

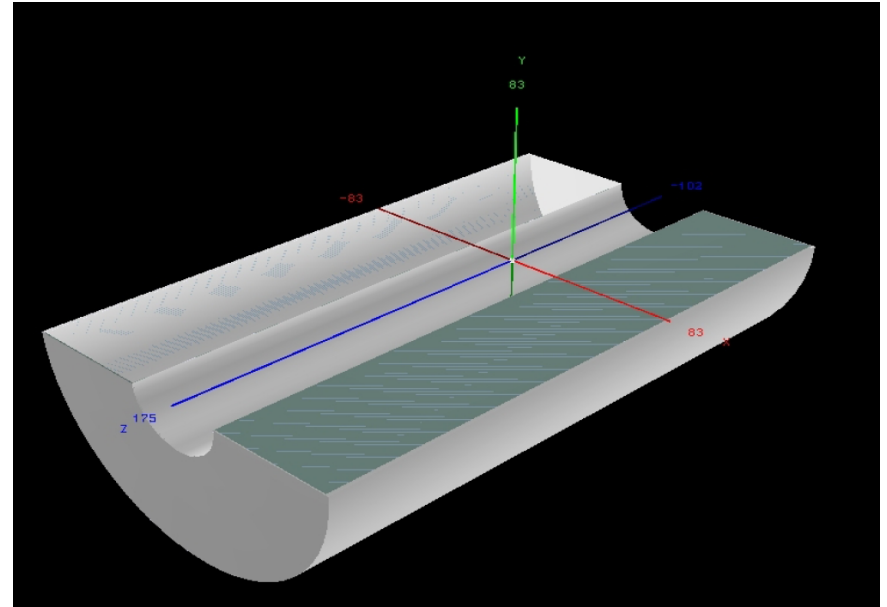
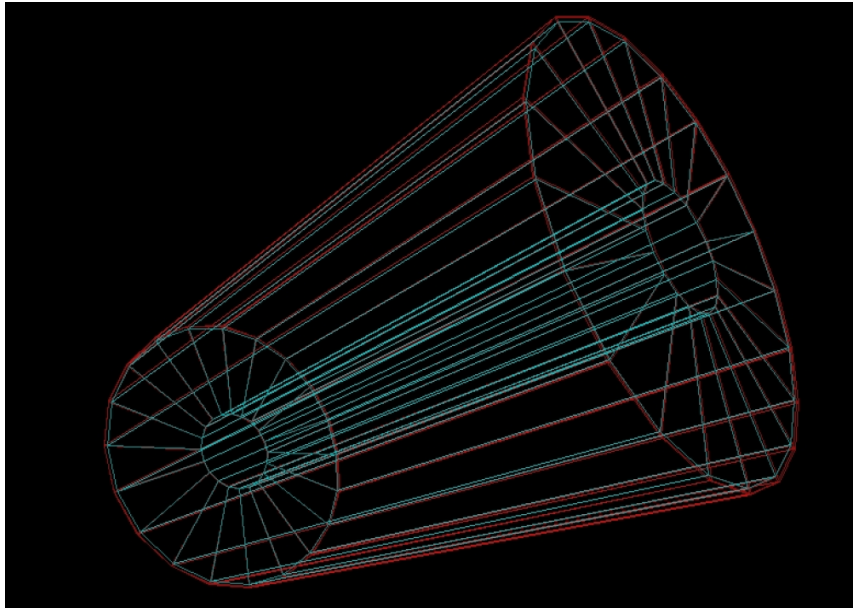
# DCH full simulation: status

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# Intro: what does the DCH need the full simulation for

- x Evaluate cell occupancies
  - x Do we need finer segmentation/faster detector response?
- x Evaluate background levels on the F.E. electronics
  - x e.g. Neutron flux on the backward end-plate

# xhtml description of the DCH



- ✗ Cylindrical barrel with flat end-plates
  - ✓ Easily extensible to e.g. curved end-plates
- ✗ Inner/outer walls and end-plates made of Carbon fiber
- ✗ Filled with homogeneous gas+wires medium (BaBar-like)
  - ✓ Currently developing more refined material models in terms of layers of metal (wires) + pure gas volumes

# Small samples of 3 background types available at Elba 2008

- Radiative Bhabha's
- Touschek background (low energy ring)
- Pair production

In all cases, we observed *very small* occupancies in the DCH (about  $\frac{1}{2}$  of BABAR, with 100 times the luminosity)

- Can we trust these numbers? Certainly big statistical uncertainties at this level (0-1-2 hits...)
- In June we asked for at least x100 bigger samples, with (some) more information on the secondary tracks
- We are eagerly awaiting such samples!