)=(2.972038,71.663396,40.661909)
 TVector3 A 3D physics vector (x,y,z)=(0.754780,0.952495,0.403600)
 (rho,theta,phi)=(1.280559,71.628634,51.605833)
 TVector3 A 3D physics vector (x,y,z)=(27.493812,28.485022,13.169421)
 (rho,theta,phi)=(41.722175,71.600207,46.014423)

Phi0 -49.61
 alpha1, Fi1 -48.81 0.7980
 TVector2 A 2D physics vector (x,y)=(133.381074,-152.432183)
 (rho,phi)=(202.548961,311.186545)
 alpha2, Fi2 -38.39 11.22
 TVector2 A 2D physics vector (x,y)=(158.734867,-125.785394)
 (rho,phi)=(202.530796,321.605833)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(2.140019,1.838233,0.935000)
 (rho,theta,phi)=(2.972038,71.663396,40.661909)
 TVector3 A 3D physics vector (x,y,z)=(27.493812,28.485022,13.169421)
 (rho,theta,phi)=(41.722175,71.600207,46.014423)
 scosfirst/scoslast 2.821 39.65
 fitm/fitp 0.3321 -0.0009598
 z1/z2 0.9360 13.17
 OUT OF SENSOR 0.2538 308.3 45.00
 CANNOT PROPAGATE
 PRIMA iHit 2 detId 21(36)
 PRIMA iHit 3 detId 21(36)
 PRIMA iHit 4 detId 21(36)
 PRIMA iHit 5 detId 21(36)
 PRIMA iHit 24 detId 16(36)
 PRIMA iHit 25 detId 16(36)
 PRIMA iHit 26 detId 16(36)
 PRIMA iHit 27 detId 16(36)
 PRIMA iHit 28 detId 16(36)
 PRIMA iHit 29 detId 16(36)
 PRIMA iHit 30 detId 16(36)
 PRIMA iHit 31 detId 16(36)
 PRIMA iHit 32 detId 16(36)
 PRIMA iHit 33 detId 16(36)
 PRIMA iHit 34 detId 16(36)
 PRIMA iHit 36 detId 16(36)
 PRIMA iHit 35 detId 16(36)
 PRIMA iHit 37 detId 16(36)
 PRIMA iHit 38 detId 16(36)
 PRIMA iHit 39 detId 16(36)
 PRIMA iHit 40 detId 16(36)
 start from
 TVector3 A 3D physics vector (x,y,z)=(-28.076680,-19.600158,106.400971)
 (rho,theta,phi)=(111.774921,17.838888,-145.081343)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 -124.2 148.0 193.2
 TVector3 A 3D physics vector (x,y,z)=(-0.896954,-0.734516,3.558927)
 (rho,theta,phi)=(3.742994,18.043120,-140.685918)
 TVector3 A 3D physics vector (x,y,z)=(-1.745000,-1.457119,6.980000)
 (rho,theta,phi)=(7.340887,18.040325,-140.137272)
 TVector3 A 3D physics vector (x,y,z)=(-1.005812,-0.576526,3.558927)
 (rho,theta,phi)=(3.742994,18.043120,-150.178888)
 TVector3 A 3D physics vector (x,y,z)=(-28.076680,-19.600158,106.400971)
 (rho,theta,phi)=(111.774921,17.838888,-145.081343)

Phi0 -50.01
 alpha1, Fi1 -50.69 -0.6741
 TVector2 A 2D physics vector (x,y)=(122.419376,-149.492275)
 (rho,phi)=(193.221231,309.314082)
 alpha2, Fi2 -60.18 -10.17
 TVector2 A 2D physics vector (x,y)=(96.087696,-167.635315)
 (rho,phi)=(193.221231,299.821112)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(-1.745000,-1.457119,6.980000)
 (rho,theta,phi)=(7.340887,18.040325,-140.137272)
 TVector3 A 3D physics vector (x,y,z)=(-28.076680,-19.600158,106.400971)
 (rho,theta,phi)=(111.774921,17.838888,-145.081343)
 scosfirst/scoslast 2.273 34.29
 fitm/fitp 3.070 0.5735
 z1/z2 7.553 105.8
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 -124.2 148.0 193.2
 TVector3 A 3D physics vector (x,y,z)=(-0.896954,-0.734516,3.558927)
 (rho,theta,phi)=(3.742994,18.043120,-140.685918)
 TVector3 A 3D physics vector (x,y,z)=(-1.745000,-1.457119,6.980000)
 (rho,theta,phi)=(7.340887,18.040325,-140.137272)
 TVector3 A 3D physics vector (x,y,z)=(-1.005812,-0.576526,3.558927)
 (rho,theta,phi)=(3.742994,18.043120,-150.178888)
 TVector3 A 3D physics vector (x,y,z)=(-28.076680,-19.600158,106.400971)
 (rho,theta,phi)=(111.774921,17.838888,-145.081343)
 Phi0 -50.01
 alpha1, Fi1 -50.69 -0.6741
 TVector2 A 2D physics vector (x,y)=(122.419376,-149.492275)
 (rho,phi)=(193.221231,309.314082)
 alpha2, Fi2 -60.18 -10.17
 TVector2 A 2D physics vector (x,y)=(96.087696,-167.635315)
 (rho,phi)=(193.221231,299.821112)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(-1.745000,-1.457119,6.980000)
 (rho,theta,phi)=(7.340887,18.040325,-140.137272)
 TVector3 A 3D physics vector (x,y,z)=(-28.076680,-19.600158,106.400971)
 (rho,theta,phi)=(111.774921,17.838888,-145.081343)
 scosfirst/scoslast 2.273 34.29
 fitm/fitp 3.070 0.5735
 z1/z2 7.553 105.8
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(-20.053042,-14.746117,76.461423)
 (rho,theta,phi)=(80.410954,18.032115,-143.670888)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(-31.229034,-21.389133,116.380302)
 (rho,theta,phi)=(122.381054,18.016653,-145.592297)
 errors
 TVector3 A 3D physics vector (x,y,z)=(1.193592,0.888566,0.000000)
 (rho,theta,phi)=(1.488023,90.000000,36.665727)
 TVector3 A 3D physics vector (x,y,z)=(0.049441,0.072073,0.000000)
 (rho,theta,phi)=(0.087401,90.000000,55.550681)
 distance 0.07019 err 0.9483

this hit 0 BELONGS to this track 1!!!!!!!!!!!!!!
 assign 0 to track 1
 ADD HIT 0 TO TRK 1
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(-31.229034,-21.389133,116.380302)
 (rho,theta,phi)=(122.381054,18.016653,-145.592297)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(-31.582960,-21.583942,117.620697)
 (rho,theta,phi)=(123.684996,18.016070,-145.651116)
 errors
 TVector3 A 3D physics vector (x,y,z)=(1.213402,0.906234,0.000000)
 (rho,theta,phi)=(1.514466,90.000000,36.754354)
 TVector3 A 3D physics vector (x,y,z)=(0.016045,0.016045,0.000000)
 (rho,theta,phi)=(0.022691,90.000000,45.000006)
 distance 0.08096 err 0.9641
 this hit 1 BELONGS to this track 1!!!!!!!!!!!!!!
 assign 1 to track 1
 ADD HIT 1 TO TRK 1
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(-31.582960,-21.583942,117.620697)
 (rho,theta,phi)=(123.684996,18.016070,-145.651116)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(-41.623573,-26.795818,152.378326)
 (rho,theta,phi)=(160.217640,17.997343,-147.227965)
 errors
 TVector3 A 3D physics vector (x,y,z)=(1.852860,1.438597,0.000000)
 (rho,theta,phi)=(2.345773,90.000000,37.826459)
 TVector3 A 3D physics vector (x,y,z)=(0.061517,0.096236,0.000000)
 (rho,theta,phi)=(0.114217,90.000000,57.412042)
 distance 0.2290 err 1.471
 this hit 2 BELONGS to this track 1!!!!!!!!!!!!!!
 assign 2 to track 1
 ADD HIT 2 TO TRK 1
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(-41.623573,-26.795818,152.378326)
 (rho,theta,phi)=(160.217640,17.997343,-147.227965)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(-41.985252,-26.974335,153.618729)
 (rho,theta,phi)=(161.521175,17.996599,-147.280405)
 errors
 TVector3 A 3D physics vector (x,y,z)=(1.877646,1.458302,0.000000)
 (rho,theta,phi)=(2.377435,90.000000,37.835237)
 TVector3 A 3D physics vector (x,y,z)=(0.015951,0.015951,0.000000)
 (rho,theta,phi)=(0.022558,90.000000,45.000004)
 distance 0.1054 err 1.468
 this hit 3 BELONGS to this track 1!!!!!!!!!!!!!!
 assign 3 to track 1
 ADD HIT 3 TO TRK 1
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(-41.985252,-26.974335,153.618729)
 (rho,theta,phi)=(161.521175,17.996599,-147.280405)
 propagation to 1

TVector3 A 3D physics vector (x,y,z)=(-52.153393,-31.861879,188.378494)
 (rho,theta,phi)=(198.044472,17.974697,-148.578145)
 errors
 TVector3 A 3D physics vector (x,y,z)=(2.597507,2.017544,0.000000)
 (rho,theta,phi)=(3.289001,90.000000,37.837321)
 TVector3 A 3D physics vector (x,y,z)=(0.073012,0.120576,0.000000)
 (rho,theta,phi)=(0.140958,90.000000,58.803741)
 distance 0.3060 err 2.067
 this hit 4 BELONGS to this track 1!!!!!!!!!!!!!!
 assign 4 to track 1
 ADD HIT 4 TO TRK 1
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(-52.153393,-31.861879,188.378494)
 (rho,theta,phi)=(198.044472,17.974697,-148.578145)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(-52.516422,-32.033981,189.618896)
 (rho,theta,phi)=(199.347627,17.973905,-148.617633)
 errors
 TVector3 A 3D physics vector (x,y,z)=(2.623816,2.037672,0.000000)
 (rho,theta,phi)=(3.322125,90.000000,37.833134)
 TVector3 A 3D physics vector (x,y,z)=(0.015864,0.015864,0.000000)
 (rho,theta,phi)=(0.022436,90.000000,45.000003)
 distance 0.1241 err 2.040
 this hit 5 BELONGS to this track 1!!!!!!!!!!!!!!
 assign 5 to track 1
 ADD HIT 5 TO TRK 1
 track 1 has 6 hits: 0 1 2 3 4 5
 FORBID MULTI ASSIGNED HITS : DELETING HITS
 hit 0 belongs to 1 tracks: 1
 hit 0 associated to 1 tracks
 hit 0 belongs to 1 tracks: 1
 hit 1 belongs to 1 tracks: 1
 hit 1 associated to 1 tracks
 hit 1 belongs to 1 tracks: 1
 hit 2 belongs to 1 tracks: 1
 hit 2 associated to 1 tracks
 hit 2 belongs to 1 tracks: 1
 hit 3 belongs to 1 tracks: 1
 hit 3 associated to 1 tracks
 hit 3 belongs to 1 tracks: 1
 hit 4 belongs to 1 tracks: 1
 hit 4 associated to 1 tracks
 hit 4 belongs to 1 tracks: 1
 hit 5 belongs to 1 tracks: 1
 hit 5 associated to 1 tracks
 hit 5 belongs to 1 tracks: 1
 ONLY ONE HIT FOR EACH TRACK : DELETING HITS
 track 0 has 0 hits:
 track 1 has 6 hits: 0 1 2 3 4 5
 ADD REMAINING HITS to 2 tracks
 0 ITRK 0
 track 0 has 0 hits:

missing position 0
 hit 0 belongs to 1 tracks: 1
 missing position 1
 hit 1 belongs to 1 tracks: 1
 missing position 2
 hit 2 belongs to 1 tracks: 1
 missing position 3
 hit 3 belongs to 1 tracks: 1
 missing position 4
 hit 4 belongs to 1 tracks: 1
 missing position 5
 hit 5 belongs to 1 tracks: 1
 1 ITRK 1
 track 1 has 6 hits: 0 1 2 3 4 5
 all pos filled
 RETRACKING
 track 0 has 0 hits:
 TRK 0 has hits
 track 0 has 0 hits:
 start from
 TVector3 A 3D physics vector (x,y,z)=(27.493812,28.485022,13.169421)
 (rho,theta,phi)=(41.722175,71.600207,46.014423)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius -1 -131.2 154.3 202.5
 TVector3 A 3D physics vector (x,y,z)=(0.914593,0.800286,0.403600)
 (rho,theta,phi)=(1.280559,71.628634,41.186545)
 TVector3 A 3D physics vector (x,y,z)=(2.140019,1.838233,0.935000)
 (rho,theta,phi)=(2.972038,71.663396,40.661909)
 TVector3 A 3D physics vector (x,y,z)=(0.754780,0.952495,0.403600)
 (rho,theta,phi)=(1.280559,71.628634,51.605833)
 TVector3 A 3D physics vector (x,y,z)=(27.493812,28.485022,13.169421)
 (rho,theta,phi)=(41.722175,71.600207,46.014423)
 Phi0 -49.61
 alpha1, Fi1 -48.81 0.7980
 TVector2 A 2D physics vector (x,y)=(133.381074,-152.432183)
 (rho,phi)=(202.548961,311.186545)
 alpha2, Fi2 -38.39 11.22
 TVector2 A 2D physics vector (x,y)=(158.734867,-125.785394)
 (rho,phi)=(202.530796,321.605833)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(2.140019,1.838233,0.935000)
 (rho,theta,phi)=(2.972038,71.663396,40.661909)
 TVector3 A 3D physics vector (x,y,z)=(27.493812,28.485022,13.169421)
 (rho,theta,phi)=(41.722175,71.600207,46.014423)
 scosfirst/scoslast 2.821 39.65
 fitm/fitp 0.3321 -0.0009598
 z1/z2 0.9360 13.17
 track 0 has 0 hits:
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(27.493951,28.485198,13.198476)
 (rho,theta,phi)=(41.731566,71.562451,46.014455)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(264.052734,241.612061,116.380302)

(rho,theta,phi)=(376.357023,71.987260,42.458963)

errors

TVector3 A 3D physics vector (x,y,z)=(71.554588,79.789469,0.000000)

(rho,theta,phi)=(107.174710,90.000000,48.114487)

TVector3 A 3D physics vector (x,y,z)=(0.049441,0.072073,0.000000)

(rho,theta,phi)=(0.087401,90.000000,55.550681)

distance 395.4 err 75.31

this hit 0 DOES NOT BELONG to this track 0!!!!!!!!!!!!!!

track 0 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(27.493951,28.485198,13.198476)

(rho,theta,phi)=(41.731566,71.562451,46.014455)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(266.680786,244.622772,117.620697)

(rho,theta,phi)=(380.517504,71.994566,42.529749)

errors

TVector3 A 3D physics vector (x,y,z)=(72.978365,81.365459,0.000000)

(rho,theta,phi)=(109.298580,90.000000,48.110412)

TVector3 A 3D physics vector (x,y,z)=(0.016045,0.016045,0.000000)

(rho,theta,phi)=(0.022691,90.000000,45.000006)

distance 399.7 err 76.81

this hit 1 DOES NOT BELONG to this track 0!!!!!!!!!!!!!!

track 0 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(27.493951,28.485198,13.198476)

(rho,theta,phi)=(41.731566,71.562451,46.014455)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(340.326721,328.991913,152.380295)

(rho,theta,phi)=(497.270259,72.155569,44.029798)

errors

TVector3 A 3D physics vector (x,y,z)=(113.698529,126.541337,0.000000)

(rho,theta,phi)=(170.117799,90.000000,48.060021)

TVector3 A 3D physics vector (x,y,z)=(0.061517,0.096236,0.000000)

(rho,theta,phi)=(0.114217,90.000000,57.412042)

distance 521.9 err 119.8

this hit 2 DOES NOT BELONG to this track 0!!!!!!!!!!!!!!

track 0 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(27.493951,28.485198,13.198476)

(rho,theta,phi)=(41.731566,71.562451,46.014455)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(342.954803,332.002655,153.620697)

(rho,theta,phi)=(501.441002,72.160089,44.070376)

errors

TVector3 A 3D physics vector (x,y,z)=(115.169873,128.175950,0.000000)

(rho,theta,phi)=(172.317074,90.000000,48.059370)

TVector3 A 3D physics vector (x,y,z)=(0.015951,0.015951,0.000000)

(rho,theta,phi)=(0.022558,90.000000,45.000004)

distance 526.3 err 121.4

this hit 3 DOES NOT BELONG to this track 0!!!!!!!!!!!!!!

track 0 has 0 hits:
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(27.493951,28.485198,13.198476)
 (rho,theta,phi)=(41.731566,71.562451,46.014455)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(416.600739,416.371857,188.380295)
 (rho,theta,phi)=(618.392136,72.264144,44.984256)
 errors
 TVector3 A 3D physics vector (x,y,z)=(156.639639,174.277106,0.000000)
 (rho,theta,phi)=(234.325599,90.000000,48.050910)
 TVector3 A 3D physics vector (x,y,z)=(0.073012,0.120576,0.000000)
 (rho,theta,phi)=(0.140958,90.000000,58.803741)
 distance 648.4 err 165.3
 this hit 4 DOES NOT BELONG to this track 0!!!!!!!!!!!!!!
 track 0 has 0 hits:
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(27.493951,28.485198,13.198476)
 (rho,theta,phi)=(41.731566,71.562451,46.014455)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(419.228821,419.382599,189.620697)
 (rho,theta,phi)=(622.567729,72.267197,45.010506)
 errors
 TVector3 A 3D physics vector (x,y,z)=(158.125636,175.929823,0.000000)
 (rho,theta,phi)=(236.548134,90.000000,48.050812)
 TVector3 A 3D physics vector (x,y,z)=(0.015864,0.015864,0.000000)
 (rho,theta,phi)=(0.022436,90.000000,45.000003)
 distance 652.8 err 166.9
 this hit 5 DOES NOT BELONG to this track 0!!!!!!!!!!!!!!
 track 1 has 6 hits: 0 1 2 3 4 5
 TRK 1 has hits 0 1 2 3 4 5
 track 1 has 6 hits: 0 1 2 3 4 5
 start from
 TVector3 A 3D physics vector (x,y,z)=(-28.076680,-19.600158,106.400971)
 (rho,theta,phi)=(111.774921,17.838888,-145.081343)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 -124.2 148.0 193.2
 TVector3 A 3D physics vector (x,y,z)=(-0.896954,-0.734516,3.558927)
 (rho,theta,phi)=(3.742994,18.043120,-140.685918)
 TVector3 A 3D physics vector (x,y,z)=(-1.745000,-1.457119,6.980000)
 (rho,theta,phi)=(7.340887,18.040325,-140.137272)
 TVector3 A 3D physics vector (x,y,z)=(-1.005812,-0.576526,3.558927)
 (rho,theta,phi)=(3.742994,18.043120,-150.178888)
 TVector3 A 3D physics vector (x,y,z)=(-28.076680,-19.600158,106.400971)
 (rho,theta,phi)=(111.774921,17.838888,-145.081343)
 Phi0 -50.01
 alpha1, Fi1 -50.69 -0.6741
 TVector2 A 2D physics vector (x,y)=(122.419376,-149.492275)
 (rho,phi)=(193.221231,309.314082)
 alpha2, Fi2 -60.18 -10.17
 TVector2 A 2D physics vector (x,y)=(96.087696,-167.635315)
 (rho,phi)=(193.221231,299.821112)

positions first/last

TVector3 A 3D physics vector (x,y,z)=(-1.745000,-1.457119,6.980000)

(rho,theta,phi)=(7.340887,18.040325,-140.137272)

TVector3 A 3D physics vector (x,y,z)=(-28.076680,-19.600158,106.400971)

(rho,theta,phi)=(111.774921,17.838888,-145.081343)

scosfirst/scoslast 2.273 34.29

fitm/fitp 3.070 0.5735

z1/z2 7.553 105.8

track 1 has 6 hits: 0 1 2 3 4 5

propagation from

TVector3 A 3D physics vector (x,y,z)=(-20.053042,-14.746117,76.461423)

(rho,theta,phi)=(80.410954,18.032115,-143.670888)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(-31.229034,-21.389133,116.380302)

(rho,theta,phi)=(122.381054,18.016653,-145.592297)

errors

TVector3 A 3D physics vector (x,y,z)=(1.193592,0.888566,0.000000)

(rho,theta,phi)=(1.488023,90.000000,36.665727)

TVector3 A 3D physics vector (x,y,z)=(0.049441,0.072073,0.000000)

(rho,theta,phi)=(0.087401,90.000000,55.550681)

distance 0.07019 err 0.9483

this hit 0 BELONGS to this track 1!!!!!!!!!!!!!!

assign 0 to track 1

track 1 has 6 hits: 0 1 2 3 4 5

track 1 has 6 hits: 0 1 2 3 4 5

track 1 has 6 hits: 0 1 2 3 4 5

propagation from

TVector3 A 3D physics vector (x,y,z)=(-31.200458,-21.325509,116.380302)

(rho,theta,phi)=(122.362660,17.990153,-145.647399)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(-31.554291,-21.518887,117.620697)

(rho,theta,phi)=(123.666342,17.989477,-145.707425)

errors

TVector3 A 3D physics vector (x,y,z)=(0.053477,0.074309,0.000000)

(rho,theta,phi)=(0.091551,90.000000,54.258944)

TVector3 A 3D physics vector (x,y,z)=(0.016045,0.016045,0.000000)

(rho,theta,phi)=(0.022691,90.000000,45.000006)

distance 0.009868 err 0.07263

this hit 1 BELONGS to this track 1!!!!!!!!!!!!!!

assign 1 to track 1

track 1 has 6 hits: 0 1 2 3 4 5

track 1 has 6 hits: 0 1 2 3 4 5

track 1 has 6 hits: 0 1 2 3 4 5

propagation from

TVector3 A 3D physics vector (x,y,z)=(-31.550337,-21.510388,117.620697)

(rho,theta,phi)=(123.663854,17.985927,-145.714617)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(-41.566570,-26.666948,152.378326)

(rho,theta,phi)=(160.181336,17.957327,-147.317882)

errors

TVector3 A 3D physics vector (x,y,z)=(0.480061,0.250845,0.000000)

(rho,theta,phi)=(0.541647,90.000000,27.588315)

TVector3 A 3D physics vector (x,y,z)=(0.061517,0.096236,0.000000)
 (rho,theta,phi)=(0.114217,90.000000,57.412042)
 distance 0.1475 err 0.4125
 this hit 2 BELONGS to this track 1!!!!!!!!!!!!!!
 assign 2 to track 1
 track 1 has 6 hits: 0 1 2 3 4 5
 track 1 has 6 hits: 0 1 2 3 4 5
 track 1 has 6 hits: 0 1 2 3 4 5
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(-41.656247,-26.686305,152.380295)
 (rho,theta,phi)=(160.209725,17.986348,-147.355095)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(-42.019573,-26.863283,153.618729)
 (rho,theta,phi)=(161.511592,17.986131,-147.409054)
 errors
 TVector3 A 3D physics vector (x,y,z)=(0.060662,0.050230,0.000000)
 (rho,theta,phi)=(0.078759,90.000000,39.625569)
 TVector3 A 3D physics vector (x,y,z)=(0.015951,0.015951,0.000000)
 (rho,theta,phi)=(0.022558,90.000000,45.000004)
 distance 0.05003 err 0.06256
 this hit 3 BELONGS to this track 1!!!!!!!!!!!!!!
 assign 3 to track 1
 track 1 has 6 hits: 0 1 2 3 4 5
 track 1 has 6 hits: 0 1 2 3 4 5
 track 1 has 6 hits: 0 1 2 3 4 5
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(-41.974382,-26.866975,153.620697)
 (rho,theta,phi)=(161.502327,17.973741,-147.377494)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(-52.161926,-31.720781,188.378494)
 (rho,theta,phi)=(198.024068,17.956491,-148.695322)
 errors
 TVector3 A 3D physics vector (x,y,z)=(0.034681,0.035126,0.000000)
 (rho,theta,phi)=(0.049362,90.000000,45.364951)
 TVector3 A 3D physics vector (x,y,z)=(0.073012,0.120576,0.000000)
 (rho,theta,phi)=(0.140958,90.000000,58.803741)
 distance 0.1702 err 0.1187
 this hit 4 BELONGS to this track 1!!!!!!!!!!!!!!
 assign 4 to track 1
 track 1 has 6 hits: 0 1 2 3 4 5
 track 1 has 6 hits: 0 1 2 3 4 5
 track 1 has 6 hits: 0 1 2 3 4 5
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(-52.174988,-31.709091,188.380295)
 (rho,theta,phi)=(198.027350,17.957731,-148.711065)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(-52.538479,-31.879414,189.618896)
 (rho,theta,phi)=(199.328660,17.957092,-148.751369)
 errors
 TVector3 A 3D physics vector (x,y,z)=(0.032026,0.034556,0.000000)
 (rho,theta,phi)=(0.047114,90.000000,47.176500)
 TVector3 A 3D physics vector (x,y,z)=(0.015864,0.015864,0.000000)

(rho,theta,phi)=(0.022436,90.000000,45.000003)
distance 0.04179 err 0.03698
this hit 5 BELONGS to this track 1!!!!!!!!!!!!!!
assign 5 to track 1
track 1 has 6 hits: 0 1 2 3 4 5
track 1 has 6 hits: 0 1 2 3 4 5
N OF TRACKS 2
track 0 has 0 hits
track 0 has 0
track 0 has 0 hits:

track 1 has 6 hits
track 1 has 6
track 1 has 6 hits: 0 1 2 3 4 5
0 1 2 3 4 5
0 ACTUALLY ASSIGNING TRACK 0
track 0 has 0 hits:
1 ACTUALLY ASSIGNING TRACK 1
track 1 has 6 hits: 0 1 2 3 4 5
ACTUALLY add hit 0 to track 1
ACTUALLY add hit 1 to track 1
ACTUALLY add hit 2 to track 1
ACTUALLY add hit 3 to track 1
ACTUALLY add hit 4 to track 1
ACTUALLY add hit 5 to track 1
complete cand 0 has nhits 28
iHit 0 detId 21(36)
iHit 1 detId 21(36)
iHit 0 detId 23(36)
iHit 1 detId 23(36)
iHit 0 detId 16(36)
iHit 1 detId 16(36)
iHit 2 detId 16(36)
iHit 3 detId 16(36)
iHit 4 detId 16(36)
iHit 5 detId 16(36)
iHit 6 detId 16(36)
iHit 7 detId 16(36)
iHit 8 detId 16(36)
iHit 9 detId 16(36)
iHit 10 detId 16(36)
iHit 11 detId 16(36)
iHit 12 detId 16(36)
iHit 13 detId 16(36)
iHit 14 detId 16(36)
iHit 15 detId 16(36)
iHit 16 detId 16(36)
iHit 17 detId 16(36)
iHit 18 detId 16(36)
iHit 19 detId 16(36)
iHit 20 detId 16(36)
iHit 21 detId 16(36)

iHit 22 detId 16(36)
iHit 23 detId 16(36)
complete cand 1 has nhits 27
iHit 2 detId 21(36)
iHit 3 detId 21(36)
iHit 4 detId 21(36)
iHit 5 detId 21(36)
iHit 24 detId 16(36)
iHit 25 detId 16(36)
iHit 26 detId 16(36)
iHit 27 detId 16(36)
iHit 28 detId 16(36)
iHit 29 detId 16(36)
iHit 30 detId 16(36)
iHit 31 detId 16(36)
iHit 32 detId 16(36)
iHit 33 detId 16(36)
iHit 34 detId 16(36)
iHit 36 detId 16(36)
iHit 35 detId 16(36)
iHit 37 detId 16(36)
iHit 38 detId 16(36)
iHit 39 detId 16(36)
iHit 40 detId 16(36)
iHit 0 detId 36(36)
iHit 1 detId 36(36)
iHit 2 detId 36(36)
iHit 3 detId 36(36)
iHit 4 detId 36(36)
iHit 5 detId 36(36)
hit 0 belongs to 1 tracks: 1
hit 1 belongs to 1 tracks: 1
hit 2 belongs to 1 tracks: 1
hit 3 belongs to 1 tracks: 1
hit 4 belongs to 1 tracks: 1
hit 5 belongs to 1 tracks: 1
start from
TVector3 A 3D physics vector (x,y,z)=(27.493812,28.485022,13.169421)
(rho,theta,phi)=(41.722175,71.600207,46.014423)
lastpar error 0.02000 0.02000 1.000
GET INITIAL PARAMS
charge/xc/yc/radius -1 -131.2 154.3 202.5
TVector3 A 3D physics vector (x,y,z)=(0.914593,0.800286,0.403600)
(rho,theta,phi)=(1.280559,71.628634,41.186545)
TVector3 A 3D physics vector (x,y,z)=(2.140019,1.838233,0.935000)
(rho,theta,phi)=(2.972038,71.663396,40.661909)
TVector3 A 3D physics vector (x,y,z)=(0.754780,0.952495,0.403600)
(rho,theta,phi)=(1.280559,71.628634,51.605833)
TVector3 A 3D physics vector (x,y,z)=(27.493812,28.485022,13.169421)
(rho,theta,phi)=(41.722175,71.600207,46.014423)
Phi0 -49.61
alpha1, Fi1 -48.81 0.7980

TVector2 A 2D physics vector (x,y)=(133.381074,-152.432183)
 (rho,phi)=(202.548961,311.186545)
 alpha2, Fi2 -38.39 11.22
 TVector2 A 2D physics vector (x,y)=(158.734867,-125.785394)
 (rho,phi)=(202.530796,321.605833)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(2.140019,1.838233,0.935000)
 (rho,theta,phi)=(2.972038,71.663396,40.661909)
 TVector3 A 3D physics vector (x,y,z)=(27.493812,28.485022,13.169421)
 (rho,theta,phi)=(41.722175,71.600207,46.014423)
 scosfirst/scoslast 2.821 39.65
 fitm/fitp 0.3321 -0.0009598
 z1/z2 0.9360 13.17
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(27.493951,28.485198,13.198476)
 (rho,theta,phi)=(41.731566,71.562451,46.014455)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(156.582214,274.709991,116.380302)
 (rho,theta,phi)=(336.939081,69.793505,60.317250)
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(27.493951,28.485198,13.198476)
 (rho,theta,phi)=(41.731566,71.562451,46.014455)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(158.347534,276.980469,117.620697)
 (rho,theta,phi)=(340.039336,69.763059,60.243739)
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(27.493951,28.485198,13.198476)
 (rho,theta,phi)=(41.731566,71.562451,46.014455)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(207.817139,340.606659,152.380295)
 (rho,theta,phi)=(427.107262,69.097860,58.611038)
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(27.493951,28.485198,13.198476)
 (rho,theta,phi)=(41.731566,71.562451,46.014455)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(209.582474,342.877167,153.620697)
 (rho,theta,phi)=(430.219576,69.079324,58.564786)
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(27.493951,28.485198,13.198476)
 (rho,theta,phi)=(41.731566,71.562451,46.014455)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(259.052094,406.503357,188.380295)
 (rho,theta,phi)=(517.532706,68.654137,57.491891)
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(27.493951,28.485198,13.198476)
 (rho,theta,phi)=(41.731566,71.562451,46.014455)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(260.817413,408.773895,189.620697)
 (rho,theta,phi)=(520.651351,68.641704,57.460165)
 start from
 TVector3 A 3D physics vector (x,y,z)=(-28.076680,-19.600158,106.400971)
 (rho,theta,phi)=(111.774921,17.838888,-145.081343)

```

lastpar error 0.02000 0.02000 1.000
GET INITIAL PARAMS
charge/xc/yc/radius 1 -124.2 148.0 193.2
TVector3 A 3D physics vector (x,y,z)=(-0.896954,-0.734516,3.558927)
(rho,theta,phi)=(3.742994,18.043120,-140.685918)
TVector3 A 3D physics vector (x,y,z)=(-1.745000,-1.457119,6.980000)
(rho,theta,phi)=(7.340887,18.040325,-140.137272)
TVector3 A 3D physics vector (x,y,z)=(-1.005812,-0.576526,3.558927)
(rho,theta,phi)=(3.742994,18.043120,-150.178888)
TVector3 A 3D physics vector (x,y,z)=(-28.076680,-19.600158,106.400971)
(rho,theta,phi)=(111.774921,17.838888,-145.081343)
Phi0 -50.01
alpha1, Fi1 -50.69 -0.6741
TVector2 A 2D physics vector (x,y)=(122.419376,-149.492275)
(rho,phi)=(193.221231,309.314082)
alpha2, Fi2 -60.18 -10.17
TVector2 A 2D physics vector (x,y)=(96.087696,-167.635315)
(rho,phi)=(193.221231,299.821112)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(-1.745000,-1.457119,6.980000)
(rho,theta,phi)=(7.340887,18.040325,-140.137272)
TVector3 A 3D physics vector (x,y,z)=(-28.076680,-19.600158,106.400971)
(rho,theta,phi)=(111.774921,17.838888,-145.081343)
scosfirst/scoslast 2.273 34.29
fitm/fitp 3.070 0.5735
z1/z2 7.553 105.8
propagation from
TVector3 A 3D physics vector (x,y,z)=(-20.053042,-14.746117,76.461423)
(rho,theta,phi)=(80.410954,18.032115,-143.670888)
propagation to 1
TVector3 A 3D physics vector (x,y,z)=(-31.229034,-21.389133,116.380302)
(rho,theta,phi)=(122.381054,18.016653,-145.592297)
propagation from
TVector3 A 3D physics vector (x,y,z)=(-20.053042,-14.746117,76.461423)
(rho,theta,phi)=(80.410954,18.032115,-143.670888)
propagation to 1
TVector3 A 3D physics vector (x,y,z)=(-31.582960,-21.583942,117.620697)
(rho,theta,phi)=(123.684996,18.016070,-145.651116)
propagation from
TVector3 A 3D physics vector (x,y,z)=(-20.053042,-14.746117,76.461423)
(rho,theta,phi)=(80.410954,18.032115,-143.670888)
propagation to 1
TVector3 A 3D physics vector (x,y,z)=(-41.623573,-26.795816,152.378326)
(rho,theta,phi)=(160.217639,17.997342,-147.227967)
propagation from
TVector3 A 3D physics vector (x,y,z)=(-20.053042,-14.746117,76.461423)
(rho,theta,phi)=(80.410954,18.032115,-143.670888)
propagation to 1
TVector3 A 3D physics vector (x,y,z)=(-41.985252,-26.974333,153.618729)
(rho,theta,phi)=(161.521175,17.996598,-147.280406)
propagation from
TVector3 A 3D physics vector (x,y,z)=(-20.053042,-14.746117,76.461423)

```


(rho,theta,phi)=(80.410954,18.032115,-143.670888)
propagation to 1
TVector3 A 3D physics vector (x,y,z)=(-52.153393,-31.861877,188.378494)
(rho,theta,phi)=(198.044472,17.974696,-148.578146)
propagation from
TVector3 A 3D physics vector (x,y,z)=(-20.053042,-14.746117,76.461423)
(rho,theta,phi)=(80.410954,18.032115,-143.670888)
propagation to 1
TVector3 A 3D physics vector (x,y,z)=(-52.516422,-32.033981,189.618896)
(rho,theta,phi)=(199.347627,17.973905,-148.617633)

SUMMARY OF EVENT

mvd + stt tracks 2
gem hits 6
complete track cand 2
COUNTERS 6 2 0 10 2 0 2 194
STTMVD 8 of which usable 5
planes: 1 1 4 4 4 0 0
nohit on plane: 4 4 0 0 0 0 0
prop 1 turn: 0 0 1 1 1 1 0 0
prop 2 turn: 0 0 2 2 2 2 0 0
Found Tracks: 0 in event no. 2

PROBLEM HAS NO FEASIBLE SOLUTION

===== EVENT 2

stt + mvd track array 5
gem hits 8
***** PndSttMvdGemTracking::Reset *****
not assig 8 8
npositions/nhits 6 8
hit 0 @ 13.61 -26.95 116.4 1 1
11 0 0
hit 1 @ -4.861 21.76 116.4 1 1
11 1 0
hit 2 @ 12.97 -27.11 117.6 1 2
12 0 1
hit 3 @ -5.010 22.05 117.6 1 2
12 1 1
hit 4 @ -6.395 30.94 152.4 2 1
21 0 2
hit 5 @ -6.510 31.25 153.6 2 2
22 0 3
hit 6 @ -7.312 40.21 188.4 3 1
31 0 4
hit 7 @ -7.490 40.51 189.6 3 2
32 0 5
pos 0 1
pos 1 1
pos 2 1
pos 3 1
pos 4 1
pos 5 1
PRIMA iHit 7 detId 16(36)

PRIMA iHit 8 detId 16(36)
 PRIMA iHit 9 detId 16(36)
 PRIMA iHit 10 detId 16(36)
 PRIMA iHit 11 detId 16(36)
 PRIMA iHit 12 detId 16(36)
 PRIMA iHit 13 detId 16(36)
 PRIMA iHit 14 detId 16(36)
 PRIMA iHit 15 detId 16(36)
 PRIMA iHit 16 detId 16(36)
 PRIMA iHit 17 detId 16(36)
 PRIMA iHit 18 detId 16(36)
 PRIMA iHit 19 detId 16(36)
 PRIMA iHit 20 detId 16(36)
 PRIMA iHit 21 detId 16(36)
 PRIMA iHit 22 detId 16(36)
 PRIMA iHit 23 detId 16(36)
 PRIMA iHit 24 detId 16(36)
 PRIMA iHit 25 detId 16(36)
 PRIMA iHit 26 detId 16(36)
 PRIMA iHit 27 detId 16(36)
 PRIMA iHit 28 detId 16(36)
 PRIMA iHit 29 detId 16(36)
 PRIMA iHit 30 detId 16(36)
 PRIMA iHit 31 detId 16(36)
 PRIMA iHit 32 detId 16(36)
 start from
 TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
 (rho,theta,phi)=(49.954598,52.698661,-8.135506)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 5.431 -102.4 102.8
 TVector3 A 3D physics vector (x,y,z)=(0.612841,-0.067291,0.466725)
 (rho,theta,phi)=(0.773263,52.873333,-6.266050)
 TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
 (rho,theta,phi)=(20.880070,52.873723,-0.899604)
 TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
 (rho,theta,phi)=(0.773263,52.873333,-19.281329)
 TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
 (rho,theta,phi)=(49.954598,52.698661,-8.135506)
 Phi0 93.04
 alpha1, Fi1 83.73 -9.302
 TVector2 A 2D physics vector (x,y)=(11.215131,102.140237)
 (rho,phi)=(102.754110,83.733950)
 alpha2, Fi2 70.69 -22.34
 TVector2 A 2D physics vector (x,y)=(33.906298,96.778265) (rho,phi)=(102.545939,70.692074)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
 (rho,theta,phi)=(20.880070,52.873723,-0.899604)
 TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
 (rho,theta,phi)=(49.954598,52.698661,-8.135506)
 scosfirst/scoslast 16.68 40.07
 fitm/fitp 0.7570 -0.04392

z1/z2 12.58 30.29
GET INITIAL PARAMS
charge/xc/yc/radius 1 5.431 -102.4 102.8
TVector3 A 3D physics vector (x,y,z)=(0.612841,-0.067291,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-6.266050)
TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
(rho,theta,phi)=(20.880070,52.873723,-0.899604)
TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-19.281329)
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)
Phi0 93.04
alpha1, Fi1 83.73 -9.302
TVector2 A 2D physics vector (x,y)=(11.215131,102.140237)
(rho,phi)=(102.754110,83.733950)
alpha2, Fi2 70.69 -22.34
TVector2 A 2D physics vector (x,y)=(33.906298,96.778265) (rho,phi)=(102.545939,70.692074)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
(rho,theta,phi)=(20.880070,52.873723,-0.899604)
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)
scosfirst/scoslast 16.68 40.07
fitm/fitp 0.7570 -0.04392
z1/z2 12.58 30.29
OUT OF SENSOR 107.4 -89.38 45.00
CANNOT PROPAGATE
PRIMA iHit 34 detId 16(36)
PRIMA iHit 35 detId 16(36)
PRIMA iHit 36 detId 16(36)
PRIMA iHit 37 detId 16(36)
PRIMA iHit 38 detId 16(36)
PRIMA iHit 39 detId 16(36)
PRIMA iHit 40 detId 16(36)
PRIMA iHit 41 detId 16(36)
PRIMA iHit 42 detId 16(36)
PRIMA iHit 43 detId 16(36)
PRIMA iHit 44 detId 16(36)
start from
TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
(rho,theta,phi)=(57.865117,43.426841,78.899868)
lastpar error 0.02000 0.02000 1.000
GET INITIAL PARAMS
charge/xc/yc/radius 1 48.19 10.82 49.39
TVector3 A 3D physics vector (x,y,z)=(0.118913,0.271403,0.304146)
(rho,theta,phi)=(0.424623,44.252380,66.339703)
TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
(rho,theta,phi)=(44.778434,43.423421,84.497326)
TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
(rho,theta,phi)=(0.424623,44.252380,55.154692)
TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
(rho,theta,phi)=(57.865117,43.426841,78.899868)

Phi0 -167.3
 alpha1, Fi1 156.3 -36.32
 TVector2 A 2D physics vector (x,y)=(-45.233866,19.818906)
 (rho,phi)=(49.385136,156.339703)
 alpha2, Fi2 145.2 -47.50
 TVector2 A 2D physics vector (x,y)=(-40.527182,28.214680)
 (rho,phi)=(49.381379,145.154692)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
 (rho,theta,phi)=(44.778434,43.423421,84.497326)
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 scosfirst/scoslast 31.30 40.94
 fitm/fitp 1.026 0.1966
 z1/z2 32.33 42.22
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 48.19 10.82 49.39
 TVector3 A 3D physics vector (x,y,z)=(0.118913,0.271403,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,66.339703)
 TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
 (rho,theta,phi)=(44.778434,43.423421,84.497326)
 TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,55.154692)
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 Phi0 -167.3
 alpha1, Fi1 156.3 -36.32
 TVector2 A 2D physics vector (x,y)=(-45.233866,19.818906)
 (rho,phi)=(49.385136,156.339703)
 alpha2, Fi2 145.2 -47.50
 TVector2 A 2D physics vector (x,y)=(-40.527182,28.214680)
 (rho,phi)=(49.381379,145.154692)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
 (rho,theta,phi)=(44.778434,43.423421,84.497326)
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 scosfirst/scoslast 31.30 40.94
 fitm/fitp 1.026 0.1966
 z1/z2 32.33 42.22
 OUT OF SENSOR 71.88 54.15 45.00
 CANNOT PROPAGATE
 PRIMA iHit 78 detId 16(36)
 PRIMA iHit 79 detId 16(36)
 PRIMA iHit 80 detId 16(36)
 PRIMA iHit 81 detId 16(36)
 PRIMA iHit 82 detId 16(36)
 PRIMA iHit 83 detId 16(36)
 PRIMA iHit 84 detId 16(36)
 PRIMA iHit 85 detId 16(36)
 PRIMA iHit 86 detId 16(36)
 PRIMA iHit 87 detId 16(36)

PRIMA iHit 88 detId 16(36)
 PRIMA iHit 89 detId 16(36)
 PRIMA iHit 90 detId 16(36)
 PRIMA iHit 91 detId 16(36)
 start from
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 172.2 33.56 175.4
 TVector3 A 3D physics vector (x,y,z)=(-0.095240,1.048054,0.798584)
 (rho,theta,phi)=(1.321070,52.807272,95.192391)
 TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
 (rho,theta,phi)=(22.425569,52.791466,97.949212)
 TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
 (rho,theta,phi)=(1.321070,52.807272,90.205014)
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 Phi0 -169.0
 alpha1, Fi1 -174.8 -5.836
 TVector2 A 2D physics vector (x,y)=(-174.675718,-15.873347)
 (rho,phi)=(175.395466,185.192391)
 alpha2, Fi2 -179.8 -10.82
 TVector2 A 2D physics vector (x,y)=(-175.444726,-0.632171)
 (rho,phi)=(175.445865,180.206450)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
 (rho,theta,phi)=(22.425569,52.791466,97.949212)
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 scosfirst/scoslast 17.87 33.13
 fitm/fitp 0.7588 0.005572
 z1/z2 13.56 25.15
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 172.2 33.56 175.4
 TVector3 A 3D physics vector (x,y,z)=(-0.095240,1.048054,0.798584)
 (rho,theta,phi)=(1.321070,52.807272,95.192391)
 TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
 (rho,theta,phi)=(22.425569,52.791466,97.949212)
 TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
 (rho,theta,phi)=(1.321070,52.807272,90.205014)
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 Phi0 -169.0
 alpha1, Fi1 -174.8 -5.836
 TVector2 A 2D physics vector (x,y)=(-174.675718,-15.873347)
 (rho,phi)=(175.395466,185.192391)
 alpha2, Fi2 -179.8 -10.82
 TVector2 A 2D physics vector (x,y)=(-175.444726,-0.632171)
 (rho,phi)=(175.445865,180.206450)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)

(rho,theta,phi)=(22.425569,52.791466,97.949212)
TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)
scosfirst/scoslast 17.87 33.13
fitm/fitp 0.7588 0.005572
z1/z2 13.56 25.15
OUT OF SENSOR 36.03 144.1 45.00
CANNOT PROPAGATE
PRIMA iHit 45 detId 16(36)
PRIMA iHit 49 detId 16(36)
PRIMA iHit 50 detId 16(36)
PRIMA iHit 51 detId 16(36)
PRIMA iHit 52 detId 16(36)
PRIMA iHit 53 detId 16(36)
PRIMA iHit 54 detId 16(36)
PRIMA iHit 55 detId 16(36)
PRIMA iHit 56 detId 16(36)
PRIMA iHit 57 detId 16(36)
PRIMA iHit 58 detId 16(36)
PRIMA iHit 59 detId 16(36)
PRIMA iHit 60 detId 16(36)
PRIMA iHit 60 detId 16(36)
PRIMA iHit 61 detId 16(36)
PRIMA iHit 61 detId 16(36)
PRIMA iHit 63 detId 16(36)
PRIMA iHit 62 detId 16(36)
PRIMA iHit 64 detId 16(36)
PRIMA iHit 73 detId 16(36)
PRIMA iHit 73 detId 16(36)
PRIMA iHit 71 detId 16(36)
PRIMA iHit 71 detId 16(36)
PRIMA iHit 70 detId 16(36)
PRIMA iHit 70 detId 16(36)
PRIMA iHit 69 detId 16(36)
PRIMA iHit 69 detId 16(36)
PRIMA iHit 68 detId 16(36)
PRIMA iHit 68 detId 16(36)
TOO LOW MOMENTUM 3
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
(rho,theta,phi)=(0.091133,90.000000,-159.047625)
start from
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
lastpar error 0.02000 0.02000 1.000
GET INITIAL PARAMS
charge/xc/yc/radius 1 8.608 -12.55 15.19
TVector3 A 3D physics vector (x,y,z)=(0.077671,-0.047670,0.000000)
(rho,theta,phi)=(0.091133,90.000000,-31.539509)
TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
(rho,theta,phi)=(16.557733,90.000000,1.375141)

TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
(rho,theta,phi)=(0.091133,90.000000,-159.047625)
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
Phi0 124.5
alpha1, Fi1 58.46 -65.99
TVector2 A 2D physics vector (x,y)=(7.945068,12.945127) (rho,phi)=(15.188825,58.460491)
alpha2, Fi2 -68.84 -193.3
TVector2 A 2D physics vector (x,y)=(5.467162,-14.126241) (rho,phi)=(15.147295,291.157520)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
(rho,theta,phi)=(16.557733,90.000000,1.375141)
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
scosfirst/scoslast 17.49 51.24
fitm/fitp 6.020e-233 -2.082
z1/z2 -2.082 -2.082
GET INITIAL PARAMS
charge/xc/yc/radius 1 8.608 -12.55 15.19
TVector3 A 3D physics vector (x,y,z)=(0.077671,-0.047670,0.000000)
(rho,theta,phi)=(0.091133,90.000000,-31.539509)
TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
(rho,theta,phi)=(16.557733,90.000000,1.375141)
TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
(rho,theta,phi)=(0.091133,90.000000,-159.047625)
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
Phi0 124.5
alpha1, Fi1 58.46 -65.99
TVector2 A 2D physics vector (x,y)=(7.945068,12.945127) (rho,phi)=(15.188825,58.460491)
alpha2, Fi2 -68.84 -193.3
TVector2 A 2D physics vector (x,y)=(5.467162,-14.126241) (rho,phi)=(15.147295,291.157520)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
(rho,theta,phi)=(16.557733,90.000000,1.375141)
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
scosfirst/scoslast 17.49 51.24
fitm/fitp 6.020e-233 -2.082
z1/z2 -2.082 -2.082
propagation from
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)

*** Break *** floating point exception

Generating stack trace...

0xb0f5b6c7 in ertch_ + 0xd93 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb0f5d4a5 in ertgo_ + 0xf29 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb0f5a8b9 in erttrak_ + 0xc15 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so

0xb103c450 in TGeant3::Ertrak(float const*, float const*, float const*, float const*, int, char const*) + 0x62 from /home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0x0418108a in FairGeanePro::Propagate(int) at
/home/fioravanti/fairsoft/pandaroot/geane/FairGeanePro.cxx:327 from
/home/fioravanti/fairsoft/buildPanda/lib/libGeane.so
0x04181c71 in FairGeanePro::Propagate(FairTrackParP*, FairTrackParP*, int) at
/home/fioravanti/fairsoft/pandaroot/geane/FairGeanePro.cxx:275 from
/home/fioravanti/fairsoft/buildPanda/lib/libGeane.so
0x03f03d86 in PndSttMvdGemTracking::PropagateToGemPlane(FairTrackParP*,
FairTrackParP*, int) at
/home/fioravanti/fairsoft/pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx:949 from
/home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
0x03f0a3f9 in PndSttMvdGemTracking::Exec(char const*) at
/home/fioravanti/fairsoft/pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx:601 from
/home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
0x00cfc9e8 in TTask::ExecuteTasks(char const*) + 0x108 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00cfc3d9 in TTask::ExecuteTask(char const*) + 0x159 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x02050386 in FairRunAna::Run(int, int) at
/home/fioravanti/fairsoft/pandaroot/base/FairRunAna.cxx:273 from
/home/fioravanti/fairsoft/buildPanda/lib/libBase.so
0x020aef88 in <unknown> from /home/fioravanti/fairsoft/buildPanda/lib/libBase.so
0x04aa3d7a in Cint::G__ExceptionWrapper(int (*)(G__value*, char const*, G__param*, int),
G__value*, char*, G__param*, int) + 0x6a from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x04b5e786 in G__execute_call + 0x56 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x04b62d3d in G__call_cppfunc + 0x26d from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x04b35628 in G__interpret_func + 0x1458 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x04b22cf8 in G__getfunction at func.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x04c2391c in G__getstructmem(int, G__FastAllocString&, char*, int, char*, int*,
G__var_array*, int) + 0x5fc from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x04c19708 in G__getvariable at var.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x04af6f41 in G__getitem at expr.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x04b009a9 in G__getexpr at expr.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x04b9438f in G__exec_statement at parse.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x04ae178b in <unknown> from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x04ae1ac6 in G__exec_tempfile + 0x16 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x04ba5c26 in G__process_cmd at pause.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00d396d3 in TCint::ProcessLine(char const*, TInterpreter::EErrorCode*) + 0x3c3 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00d392ef in TCint::ProcessLineSynch(char const*, TInterpreter::EErrorCode*) + 0x9f from


```
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00c826c2 in TApplication::ExecuteFile(char const*, int*, bool) + 0x752 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00c82c5c in TApplication::ProcessFile(char const*, int*, bool) + 0x2c from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00c7f5eb in TApplication::ProcessLine(char const*, bool, int*) + 0x86b from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x0011d8c4 in TRint::Run(bool) + 0x2e4 from
/home/fioravanti/fairsoft/tools/root/lib/libRint.so.5.29
0x08048d93 in main + 0x83 from /home/fioravanti/fairsoft/tools/root/bin/root.exe
0x0019ae9c in __libc_start_main + 0xdc from /lib/libc.so.6
0x08048bf1 in __gxx_personality_v0 + 0x65 from
/home/fioravanti/fairsoft/tools/root/bin/root.exe
Root >
```

Subject: Re: Reconstruction macro crash
Posted by [Lia Lavezzi](#) on Sun, 22 May 2011 12:20:46 GMT
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Hi Elisa,
thank you for the post.
It really seems the problem is the starting momentum z component, so I just uploaded to svn a modified PndSttMvdGemTracking.cxx that should fix the problem.
If the crash is still there, please let me know!
Ciao,
Lia.

Subject: Re: Reconstruction macro crash
Posted by [Elisa Fioravanti](#) on Mon, 23 May 2011 09:59:36 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Lia,

unfortunately I have the same crash as before.
Here you can see the log file.

thank you
Elisa

```
Found Tracks: 0 in event no. 140
-----
PROBLEM HAS NO FEASIBLE SOLUTION
===== EVENT 140
stt + mvd track array 5
```

gem hits 8
***** PndSttMvdGemTracking::Reset *****
not assig 8 8
npositions/nhits 6 8
hit 0 @ 13.61 -26.95 116.4 1 1
11 0 0
hit 1 @ -4.861 21.76 116.4 1 1
11 1 0
hit 2 @ 12.97 -27.11 117.6 1 2
12 0 1
hit 3 @ -5.010 22.05 117.6 1 2
12 1 1
hit 4 @ -6.395 30.94 152.4 2 1
21 0 2
hit 5 @ -6.510 31.25 153.6 2 2
22 0 3
hit 6 @ -7.312 40.21 188.4 3 1
31 0 4
hit 7 @ -7.490 40.51 189.6 3 2
32 0 5
pos 0 1
pos 1 1
pos 2 1
pos 3 1
pos 4 1
pos 5 1
PRIMA iHit 7 detld 16(36)
PRIMA iHit 8 detld 16(36)
PRIMA iHit 9 detld 16(36)
PRIMA iHit 10 detld 16(36)
PRIMA iHit 11 detld 16(36)
PRIMA iHit 12 detld 16(36)
PRIMA iHit 13 detld 16(36)
PRIMA iHit 14 detld 16(36)
PRIMA iHit 15 detld 16(36)
PRIMA iHit 16 detld 16(36)
PRIMA iHit 17 detld 16(36)
PRIMA iHit 18 detld 16(36)
PRIMA iHit 19 detld 16(36)
PRIMA iHit 20 detld 16(36)
PRIMA iHit 21 detld 16(36)
PRIMA iHit 22 detld 16(36)
PRIMA iHit 23 detld 16(36)
PRIMA iHit 24 detld 16(36)
PRIMA iHit 25 detld 16(36)
PRIMA iHit 26 detld 16(36)
PRIMA iHit 27 detld 16(36)
PRIMA iHit 28 detld 16(36)
PRIMA iHit 29 detld 16(36)
PRIMA iHit 30 detld 16(36)
PRIMA iHit 31 detld 16(36)
PRIMA iHit 32 detld 16(36)

```

start from
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)
lastpar error 0.02000 0.02000 1.000
GET INITIAL PARAMS
charge/xc/yc/radius 1 5.431 -102.4 102.8
TVector3 A 3D physics vector (x,y,z)=(0.612841,-0.067291,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-6.266050)
TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
(rho,theta,phi)=(20.880070,52.873723,-0.899604)
TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-19.281329)
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)
Phi0 93.04
alpha1, Fi1 83.73 -9.302
TVector2 A 2D physics vector (x,y)=(11.215131,102.140237)
(rho,phi)=(102.754110,83.733950)
alpha2, Fi2 70.69 -22.34
TVector2 A 2D physics vector (x,y)=(33.906298,96.778265) (rho,phi)=(102.545939,70.692074)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
(rho,theta,phi)=(20.880070,52.873723,-0.899604)
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)
scosfirst/scoslast 16.68 40.07
fitm/fitp 0.7570 -0.04392
z1/z2 12.58 30.29
GET INITIAL PARAMS
charge/xc/yc/radius 1 5.431 -102.4 102.8
TVector3 A 3D physics vector (x,y,z)=(0.612841,-0.067291,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-6.266050)
TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
(rho,theta,phi)=(20.880070,52.873723,-0.899604)
TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-19.281329)
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)
Phi0 93.04
alpha1, Fi1 83.73 -9.302
TVector2 A 2D physics vector (x,y)=(11.215131,102.140237)
(rho,phi)=(102.754110,83.733950)
alpha2, Fi2 70.69 -22.34
TVector2 A 2D physics vector (x,y)=(33.906298,96.778265) (rho,phi)=(102.545939,70.692074)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
(rho,theta,phi)=(20.880070,52.873723,-0.899604)
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)
scosfirst/scoslast 16.68 40.07
fitm/fitp 0.7570 -0.04392
z1/z2 12.58 30.29

```

OUT OF SENSOR 107.4 -89.38 45.00
 CANNOT PROPAGATE
 PRIMA iHit 34 detId 16(36)
 PRIMA iHit 35 detId 16(36)
 PRIMA iHit 36 detId 16(36)
 PRIMA iHit 37 detId 16(36)
 PRIMA iHit 38 detId 16(36)
 PRIMA iHit 39 detId 16(36)
 PRIMA iHit 40 detId 16(36)
 PRIMA iHit 41 detId 16(36)
 PRIMA iHit 42 detId 16(36)
 PRIMA iHit 43 detId 16(36)
 PRIMA iHit 44 detId 16(36)
 start from
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 48.19 10.82 49.39
 TVector3 A 3D physics vector (x,y,z)=(0.118913,0.271403,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,66.339703)
 TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
 (rho,theta,phi)=(44.778434,43.423421,84.497326)
 TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,55.154692)
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 Phi0 -167.3
 alpha1, Fi1 156.3 -36.32
 TVector2 A 2D physics vector (x,y)=(-45.233866,19.818906)
 (rho,phi)=(49.385136,156.339703)
 alpha2, Fi2 145.2 -47.50
 TVector2 A 2D physics vector (x,y)=(-40.527182,28.214680)
 (rho,phi)=(49.381379,145.154692)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
 (rho,theta,phi)=(44.778434,43.423421,84.497326)
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 scosfirst/scoslast 31.30 40.94
 fitm/fitp 1.026 0.1966
 z1/z2 32.33 42.22
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 48.19 10.82 49.39
 TVector3 A 3D physics vector (x,y,z)=(0.118913,0.271403,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,66.339703)
 TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
 (rho,theta,phi)=(44.778434,43.423421,84.497326)
 TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,55.154692)
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)

Phi0 -167.3
 alpha1, Fi1 156.3 -36.32
 TVector2 A 2D physics vector (x,y)=(-45.233866,19.818906)
 (rho,phi)=(49.385136,156.339703)
 alpha2, Fi2 145.2 -47.50
 TVector2 A 2D physics vector (x,y)=(-40.527182,28.214680)
 (rho,phi)=(49.381379,145.154692)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
 (rho,theta,phi)=(44.778434,43.423421,84.497326)
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 scosfirst/scoslast 31.30 40.94
 fitm/fitp 1.026 0.1966
 z1/z2 32.33 42.22
 OUT OF SENSOR 71.88 54.15 45.00
 CANNOT PROPAGATE
 PRIMA iHit 78 detId 16(36)
 PRIMA iHit 79 detId 16(36)
 PRIMA iHit 80 detId 16(36)
 PRIMA iHit 81 detId 16(36)
 PRIMA iHit 82 detId 16(36)
 PRIMA iHit 83 detId 16(36)
 PRIMA iHit 84 detId 16(36)
 PRIMA iHit 85 detId 16(36)
 PRIMA iHit 86 detId 16(36)
 PRIMA iHit 87 detId 16(36)
 PRIMA iHit 88 detId 16(36)
 PRIMA iHit 89 detId 16(36)
 PRIMA iHit 90 detId 16(36)
 PRIMA iHit 91 detId 16(36)
 start from
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 172.2 33.56 175.4
 TVector3 A 3D physics vector (x,y,z)=(-0.095240,1.048054,0.798584)
 (rho,theta,phi)=(1.321070,52.807272,95.192391)
 TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
 (rho,theta,phi)=(22.425569,52.791466,97.949212)
 TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
 (rho,theta,phi)=(1.321070,52.807272,90.205014)
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 Phi0 -169.0
 alpha1, Fi1 -174.8 -5.836
 TVector2 A 2D physics vector (x,y)=(-174.675718,-15.873347)
 (rho,phi)=(175.395466,185.192391)
 alpha2, Fi2 -179.8 -10.82
 TVector2 A 2D physics vector (x,y)=(-175.444726,-0.632171)
 (rho,phi)=(175.445865,180.206450)

positions first/last
TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
(rho,theta,phi)=(22.425569,52.791466,97.949212)
TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)
scosfirst/scoslast 17.87 33.13
fitm/fitp 0.7588 0.005572
z1/z2 13.56 25.15
GET INITIAL PARAMS
charge/xc/yc/radius 1 172.2 33.56 175.4
TVector3 A 3D physics vector (x,y,z)=(-0.095240,1.048054,0.798584)
(rho,theta,phi)=(1.321070,52.807272,95.192391)
TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
(rho,theta,phi)=(22.425569,52.791466,97.949212)
TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
(rho,theta,phi)=(1.321070,52.807272,90.205014)
TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)
Phi0 -169.0
alpha1, Fi1 -174.8 -5.836
TVector2 A 2D physics vector (x,y)=(-174.675718,-15.873347)
(rho,phi)=(175.395466,185.192391)
alpha2, Fi2 -179.8 -10.82
TVector2 A 2D physics vector (x,y)=(-175.444726,-0.632171)
(rho,phi)=(175.445865,180.206450)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
(rho,theta,phi)=(22.425569,52.791466,97.949212)
TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)
scosfirst/scoslast 17.87 33.13
fitm/fitp 0.7588 0.005572
z1/z2 13.56 25.15
OUT OF SENSOR 36.03 144.1 45.00
CANNOT PROPAGATE
PRIMA iHit 45 detId 16(36)
PRIMA iHit 49 detId 16(36)
PRIMA iHit 50 detId 16(36)
PRIMA iHit 51 detId 16(36)
PRIMA iHit 52 detId 16(36)
PRIMA iHit 53 detId 16(36)
PRIMA iHit 54 detId 16(36)
PRIMA iHit 55 detId 16(36)
PRIMA iHit 56 detId 16(36)
PRIMA iHit 57 detId 16(36)
PRIMA iHit 58 detId 16(36)
PRIMA iHit 59 detId 16(36)
PRIMA iHit 60 detId 16(36)
PRIMA iHit 60 detId 16(36)
PRIMA iHit 61 detId 16(36)
PRIMA iHit 61 detId 16(36)
PRIMA iHit 63 detId 16(36)

PRIMA iHit 62 detId 16(36)
 PRIMA iHit 64 detId 16(36)
 PRIMA iHit 73 detId 16(36)
 PRIMA iHit 73 detId 16(36)
 PRIMA iHit 71 detId 16(36)
 PRIMA iHit 71 detId 16(36)
 PRIMA iHit 70 detId 16(36)
 PRIMA iHit 70 detId 16(36)
 PRIMA iHit 69 detId 16(36)
 PRIMA iHit 69 detId 16(36)
 PRIMA iHit 68 detId 16(36)
 PRIMA iHit 68 detId 16(36)
 TOO LOW MOMENTUM 3
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
 (rho,theta,phi)=(0.091133,90.000000,-159.047625)
 start from
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 8.608 -12.55 15.19
 TVector3 A 3D physics vector (x,y,z)=(0.077671,-0.047670,0.000000)
 (rho,theta,phi)=(0.091133,90.000000,-31.539509)
 TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
 (rho,theta,phi)=(16.557733,90.000000,1.375141)
 TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
 (rho,theta,phi)=(0.091133,90.000000,-159.047625)
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 Phi0 124.5
 alpha1, Fi1 58.46 -65.99
 TVector2 A 2D physics vector (x,y)=(7.945068,12.945127) (rho,phi)=(15.188825,58.460491)
 alpha2, Fi2 -68.84 -193.3
 TVector2 A 2D physics vector (x,y)=(5.467162,-14.126241) (rho,phi)=(15.147295,291.157520)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
 (rho,theta,phi)=(16.557733,90.000000,1.375141)
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 scosfirst/scoslast 17.49 51.24
 fitm/fitp 6.020e-233 -2.082
 z1/z2 -2.082 -2.082
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 8.608 -12.55 15.19
 TVector3 A 3D physics vector (x,y,z)=(0.077671,-0.047670,0.000000)
 (rho,theta,phi)=(0.091133,90.000000,-31.539509)
 TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
 (rho,theta,phi)=(16.557733,90.000000,1.375141)
 TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
 (rho,theta,phi)=(0.091133,90.000000,-159.047625)

TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 Phi0 124.5
 alpha1, Fi1 58.46 -65.99
 TVector2 A 2D physics vector (x,y)=(7.945068,12.945127) (rho,phi)=(15.188825,58.460491)
 alpha2, Fi2 -68.84 -193.3
 TVector2 A 2D physics vector (x,y)=(5.467162,-14.126241) (rho,phi)=(15.147295,291.157520)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
 (rho,theta,phi)=(16.557733,90.000000,1.375141)
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 scosfirst/scoslast 17.49 51.24
 fitm/fitp 6.020e-233 -2.082
 z1/z2 -2.082 -2.082
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)

*** Break *** floating point exception
 Generating stack trace...
 0xb115b6c7 in ertch_ + 0xd93 from
 /home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
 0xb115d4a5 in ertgo_ + 0xf29 from
 /home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
 0xb115a8b9 in ertrak_ + 0xc15 from
 /home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
 0xb123c450 in TGeant3::Ertrak(float const*, float const*, float const*, float const*, int, char
 const*) + 0x62 from /home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
 0x0266e08a in FairGeanePro::Propagate(int) at
 /home/fioravanti/fairsoft/pandaroot/geane/FairGeanePro.cxx:327 from
 /home/fioravanti/fairsoft/buildPanda/lib/libGeane.so
 0x0266ec71 in FairGeanePro::Propagate(FairTrackParP*, FairTrackParP*, int) at
 /home/fioravanti/fairsoft/pandaroot/geane/FairGeanePro.cxx:275 from
 /home/fioravanti/fairsoft/buildPanda/lib/libGeane.so
 0x04d4ed86 in PndSttMvdGemTracking::PropagateToGemPlane(FairTrackParP*,
 FairTrackParP*, int) at
 /home/fioravanti/fairsoft/pandaroot/sttmvtracking/PndSttMvdGemTracking.cxx:955 from
 /home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
 0x04d554a6 in PndSttMvdGemTracking::Exec(char const*) at
 /home/fioravanti/fairsoft/pandaroot/sttmvtracking/PndSttMvdGemTracking.cxx:607 from
 /home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
 0x0027e9e8 in TTask::ExecuteTasks(char const*) + 0x108 from
 /home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
 0x0027e3d9 in TTask::ExecuteTask(char const*) + 0x159 from
 /home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
 0x043d4386 in FairRunAna::Run(int, int) at
 /home/fioravanti/fairsoft/pandaroot/base/FairRunAna.cxx:273 from
 /home/fioravanti/fairsoft/buildPanda/lib/libBase.so
 0x04432f88 in <unknown> from /home/fioravanti/fairsoft/buildPanda/lib/libBase.so
 0x00bd3d7a in Cint::G__ExceptionWrapper(int (*)(G__value*, char const*, G__param*, int),
 G__value*, char*, G__param*, int) + 0x6a from


```
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c8e786 in G__execute_call + 0x56 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c92d3d in G__call_cppfunc + 0x26d from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c65628 in G__interpret_func + 0x1458 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c52cf8 in G__getfunction at func.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00d5391c in G__getstructmem(int, G__FastAllocString&, char*, int, char*, int*,
G__var_array*, int) + 0x5fc from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00d49708 in G__getvariable at var.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c26f41 in G__getitem at expr.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c309a9 in G__getexpr at expr.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00cc438f in G__exec_statement at parse.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c1178b in <unknown> from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00c11ac6 in G__exec_tempfile + 0x16 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00cd5c26 in G__process_cmd at pause.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x002bb6d3 in TCint::ProcessLine(char const*, TInterpreter::EErrorCode*) + 0x3c3 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x002bb2ef in TCint::ProcessLineSynch(char const*, TInterpreter::EErrorCode*) + 0x9f from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x002046c2 in TApplication::ExecuteFile(char const*, int*, bool) + 0x752 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00204c5c in TApplication::ProcessFile(char const*, int*, bool) + 0x2c from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x002015eb in TApplication::ProcessLine(char const*, bool, int*) + 0x86b from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00a5b8c4 in TRint::Run(bool) + 0x2e4 from
/home/fioravanti/fairsoft/tools/root/lib/libRint.so.5.29
0x08048d93 in main + 0x83 from /home/fioravanti/fairsoft/tools/root/bin/root.exe
0x0744fe9c in __libc_start_main + 0xdc from /lib/libc.so.6
0x08048bf1 in __gxx_personality_v0 + 0x65 from
/home/fioravanti/fairsoft/tools/root/bin/root.exe
Root >
```

Subject: Re: Reconstruction macro crash
Posted by [Lia Lavezzi](#) on Mon, 23 May 2011 11:22:23 GMT
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Hi Elisa,

I added a couple more print outs to check the starting momentum after my prefit, can you

please update, rerun and post the messages again? (sorry!)

Thanks,

Lia.

Subject: Re: Reconstruction macro crash

Posted by [Stefano Spataro](#) on Mon, 23 May 2011 11:23:13 GMT

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Hi,

I don't know how the stt+mvd+gem code works, but I am wondering if all the tracks are extrapolated to gem planes or only the "forward ones".

IO mean, I think that if a track has $\theta > 30^\circ$ it will have no chance to hit the gem planes. If such a cut is not present in the code, maybe it could be good to put it, pz will be much bigger than 0, thus no problems.

Could it help? Or maybe this is already included in the code?

Subject: Re: Reconstruction macro crash

Posted by [Elisa Fioravanti](#) on Mon, 23 May 2011 11:32:12 GMT

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Hello Lia

this is the new log file:

thanks a lot for your help,

elisa

Found Tracks: 0 in event no. 2

PROBLEM HAS NO FEASIBLE SOLUTION

===== EVENT 2

stt + mvd track array 5

gem hits 8

***** PndSttMvdGemTracking::Reset *****

not assign 8 8

npositions/nhits 6 8

hit 0 @ 13.61 -26.95 116.4 1 1

11 0 0

hit 1 @ -4.861 21.76 116.4 1 1

11 1 0

hit 2 @ 12.97 -27.11 117.6 1 2

12 0 1

hit 3 @ -5.010 22.05 117.6 1 2

12 1 1

hit 4 @ -6.395 30.94 152.4 2 1

21 0 2
 hit 5 @ -6.510 31.25 153.6 2 2
 22 0 3
 hit 6 @ -7.312 40.21 188.4 3 1
 31 0 4
 hit 7 @ -7.490 40.51 189.6 3 2
 32 0 5
 pos 0 1
 pos 1 1
 pos 2 1
 pos 3 1
 pos 4 1
 pos 5 1
 PRIMA iHit 7 detId 16(36)
 PRIMA iHit 8 detId 16(36)
 PRIMA iHit 9 detId 16(36)
 PRIMA iHit 10 detId 16(36)
 PRIMA iHit 11 detId 16(36)
 PRIMA iHit 12 detId 16(36)
 PRIMA iHit 13 detId 16(36)
 PRIMA iHit 14 detId 16(36)
 PRIMA iHit 15 detId 16(36)
 PRIMA iHit 16 detId 16(36)
 PRIMA iHit 17 detId 16(36)
 PRIMA iHit 18 detId 16(36)
 PRIMA iHit 19 detId 16(36)
 PRIMA iHit 20 detId 16(36)
 PRIMA iHit 21 detId 16(36)
 PRIMA iHit 22 detId 16(36)
 PRIMA iHit 23 detId 16(36)
 PRIMA iHit 24 detId 16(36)
 PRIMA iHit 25 detId 16(36)
 PRIMA iHit 26 detId 16(36)
 PRIMA iHit 27 detId 16(36)
 PRIMA iHit 28 detId 16(36)
 PRIMA iHit 29 detId 16(36)
 PRIMA iHit 30 detId 16(36)
 PRIMA iHit 31 detId 16(36)
 PRIMA iHit 32 detId 16(36)
 start from
 TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
 (rho,theta,phi)=(49.954598,52.698661,-8.135506)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 5.431 -102.4 102.8
 TVector3 A 3D physics vector (x,y,z)=(0.612841,-0.067291,0.466725)
 (rho,theta,phi)=(0.773263,52.873333,-6.266050)
 TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
 (rho,theta,phi)=(20.880070,52.873723,-0.899604)
 TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
 (rho,theta,phi)=(0.773263,52.873333,-19.281329)
 TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)

(rho,theta,phi)=(49.954598,52.698661,-8.135506)
 Phi0 93.04
 alpha1, Fi1 83.73 -9.302
 TVector2 A 2D physics vector (x,y)=(11.215131,102.140237)
 (rho,phi)=(102.754110,83.733950)
 alpha2, Fi2 70.69 -22.34
 TVector2 A 2D physics vector (x,y)=(33.906298,96.778265) (rho,phi)=(102.545939,70.692074)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
 (rho,theta,phi)=(20.880070,52.873723,-0.899604)
 TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
 (rho,theta,phi)=(49.954598,52.698661,-8.135506)
 scosfirst/scoslast 16.68 40.07
 fitm/fitp 0.7570 -0.04392
 z1/z2 12.58 30.29
 from prefit
 TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
 (rho,theta,phi)=(49.954598,52.698661,-8.135506)
 TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
 (rho,theta,phi)=(0.773263,52.873333,-19.281329)
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 5.431 -102.4 102.8
 TVector3 A 3D physics vector (x,y,z)=(0.612841,-0.067291,0.466725)
 (rho,theta,phi)=(0.773263,52.873333,-6.266050)
 TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
 (rho,theta,phi)=(20.880070,52.873723,-0.899604)
 TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
 (rho,theta,phi)=(0.773263,52.873333,-19.281329)
 TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
 (rho,theta,phi)=(49.954598,52.698661,-8.135506)
 Phi0 93.04
 alpha1, Fi1 83.73 -9.302
 TVector2 A 2D physics vector (x,y)=(11.215131,102.140237)
 (rho,phi)=(102.754110,83.733950)
 alpha2, Fi2 70.69 -22.34
 TVector2 A 2D physics vector (x,y)=(33.906298,96.778265) (rho,phi)=(102.545939,70.692074)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
 (rho,theta,phi)=(20.880070,52.873723,-0.899604)
 TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
 (rho,theta,phi)=(49.954598,52.698661,-8.135506)
 scosfirst/scoslast 16.68 40.07
 fitm/fitp 0.7570 -0.04392
 z1/z2 12.58 30.29
 OUT OF SENSOR 107.4 -89.38 45.00
 CANNOT PROPAGATE
 PRIMA iHit 34 detId 16(36)
 PRIMA iHit 35 detId 16(36)
 PRIMA iHit 36 detId 16(36)
 PRIMA iHit 37 detId 16(36)
 PRIMA iHit 38 detId 16(36)
 PRIMA iHit 39 detId 16(36)

PRIMA iHit 40 detId 16(36)
 PRIMA iHit 41 detId 16(36)
 PRIMA iHit 42 detId 16(36)
 PRIMA iHit 43 detId 16(36)
 PRIMA iHit 44 detId 16(36)
 start from
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 48.19 10.82 49.39
 TVector3 A 3D physics vector (x,y,z)=(0.118913,0.271403,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,66.339703)
 TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
 (rho,theta,phi)=(44.778434,43.423421,84.497326)
 TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,55.154692)
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 Phi0 -167.3
 alpha1, Fi1 156.3 -36.32
 TVector2 A 2D physics vector (x,y)=(-45.233866,19.818906)
 (rho,phi)=(49.385136,156.339703)
 alpha2, Fi2 145.2 -47.50
 TVector2 A 2D physics vector (x,y)=(-40.527182,28.214680)
 (rho,phi)=(49.381379,145.154692)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
 (rho,theta,phi)=(44.778434,43.423421,84.497326)
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 scosfirst/scoslast 31.30 40.94
 fitm/fitp 1.026 0.1966
 z1/z2 32.33 42.22
 from prefit
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,55.154692)
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 48.19 10.82 49.39
 TVector3 A 3D physics vector (x,y,z)=(0.118913,0.271403,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,66.339703)
 TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
 (rho,theta,phi)=(44.778434,43.423421,84.497326)
 TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,55.154692)
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 Phi0 -167.3
 alpha1, Fi1 156.3 -36.32
 TVector2 A 2D physics vector (x,y)=(-45.233866,19.818906)

(rho,phi)=(49.385136,156.339703)
alpha2, Fi2 145.2 -47.50
TVector2 A 2D physics vector (x,y)=(-40.527182,28.214680)
(rho,phi)=(49.381379,145.154692)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
(rho,theta,phi)=(44.778434,43.423421,84.497326)
TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
(rho,theta,phi)=(57.865117,43.426841,78.899868)
scosfirst/scoslast 31.30 40.94
fitm/fitp 1.026 0.1966
z1/z2 32.33 42.22
OUT OF SENSOR 71.88 54.15 45.00
CANNOT PROPAGATE
PRIMA iHit 78 detId 16(36)
PRIMA iHit 79 detId 16(36)
PRIMA iHit 80 detId 16(36)
PRIMA iHit 81 detId 16(36)
PRIMA iHit 82 detId 16(36)
PRIMA iHit 83 detId 16(36)
PRIMA iHit 84 detId 16(36)
PRIMA iHit 85 detId 16(36)
PRIMA iHit 86 detId 16(36)
PRIMA iHit 87 detId 16(36)
PRIMA iHit 88 detId 16(36)
PRIMA iHit 89 detId 16(36)
PRIMA iHit 90 detId 16(36)
PRIMA iHit 91 detId 16(36)
start from
TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)
lastpar error 0.02000 0.02000 1.000
GET INITIAL PARAMS
charge/xc/yc/radius 1 172.2 33.56 175.4
TVector3 A 3D physics vector (x,y,z)=(-0.095240,1.048054,0.798584)
(rho,theta,phi)=(1.321070,52.807272,95.192391)
TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
(rho,theta,phi)=(22.425569,52.791466,97.949212)
TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
(rho,theta,phi)=(1.321070,52.807272,90.205014)
TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)
Phi0 -169.0
alpha1, Fi1 -174.8 -5.836
TVector2 A 2D physics vector (x,y)=(-174.675718,-15.873347)
(rho,phi)=(175.395466,185.192391)
alpha2, Fi2 -179.8 -10.82
TVector2 A 2D physics vector (x,y)=(-175.444726,-0.632171)
(rho,phi)=(175.445865,180.206450)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
(rho,theta,phi)=(22.425569,52.791466,97.949212)

TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)
scosfirst/scoslast 17.87 33.13
fitm/fitp 0.7588 0.005572
z1/z2 13.56 25.15
from prefit
TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)
TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
(rho,theta,phi)=(1.321070,52.807272,90.205014)
GET INITIAL PARAMS
charge/xc/yc/radius 1 172.2 33.56 175.4
TVector3 A 3D physics vector (x,y,z)=(-0.095240,1.048054,0.798584)
(rho,theta,phi)=(1.321070,52.807272,95.192391)
TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
(rho,theta,phi)=(22.425569,52.791466,97.949212)
TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
(rho,theta,phi)=(1.321070,52.807272,90.205014)
TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)
Phi0 -169.0
alpha1, Fi1 -174.8 -5.836
TVector2 A 2D physics vector (x,y)=(-174.675718,-15.873347)
(rho,phi)=(175.395466,185.192391)
alpha2, Fi2 -179.8 -10.82
TVector2 A 2D physics vector (x,y)=(-175.444726,-0.632171)
(rho,phi)=(175.445865,180.206450)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
(rho,theta,phi)=(22.425569,52.791466,97.949212)
TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)
scosfirst/scoslast 17.87 33.13
fitm/fitp 0.7588 0.005572
z1/z2 13.56 25.15
OUT OF SENSOR 36.03 144.1 45.00
CANNOT PROPAGATE
PRIMA iHit 45 detId 16(36)
PRIMA iHit 49 detId 16(36)
PRIMA iHit 50 detId 16(36)
PRIMA iHit 51 detId 16(36)
PRIMA iHit 52 detId 16(36)
PRIMA iHit 53 detId 16(36)
PRIMA iHit 54 detId 16(36)
PRIMA iHit 55 detId 16(36)
PRIMA iHit 56 detId 16(36)
PRIMA iHit 57 detId 16(36)
PRIMA iHit 58 detId 16(36)
PRIMA iHit 59 detId 16(36)
PRIMA iHit 60 detId 16(36)
PRIMA iHit 60 detId 16(36)
PRIMA iHit 61 detId 16(36)

PRIMA iHit 61 detId 16(36)
 PRIMA iHit 63 detId 16(36)
 PRIMA iHit 62 detId 16(36)
 PRIMA iHit 64 detId 16(36)
 PRIMA iHit 73 detId 16(36)
 PRIMA iHit 73 detId 16(36)
 PRIMA iHit 71 detId 16(36)
 PRIMA iHit 71 detId 16(36)
 PRIMA iHit 70 detId 16(36)
 PRIMA iHit 70 detId 16(36)
 PRIMA iHit 69 detId 16(36)
 PRIMA iHit 69 detId 16(36)
 PRIMA iHit 68 detId 16(36)
 PRIMA iHit 68 detId 16(36)
 TOO LOW MOMENTUM 3
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
 (rho,theta,phi)=(0.091133,90.000000,-159.047625)
 start from
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 8.608 -12.55 15.19
 TVector3 A 3D physics vector (x,y,z)=(0.077671,-0.047670,0.000000)
 (rho,theta,phi)=(0.091133,90.000000,-31.539509)
 TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
 (rho,theta,phi)=(16.557733,90.000000,1.375141)
 TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
 (rho,theta,phi)=(0.091133,90.000000,-159.047625)
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 Phi0 124.5
 alpha1, Fi1 58.46 -65.99
 TVector2 A 2D physics vector (x,y)=(7.945068,12.945127) (rho,phi)=(15.188825,58.460491)
 alpha2, Fi2 -68.84 -193.3
 TVector2 A 2D physics vector (x,y)=(5.467162,-14.126241) (rho,phi)=(15.147295,291.157520)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
 (rho,theta,phi)=(16.557733,90.000000,1.375141)
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 scosfirst/scoslast 17.49 51.24
 fitm/fitp 6.020e-233 -2.082
 z1/z2 -2.082 -2.082
 from prefit
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
 (rho,theta,phi)=(0.091133,90.000000,-159.047625)
 GET INITIAL PARAMS


```

charge/xc/yc/radius 1 8.608 -12.55 15.19
TVector3 A 3D physics vector (x,y,z)=(0.077671,-0.047670,0.000000)
(rho,theta,phi)=(0.091133,90.000000,-31.539509)
TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
(rho,theta,phi)=(16.557733,90.000000,1.375141)
TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
(rho,theta,phi)=(0.091133,90.000000,-159.047625)
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
Phi0 124.5
alpha1, Fi1 58.46 -65.99
TVector2 A 2D physics vector (x,y)=(7.945068,12.945127) (rho,phi)=(15.188825,58.460491)
alpha2, Fi2 -68.84 -193.3
TVector2 A 2D physics vector (x,y)=(5.467162,-14.126241) (rho,phi)=(15.147295,291.157520)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
(rho,theta,phi)=(16.557733,90.000000,1.375141)
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
scosfirst/scoslast 17.49 51.24
fitm/fitp 6.020e-233 -2.082
z1/z2 -2.082 -2.082
propagation from
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
(rho,theta,phi)=(0.091133,90.000000,-159.047625)

```

```

*** Break *** floating point exception
Generating stack trace...
0xb0f526c7 in ertch_ + 0xd93 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb0f544a5 in ertgo_ + 0xf29 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb0f518b9 in ertrak_ + 0xc15 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb1033450 in TGeant3::Ertrak(float const*, float const*, float const*, float const*, int, char
const*) + 0x62 from /home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0x01a8008a in FairGeanePro::Propagate(int) at
/home/fioravanti/fairsoft/pandaroot/geane/FairGeanePro.cxx:327 from
/home/fioravanti/fairsoft/buildPanda/lib/libGeane.so
0x01a80c71 in FairGeanePro::Propagate(FairTrackParP*, FairTrackParP*, int) at
/home/fioravanti/fairsoft/pandaroot/geane/FairGeanePro.cxx:275 from
/home/fioravanti/fairsoft/buildPanda/lib/libGeane.so
0x04fd1f03 in PndSttMvdGemTracking::PropagateToGemPlane(FairTrackParP*,
FairTrackParP*, int) at
/home/fioravanti/fairsoft/pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx:956 from
/home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
0x04fd8682 in PndSttMvdGemTracking::Exec(char const*) at
/home/fioravanti/fairsoft/pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx:607 from
/home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
0x00cfc9e8 in TTask::ExecuteTasks(char const*) + 0x108 from

```

/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00cfc3d9 in TTask::ExecuteTask(char const*) + 0x159 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x07886386 in FairRunAna::Run(int, int) at
/home/fioravanti/fairsoft/pandaroot/base/FairRunAna.cxx:273 from
/home/fioravanti/fairsoft/buildPanda/lib/libBase.so
0x078e4f88 in <unknown> from /home/fioravanti/fairsoft/buildPanda/lib/libBase.so
0x0051fd7a in Cint::G__ExceptionWrapper(int (*)(G__value*, char const*, G__param*, int),
G__value*, char*, G__param*, int) + 0x6a from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x005da786 in G__execute_call + 0x56 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x005ded3d in G__call_cppfunc + 0x26d from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x005b1628 in G__interpret_func + 0x1458 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x0059ecf8 in G__getfunction at func.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x0069f91c in G__getstructmem(int, G__FastAllocString&, char*, int, char*, int*,
G__var_array*, int) + 0x5fc from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00695708 in G__getvariable at var.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00572f41 in G__getitem at expr.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x0057c9a9 in G__getexpr at expr.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x0061038f in G__exec_statement at parse.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x0055d78b in <unknown> from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x0055dac6 in G__exec_tempfile + 0x16 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00621c26 in G__process_cmd at pause.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x00d396d3 in TCint::ProcessLine(char const*, TInterpreter::EErrorCode*) + 0x3c3 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00d392ef in TCint::ProcessLineSynch(char const*, TInterpreter::EErrorCode*) + 0x9f from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00c826c2 in TApplication::ExecuteFile(char const*, int*, bool) + 0x752 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00c82c5c in TApplication::ProcessFile(char const*, int*, bool) + 0x2c from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00c7f5eb in TApplication::ProcessLine(char const*, bool, int*) + 0x86b from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x0032e8c4 in TRint::Run(bool) + 0x2e4 from
/home/fioravanti/fairsoft/tools/root/lib/libRint.so.5.29
0x08048d93 in main + 0x83 from /home/fioravanti/fairsoft/tools/root/bin/root.exe
0x060cce9c in __libc_start_main + 0xdc from /lib/libc.so.6
0x08048bf1 in __gxx_personality_v0 + 0x65 from
/home/fioravanti/fairsoft/tools/root/bin/root.exe

Subject: Re: Reconstruction macro crash
Posted by [Lia Lavezzi](#) on Mon, 23 May 2011 11:36:25 GMT
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Hi Stefano,

actually there is a test to decide whether the track can reach the GEM plane or not with a simple and quick helix extrapolation to the first plane (no GEANE, just math).
In my thoughts that should have been enough to throw away also these pz = 0 tracks, but clearly there is something which goes wrong.

...I was wondering (looking in the log) how is it possible that a track with:

first mom = (0.077671,-0.047670,0.000000)
first pos = (16.552964,0.397360,0.000000)
last mom = (-0.085107,-0.032588,0.000000)

has last pos = (14.075058,-26.674008,-4.163533)...

Gianluigi, this comes from your PR, do you have any idea?

Ciao,
Lia.

Subject: Re: Reconstruction macro crash
Posted by [Lia Lavezzi](#) on Mon, 23 May 2011 11:47:08 GMT
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Thanks Elisa,

I changed the code again, please try now (and tell me it works !)
Lia.

Subject: Re: Reconstruction macro crash
Posted by [Elisa Fioravanti](#) on Mon, 23 May 2011 11:53:15 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Lia,

unfortunately it is not working yet.
Here the log file

Thanks a lot
elisa

Found Tracks: 0 in event no. 2

```
-----  
PROBLEM HAS NO FEASIBLE SOLUTION  
===== EVENT 2  
stt + mvd track array 5  
gem hits 8  
***** PndSttMvdGemTracking::Reset *****  
not assig 8 8
```

npositions/nhits 6 8
hit 0 @ 13.61 -26.95 116.4 1 1
11 0 0
hit 1 @ -4.861 21.76 116.4 1 1
11 1 0
hit 2 @ 12.97 -27.11 117.6 1 2
12 0 1
hit 3 @ -5.010 22.05 117.6 1 2
12 1 1
hit 4 @ -6.395 30.94 152.4 2 1
21 0 2
hit 5 @ -6.510 31.25 153.6 2 2
22 0 3
hit 6 @ -7.312 40.21 188.4 3 1
31 0 4
hit 7 @ -7.490 40.51 189.6 3 2
32 0 5
pos 0 1
pos 1 1
pos 2 1
pos 3 1
pos 4 1
pos 5 1
PRIMA iHit 7 detld 16(36)
PRIMA iHit 8 detld 16(36)
PRIMA iHit 9 detld 16(36)
PRIMA iHit 10 detld 16(36)
PRIMA iHit 11 detld 16(36)
PRIMA iHit 12 detld 16(36)
PRIMA iHit 13 detld 16(36)
PRIMA iHit 14 detld 16(36)
PRIMA iHit 15 detld 16(36)
PRIMA iHit 16 detld 16(36)
PRIMA iHit 17 detld 16(36)
PRIMA iHit 18 detld 16(36)
PRIMA iHit 19 detld 16(36)
PRIMA iHit 20 detld 16(36)
PRIMA iHit 21 detld 16(36)
PRIMA iHit 22 detld 16(36)
PRIMA iHit 23 detld 16(36)
PRIMA iHit 24 detld 16(36)
PRIMA iHit 25 detld 16(36)
PRIMA iHit 26 detld 16(36)
PRIMA iHit 27 detld 16(36)
PRIMA iHit 28 detld 16(36)
PRIMA iHit 29 detld 16(36)
PRIMA iHit 30 detld 16(36)
PRIMA iHit 31 detld 16(36)
PRIMA iHit 32 detld 16(36)
start from
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)

```

lastpar error 0.02000 0.02000 1.000
GET INITIAL PARAMS
charge/xc/yc/radius 1 5.431 -102.4 102.8
TVector3 A 3D physics vector (x,y,z)=(0.612841,-0.067291,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-6.266050)
TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
(rho,theta,phi)=(20.880070,52.873723,-0.899604)
TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-19.281329)
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)
Phi0 93.04
alpha1, Fi1 83.73 -9.302
TVector2 A 2D physics vector (x,y)=(11.215131,102.140237)
(rho,phi)=(102.754110,83.733950)
alpha2, Fi2 70.69 -22.34
TVector2 A 2D physics vector (x,y)=(33.906298,96.778265) (rho,phi)=(102.545939,70.692074)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
(rho,theta,phi)=(20.880070,52.873723,-0.899604)
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)
scosfirst/scoslast 16.68 40.07
fitm/fitp 0.7570 -0.04392
z1/z2 12.58 30.29
from prefit
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)
TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-19.281329)
GET INITIAL PARAMS
charge/xc/yc/radius 1 5.431 -102.4 102.8
TVector3 A 3D physics vector (x,y,z)=(0.612841,-0.067291,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-6.266050)
TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
(rho,theta,phi)=(20.880070,52.873723,-0.899604)
TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-19.281329)
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)
Phi0 93.04
alpha1, Fi1 83.73 -9.302
TVector2 A 2D physics vector (x,y)=(11.215131,102.140237)
(rho,phi)=(102.754110,83.733950)
alpha2, Fi2 70.69 -22.34
TVector2 A 2D physics vector (x,y)=(33.906298,96.778265) (rho,phi)=(102.545939,70.692074)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
(rho,theta,phi)=(20.880070,52.873723,-0.899604)
TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)
scosfirst/scoslast 16.68 40.07

```

fitm/fitp 0.7570 -0.04392
z1/z2 12.58 30.29
OUT OF SENSOR 107.4 -89.38 45.00
CANNOT PROPAGATE
PRIMA iHit 34 detId 16(36)
PRIMA iHit 35 detId 16(36)
PRIMA iHit 36 detId 16(36)
PRIMA iHit 37 detId 16(36)
PRIMA iHit 38 detId 16(36)
PRIMA iHit 39 detId 16(36)
PRIMA iHit 40 detId 16(36)
PRIMA iHit 41 detId 16(36)
PRIMA iHit 42 detId 16(36)
PRIMA iHit 43 detId 16(36)
PRIMA iHit 44 detId 16(36)
start from
TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
(rho,theta,phi)=(57.865117,43.426841,78.899868)
lastpar error 0.02000 0.02000 1.000
GET INITIAL PARAMS
charge/xc/yc/radius 1 48.19 10.82 49.39
TVector3 A 3D physics vector (x,y,z)=(0.118913,0.271403,0.304146)
(rho,theta,phi)=(0.424623,44.252380,66.339703)
TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
(rho,theta,phi)=(44.778434,43.423421,84.497326)
TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
(rho,theta,phi)=(0.424623,44.252380,55.154692)
TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
(rho,theta,phi)=(57.865117,43.426841,78.899868)
Phi0 -167.3
alpha1, Fi1 156.3 -36.32
TVector2 A 2D physics vector (x,y)=(-45.233866,19.818906)
(rho,phi)=(49.385136,156.339703)
alpha2, Fi2 145.2 -47.50
TVector2 A 2D physics vector (x,y)=(-40.527182,28.214680)
(rho,phi)=(49.381379,145.154692)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
(rho,theta,phi)=(44.778434,43.423421,84.497326)
TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
(rho,theta,phi)=(57.865117,43.426841,78.899868)
scosfirst/scoslast 31.30 40.94
fitm/fitp 1.026 0.1966
z1/z2 32.33 42.22
from prefit
TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
(rho,theta,phi)=(57.865117,43.426841,78.899868)
TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
(rho,theta,phi)=(0.424623,44.252380,55.154692)
GET INITIAL PARAMS
charge/xc/yc/radius 1 48.19 10.82 49.39
TVector3 A 3D physics vector (x,y,z)=(0.118913,0.271403,0.304146)

(rho,theta,phi)=(0.424623,44.252380,66.339703)
TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
(rho,theta,phi)=(44.778434,43.423421,84.497326)
TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
(rho,theta,phi)=(0.424623,44.252380,55.154692)
TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
(rho,theta,phi)=(57.865117,43.426841,78.899868)
Phi0 -167.3
alpha1, Fi1 156.3 -36.32
TVector2 A 2D physics vector (x,y)=(-45.233866,19.818906)
(rho,phi)=(49.385136,156.339703)
alpha2, Fi2 145.2 -47.50
TVector2 A 2D physics vector (x,y)=(-40.527182,28.214680)
(rho,phi)=(49.381379,145.154692)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
(rho,theta,phi)=(44.778434,43.423421,84.497326)
TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
(rho,theta,phi)=(57.865117,43.426841,78.899868)
scosfirst/scoslast 31.30 40.94
fitm/fitp 1.026 0.1966
z1/z2 32.33 42.22
OUT OF SENSOR 71.88 54.15 45.00
CANNOT PROPAGATE
PRIMA iHit 78 detId 16(36)
PRIMA iHit 79 detId 16(36)
PRIMA iHit 80 detId 16(36)
PRIMA iHit 81 detId 16(36)
PRIMA iHit 82 detId 16(36)
PRIMA iHit 83 detId 16(36)
PRIMA iHit 84 detId 16(36)
PRIMA iHit 85 detId 16(36)
PRIMA iHit 86 detId 16(36)
PRIMA iHit 87 detId 16(36)
PRIMA iHit 88 detId 16(36)
PRIMA iHit 89 detId 16(36)
PRIMA iHit 90 detId 16(36)
PRIMA iHit 91 detId 16(36)
start from
TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)
lastpar error 0.02000 0.02000 1.000
GET INITIAL PARAMS
charge/xc/yc/radius 1 172.2 33.56 175.4
TVector3 A 3D physics vector (x,y,z)=(-0.095240,1.048054,0.798584)
(rho,theta,phi)=(1.321070,52.807272,95.192391)
TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
(rho,theta,phi)=(22.425569,52.791466,97.949212)
TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
(rho,theta,phi)=(1.321070,52.807272,90.205014)
TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
(rho,theta,phi)=(41.560158,52.766214,95.617604)

Phi0 -169.0
 alpha1, Fi1 -174.8 -5.836
 TVector2 A 2D physics vector (x,y)=(-174.675718,-15.873347)
 (rho,phi)=(175.395466,185.192391)
 alpha2, Fi2 -179.8 -10.82
 TVector2 A 2D physics vector (x,y)=(-175.444726,-0.632171)
 (rho,phi)=(175.445865,180.206450)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
 (rho,theta,phi)=(22.425569,52.791466,97.949212)
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 scosfirst/scoslast 17.87 33.13
 fitm/fitp 0.7588 0.005572
 z1/z2 13.56 25.15
 from prefit
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
 (rho,theta,phi)=(1.321070,52.807272,90.205014)
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 172.2 33.56 175.4
 TVector3 A 3D physics vector (x,y,z)=(-0.095240,1.048054,0.798584)
 (rho,theta,phi)=(1.321070,52.807272,95.192391)
 TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
 (rho,theta,phi)=(22.425569,52.791466,97.949212)
 TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
 (rho,theta,phi)=(1.321070,52.807272,90.205014)
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 Phi0 -169.0
 alpha1, Fi1 -174.8 -5.836
 TVector2 A 2D physics vector (x,y)=(-174.675718,-15.873347)
 (rho,phi)=(175.395466,185.192391)
 alpha2, Fi2 -179.8 -10.82
 TVector2 A 2D physics vector (x,y)=(-175.444726,-0.632171)
 (rho,phi)=(175.445865,180.206450)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
 (rho,theta,phi)=(22.425569,52.791466,97.949212)
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 scosfirst/scoslast 17.87 33.13
 fitm/fitp 0.7588 0.005572
 z1/z2 13.56 25.15
 OUT OF SENSOR 36.03 144.1 45.00
 CANNOT PROPAGATE
 PRIMA iHit 45 detId 16(36)
 PRIMA iHit 49 detId 16(36)
 PRIMA iHit 50 detId 16(36)
 PRIMA iHit 51 detId 16(36)
 PRIMA iHit 52 detId 16(36)

PRIMA iHit 53 detId 16(36)
 PRIMA iHit 54 detId 16(36)
 PRIMA iHit 55 detId 16(36)
 PRIMA iHit 56 detId 16(36)
 PRIMA iHit 57 detId 16(36)
 PRIMA iHit 58 detId 16(36)
 PRIMA iHit 59 detId 16(36)
 PRIMA iHit 60 detId 16(36)
 PRIMA iHit 60 detId 16(36)
 PRIMA iHit 61 detId 16(36)
 PRIMA iHit 61 detId 16(36)
 PRIMA iHit 63 detId 16(36)
 PRIMA iHit 62 detId 16(36)
 PRIMA iHit 64 detId 16(36)
 PRIMA iHit 73 detId 16(36)
 PRIMA iHit 73 detId 16(36)
 PRIMA iHit 71 detId 16(36)
 PRIMA iHit 71 detId 16(36)
 PRIMA iHit 70 detId 16(36)
 PRIMA iHit 70 detId 16(36)
 PRIMA iHit 69 detId 16(36)
 PRIMA iHit 69 detId 16(36)
 PRIMA iHit 68 detId 16(36)
 PRIMA iHit 68 detId 16(36)
 TOO LOW MOMENTUM 3
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
 (rho,theta,phi)=(0.091133,90.000000,-159.047625)
 start from
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 8.608 -12.55 15.19
 TVector3 A 3D physics vector (x,y,z)=(0.077671,-0.047670,0.000000)
 (rho,theta,phi)=(0.091133,90.000000,-31.539509)
 TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
 (rho,theta,phi)=(16.557733,90.000000,1.375141)
 TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
 (rho,theta,phi)=(0.091133,90.000000,-159.047625)
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
 (rho,theta,phi)=(30.445771,97.859966,-62.180759)
 Phi0 124.5
 alpha1, Fi1 58.46 -65.99
 TVector2 A 2D physics vector (x,y)=(7.945068,12.945127) (rho,phi)=(15.188825,58.460491)
 alpha2, Fi2 -68.84 -193.3
 TVector2 A 2D physics vector (x,y)=(5.467162,-14.126241) (rho,phi)=(15.147295,291.157520)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
 (rho,theta,phi)=(16.557733,90.000000,1.375141)
 TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)

```

(rho,theta,phi)=(30.445771,97.859966,-62.180759)
scosfirst/scoslast 17.49 51.24
fitm/fitp 6.020e-233 -2.082
z1/z2 -2.082 -2.082
from prefit
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
(rho,theta,phi)=(0.091133,90.000000,-159.047625)
CANNOT PROPAGATE because z mom == 0
PRIMA iHit 0 detld 21(36)
PRIMA iHit 0 detld 16(36)
PRIMA iHit 1 detld 16(36)
PRIMA iHit 2 detld 16(36)
PRIMA iHit 3 detld 16(36)
PRIMA iHit 4 detld 16(36)
PRIMA iHit 5 detld 16(36)
PRIMA iHit 6 detld 16(36)
start from
TVector3 A 3D physics vector (x,y,z)=(-14.227059,-17.060906,-37.572720)
(rho,theta,phi)=(43.648517,149.406724,-129.824666)
lastpar error 0.02000 0.02000 1.000
GET INITIAL PARAMS
charge/xc/yc/radius -1 25.29 -35.64 43.65
TVector3 A 3D physics vector (x,y,z)=(-0.195921,-0.173846,-0.438422)
(rho,theta,phi)=(0.510706,149.144302,-138.416481)
TVector3 A 3D physics vector (x,y,z)=(-3.684079,-2.982659,-7.933721)
(rho,theta,phi)=(9.241895,149.143187,-141.006102)
TVector3 A 3D physics vector (x,y,z)=(-0.111425,-0.237048,-0.438422)
(rho,theta,phi)=(0.510706,149.144302,-115.175988)
TVector3 A 3D physics vector (x,y,z)=(-14.227059,-17.060906,-37.572720)
(rho,theta,phi)=(43.648517,149.406724,-129.824666)
Phi0 125.4
alpha1, Fi1 131.6 6.221
TVector2 A 2D physics vector (x,y)=(-28.974285,32.653436)
(rho,phi)=(43.654966,131.583519)
alpha2, Fi2 154.8 29.46
TVector2 A 2D physics vector (x,y)=(-39.517265,18.575189)
(rho,phi)=(43.665225,154.824012)
positions first/last
TVector3 A 3D physics vector (x,y,z)=(-3.684079,-2.982659,-7.933721)
(rho,theta,phi)=(9.241895,149.143187,-141.006102)
TVector3 A 3D physics vector (x,y,z)=(-14.227059,-17.060906,-37.572720)
(rho,theta,phi)=(43.648517,149.406724,-129.824666)
scosfirst/scoslast 4.740 22.45
fitm/fitp -1.674 -1.310e-07
z1/z2 -7.934 -37.57
from prefit
TVector3 A 3D physics vector (x,y,z)=(-14.227059,-17.060906,-37.572720)
(rho,theta,phi)=(43.648517,149.406724,-129.824666)
TVector3 A 3D physics vector (x,y,z)=(-0.111425,-0.237048,-0.438422)
(rho,theta,phi)=(0.510706,149.144302,-115.175988)

```

CANNOT PROPAGATE because z mom == 0
FORBID MULTI ASSIGNED HITS : DELETING HITS

hit 0 belongs to 0 tracks:
hit 0 associated to 0 tracks
hit 0 belongs to 0 tracks:
hit 1 belongs to 0 tracks:
hit 1 associated to 0 tracks
hit 1 belongs to 0 tracks:
hit 2 belongs to 0 tracks:
hit 2 associated to 0 tracks
hit 2 belongs to 0 tracks:
hit 3 belongs to 0 tracks:
hit 3 associated to 0 tracks
hit 3 belongs to 0 tracks:
hit 4 belongs to 0 tracks:
hit 4 associated to 0 tracks
hit 4 belongs to 0 tracks:
hit 5 belongs to 0 tracks:
hit 5 associated to 0 tracks
hit 5 belongs to 0 tracks:
hit 6 belongs to 0 tracks:
hit 6 associated to 0 tracks
hit 6 belongs to 0 tracks:
hit 7 belongs to 0 tracks:
hit 7 associated to 0 tracks
hit 7 belongs to 0 tracks:

ONLY ONE HIT FOR EACH TRACK : DELETING HITS

track 0 has 0 hits:
track 1 has 0 hits:
track 2 has 0 hits:
track 3 has 0 hits:
track 4 has 0 hits:
ADD REMAINING HITS to 5 tracks

0 ITRK 0
track 0 has 0 hits:
missing position 0
hit 0 belongs to 0 tracks:
distance -1.000
hit 1 belongs to 0 tracks:
distance -1.000
missing position 1
hit 2 belongs to 0 tracks:
distance -1.000
hit 3 belongs to 0 tracks:
distance -1.000
missing position 2
hit 4 belongs to 0 tracks:
distance -1.000
missing position 3
hit 5 belongs to 0 tracks:
distance -1.000
missing position 4

hit 6 belongs to 0 tracks:
distance -1.000
missing position 5
hit 7 belongs to 0 tracks:
distance -1.000
1 ITRK 1
track 1 has 0 hits:
missing position 0
hit 0 belongs to 0 tracks:
distance -1.000
hit 1 belongs to 0 tracks:
distance -1.000
missing position 1
hit 2 belongs to 0 tracks:
distance -1.000
hit 3 belongs to 0 tracks:
distance -1.000
missing position 2
hit 4 belongs to 0 tracks:
distance -1.000
missing position 3
hit 5 belongs to 0 tracks:
distance -1.000
missing position 4
hit 6 belongs to 0 tracks:
distance -1.000
missing position 5
hit 7 belongs to 0 tracks:
distance -1.000
2 ITRK 2
track 2 has 0 hits:
missing position 0
hit 0 belongs to 0 tracks:
distance -1.000
hit 1 belongs to 0 tracks:
distance -1.000
missing position 1
hit 2 belongs to 0 tracks:
distance -1.000
hit 3 belongs to 0 tracks:
distance -1.000
missing position 2
hit 4 belongs to 0 tracks:
distance -1.000
missing position 3
hit 5 belongs to 0 tracks:
distance -1.000
missing position 4
hit 6 belongs to 0 tracks:
distance -1.000
missing position 5
hit 7 belongs to 0 tracks:

distance -1.000
3 ITRK 3
track 3 has 0 hits:
missing position 0
hit 0 belongs to 0 tracks:
distance -1.000
hit 1 belongs to 0 tracks:
distance -1.000
missing position 1
hit 2 belongs to 0 tracks:
distance -1.000
hit 3 belongs to 0 tracks:
distance -1.000
missing position 2
hit 4 belongs to 0 tracks:
distance -1.000
missing position 3
hit 5 belongs to 0 tracks:
distance -1.000
missing position 4
hit 6 belongs to 0 tracks:
distance -1.000
missing position 5
hit 7 belongs to 0 tracks:
distance -1.000
4 ITRK 4
track 4 has 0 hits:
missing position 0
hit 0 belongs to 0 tracks:
distance -1.000
hit 1 belongs to 0 tracks:
distance -1.000
missing position 1
hit 2 belongs to 0 tracks:
distance -1.000
hit 3 belongs to 0 tracks:
distance -1.000
missing position 2
hit 4 belongs to 0 tracks:
distance -1.000
missing position 3
hit 5 belongs to 0 tracks:
distance -1.000
missing position 4
hit 6 belongs to 0 tracks:
distance -1.000
missing position 5
hit 7 belongs to 0 tracks:
distance -1.000
RETRACKING
track 0 has 0 hits:
TRK 0 has hits

track 0 has 0 hits:

start from

TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)

lastpar error 0.02000 0.02000 1.000

GET INITIAL PARAMS

charge/xc/yc/radius 1 5.431 -102.4 102.8

TVector3 A 3D physics vector (x,y,z)=(0.612841,-0.067291,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-6.266050)

TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
(rho,theta,phi)=(20.880070,52.873723,-0.899604)

TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-19.281329)

TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)

Phi0 93.04

alpha1, Fi1 83.73 -9.302

TVector2 A 2D physics vector (x,y)=(11.215131,102.140237)
(rho,phi)=(102.754110,83.733950)

alpha2, Fi2 70.69 -22.34

TVector2 A 2D physics vector (x,y)=(33.906298,96.778265) (rho,phi)=(102.545939,70.692074)

positions first/last

TVector3 A 3D physics vector (x,y,z)=(16.645778,-0.261378,12.602661)
(rho,theta,phi)=(20.880070,52.873723,-0.899604)

TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)

scosfirst/scoslast 16.68 40.07

fitm/fitp 0.7570 -0.04392

z1/z2 12.58 30.29

from prefit

TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)

TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-19.281329)

track 0 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
(rho,theta,phi)=(49.954598,52.698661,-8.135506)

TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
(rho,theta,phi)=(0.773263,52.873333,-19.281329)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(109.388855,-101.656815,116.380325)
(rho,theta,phi)=(189.326199,52.069295,-42.901804)

TVector3 A 3D physics vector (x,y,z)=(0.109619,-0.280480,0.176242)
(rho,theta,phi)=(0.348922,59.661783,-68.653192)

errors

TVector3 A 3D physics vector (x,y,z)=(17.909337,27.884467,0.000000)
(rho,theta,phi)=(33.140427,90.000000,57.288612)

TVector3 A 3D physics vector (x,y,z)=(0.062246,0.031828,0.000000)
(rho,theta,phi)=(0.069911,90.000000,27.082329)

distance 121.5 err 22.22

this hit 0 DOES NOT BELONG to this track 0!!!!!!!!!!!!!!

errors

TVector3 A 3D physics vector (x,y,z)=(17.909337,27.884467,0.000000)

(rho,theta,phi)=(33.140427,90.000000,57.288612)

TVector3 A 3D physics vector (x,y,z)=(0.050220,0.012553,0.000000)

(rho,theta,phi)=(0.051765,90.000000,14.034551)

distance 168.2 err 23.81

this hit 1 DOES NOT BELONG to this track 0!!!!!!!!!!!!!!

track 0 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)

(rho,theta,phi)=(49.954598,52.698661,-8.135506)

TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)

(rho,theta,phi)=(0.773263,52.873333,-19.281329)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(110.195107,-103.612206,117.620674)

(rho,theta,phi)=(191.606559,52.130462,-43.236481)

TVector3 A 3D physics vector (x,y,z)=(0.109768,-0.252240,0.161626)

(rho,theta,phi)=(0.319056,59.564029,-66.482651)

errors

TVector3 A 3D physics vector (x,y,z)=(18.810828,28.138254,0.000000)

(rho,theta,phi)=(33.846841,90.000000,56.236702)

TVector3 A 3D physics vector (x,y,z)=(0.015400,0.015400,0.000000)

(rho,theta,phi)=(0.021778,90.000000,44.999982)

distance 123.7 err 22.83

this hit 2 DOES NOT BELONG to this track 0!!!!!!!!!!!!!!

errors

TVector3 A 3D physics vector (x,y,z)=(18.810828,28.138254,0.000000)

(rho,theta,phi)=(33.846841,90.000000,56.236702)

TVector3 A 3D physics vector (x,y,z)=(0.013818,0.013818,0.000000)

(rho,theta,phi)=(0.019542,90.000000,44.999948)

distance 170.5 err 24.33

this hit 3 DOES NOT BELONG to this track 0!!!!!!!!!!!!!!

track 0 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)

(rho,theta,phi)=(49.954598,52.698661,-8.135506)

TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)

(rho,theta,phi)=(0.773263,52.873333,-19.281329)

propagation to 0

TVector3 A 3D physics vector (x,y,z)=(110.195107,-103.612206,117.620674)

(rho,theta,phi)=(191.606559,52.130462,-43.236481)

TVector3 A 3D physics vector (x,y,z)=(0.109768,-0.252240,0.161626)

(rho,theta,phi)=(0.319056,59.564029,-66.482651)

track 0 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)

(rho,theta,phi)=(49.954598,52.698661,-8.135506)

TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)

(rho,theta,phi)=(0.773263,52.873333,-19.281329)

propagation to 0

TVector3 A 3D physics vector (x,y,z)=(110.195107,-103.612206,117.620674)

(rho,theta,phi)=(191.606559,52.130462,-43.236481)

TVector3 A 3D physics vector (x,y,z)=(0.109768,-0.252240,0.161626)
 (rho,theta,phi)=(0.319056,59.564029,-66.482651)
 track 0 has 0 hits:
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
 (rho,theta,phi)=(49.954598,52.698661,-8.135506)
 TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
 (rho,theta,phi)=(0.773263,52.873333,-19.281329)
 propagation to 0
 TVector3 A 3D physics vector (x,y,z)=(110.195107,-103.612206,117.620674)
 (rho,theta,phi)=(191.606559,52.130462,-43.236481)
 TVector3 A 3D physics vector (x,y,z)=(0.109768,-0.252240,0.161626)
 (rho,theta,phi)=(0.319056,59.564029,-66.482651)
 track 0 has 0 hits:
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(39.336944,-5.623349,30.272836)
 (rho,theta,phi)=(49.954598,52.698661,-8.135506)
 TVector3 A 3D physics vector (x,y,z)=(0.581943,-0.203581,0.466725)
 (rho,theta,phi)=(0.773263,52.873333,-19.281329)
 propagation to 0
 TVector3 A 3D physics vector (x,y,z)=(110.195107,-103.612206,117.620674)
 (rho,theta,phi)=(191.606559,52.130462,-43.236481)
 TVector3 A 3D physics vector (x,y,z)=(0.109768,-0.252240,0.161626)
 (rho,theta,phi)=(0.319056,59.564029,-66.482651)
 track 1 has 0 hits:
 TRK 1 has hits
 track 1 has 0 hits:
 start from
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 lastpar error 0.02000 0.02000 1.000
 GET INITIAL PARAMS
 charge/xc/yc/radius 1 48.19 10.82 49.39
 TVector3 A 3D physics vector (x,y,z)=(0.118913,0.271403,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,66.339703)
 TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
 (rho,theta,phi)=(44.778434,43.423421,84.497326)
 TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,55.154692)
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 Phi0 -167.3
 alpha1, Fi1 156.3 -36.32
 TVector2 A 2D physics vector (x,y)=(-45.233866,19.818906)
 (rho,phi)=(49.385136,156.339703)
 alpha2, Fi2 145.2 -47.50
 TVector2 A 2D physics vector (x,y)=(-40.527182,28.214680)
 (rho,phi)=(49.381379,145.154692)
 positions first/last
 TVector3 A 3D physics vector (x,y,z)=(2.951562,30.638157,32.522297)
 (rho,theta,phi)=(44.778434,43.423421,84.497326)
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)

(rho,theta,phi)=(57.865117,43.426841,78.899868)
 scosfirst/scoslast 31.30 40.94
 fitm/fitp 1.026 0.1966
 z1/z2 32.33 42.22
 from prefit
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,55.154692)
 track 1 has 0 hits:
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,55.154692)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(51.847809,46.637611,99.342880)
 (rho,theta,phi)=(121.376563,35.068233,41.971691)
 TVector3 A 3D physics vector (x,y,z)=(-0.000136,-0.010934,0.009656)
 (rho,theta,phi)=(0.014588,48.552598,-90.713342)
 errors
 TVector3 A 3D physics vector (x,y,z)=(0.000000,0.000000,0.000000)
 (rho,theta,phi)=(0.000000,0.000000,0.000000)
 TVector3 A 3D physics vector (x,y,z)=(0.062246,0.031828,0.000000)
 (rho,theta,phi)=(0.069911,90.000000,27.082329)
 distance 82.93 err 0.04027
 this hit 0 DOES NOT BELONG to this track 1!!!!!!!!!!!!!!
 errors
 TVector3 A 3D physics vector (x,y,z)=(0.000000,0.000000,0.000000)
 (rho,theta,phi)=(0.000000,0.000000,0.000000)
 TVector3 A 3D physics vector (x,y,z)=(0.050220,0.012553,0.000000)
 (rho,theta,phi)=(0.051765,90.000000,14.034551)
 distance 61.93 err 0.04626
 this hit 1 DOES NOT BELONG to this track 1!!!!!!!!!!!!!!
 track 1 has 0 hits:
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)
 (rho,theta,phi)=(57.865117,43.426841,78.899868)
 TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)
 (rho,theta,phi)=(0.424623,44.252380,55.154692)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(51.847809,46.637611,99.342880)
 (rho,theta,phi)=(121.376563,35.068233,41.971691)
 TVector3 A 3D physics vector (x,y,z)=(-0.000136,-0.010934,0.009656)
 (rho,theta,phi)=(0.014588,48.552598,-90.713342)
 errors
 TVector3 A 3D physics vector (x,y,z)=(0.000000,0.000000,0.000000)
 (rho,theta,phi)=(0.000000,0.000000,0.000000)
 TVector3 A 3D physics vector (x,y,z)=(0.015400,0.015400,0.000000)
 (rho,theta,phi)=(0.021778,90.000000,44.999982)
 distance 83.37 err 0.01540
 this hit 2 DOES NOT BELONG to this track 1!!!!!!!!!!!!!!

errors

TVector3 A 3D physics vector (x,y,z)=(0.000000,0.000000,0.000000)

(rho,theta,phi)=(0.000000,0.000000,0.000000)

TVector3 A 3D physics vector (x,y,z)=(0.013818,0.013818,0.000000)

(rho,theta,phi)=(0.019542,90.000000,44.999948)

distance 61.95 err 0.01382

this hit 3 DOES NOT BELONG to this track 1!!!!!!!!!!!!!!

track 1 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)

(rho,theta,phi)=(57.865117,43.426841,78.899868)

TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)

(rho,theta,phi)=(0.424623,44.252380,55.154692)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(51.847809,46.637611,99.342880)

(rho,theta,phi)=(121.376563,35.068233,41.971691)

TVector3 A 3D physics vector (x,y,z)=(-0.000136,-0.010934,0.009656)

(rho,theta,phi)=(0.014588,48.552598,-90.713342)

errors

TVector3 A 3D physics vector (x,y,z)=(0.000000,0.000000,0.000000)

(rho,theta,phi)=(0.000000,0.000000,0.000000)

TVector3 A 3D physics vector (x,y,z)=(0.071403,0.015804,0.000000)

(rho,theta,phi)=(0.073131,90.000000,12.480485)

distance 60.32 err 0.06906

this hit 4 DOES NOT BELONG to this track 1!!!!!!!!!!!!!!

track 1 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)

(rho,theta,phi)=(57.865117,43.426841,78.899868)

TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)

(rho,theta,phi)=(0.424623,44.252380,55.154692)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(51.847809,46.637611,99.342880)

(rho,theta,phi)=(121.376563,35.068233,41.971691)

TVector3 A 3D physics vector (x,y,z)=(-0.000136,-0.010934,0.009656)

(rho,theta,phi)=(0.014588,48.552598,-90.713342)

errors

TVector3 A 3D physics vector (x,y,z)=(0.000000,0.000000,0.000000)

(rho,theta,phi)=(0.000000,0.000000,0.000000)

TVector3 A 3D physics vector (x,y,z)=(0.013659,0.013659,0.000000)

(rho,theta,phi)=(0.019317,90.000000,44.999973)

distance 60.35 err 0.01366

this hit 5 DOES NOT BELONG to this track 1!!!!!!!!!!!!!!

track 1 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)

(rho,theta,phi)=(57.865117,43.426841,78.899868)

TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)

(rho,theta,phi)=(0.424623,44.252380,55.154692)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(51.847809,46.637611,99.342880)

(rho,theta,phi)=(121.376563,35.068233,41.971691)

TVector3 A 3D physics vector (x,y,z)=(-0.000136,-0.010934,0.009656)

(rho,theta,phi)=(0.014588,48.552598,-90.713342)

errors

TVector3 A 3D physics vector (x,y,z)=(0.000000,0.000000,0.000000)

(rho,theta,phi)=(0.000000,0.000000,0.000000)

TVector3 A 3D physics vector (x,y,z)=(0.092802,0.017804,0.000000)

(rho,theta,phi)=(0.094494,90.000000,10.859891)

distance 59.51 err 0.09228

this hit 6 DOES NOT BELONG to this track 1!!!!!!!!!!!!!!

track 1 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(7.658246,39.033931,42.024698)

(rho,theta,phi)=(57.865117,43.426841,78.899868)

TVector3 A 3D physics vector (x,y,z)=(0.169301,0.243182,0.304146)

(rho,theta,phi)=(0.424623,44.252380,55.154692)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(51.847809,46.637611,99.342880)

(rho,theta,phi)=(121.376563,35.068233,41.971691)

TVector3 A 3D physics vector (x,y,z)=(-0.000136,-0.010934,0.009656)

(rho,theta,phi)=(0.014588,48.552598,-90.713342)

errors

TVector3 A 3D physics vector (x,y,z)=(0.000000,0.000000,0.000000)

(rho,theta,phi)=(0.000000,0.000000,0.000000)

TVector3 A 3D physics vector (x,y,z)=(0.013454,0.013454,0.000000)

(rho,theta,phi)=(0.019027,90.000000,44.999983)

distance 59.65 err 0.01345

this hit 7 DOES NOT BELONG to this track 1!!!!!!!!!!!!!!

track 2 has 0 hits:

TRK 2 has hits

track 2 has 0 hits:

start from

TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)

(rho,theta,phi)=(41.560158,52.766214,95.617604)

lastpar error 0.02000 0.02000 1.000

GET INITIAL PARAMS

charge/xc/yc/radius 1 172.2 33.56 175.4

TVector3 A 3D physics vector (x,y,z)=(-0.095240,1.048054,0.798584)

(rho,theta,phi)=(1.321070,52.807272,95.192391)

TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)

(rho,theta,phi)=(22.425569,52.791466,97.949212)

TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)

(rho,theta,phi)=(1.321070,52.807272,90.205014)

TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)

(rho,theta,phi)=(41.560158,52.766214,95.617604)

Phi0 -169.0

alpha1, Fi1 -174.8 -5.836

TVector2 A 2D physics vector (x,y)=(-174.675718,-15.873347)

(rho,phi)=(175.395466,185.192391)

alpha2, Fi2 -179.8 -10.82

TVector2 A 2D physics vector (x,y)=(-175.444726,-0.632171)

(rho,phi)=(175.445865,180.206450)

positions first/last

TVector3 A 3D physics vector (x,y,z)=(-2.470039,17.688995,13.561140)
 (rho,theta,phi)=(22.425569,52.791466,97.949212)
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 scosfirst/scoslast 17.87 33.13
 fitm/fitp 0.7588 0.005572
 z1/z2 13.56 25.15
 from prefit
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
 (rho,theta,phi)=(1.321070,52.807272,90.205014)
 track 2 has 0 hits:
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
 (rho,theta,phi)=(1.321070,52.807272,90.205014)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(34.779484,147.327423,116.380394)
 (rho,theta,phi)=(190.943390,52.446491,76.717402)
 TVector3 A 3D physics vector (x,y,z)=(0.346017,0.665074,0.542667)
 (rho,theta,phi)=(0.925494,54.101258,62.513473)
 errors
 TVector3 A 3D physics vector (x,y,z)=(10.697629,14.211684,0.000000)
 (rho,theta,phi)=(17.787951,90.000000,53.029951)
 TVector3 A 3D physics vector (x,y,z)=(0.062246,0.031828,0.000000)
 (rho,theta,phi)=(0.069911,90.000000,27.082329)
 distance 175.6 err 14.17
 this hit 0 DOES NOT BELONG to this track 2!!!!!!!!!!!!!!
 errors
 TVector3 A 3D physics vector (x,y,z)=(10.697629,14.211684,0.000000)
 (rho,theta,phi)=(17.787951,90.000000,53.029951)
 TVector3 A 3D physics vector (x,y,z)=(0.050220,0.012553,0.000000)
 (rho,theta,phi)=(0.051765,90.000000,14.034551)
 distance 131.7 err 13.93
 this hit 1 DOES NOT BELONG to this track 2!!!!!!!!!!!!!!
 track 2 has 0 hits:
 propagation from
 TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)
 (rho,theta,phi)=(41.560158,52.766214,95.617604)
 TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)
 (rho,theta,phi)=(1.321070,52.807272,90.205014)
 propagation to 1
 TVector3 A 3D physics vector (x,y,z)=(35.569633,148.847336,117.620697)
 (rho,theta,phi)=(193.016467,52.455193,76.560231)
 TVector3 A 3D physics vector (x,y,z)=(0.345357,0.665298,0.542800)
 (rho,theta,phi)=(0.925487,54.090792,62.566105)
 errors
 TVector3 A 3D physics vector (x,y,z)=(10.881952,14.460671,0.000000)
 (rho,theta,phi)=(18.097731,90.000000,53.037787)
 TVector3 A 3D physics vector (x,y,z)=(0.015400,0.015400,0.000000)

(rho,theta,phi)=(0.021778,90.000000,44.999982)

distance 177.4 err 14.41

this hit 2 DOES NOT BELONG to this track 2!!!!!!!!!!!!!!

errors

TVector3 A 3D physics vector (x,y,z)=(10.881952,14.460671,0.000000)

(rho,theta,phi)=(18.097731,90.000000,53.037787)

TVector3 A 3D physics vector (x,y,z)=(0.013818,0.013818,0.000000)

(rho,theta,phi)=(0.019542,90.000000,44.999948)

distance 133.1 err 14.17

this hit 3 DOES NOT BELONG to this track 2!!!!!!!!!!!!!!

track 2 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)

(rho,theta,phi)=(41.560158,52.766214,95.617604)

TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)

(rho,theta,phi)=(1.321070,52.807272,90.205014)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(53.568882,195.713120,152.379898)

(rho,theta,phi)=(253.757529,53.094707,74.692420)

TVector3 A 3D physics vector (x,y,z)=(0.119079,0.409630,0.289707)

(rho,theta,phi)=(0.515661,55.818519,73.790947)

errors

TVector3 A 3D physics vector (x,y,z)=(15.340002,24.316102,0.000000)

(rho,theta,phi)=(28.750452,90.000000,57.753903)

TVector3 A 3D physics vector (x,y,z)=(0.071403,0.015804,0.000000)

(rho,theta,phi)=(0.073131,90.000000,12.480485)

distance 175.3 err 23.44

this hit 4 DOES NOT BELONG to this track 2!!!!!!!!!!!!!!

track 2 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)

(rho,theta,phi)=(41.560158,52.766214,95.617604)

TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)

(rho,theta,phi)=(1.321070,52.807272,90.205014)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(54.070145,197.471130,153.620697)

(rho,theta,phi)=(255.964346,53.118325,74.687001)

TVector3 A 3D physics vector (x,y,z)=(0.111060,0.395401,0.278643)

(rho,theta,phi)=(0.496304,55.844824,74.311025)

errors

TVector3 A 3D physics vector (x,y,z)=(15.487163,24.723584,0.000000)

(rho,theta,phi)=(29.173752,90.000000,57.936455)

TVector3 A 3D physics vector (x,y,z)=(0.013659,0.013659,0.000000)

(rho,theta,phi)=(0.019317,90.000000,44.999973)

distance 176.9 err 23.83

this hit 5 DOES NOT BELONG to this track 2!!!!!!!!!!!!!!

track 2 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)

(rho,theta,phi)=(41.560158,52.766214,95.617604)

TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)

(rho,theta,phi)=(1.321070,52.807272,90.205014)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(63.498352,249.593292,188.380295)

(rho,theta,phi)=(319.086176,53.816422,75.726339)

TVector3 A 3D physics vector (x,y,z)=(0.021472,0.189274,0.120476)

(rho,theta,phi)=(0.225388,57.688318,83.527658)

errors

TVector3 A 3D physics vector (x,y,z)=(21.274604,40.118090,0.000000)

(rho,theta,phi)=(45.410020,90.000000,62.063015)

TVector3 A 3D physics vector (x,y,z)=(0.092802,0.017804,0.000000)

(rho,theta,phi)=(0.094494,90.000000,10.859891)

distance 221.0 err 38.61

this hit 6 DOES NOT BELONG to this track 2!!!!!!!!!!!!!!

track 2 has 0 hits:

propagation from

TVector3 A 3D physics vector (x,y,z)=(-3.239047,32.930172,25.146751)

(rho,theta,phi)=(41.560158,52.766214,95.617604)

TVector3 A 3D physics vector (x,y,z)=(-0.003766,1.052366,0.798584)

(rho,theta,phi)=(1.321070,52.807272,90.205014)

propagation to 1

TVector3 A 3D physics vector (x,y,z)=(63.719429,251.542023,189.620697)

(rho,theta,phi)=(321.386937,53.842461,75.785120)

TVector3 A 3D physics vector (x,y,z)=(0.021472,0.189269,0.120473)

(rho,theta,phi)=(0.225383,57.688319,83.527659)

errors

TVector3 A 3D physics vector (x,y,z)=(21.580934,40.766158,0.000000)

(rho,theta,phi)=(46.126092,90.000000,62.103991)

TVector3 A 3D physics vector (x,y,z)=(0.013454,0.013454,0.000000)

(rho,theta,phi)=(0.019027,90.000000,44.999983)

distance 222.7 err 39.24

this hit 7 DOES NOT BELONG to this track 2!!!!!!!!!!!!!!

track 3 has 0 hits:

TRK 3 has hits

track 3 has 0 hits:

start from

TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)

(rho,theta,phi)=(30.445771,97.859966,-62.180759)

lastpar error 0.02000 0.02000 1.000

GET INITIAL PARAMS

charge/xc/yc/radius 1 8.608 -12.55 15.19

TVector3 A 3D physics vector (x,y,z)=(0.077671,-0.047670,0.000000)

(rho,theta,phi)=(0.091133,90.000000,-31.539509)

TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)

(rho,theta,phi)=(16.557733,90.000000,1.375141)

TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)

(rho,theta,phi)=(0.091133,90.000000,-159.047625)

TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)

(rho,theta,phi)=(30.445771,97.859966,-62.180759)

Phi0 124.5

alpha1, Fi1 58.46 -65.99

TVector2 A 2D physics vector (x,y)=(7.945068,12.945127) (rho,phi)=(15.188825,58.460491)

alpha2, Fi2 -68.84 -193.3

TVector2 A 2D physics vector (x,y)=(5.467162,-14.126241) (rho,phi)=(15.147295,291.157520)

```

positions first/last
TVector3 A 3D physics vector (x,y,z)=(16.552964,0.397360,0.000000)
(rho,theta,phi)=(16.557733,90.000000,1.375141)
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
scosfirst/scoslast 17.49 51.24
fitm/fitp 6.020e-233 -2.082
z1/z2 -2.082 -2.082
from prefit
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
(rho,theta,phi)=(0.091133,90.000000,-159.047625)
track 3 has 0 hits:
propagation from
TVector3 A 3D physics vector (x,y,z)=(14.075058,-26.674008,-4.163533)
(rho,theta,phi)=(30.445771,97.859966,-62.180759)
TVector3 A 3D physics vector (x,y,z)=(-0.085107,-0.032588,0.000000)
(rho,theta,phi)=(0.091133,90.000000,-159.047625)

```

```

*** Break *** floating point exception
Generating stack trace...
0xb0e9a6c7 in ertrch_ + 0xd93 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb0e9c4a5 in ertrgo_ + 0xf29 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb0e998b9 in ertrak_ + 0xc15 from
/home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0xb0f7b450 in TGeant3::Ertrak(float const*, float const*, float const*, float const*, int, char
const*) + 0x62 from /home/fioravanti/fairsoft/transport/geant3/lib/tgt_linux/libgeant321.so
0x0291708a in FairGeanePro::Propagate(int) at
/home/fioravanti/fairsoft/pandaroot/geane/FairGeanePro.cxx:327 from
/home/fioravanti/fairsoft/buildPanda/lib/libGeane.so
0x02917c71 in FairGeanePro::Propagate(FairTrackParP*, FairTrackParP*, int) at
/home/fioravanti/fairsoft/pandaroot/geane/FairGeanePro.cxx:275 from
/home/fioravanti/fairsoft/buildPanda/lib/libGeane.so
0x04c5df03 in PndSttMvdGemTracking::PropagateToGemPlane(FairTrackParP*,
FairTrackParP*, int) at
/home/fioravanti/fairsoft/pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx:956 from
/home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
0x04c60a10 in PndSttMvdGemTracking::Retrack() at
/home/fioravanti/fairsoft/pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx:1442 from
/home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
0x04c64dc1 in PndSttMvdGemTracking::Exec(char const*) at
/home/fioravanti/fairsoft/pandaroot/sttmvdtracking/PndSttMvdGemTracking.cxx:654 from
/home/fioravanti/fairsoft/buildPanda/lib/libSttMvdTracking.so
0x0027e9e8 in TTask::ExecuteTasks(char const*) + 0x108 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x0027e3d9 in TTask::ExecuteTask(char const*) + 0x159 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x03265386 in FairRunAna::Run(int, int) at
/home/fioravanti/fairsoft/pandaroot/base/FairRunAna.cxx:273 from

```

```
/home/fioravanti/fairsoft/buildPanda/lib/libBase.so
0x032c3f88 in <unknown> from /home/fioravanti/fairsoft/buildPanda/lib/libBase.so
0x00fd1d7a in Cint::G__ExceptionWrapper(int (*)(G__value*, char const*, G__param*, int),
G__value*, char*, G__param*, int) + 0x6a from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x0108c786 in G__execute_call + 0x56 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x01090d3d in G__call_cppfunc + 0x26d from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x01063628 in G__interpret_func + 0x1458 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x01050cf8 in G__getfunction at func.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x0115191c in G__getstructmem(int, G__FastAllocString&, char*, int, char*, int*,
G__var_array*, int) + 0x5fc from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x01147708 in G__getvariable at var.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x01024f41 in G__getitem at expr.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x0102e9a9 in G__getexpr at expr.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x010c238f in G__exec_statement at parse.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x0100f78b in <unknown> from /home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x0100fac6 in G__exec_tempfile + 0x16 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x010d3c26 in G__process_cmd at pause.cxx:0 from
/home/fioravanti/fairsoft/tools/root/lib/libCint.so.5.29
0x002bb6d3 in TCint::ProcessLine(char const*, TInterpreter::EErrorCode*) + 0x3c3 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x002bb2ef in TCint::ProcessLineSynch(char const*, TInterpreter::EErrorCode*) + 0x9f from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x002046c2 in TApplication::ExecuteFile(char const*, int*, bool) + 0x752 from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00204c5c in TApplication::ProcessFile(char const*, int*, bool) + 0x2c from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x002015eb in TApplication::ProcessLine(char const*, bool, int*) + 0x86b from
/home/fioravanti/fairsoft/tools/root/lib/libCore.so.5.29
0x00a5b8c4 in TRint::Run(bool) + 0x2e4 from
/home/fioravanti/fairsoft/tools/root/lib/libRint.so.5.29
0x08048d93 in main + 0x83 from /home/fioravanti/fairsoft/tools/root/bin/root.exe
0x00ba5e9c in __libc_start_main + 0xdc from /lib/libc.so.6
0x08048bf1 in __gxx_personality_v0 + 0x65 from
/home/fioravanti/fairsoft/tools/root/bin/root.exe
Root >
```

Subject: Re: Reconstruction macro crash
Posted by [Lia Lavezzi](#) on Mon, 23 May 2011 12:21:00 GMT
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I added some more print outs, since it does not seem to see a continue I put there and I cannot get why...

Can you please update and post the new log (or send it directly to me if you prefer since we are just doing debugging)?

Thanks,
Lia.

Subject: Re: Reconstruction macro crash
Posted by [Gianluigi Boca](#) on Mon, 23 May 2011 13:57:09 GMT
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Lia Lavezzi wrote on Mon, 23 May 2011 13:36Hi Stefano,
actually there is a test to decide whether the track can reach the GEM plane or not with a simple and quick helix extrapolation to the first plane (no GEANE, just math).
In my thoughts that should have been enough to throw away also these $p_z = 0$ tracks, but clearly there is something which goes wrong.

...I was wondering (looking in the log) how is it possible that a track with:

first mom = (0.077671,-0.047670,0.000000)
first pos = (16.552964,0.397360,0.000000)
last mom = (-0.085107,-0.032588,0.000000)

has last pos = (14.075058,-26.674008,-4.163533)...

Gianluigi, this comes from your PR, do you have any idea?

Ciao,
Lia.

In principle no physics prevents from having a track with $P_z=0$, and the Pattern Recognition in fact can find a track with $P_z = 0$.

$P_z = 0$ when one of the parameter I use to parametrize the Helix is very large.

Also, $P_z=0$ for a track is not in contraddiction, from the Pattern Recognition algorithm point of view, with having

the Z position of the last point NOT EXACTLY 0; certainly it must be CLOSE to zero [as in the this example, where

last pos = (14.075058,-26.674008,-4.163533)].

Anyway, I am investigating possible bugs in the code right now

Gianluigi

Subject: Re: Reconstruction macro crash
Posted by [Gianluigi Boca](#) on Tue, 24 May 2011 00:15:18 GMT
[View Forum Message](#) <> [Reply to Message](#)

Lia Lavezzi wrote on Mon, 23 May 2011 13:36Hi
first mom = (0.077671,-0.047670,0.000000)
first pos = (16.552964,0.397360,0.000000)
last mom = (-0.085107,-0.032588,0.000000)

has last pos = (14.075058,-26.674008,-4.163533)...
Gianluigi, this comes from your PR, do you have any idea?
Ciao,
Lia.

I put in Svn a fix to a particular situation arising in the Pattern Recognition when a track doesn't have any Stt Skew Hits nor Mvd hits associated.
I am not sure, but that may be the cause of the crash observed by Elisa.

So please update PndSttMvdTracking.cxx and .h and try again
Gianluigi

Subject: Re: Reconstruction macro crash
Posted by [Lia Lavezzi](#) on Tue, 24 May 2011 08:46:07 GMT
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Moreover, the PndSttMvdGemTracking is now protected from tracks with initial pz = 0 since it is quite clear that they will not be extrapolated to the GEM planes...
Lia.

Subject: Re: Reconstruction macro crash
Posted by [Elisa Fioravanti](#) on Wed, 25 May 2011 12:38:16 GMT
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Hello,

the problem is now fixed and the reconstruction macro for stt doesn't crash anymore.

thanks a lot to everyone who helps me

Elisa

Subject: Re: Reconstruction macro crash
Posted by [Stefano Spataro](#) on Wed, 25 May 2011 12:41:13 GMT
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... one less...
