README (2016.11.11)

Sample geometry: Compton camera with GAGG (Geant4 4.9.6.p03 code)

History

- 2016.11.11 created
- 2018.9.6. revised

1) Build & Run

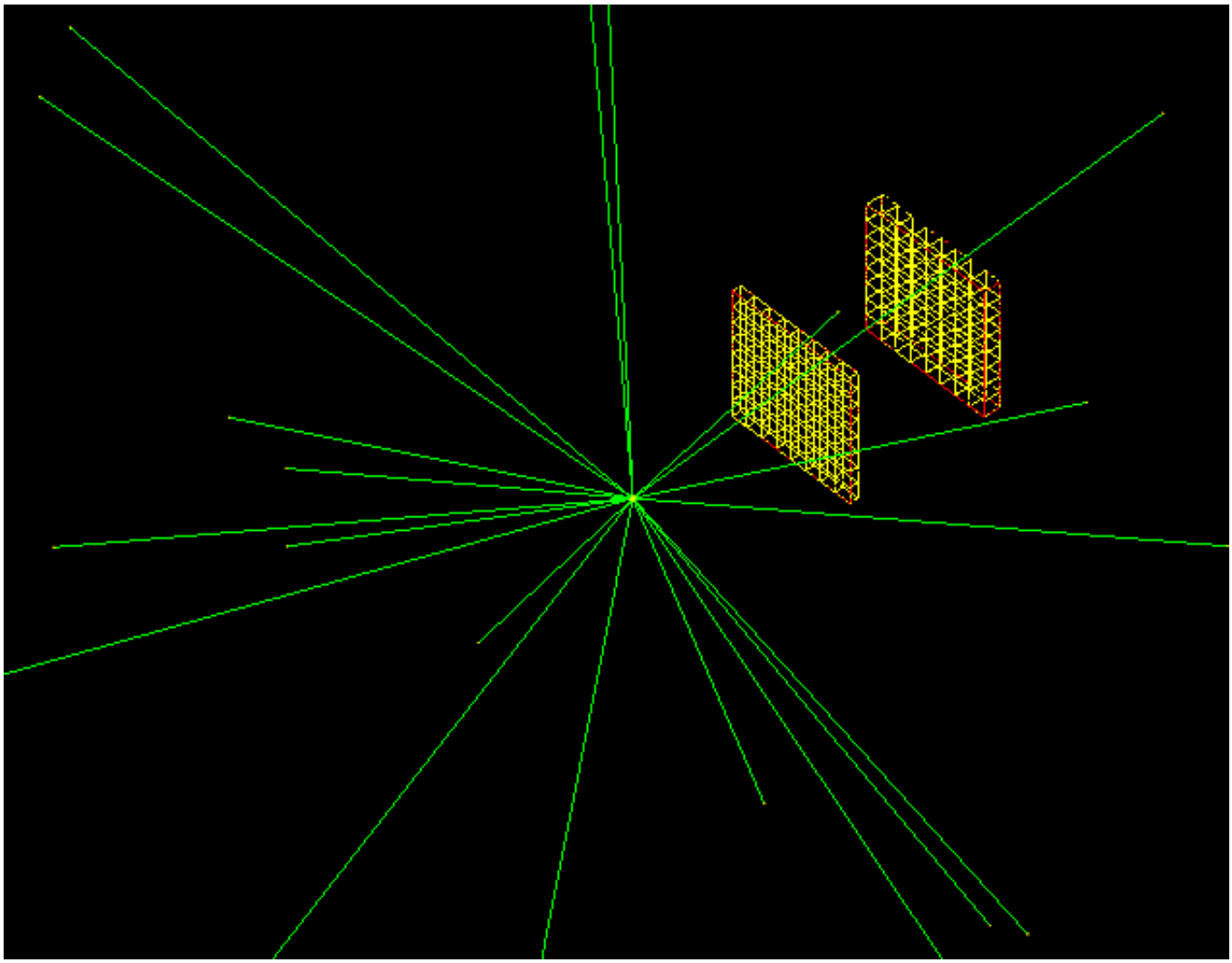
See **2_HowToBuild.pdf**.

2) Geometry

A Compton ring consists of two modules with inner diameter 20 cm and outer diameter 39 cm in atrmospheric air. Each module has a scatter box (**Scabox**) and an absorber box (**Absbox**).

Scabox consists of 8x8 scatter voxels (**scavoxel**), which is 5x10x10mm. Absbox consists of 8x8 scatter voxels (**absvoxel**), which is 10x10x10mm. The distance between Scabox and the origin is 10 cm. The distance between Scabox and Absbox is 8 cm. (See source files for more information about GAGG properties and detail geometry.)

Both scavoxel and absvoxel are assign as “sensitive detector”. (See Geant4 guidance documents)



3) Source

Point source: uniform irradiation of Cs-137 at the origin (0,0,0)

4) Output Data

Use **result.txt**, which is raw data of geant4 Simulation. (See 3_AboutCode and the corresponding source files for more information about data properties.)