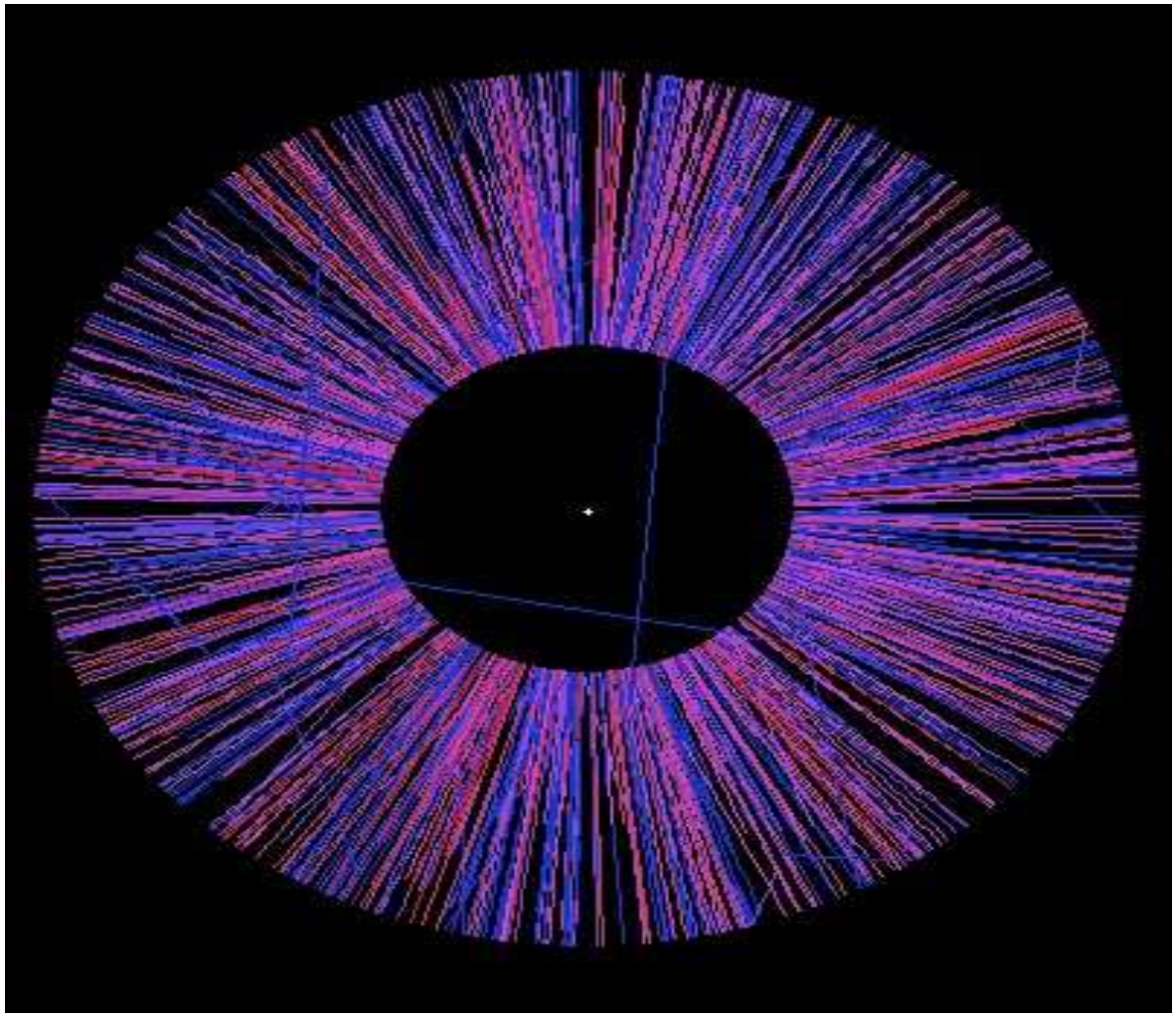
Birseye: A Java Event Display for PHENIX

Upgrades Meeting, 2/6/03

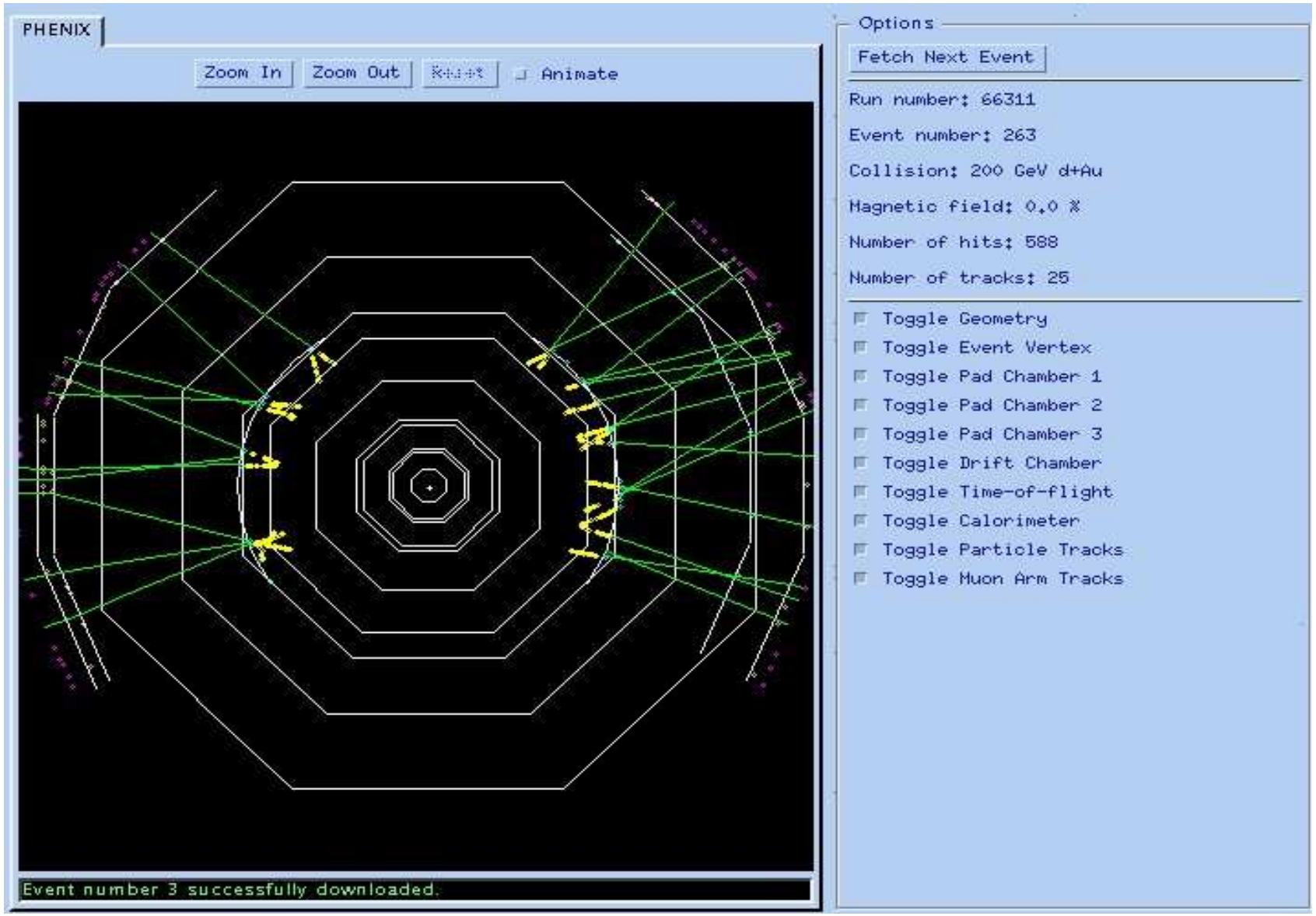
Jeffery T. Mitchell (Brookhaven National Laboratory)



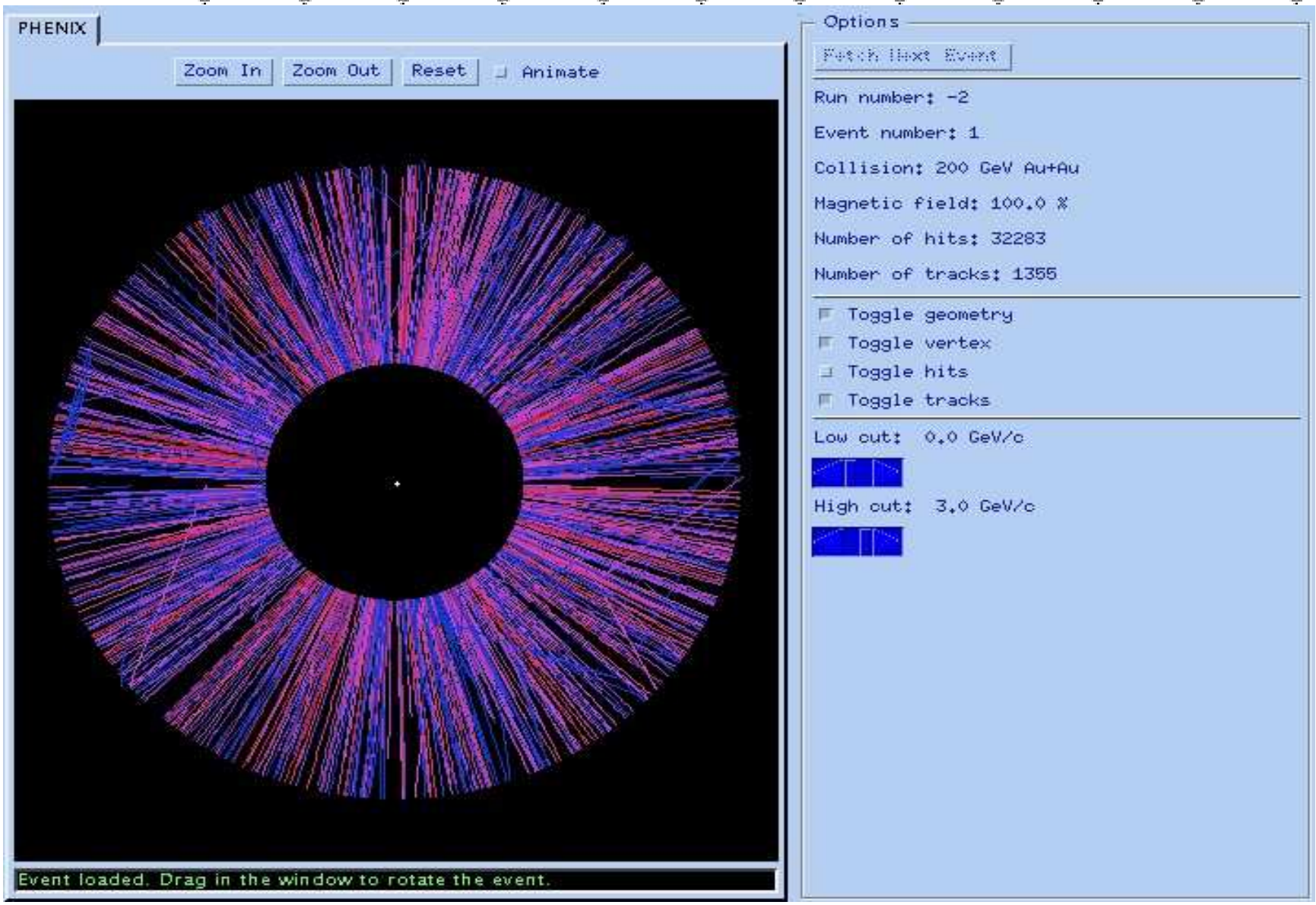
Whipping up a TPC event display

- Started with the PHENIX Birdseye event display, written in Java and serving events as we speak.
- The display takes event input in a generic XML format, making it extremely easy to adapt to different detectors.
- So, I took Christine's PISA ntuples and wrote a ROOT macro that converts an event into the Birdseye XML format.
- A little tweak on the interface, and look what comes out...

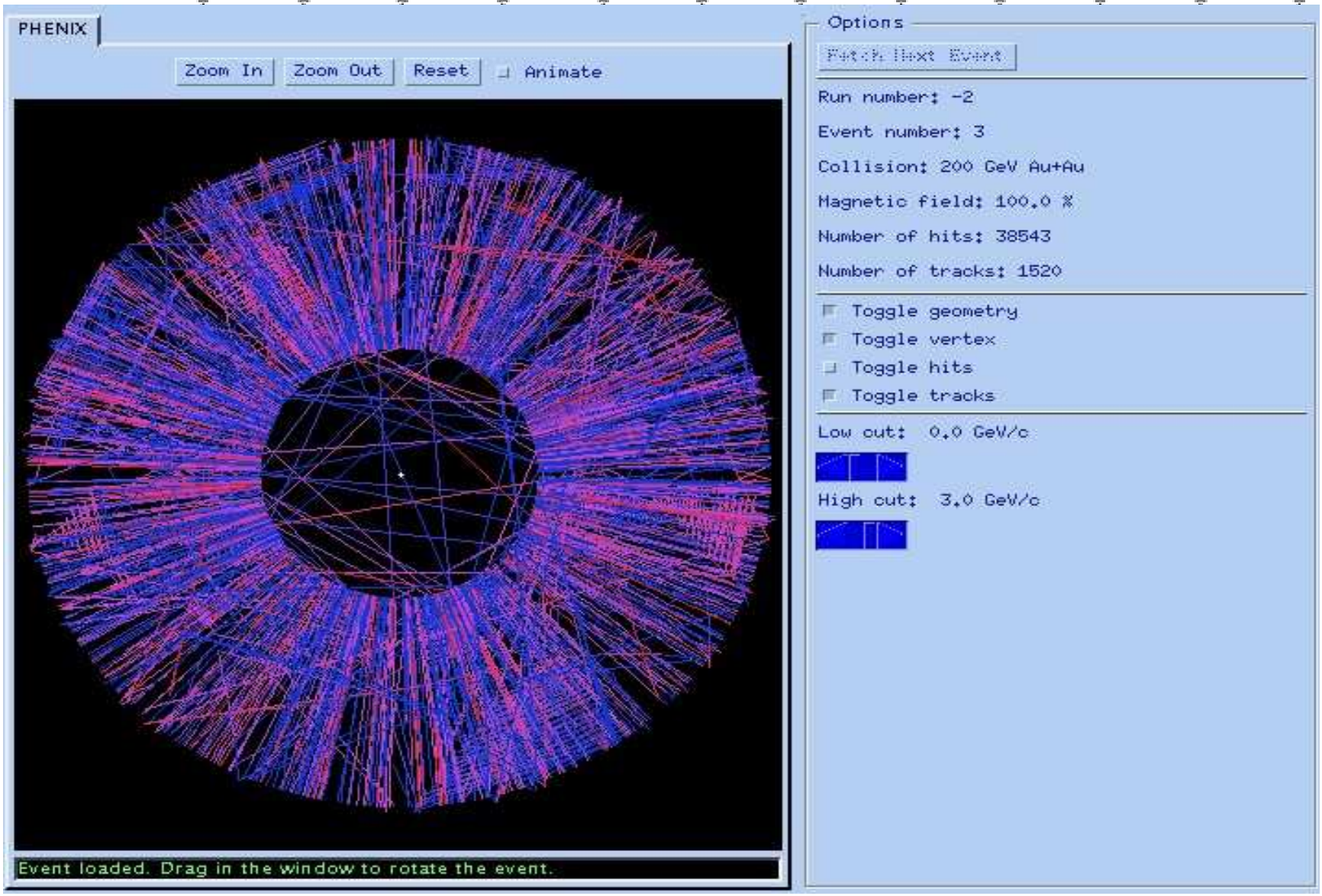
PHENIX d+Au event display



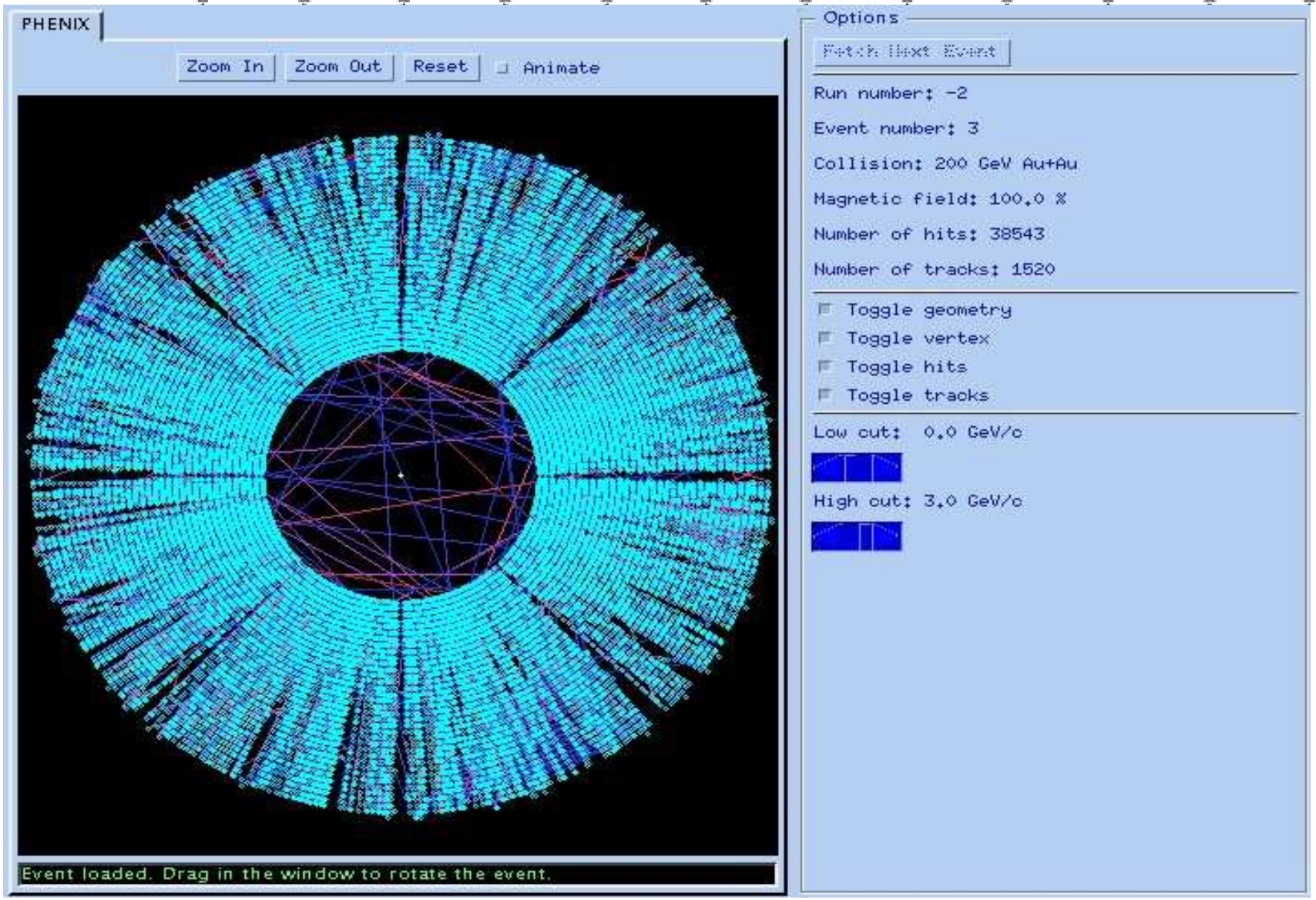
TPC event display. Nhits<40



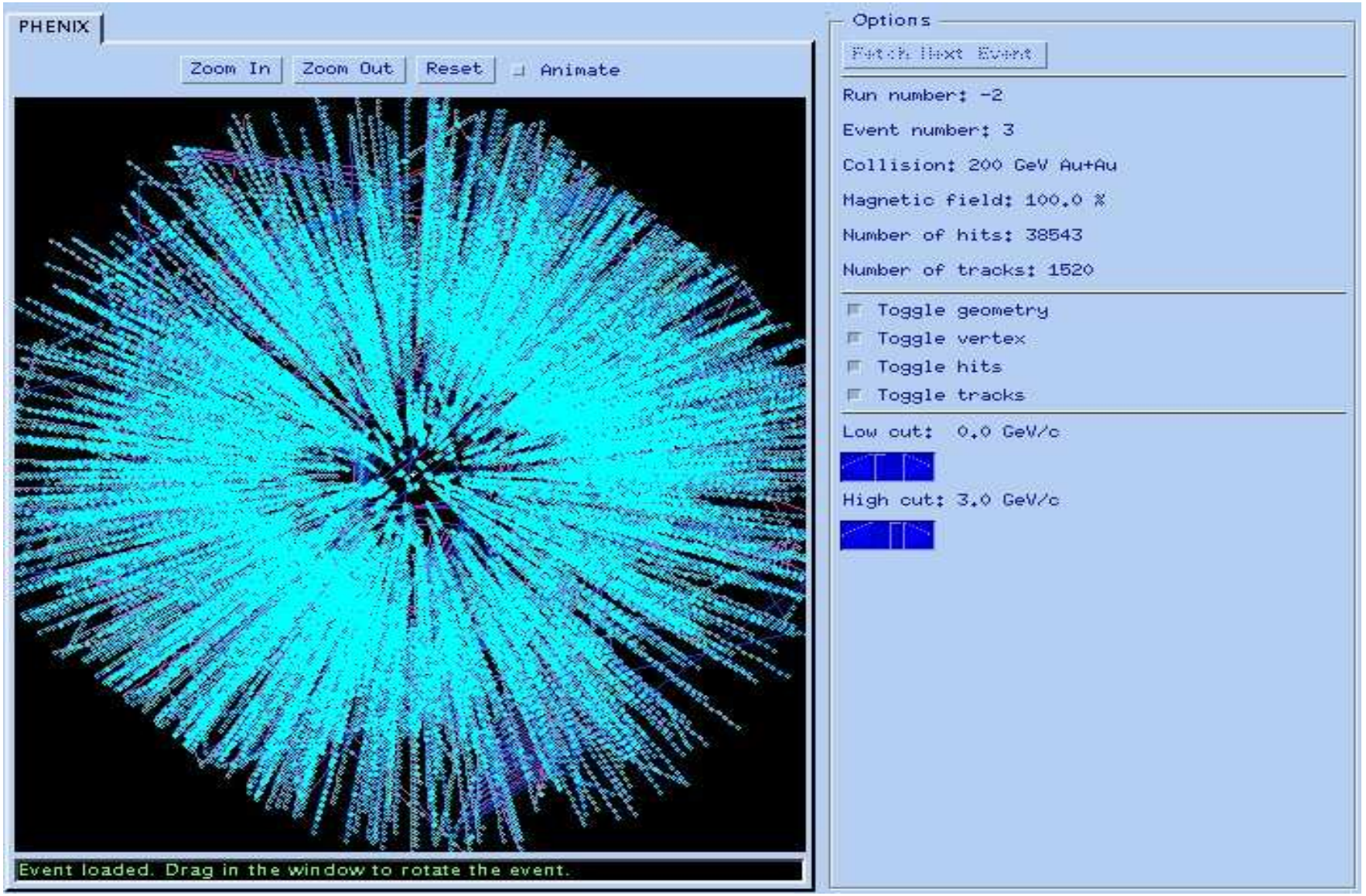
TPC Display: No cuts. Tracks.



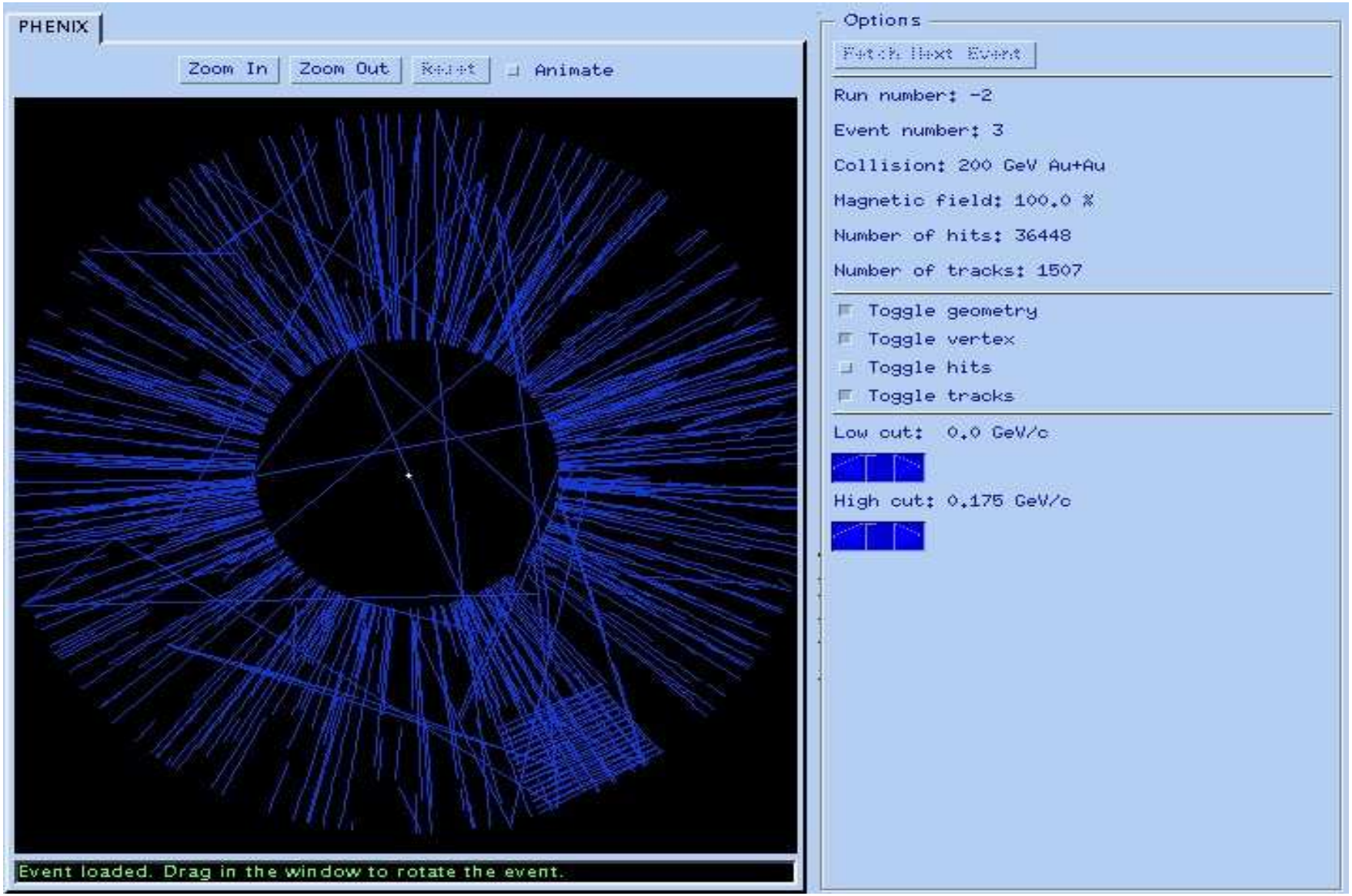
TPC Display: No cuts. Hits.



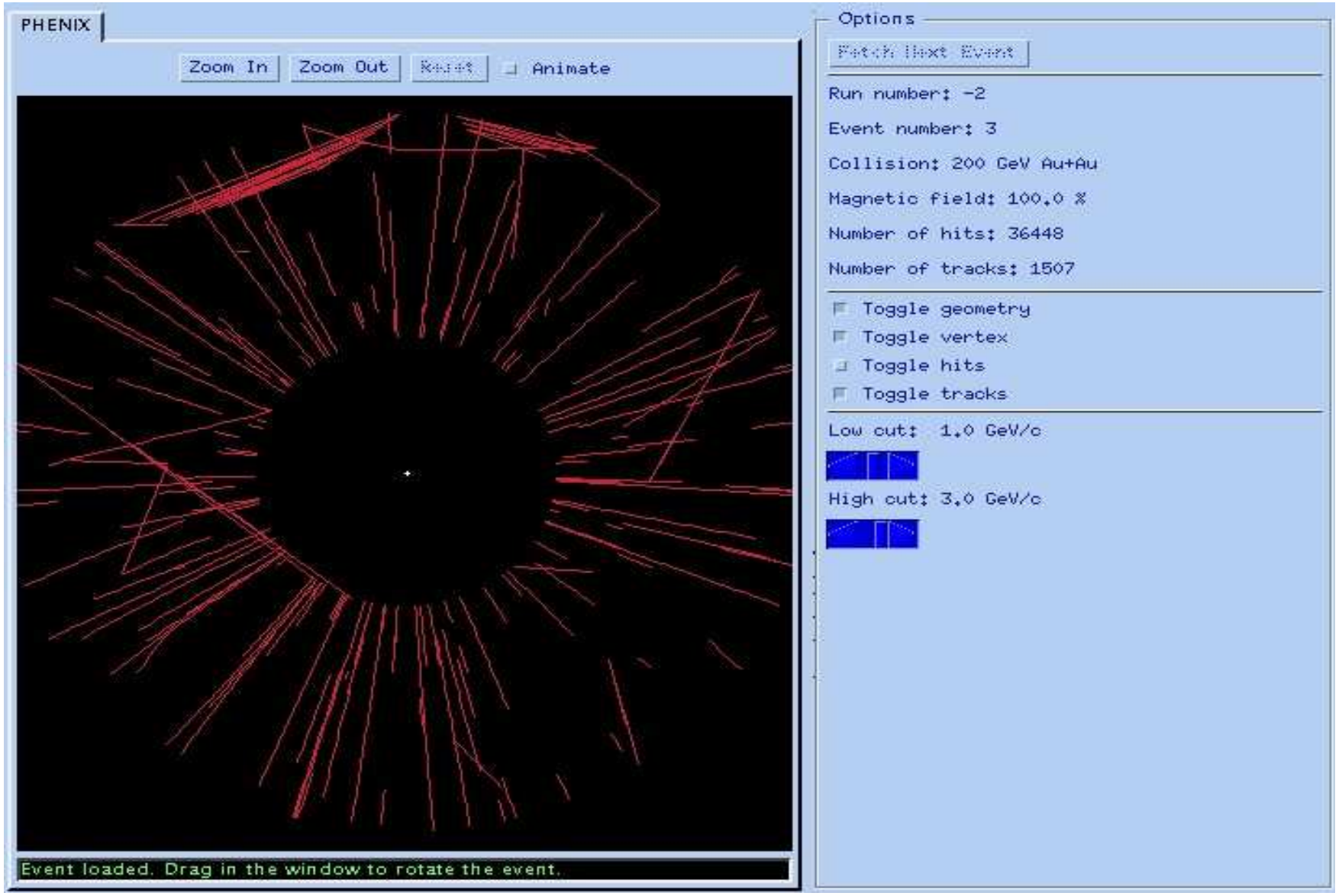
TPC Display: Rotated. Hits.



TPC Display: Low pt only.



TPC Display: High pt only.



Some Future Features

- Addition of geometry (wire-frame)
- More flexible camera interface
- Selections on dE/dx and other useful quantities.
- Any PHENIX Birdseye development will be automatically integrated here.
- Also available: An Open-GL version of Birdseye for LINUX and Windows. Takes advantage of hardware graphics acceleration.
- Also available: POV-Ray output for static ray-traced high resolution images.
- Additional suggestions are welcome.

The PHENIX POV-Ray Produced Event