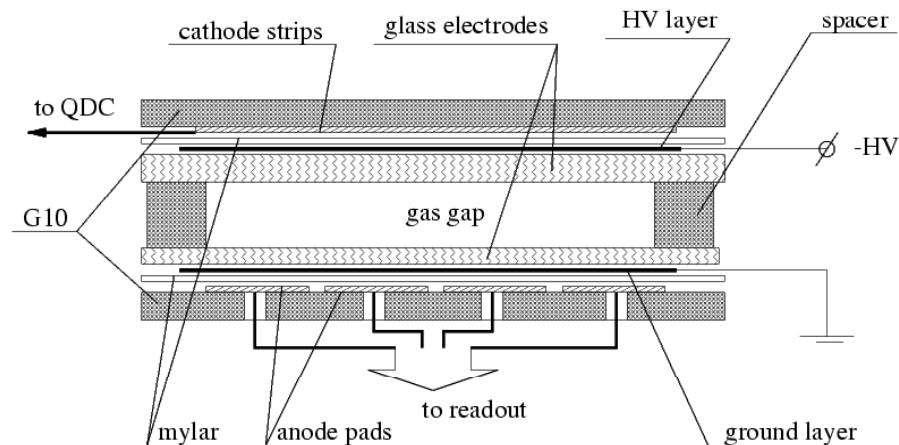
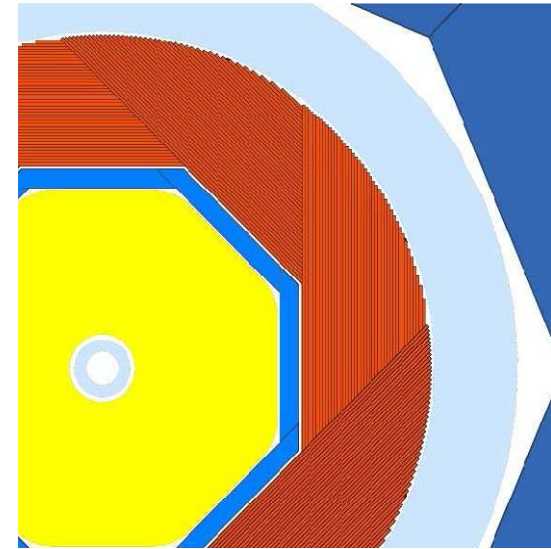


DHcal implementation in Mokka (I)

- New geometry for the Barrel suggested by Henri Videau



Sensitive detectors: Resistive Plate Chambers



Developped with Emmanuel Latour.

Details @:

<http://polzope.in2p3.fr:8081/MOKKA/detector-models/lhc/DHCALdoc.pdf>

DHcal implementation in Mokka (II)

- Barrel geometry: 5 modules/8 staves/48 layers
 - No crack between staves nor in the normal plane to the IP
 - 1cm x 1cm cells with a gap of 0.5 mm
- Materials updated according to those used in R&D studies
 - Absorber: stainless steel
 - RPC: new mixture for gas : TFE(93%)+SF6 (2%)+isobutane (5%), float glass (quartz+soda+MgO+CaO) instead of pyrex, fishing lines: nylon instead of G10
- EndCaps: no ideas suggested; kept as in the Tesla TDR
- Gear Output implemented

DHcal model in Mokka: to be done

- Mark Thomson: DHcal hits extend beyond the "hcal_outer_radius" , close to the edge of the solenoid
- Adapt Barrel RPC model to EndCap geometry
 - Currently RPC models are different in Barrel and EndCaps and EndCapRings (different gas, components,...)
 - The layer thicknesses being the same, this also gives different absorber thicknesses
- Use the correct distance between pads (0.680 mm):
 - actually: 0.5 mm
- ...