Status of INTT Event Display

2023/03/10 INTT MT

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Role of INTT Event Display

- Confirm hit points on INTT at a glance
- Check the alignments of ladders
- Check if INTT is assembled correctly and working properly if the cable connection was wrong, the hits on the ladders is appeared on uncorrelated ladders

Functions Implemented on Event Display

The event display is implemented based on ROOT EVE framework.

- Show hit positions with INTT ladders
- Two difference style of the view : 3D and R-phi projection

How to use Event Display

The event display is developed using sPHENIX simulation. You need to prepare the simulated DST before running the display.

Enter commands on terminal in order.

1. root Loadfile.C

   Open DST file and give the data to the program that shows event display. First event data is imported.

2. anaTutorial->DrawHits() or DrawHit_rphi()

   Entering DrawHits(), 3D display is shown. Also, entering you enter DrawHit_rphi(), R-phi projection is shown.

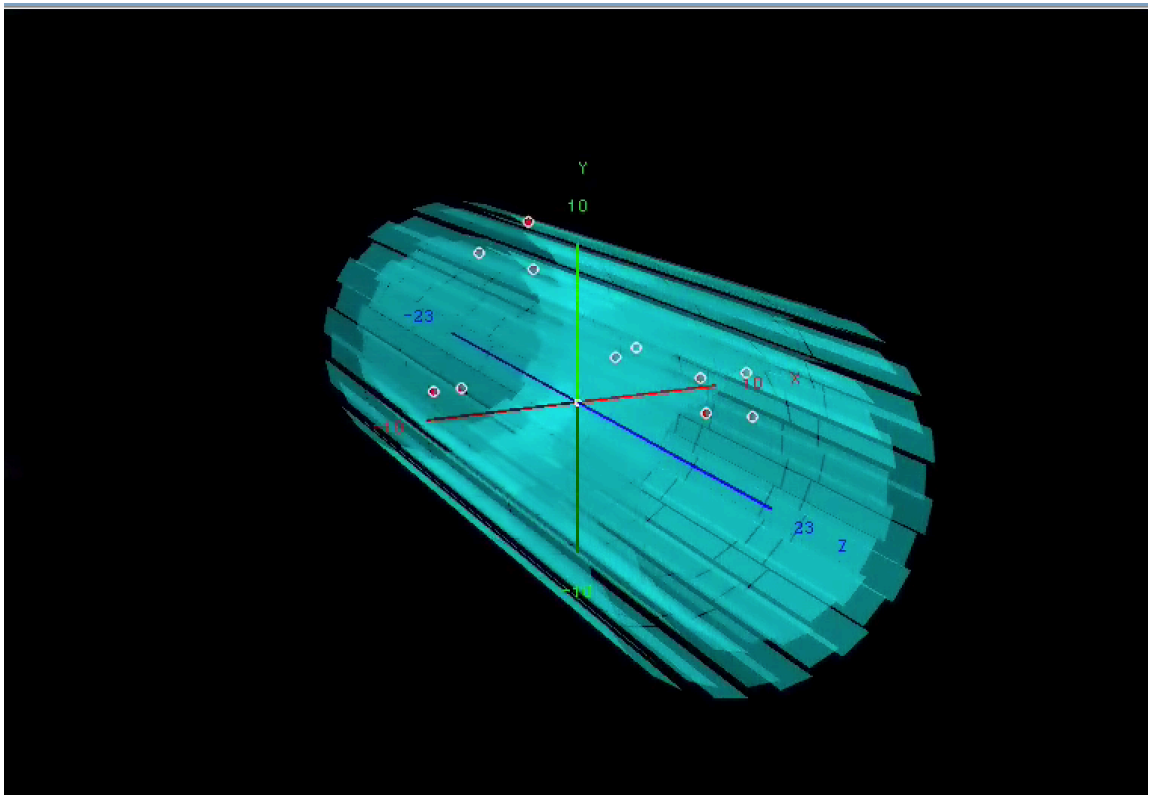
3. When you want to see next event, you enter se->run(1) then do the process 2 again.

   The next event is loaded with the command se->run(1).

   NOTE: Can’t get back and display previous event.

Event Display of simple event generator

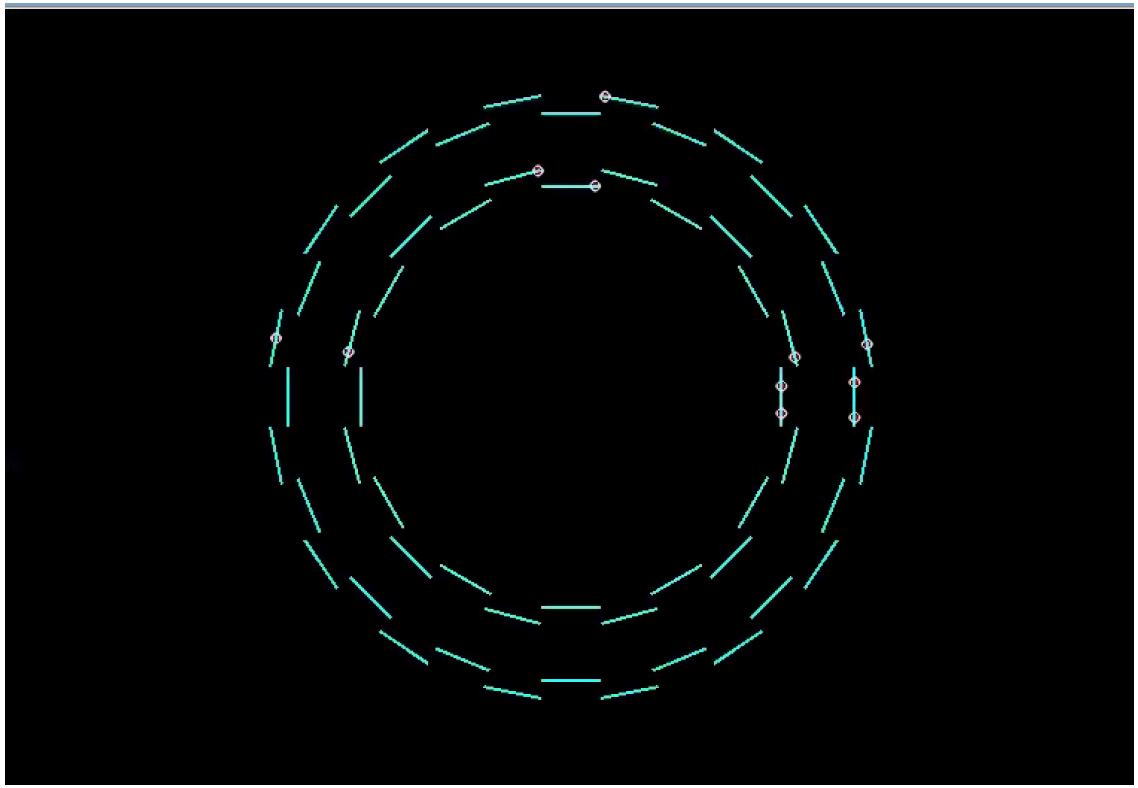
3D



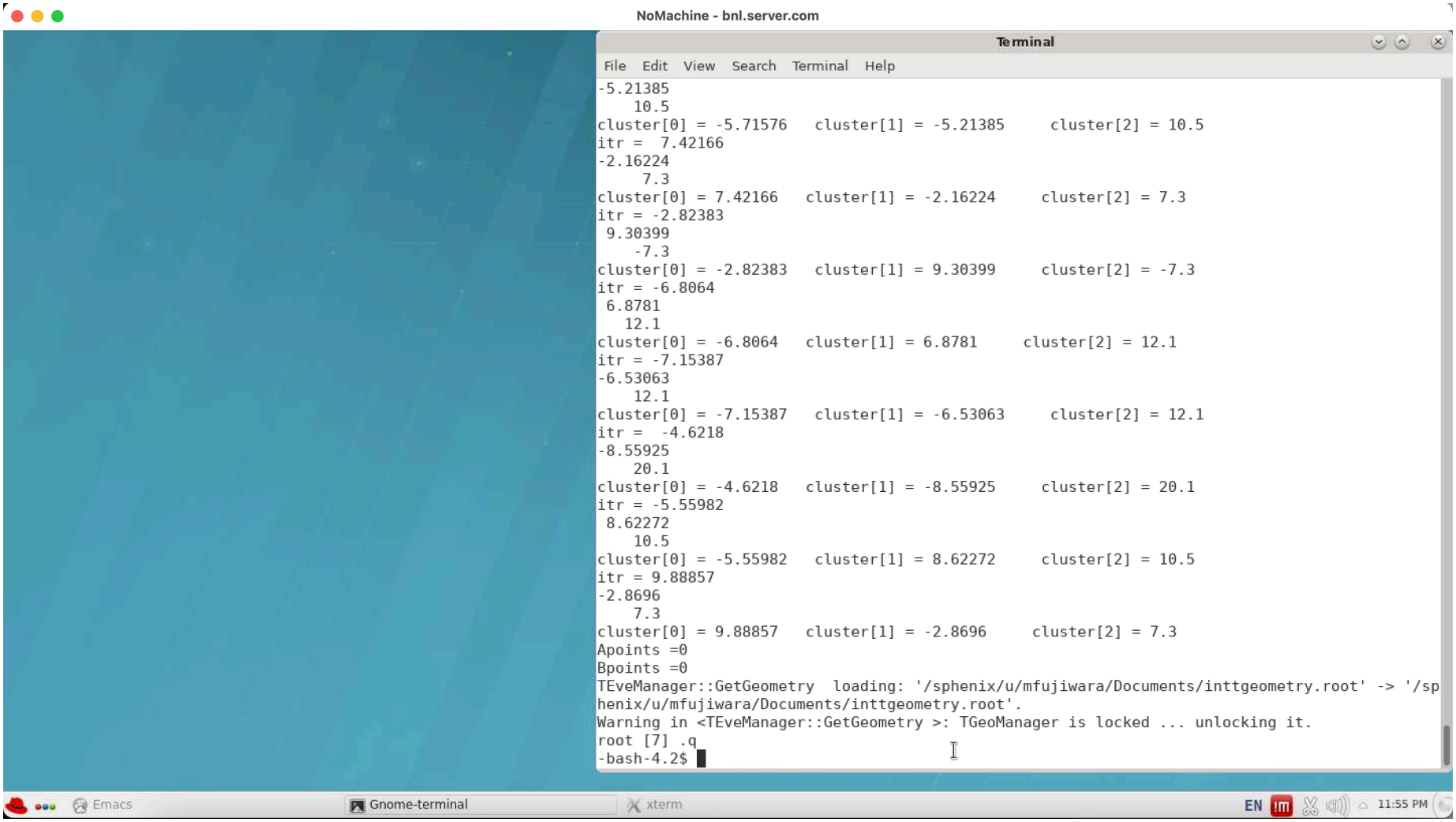
- Blue geometry is INTT.
- Red points are INTT hits.

Event Display of simple event generator

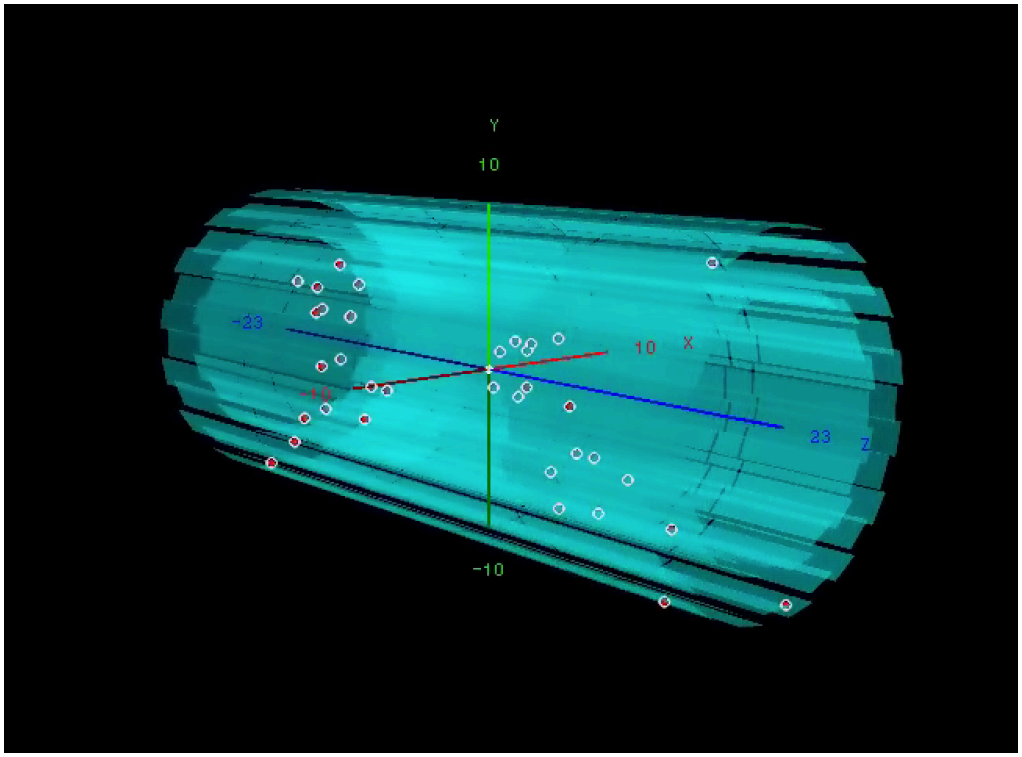
r-phi projection

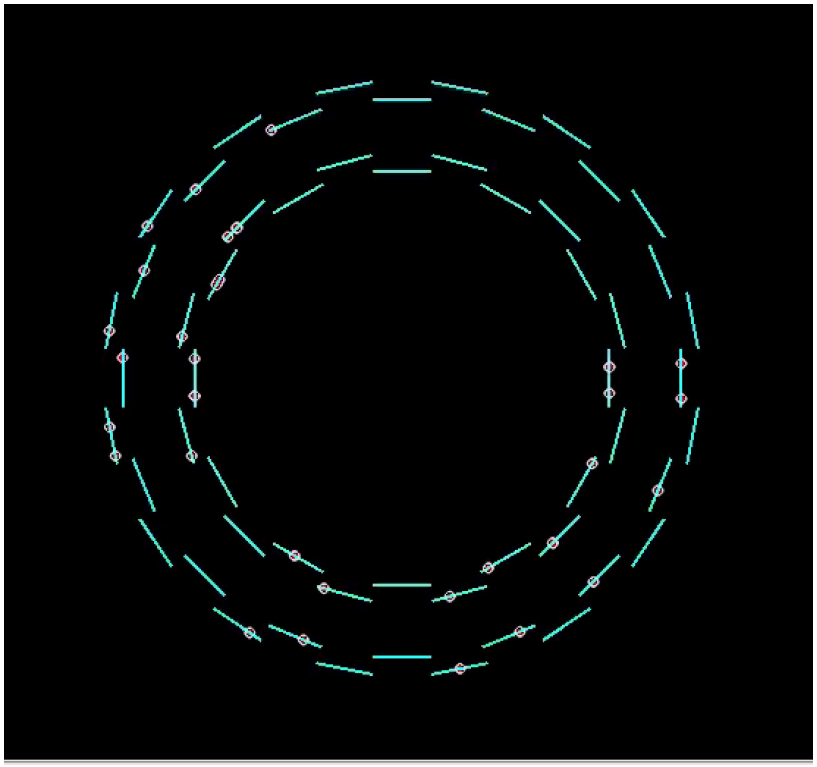


Event Display of simple event generator

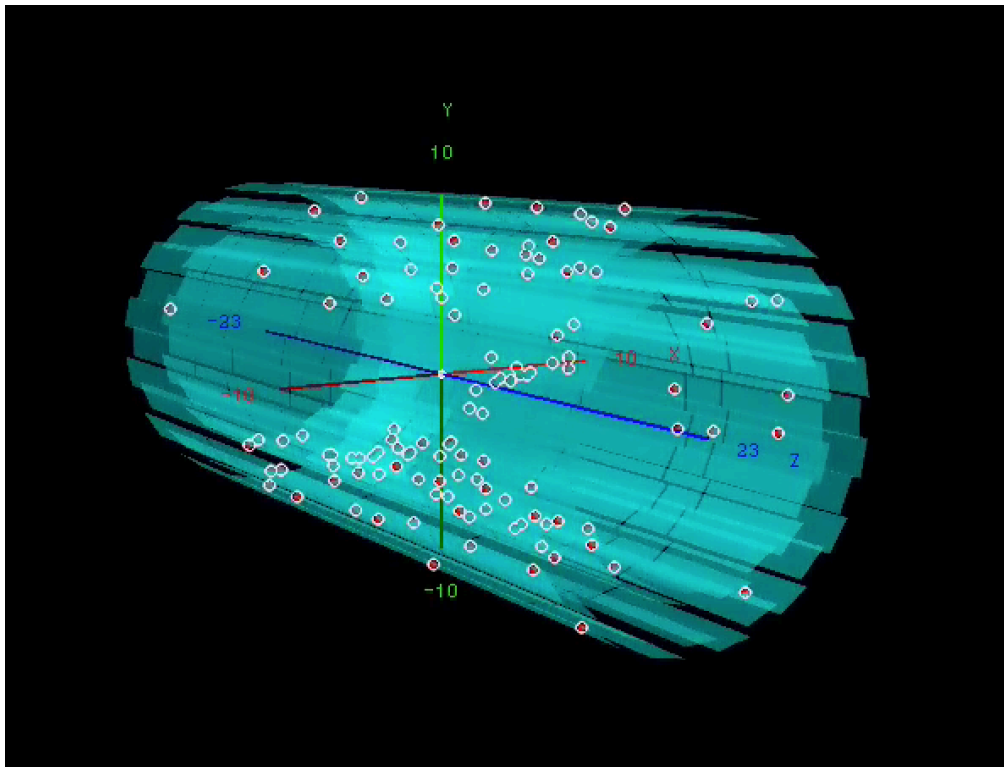


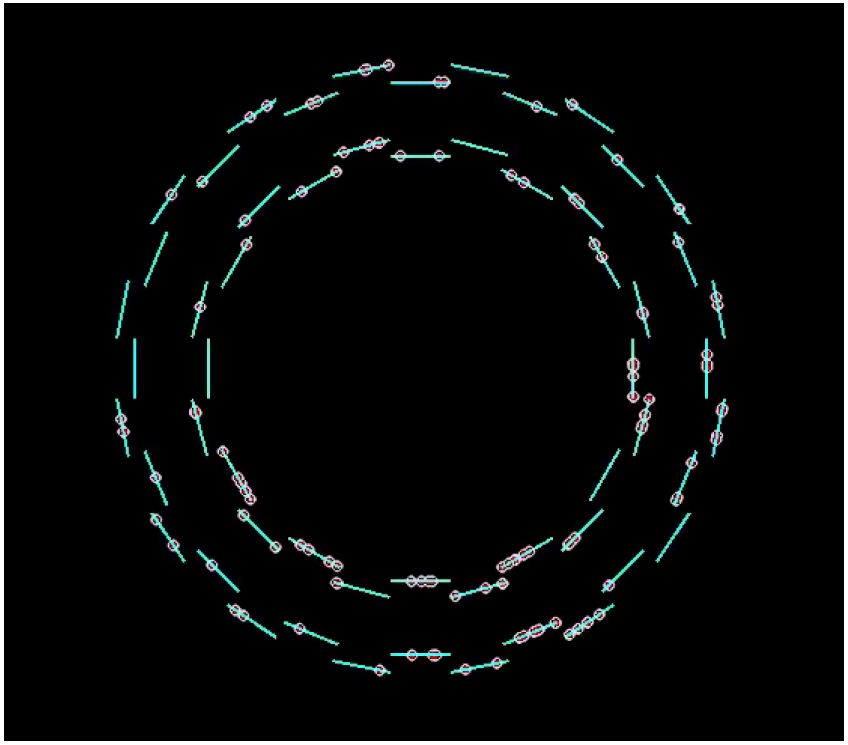
Event Display of Phythia8



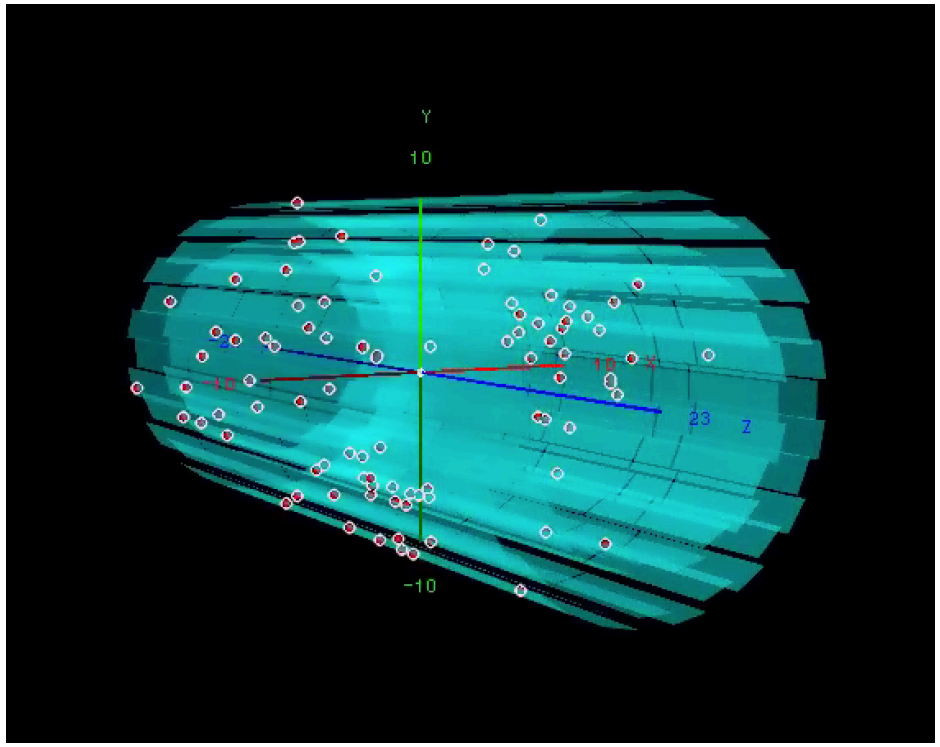


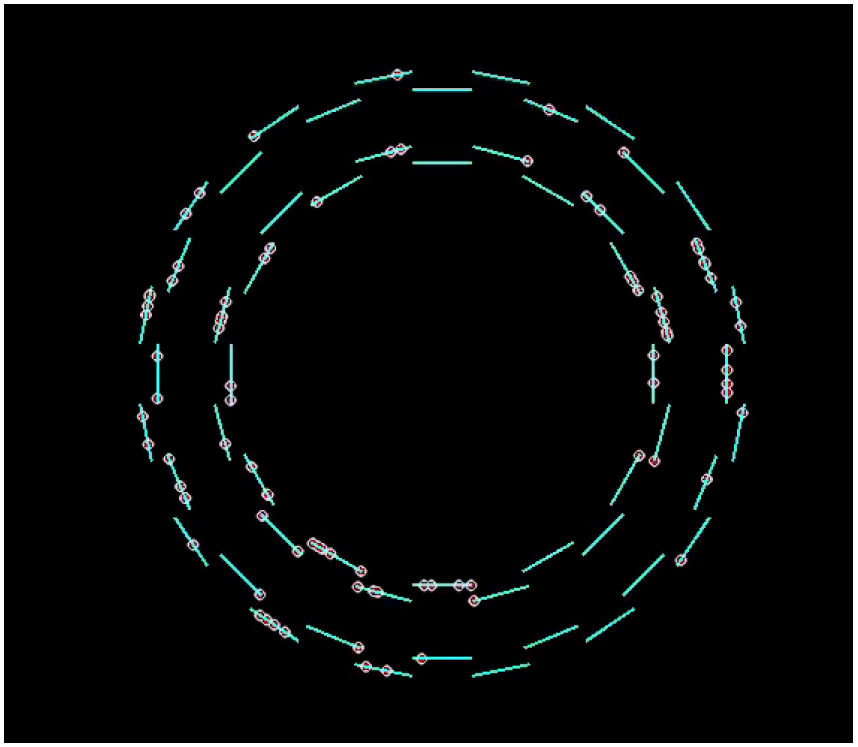
Event Display of Phythia8





Event Display of Phythia8





Summery and to do next

Summery

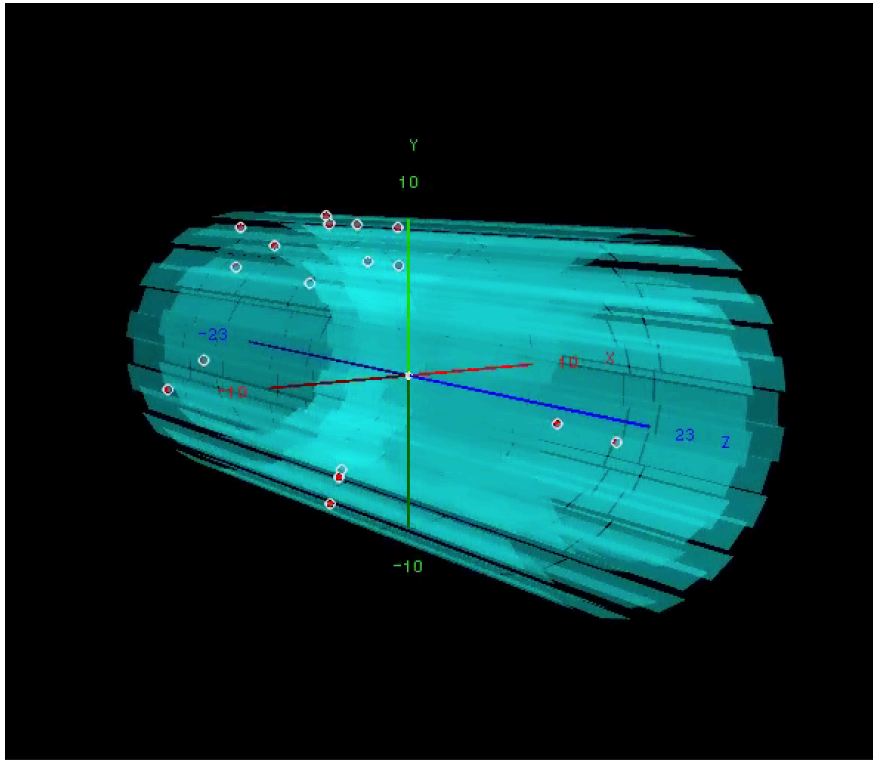
- INTT event display developed and 1st version is ready to use.
- 3D and R-phi projection is viewable.

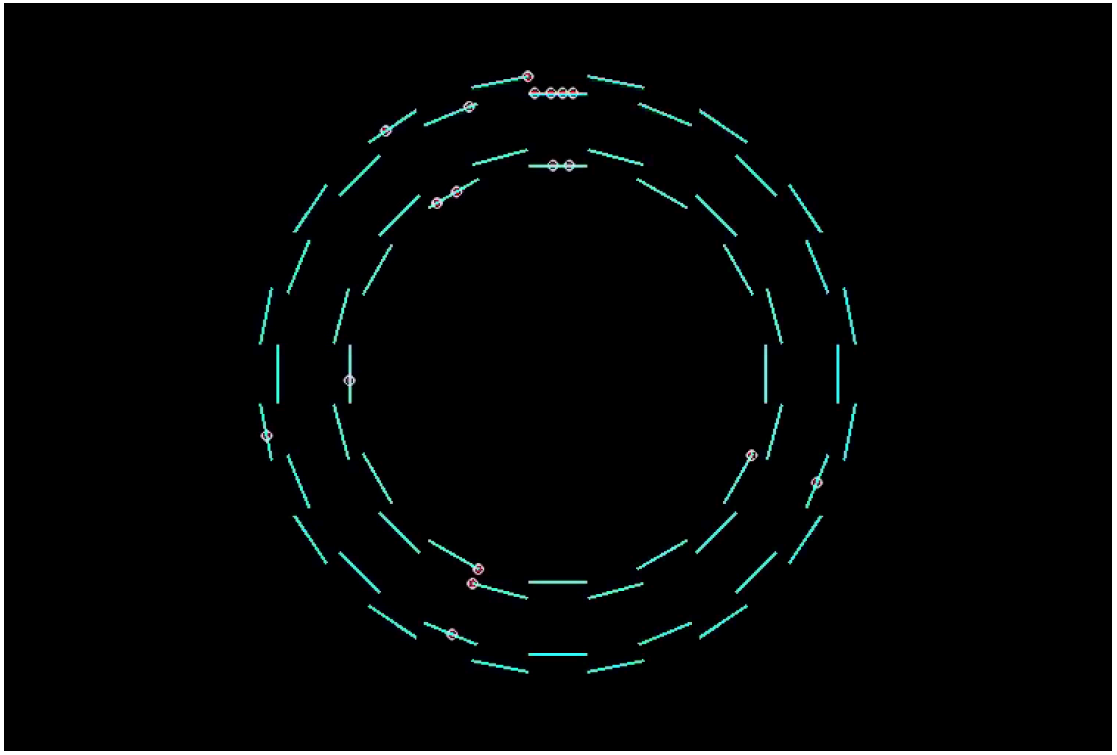
To do next

- Implement rho-z projection
- Implement tracking
- Improve visibility of r-phi projection

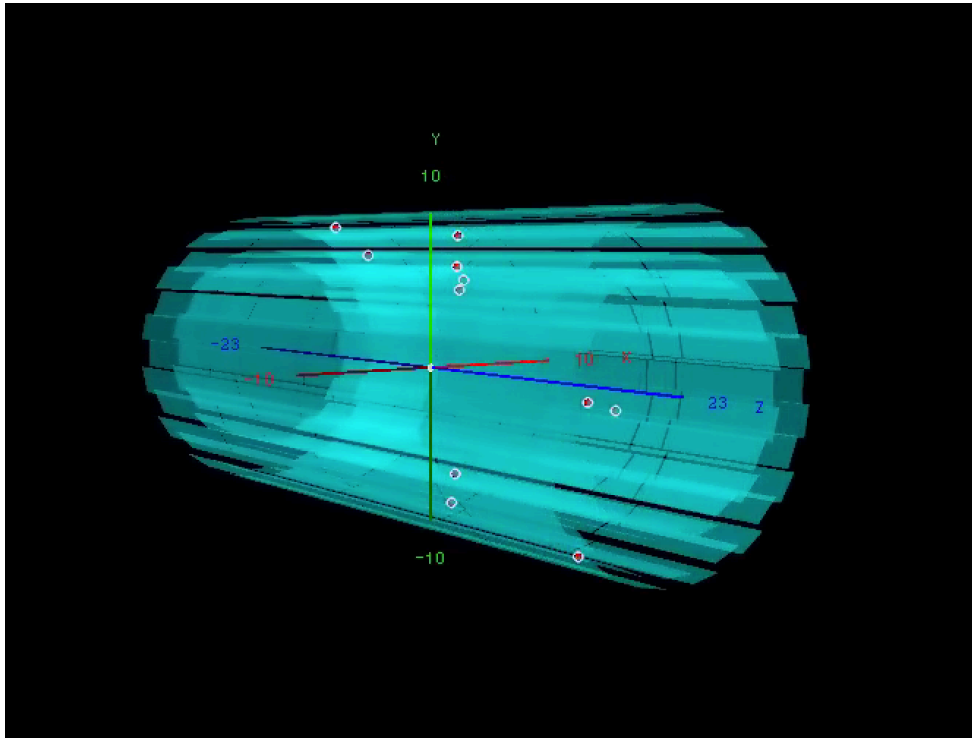
Back Up

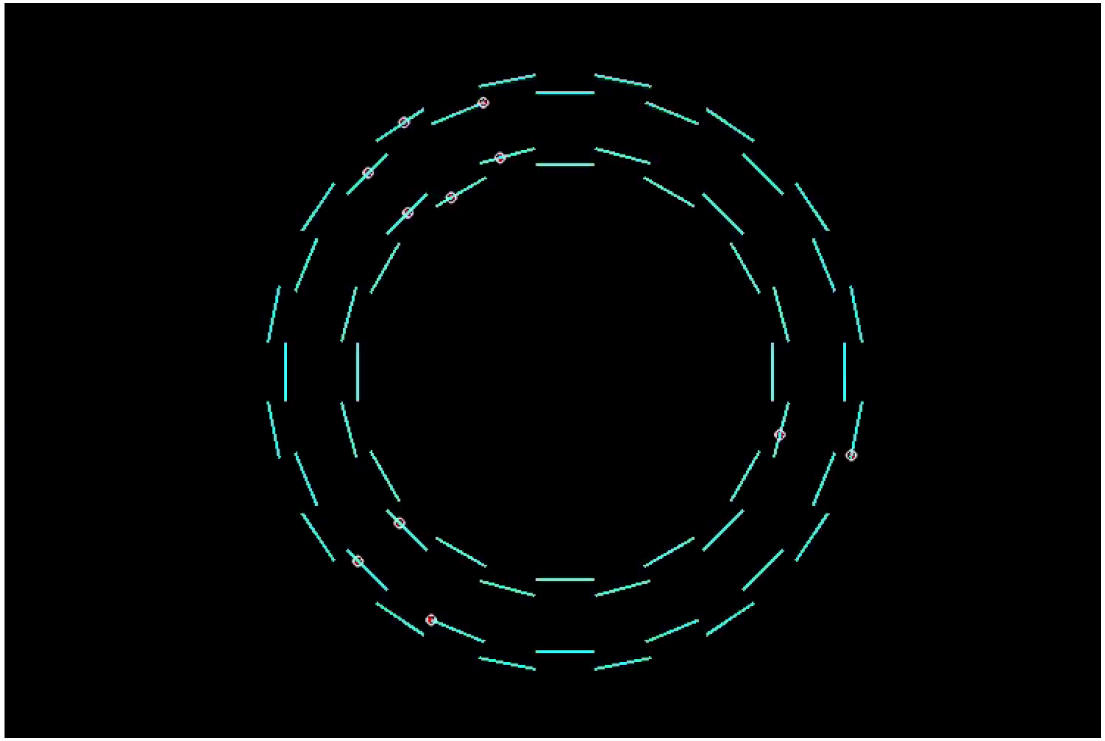
INPUT :: Simple





INPUT :: Simple





INPUT :: Simple