Subject: KalmanFit Error
Posted by Tobias Stockmanns on Fri, 09 Nov 2007 08:59:47 GMT
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Dear KalmaFitters,

when I try to fit MVD data with the Kalman task, I get the error, that (most of) my matrices are zero, which I do not understand.

Maybe one of you can help me

Thanks

Tobias

MvdKalmanTask::Exec
starting track0
 -I- MvdRecoHit::MvdRecoHit(MvdHit*) called.
o: 0.287864 2.69613 5.975
u: 0.707107 -0.707107 0
v: 0.707107 0.707107 0
 -I- MvdRecoHit::MvdRecoHit(MvdHit*) called.
o: 2.11 1.67845 8.735
u: 0 1 0
v: 1 0 0
 -I- MvdRecoHit::MvdRecoHit(MvdHit*) called.
o: 2.20361 1.60633 14.3662
u: 0.00398854 -0.999595 0.0281843
v: 0.999992 0.00399013 0
 -I- MvdRecoHit::MvdRecoHit(MvdHit*) called.
o: 4.63742 3.15743 18.475
u: -0.729407 0.68408 0
v: 0.68408 0.729407 0
4 hits in track 0
starting fit
Error in <TDecompLU::DecomposeLUCrout>: matrix is singular
Error in <TDecompLU::InvertLU>: matrix is singular, 0 diag elements < tolerance of 2.2204e-16
FitterException thrown with whatString:
cannot invert covsum in Kalman Gain - det=0
in line: 265 in file: /home/stockman/fairroot/cbmsoft_old/pandaroot/genfit/Kalman.cxx
FitterException Info Output
==========

Matrices Label String:
cov, HitCov, covsum1 and covsum

Matrices:

5x5 matrix is as follows

| 0 | 1 | 2 | 3 | 4 |

0	0	0	0	0	0
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0

3x3 matrix is as follows

	0	1	2
0	0.002887	0	0
1	0	0.002887	0
2	0	0	0

5x3 matrix is as follows

	0	1	2
0	0	0	0
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0

3x3 matrix is as follows

	0	1	2
0	0.002887	0	0
1	0	0.002887	0
2	0	0	0

==========

Subject: Re: KalmanFit Error
Posted by Sebastian Neubert on Sat, 10 Nov 2007 09:41:35 GMT
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Hi Tobias

To me your error looks as if you did not setup your initial covariance matrix properly. Make sure you initialize at least the digonal elements with some (large) values.

Cheers, Sebastian.
