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Subject: RIEMANN & LHETRACK fight

Posted by [StefanoSpataro](#) on Thu, 10 Apr 2008 17:48:37 GMT

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Hello dear code developer.

I would like that you take a look into my problem with riemann+lhetrack, because I could not find a clue (up to now).

If you download the last svn release, you can try exactly my macros.

Go to macro/lhetrack, and launch

```
run_sim_tpcmvd.C
run_track_tpcmvd.C
plot_pT.C
```

You will have a nice peak, that's fine. I have tried also at GSI on lxx0442 and it works. Now, please edit run\_track\_tpcmvd.C, uncomment out the riemann part:

```
PndTpcRiemannTrackingTask* tpcSPR = new PndTpcRiemannTrackingTask();
tpcSPR->SetTrkFinderParameters(2.,// proxcut
    0.02, // proxcut on rieman sphere
    2.E-3, // planecut
    4.0, // szcut
    4); // minnumhits for fit
tpcSPR->SetPersistence();
fRun->AddTask(tpcSPR);
```

and rerun run\_track\_tpcmvd.C. It will work, I have tried also at GSI on lxx0442 .

Now run plot\_pT.C: it will crash!!!

But lhetrack code does not ask for riemann data object. You can set lhetrack working only with TpcPoints (SetTpcMode(1), SetMvdMode(0)) and you will have the same crash, not while analysing the event but when accessing to the files via macro. This is the error at the t->GetEntriesFast() point:

Toggle Spoiler

```
root [0]
```

```
Processing plot_pT.C...
```

```
- RTDB container factory CbmBaseContFact
- RTDB container factory PndFieldContFact
- RTDB container factory PndPassiveContFact
```

```
PSaid instance created... access via gSaid->f()
```

```
- RTDB container factory PndEmcContFact
- RTDB container factory PndTpcContFact
- RTDB container factory PndMvdContFact
```

```
*** Break *** segmentation violation
```

```
Using host libthread_db library "/lib/libthread_db.so.1".
```

```
Attaching to program: /proc/26172/exe, process 26172
```

```
`system-supplied DSO at 0xffffe000' has disappeared; keeping its symbols.
done.
```

done.  
[Thread debugging using libthread\_db enabled]  
[New Thread 16384 (LWP 26172)]  
done.  
done.  
done.  
done.  
done.  
done.  
done.  
done.  
done.  
done.  
0x40ca7788 in waitpid () from /lib/libc.so.6  
#1 0x40d2f8c0 in \_\_DTOR\_END\_\_ () from /lib/libc.so.6  
#2 0x40c40442 in do\_system () from /lib/libc.so.6  
#3 0x40bbac5f in system () from /lib/libpthread.so.0  
#4 0x401f979f in TUnixSystem::Exec () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18  
#5 0x401f9c63 in TUnixSystem::StackTrace () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18  
#6 0x401f75cc in TUnixSystem::DispatchSignals () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18  
#7 0x401f53a8 in SigHandler () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18  
#8 0x401fcefe in sighandler () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18  
#9 0x40bb9825 in \_\_pthread\_sighandler () from /lib/libpthread.so.0  
#10 <signal handler called>  
#11 0x401dc864 in TClass::Streamer () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18  
#12 0x40dd0721 in TBufferFile::ReadFastArray () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libRIO.so  
#13 0x40e13fe1 in TStreamerInfo::ReadBuffer<char\*\*> () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libRIO.so  
#14 0x40e13a02 in TStreamerInfo::ReadBufferClones () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libRIO.so  
#15 0x41d8488d in TBranchElement::ReadLeaves () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libTree.so  
#16 0x41d77bb8 in TBranch::GetEntry () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libTree.so  
#17 0x41d8258b in TBranchElement::GetEntry () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libTree.so  
#18 0x41d8250b in TBranchElement::GetEntry () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libTree.so  
#19 0x41dbf733 in TTree::GetEntry () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libTree.so  
#20 0x41dea472 in G\_\_G\_\_Tree\_103\_0\_62 () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libTree.so  
#21 0x40778856 in Cint::G\_\_ExceptionWrapper () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#22 0x4084fddf in G\_\_call\_cppfunc () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18

#23 0x4083b969 in G\_\_interpret\_func () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#24 0x4081ab8c in G\_\_getfunction () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#25 0x408e5469 in G\_\_getstructmem () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#26 0x408e4792 in G\_\_getvariable () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#27 0x4080fac0 in G\_\_getitem () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#28 0x407fed80 in G\_\_getexpr () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#29 0x4086faa8 in G\_\_exec\_function () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#30 0x4087f325 in G\_\_exec\_statement () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#31 0x40873004 in G\_\_exec\_loop () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#32 0x40872b8a in G\_\_exec\_for () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#33 0x40880077 in G\_\_exec\_statement () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#34 0x407ea88a in G\_\_exec\_tempfile\_core () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#35 0x407ebe41 in G\_\_exec\_tempfile () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#36 0x4088a8b4 in G\_\_process\_cmd () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18  
#37 0x401c5e45 in TCint::ProcessLine () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18  
#38 0x401c6006 in TCint::ProcessLineSynch () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18  
#39 0x4011fed0 in TApplication::ExecuteFile () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18  
#40 0x4011f816 in TApplication::ProcessFile () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18  
#41 0x4011f5a4 in TApplication::ProcessLine () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18  
#42 0x40b47582 in TRint::Run () from  
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libRint.so.5.18  
#43 0x08048e2e in main ()

If you try something via TBrowser, such as:

```
cbmsim.Draw("PndTpcLheTrack.fP.Perp()", "PndTpcLheTrack.fP.Perp()<2")
```

it will work.

What is going wrong? Could you please try to reproduce this error?

I want to stress that this problem appeared to me the first time with the old lhetrack code, before the last changes. So it is not my fault

Help is welcome!!!

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