

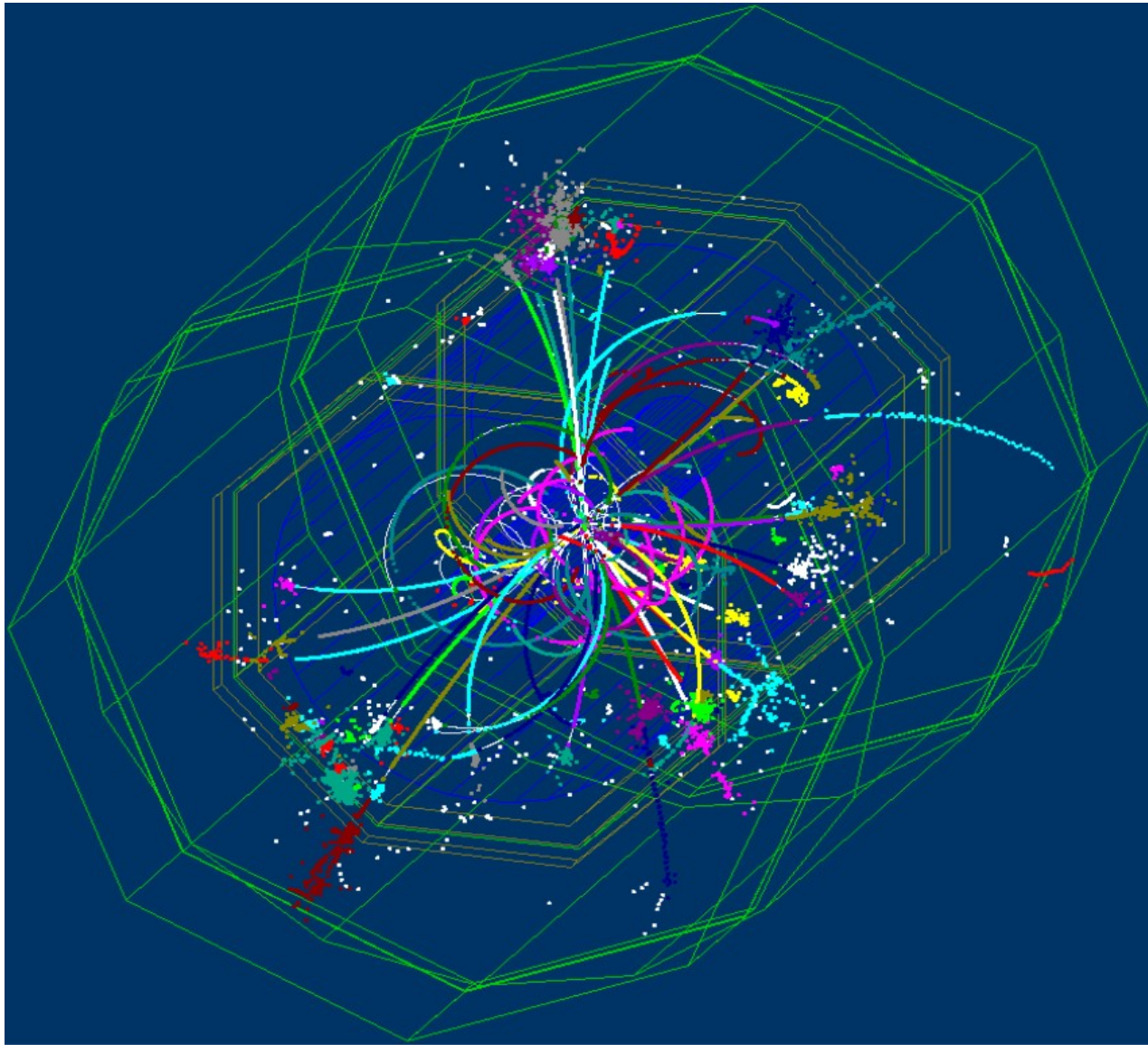


CED Event Display

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CED Event Display (Snapshot)





- Originally developed by Alexey Zhelezov
 - Based on GLUT/OpenGL
 - <http://freeglut.sourceforge.net>
 - <http://www.opengl.org>
 - Follows a Client-Server Model:
 - **CED Server** (glced) (requires GLUT)
 - **CED Client Library** (ced_cli.h/libCED.so)
 - An interface for Marlin is already available:
 - **MarlinCED** (lives inside MarlinUtil)
 - Nice features:
 - **Lightweight and extremely fast!!**
 - real time 3D rotation and zoom in
 - easy to extend
 - fisheye view (S. M. Haugh: www.desy.de/f/students/2009/reports/martin-Haugh.pdf)
 - **no fancy point-and-click interface available yet :(**
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- Can display:
 - MC particles
 - Simulated and reconstructed hits
 - Reconstructed tracks and clusters
 - Jets
 - Detector geometry based on GEAR

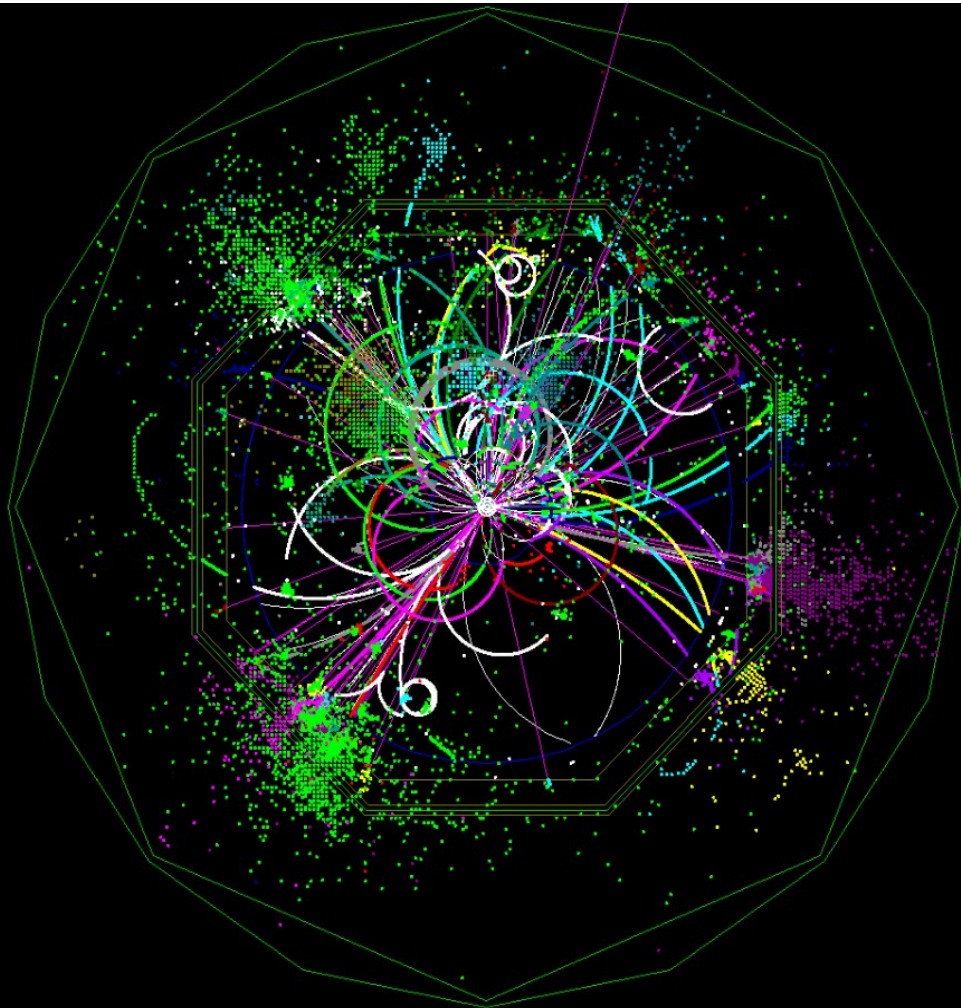
 - Marlin Processors available:
 - CEDViewer
 - GenericViewer
 - DSTViewer (S. Daraszewicz)
 - www.desy.de/f/students/2008/reports/daraszewicz.pdf
 - **Users can quickly write their own viewing processor!**

 - To build CED use **cmake** (www.cmake.org):
 - cd path/to/CED
 - mkdir build
 - cd build
 - cmake [-DCED_SERVER=ON] ..
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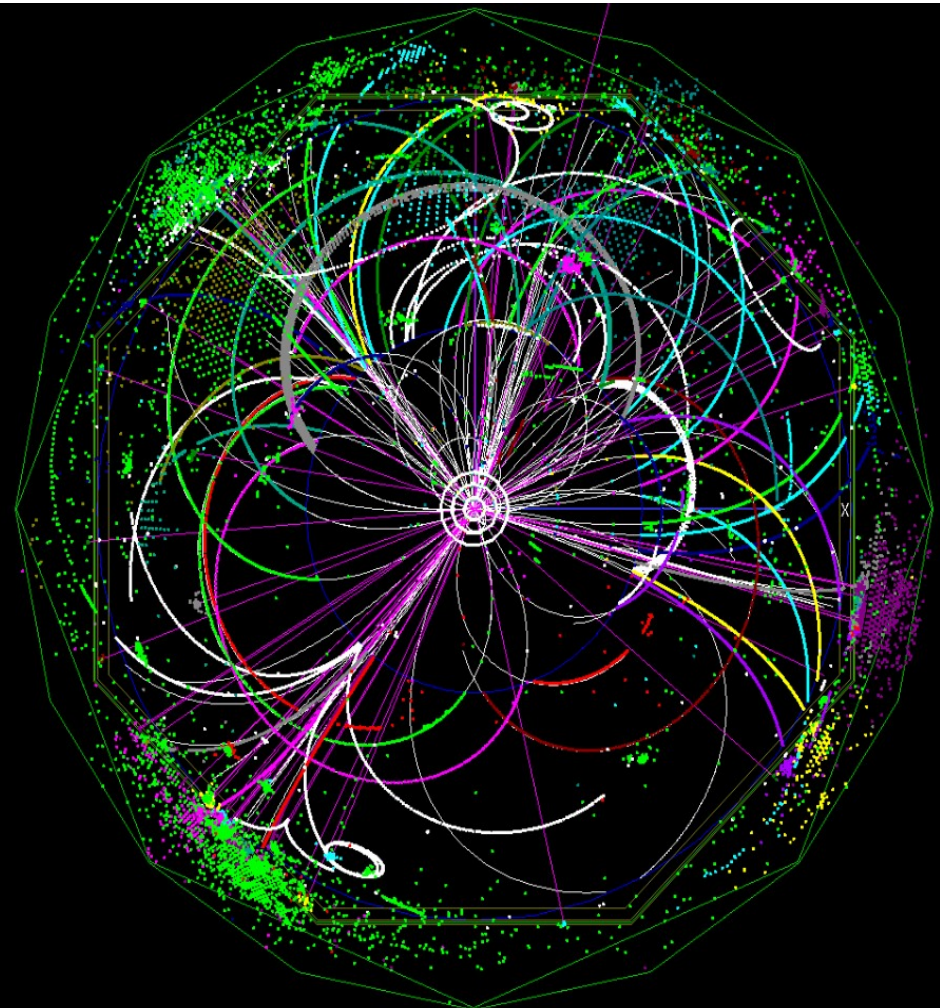
Fisheye view (front)



Fisheye **OFF**



Fisheye **ON**

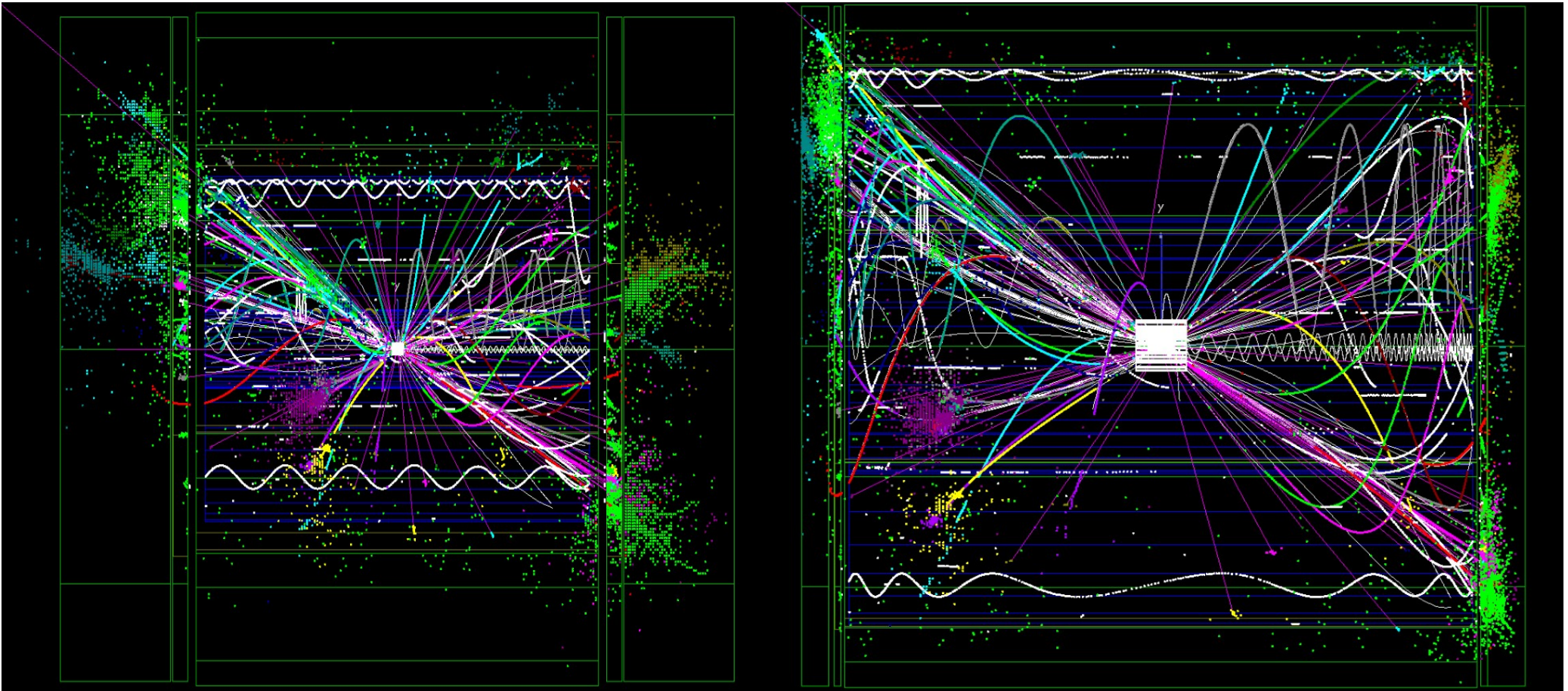


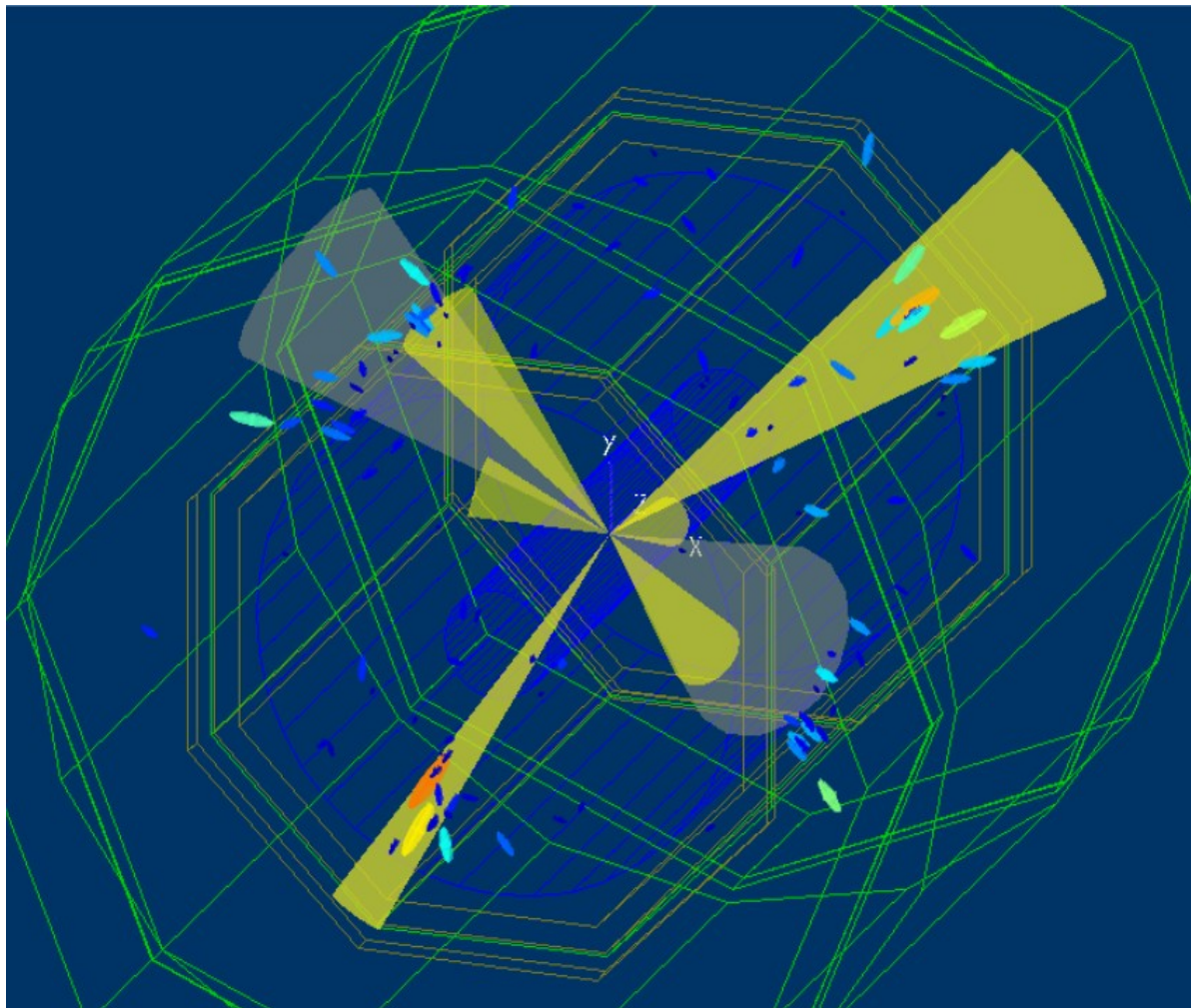
Fisheye view (side)



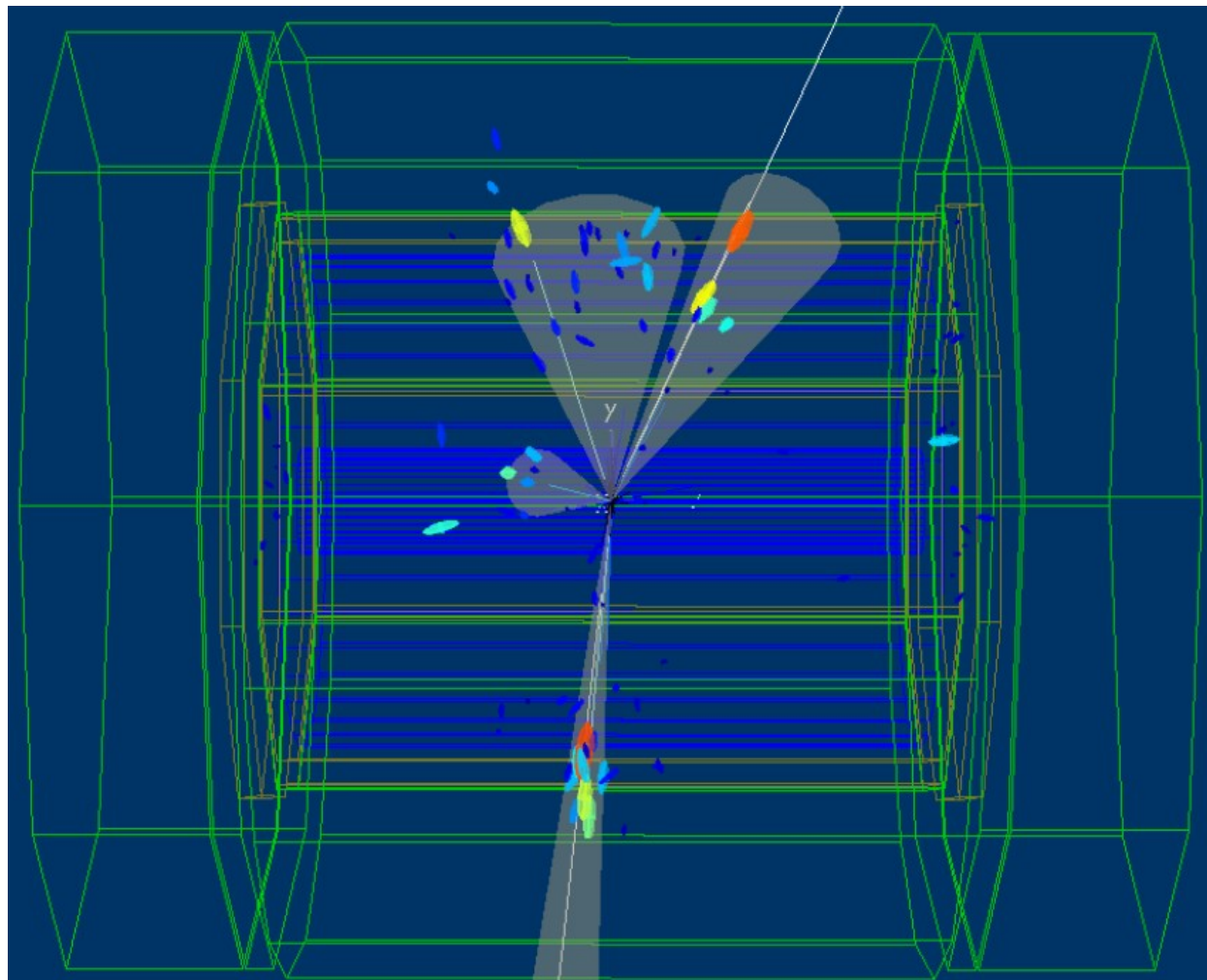
Fisheye **OFF**

Fisheye **ON**





6-jet and 4-jet hypotheses visualisation based on Durham Jet reconstruction algorithm



4-jet event



- Summary:
 - CED is a fast, easy to extend, ilcsoft supported event display toolkit
 - It already provides some generic functionality (as a toolkit)
 - Generic event display processors are available in Marlin
 - For very specific functionality you may need to write your own Marlin plugin
- Outlook:
 - More user-friendly point-and-click interface for basic functionality:
 - show/hide tracks, sim/rec hits, mc particles ...
 - Currently only available with key-shortcuts
 - Picking functionality started by M.S. Haugh now being continued by Hauke Hoelbe and available soon
- CED Download:
 - http://ilcsoft.desy.de/portal/software_packages/ced

Thank you! Your feedback is welcome!