Subject: Re: LSLTrackrep covariances are zero
Posted by asanchez on Wed, 13 May 2009 13:14:43 GMT
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Dear Christian,
i have checked it now the modifications.
And it works fine, but i see something strange, maybe you can tell
me what is the reason?

I show you that with an example:

that is the output of the LSLtrackrep as it comes from
the initialization(DemoPatternRecoTask.cxx)

PndHypDPatternRecoTask::Exec
<<<<< Event 44 <<<
particle -211
++
AbsTrackRep::Parameters at reference plane DetPlane: O(0.344825,1.1159,-76.427) u(1,0,0) v(0,1,0) n(0,0,1)
AbsTrackRep::State

5x1 matrix is as follows

| 0 |
---
0 | 0.3448
1 | 1.116
2 | -1.309
3 | 1.916
4 | -7.383

AbsTrackRep::Covariances

5x5 matrix is as follows

| 0 | 1 | 2 | 3 | 4 |
---
0 | 0.01 0 0 0 0
1 | 0 0.01 0 0 0
2 | 0 0 0.1 0 0
3 | 0 0 0 0.1 0
4 | 0 0 0 0 0.1

AbsTrackRep::chi^2
0
++

And that is the output of the Kalman task,

PndHypDKalmanTask::Exec Event 44
18 hits in track 0

Quote:SUCESSFULL FIT!
++
AbsTrackRep::Parameters at reference plane DetPlane: O(0.33394,1.14308,-76.4169)
u(0.707099,0.707099,0.00478064) v(0.70689,-0.706688,-0.0299813)
n(-0.0178213,0.0245791,-0.999539)
AbsTrackRep::State

5x1 matrix is as follows

	0
0	0.7668
1	-0.971
2	-1.362
3	1.879
4	-7.383

AbsTrackRep::Covariances

5x5 matrix is as follows

	0	1	2	3	4
0	0.02639	-2.799e-19	0	0	0
1	-2.799e-19	0.02639	0	0	0
2	0	0	3.2e+05	0	0
3	0	0	0	3.2e+05	0
4	0	0	0	0	3.2e+05

AbsTrackRep::chi^2
20.5819
++
momentum 0.13544

So my question is related to the fact that the diagonal elements
(red marked ones) of the cov matrix changes a little bit or nothing,
and i would expect that the asymmtric elements of the matrix were not zero.

Do you any idea, why ?

thanks a lot in advance
ALicia S.

File Attachments

1) covEle.txt, downloaded 413 times