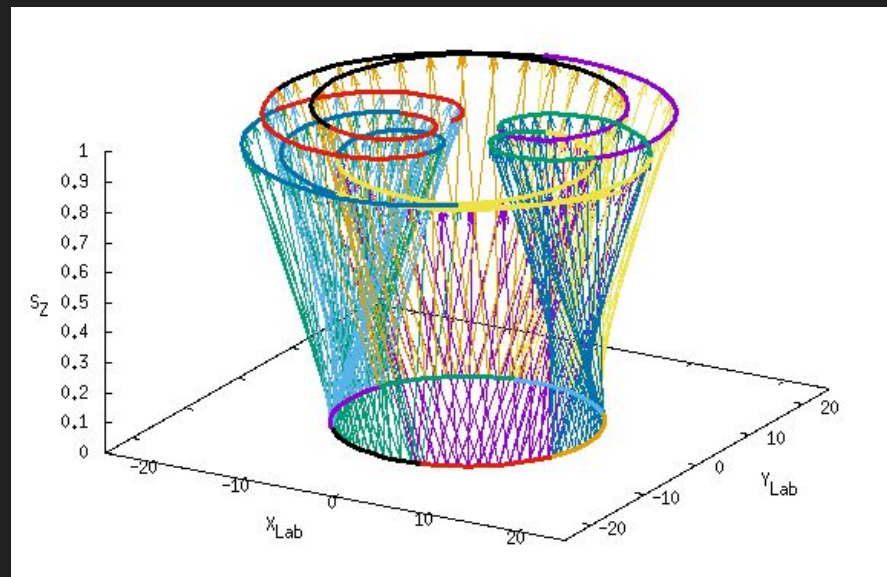
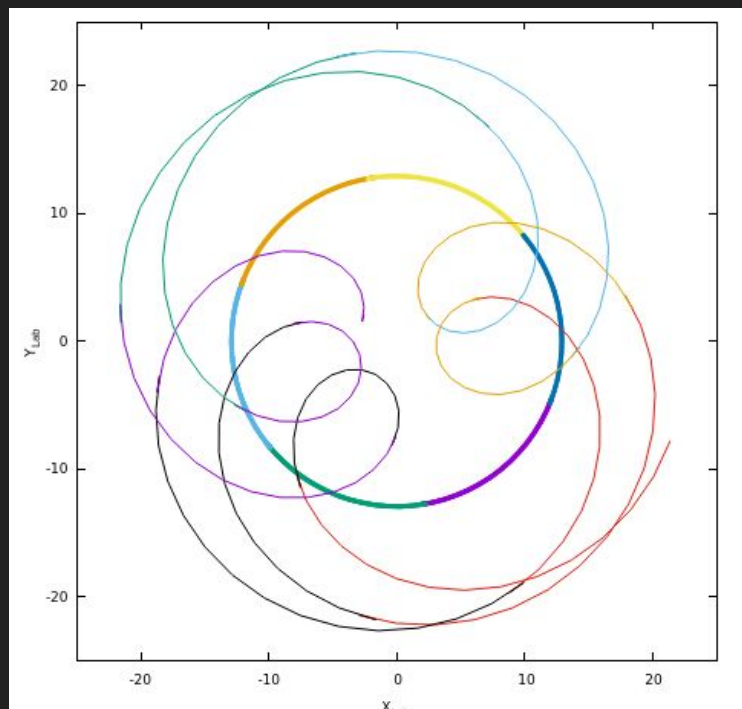
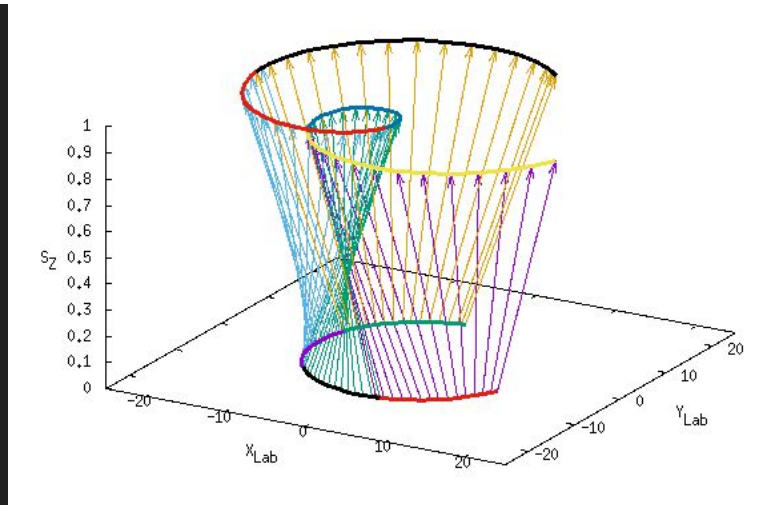
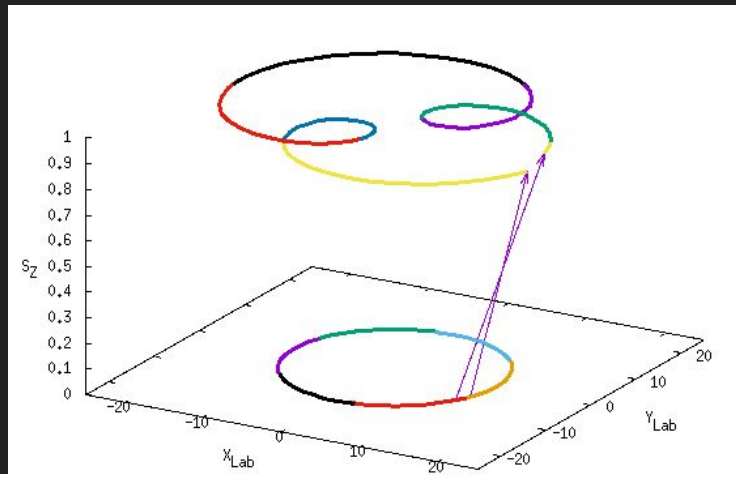
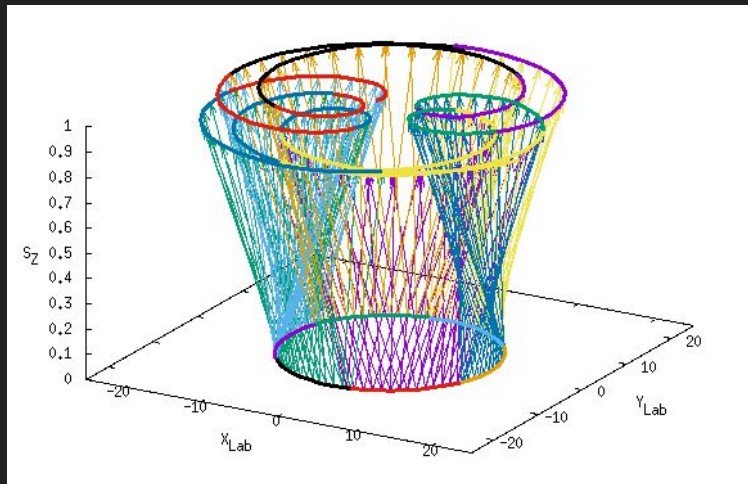


Zgoubi:Spin Dance

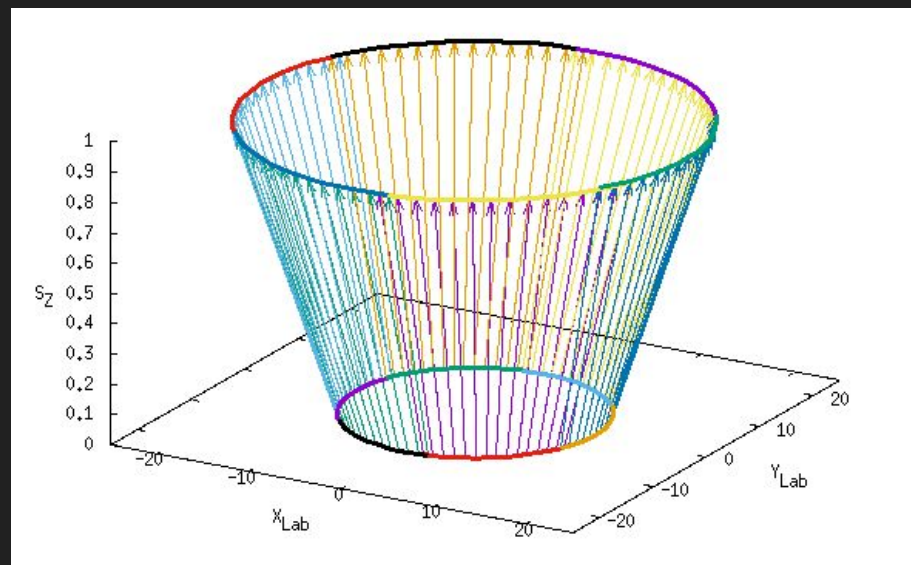
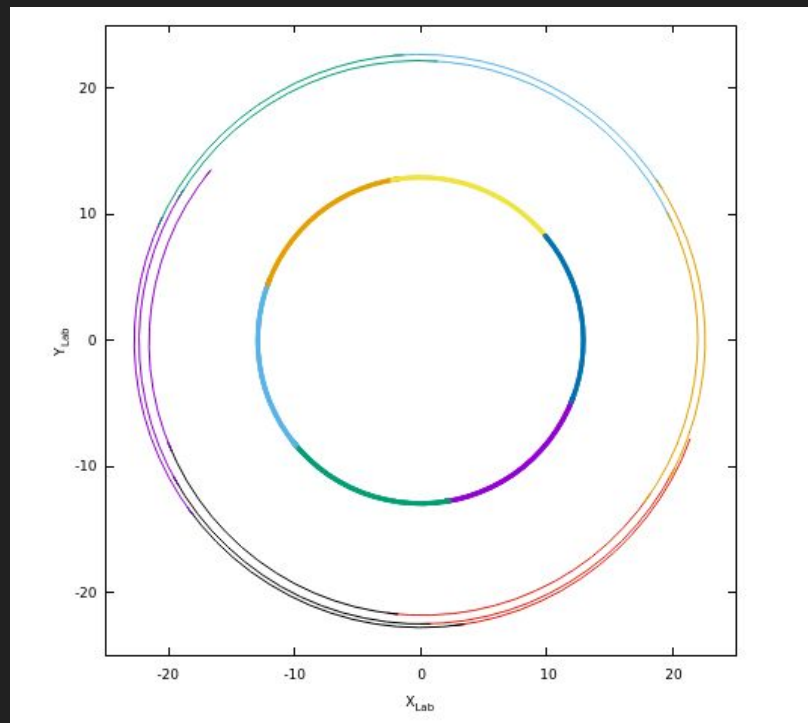
Julian Driebeek 1/31/23

Results

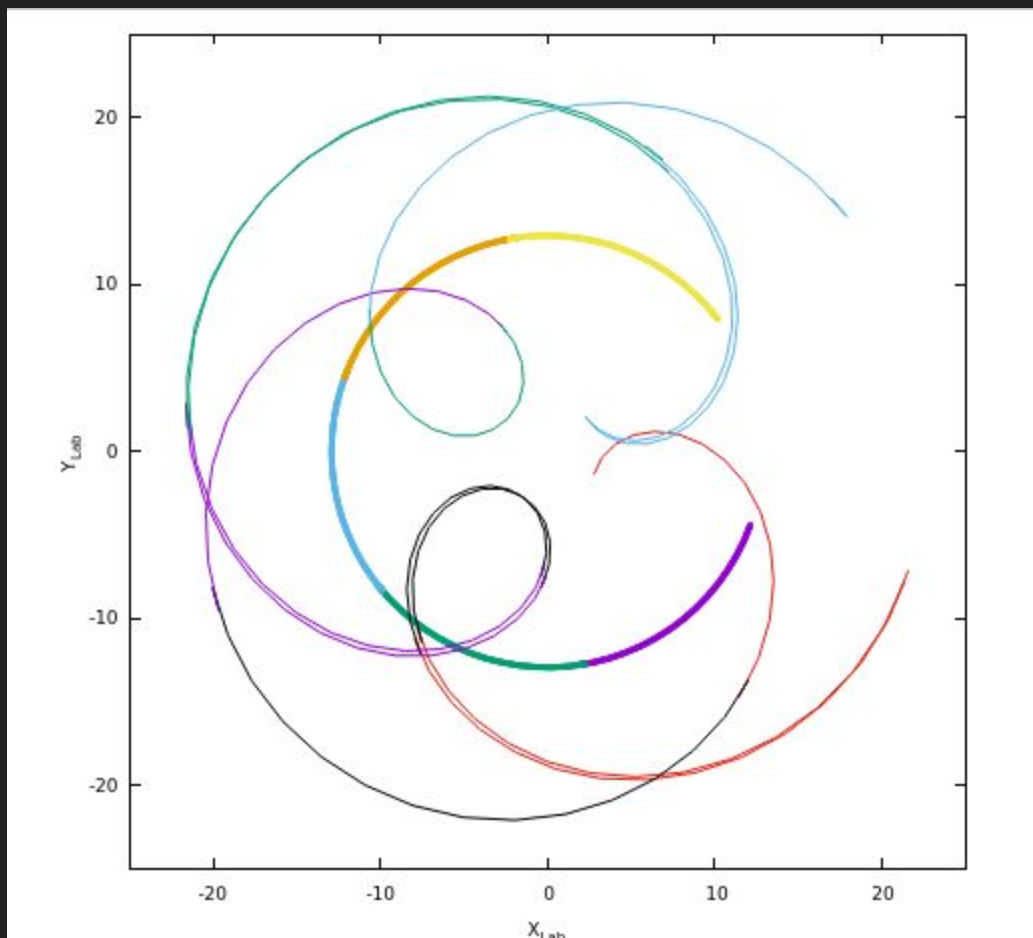




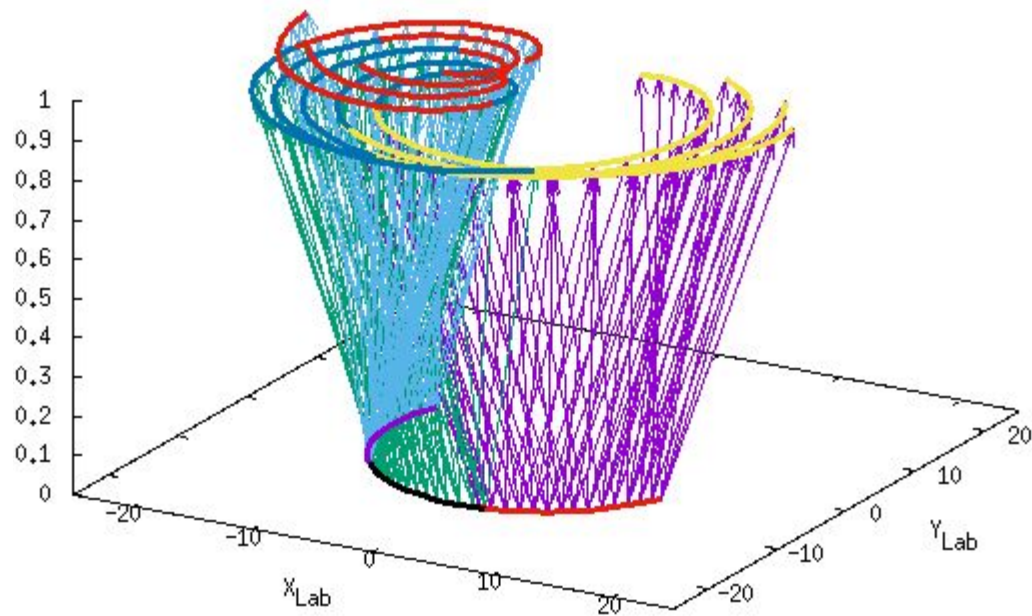
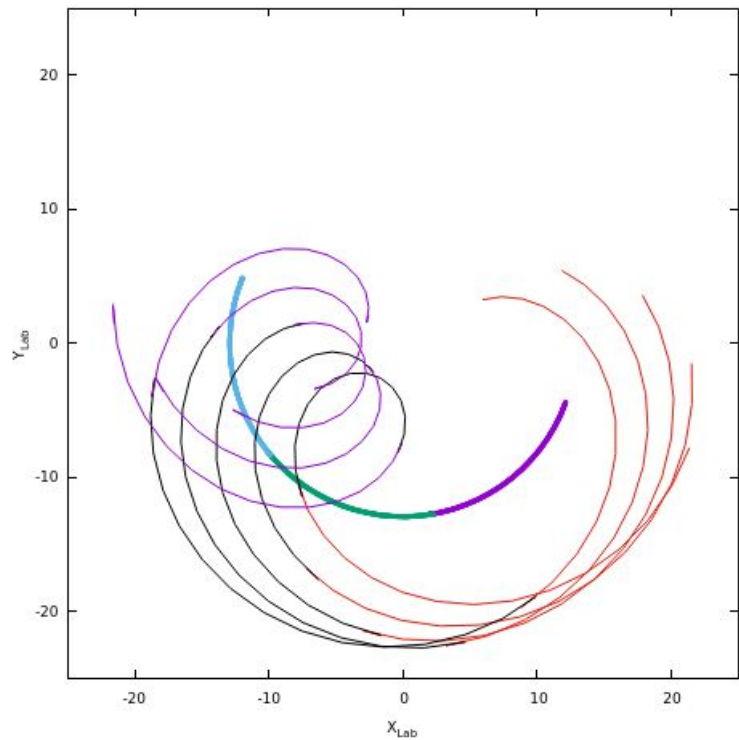
Electron



5 Sectors



3 sectors



Issue?

Zgoubi quits unprompted

```
Pgm zgoubi : Execution ended normally, upon keyword END or FIN.
```

```
Zgoubi, author's dvlpmnt version.
```

```
Job started on 31-01-2023, at 17:30:48
```

```
JOB ENDED ON 31-01-2023, AT 17:32:48
```

```
CPU time, total : 0.10937500000000000
```

```
Note: The following floating-point exceptions are signalling: IEEE_INVALID_FLAG
```

spinDance.INC.dat

```
Cyclotron, classical. Spin dance in a cyclotron

'MARKER' ProbAddSpinDance_S ! Just for edition purposes.
'OBJET'
64.62444403717985 ! Reference Brho ("B0R0" in the users' guide) -> 200keV proton.
2
1 1 ! Just one particle.
12.9248888074 0. 0. 0. 0. 1. 'm' ! D=1 => 200keV proton. R=Brho/B=64.624444037[kG.cm]/5[kG].
1
'PARTICUL' ! This is required to get the time-of-flight,
PROTON ! otherwise, by default zgoubi only requires rigidity.
'SPNTRK' ! Request spin tracking.
4.1 ! All spins are initially
0.984807753012 0. 0.173648177667 ! at 10 degrees to X axis.
'FAISCEAU'
'INCLUDE'
1
6 * ./60degSector_MATRIX.inc[#S_60degSectorUnifB,*:#E_60degSectorUnifB,*] ! INCLUDE 6 times.

'REBELOTE' ! Multiturn,
19 0.2 99 ! for a total of 1+19=20 turns around the 6 sector magnet.

'SYSTEM'
1
gnuplot < ./gnuplot_Zplt_SDance.gnu

'END'
-:--- spinDance.INC.dat All L27 SVN-1823 (Fundamental)
```


spinDance.INC.res

```
*****
24 Keyword, label(s) : REBELOTE                                     IPASS= 20

          >>>> End of 'REBELOTE' procedure <<<<

There has been          20 passes through the optical structure

          Total of          1 particles have been launched
*****
25 Keyword, label(s) : SYSTEM                                     IPASS= 21

Number of commands : 1, as follows :

gnuplot < ./gnuplot_Zplt_SDance.gnu
*****
26 Keyword, label(s) : END                                       IPASS= 21

*****
Pgm zgoubi : Execution ended normally, upon keyword END or FIN

File in:  spinDance.INC.dat
File out: zgoubi.res

Zgoubi, author's Revision: 1822.
Job started on 11-10-2022, at 18:59:21
JOB ENDED ON 11-10-2022, AT 18:59:53

CPU time, total : 9.3021999999999994E-002
-:--- spinDance.INC.res Bot L1437 SVN-1829 (Fundamental)
```

Running zgoubi on 60degSector_MATRIX.inc

“An updated version of the input data file, with variables in FIT'ed state, has been saved in zgoubi.FIT.out.dat”