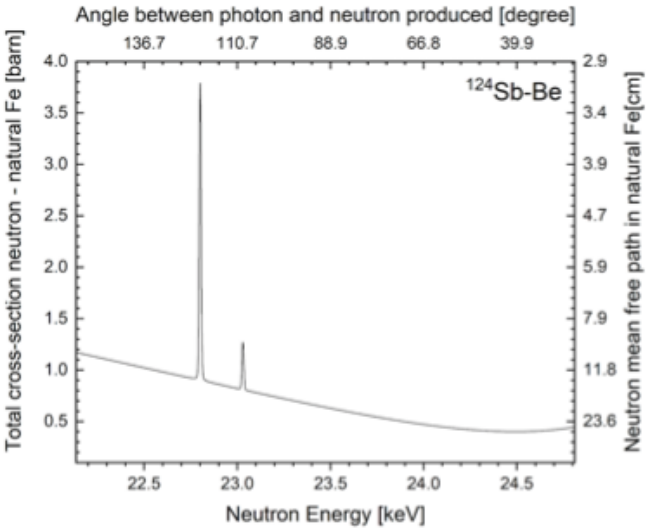
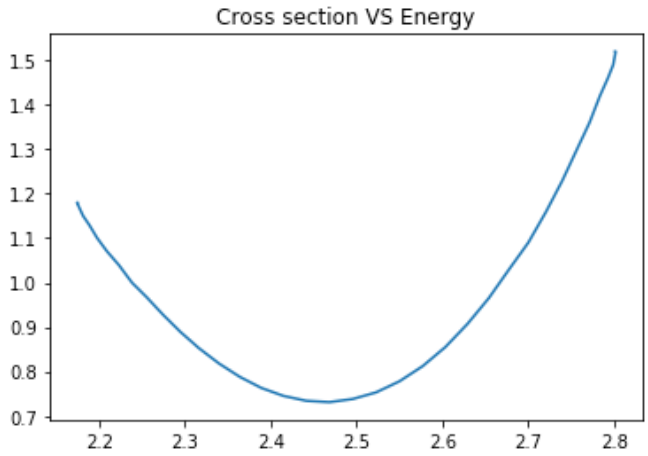
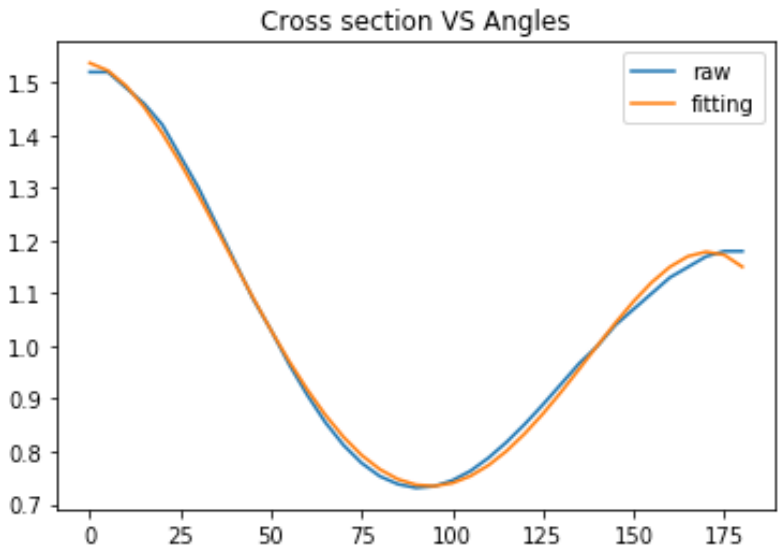
Oct 28 Janis Simulation Update

Summary

- Source modified (Please check ipynb file for detail if necessary)
  - Generator logical volume does matter?







OBJ OBJ

  - Such a huge dependence on angle? Not symmetric?
- Far-side detector still under construction(material information)

Questions and To-do

- Where is the source heading?
- '/random/setSeeds'
  - How does GEANT implement 'random'?
- Quenching factor
- What is being output?
- Need an onsite talk with Junsong to determine the correct detector placement
- Missing columns?
- Generator geometry
  - Material
    - For now, they are all assumed to be Al except for the scintillator...
  - Solid or not?
    - For now, I write them as solid...
  - Where is the PMT
- Rename the geometry part of Far-side detector for readability
- Simultaneous rotation problem

Row	TrackID	StepID	ParticleT	TestVolum	ParticleE	Xpos	Ypos	Zpos
0	1	1	2112	0	2.2167606	9.8325353	-5.557955	-82.472
1	1	2	2112	0	2.2167606	10.113016	-5.716501	-81.972
2	1	3	2112	0	2.2167606	10.786170	-6.097009	-80.772
3	1	4	2112	0	2.2167606	11.347131	-6.414099	-79.772
4	1	5	2112	0	2.2167606	11.35	-6.415720	-79.76688
5	1	6	2112	0	2.2167606	12.85	-7.263613	-77.09290
6	1	7	2112	0	2.2167606	26.913816	-15.21335	-52.022
7	1	8	2112	0	2.2167606	46.659604	-26.37488	-16.82210
8	1	9	2112	0	1.6186968	35.682730	-34.68316	-4.933971
9	1	10	2112	0	1.2026764	43.094318	-44.36555	5.4212531
10	1	11	2112	0	1.2026764	44.104028	-45.68462	6.8319859
11	1	12	2112	0	1.2026764	47.505563	-50.12833	11.584498
12	1	13	2112	0	1.2026764	48.475743	-51.39576	12.940000
13	1	14	2112	0	1.2026764	51.071971	-54.78744	16.567364
14	1	15	2112	0	1.2026764	51.865821	-55.82451	17.676505
15	1	16	2112	0	1.2026764	66.565285	-75.02768	38.214106
16	1	17	2112	0	1.2026764	67.357515	-76.06263	39.320985
17	1	18	2112	0	1.2026764	3617.8850	-4714.420	5000
18	1	1	2112	0	2.2478268	12.85	-2.331374	-85.89819
19	1	2	2112	0	2.2478268	13.35	-2.422089	-85.34948
20	1	3	2112	0	2.2478268	14.55	-2.639805	-84.03258
21	1	4	2112	0	2.2478268	15.972054	-2.897809	-82.472
22	1	5	2112	0	2.2478268	21.306759	-3.865684	-76.61760
23	1	6	2112	0	1.7561397	27.372100	9.6133028	-67.77766
24	1	7	2112	0	0.7178108	25.086[illegible]	[illegible]	[illegible]

Type <CR> to continue or q to quit ==> q

```
// Creating ntuple
//
analysisManager->CreateNtuple("Janis", "Particles");
//analysisManager->CreateNtupleIColumn("EventID");
analysisManager->CreateNtupleIColumn("TrackID");
analysisManager->CreateNtupleIColumn("StepID");
analysisManager->CreateNtupleIColumn("ParticleType");
analysisManager->CreateNtupleIColumn("TestVolume");
analysisManager->CreateNtupleDColumn("ParticleE");
analysisManager->CreateNtupleDColumn("Xpos");
analysisManager->CreateNtupleDColumn("Ypos");
analysisManager->CreateNtupleDColumn("Zpos");
analysisManager->CreateNtupleDColumn("Time");
analysisManager->CreateNtupleDColumn("Xmom");
analysisManager->CreateNtupleDColumn("Ymom");
analysisManager->CreateNtupleDColumn("Zmom");
analysisManager->FinishNtuple();
```