

RICH GEMC GEOMETRY

Contalbrigo Marco & Luciano Pappalardo
INFN Ferrara

Rich Meeting, 14 February 2012

Standard set-up

Geometry:

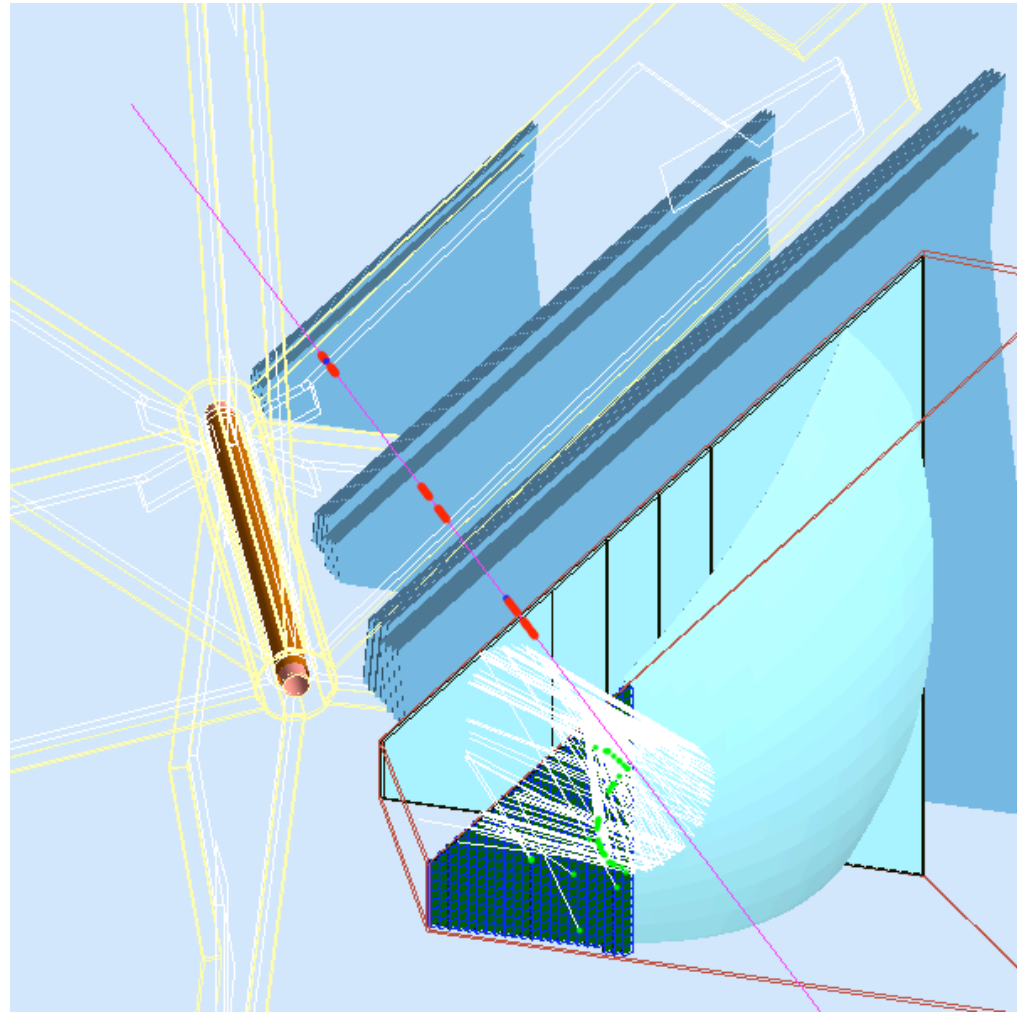
`rich_build_radtrap_mirror35_default.pl`

On the Jlab GEMC database

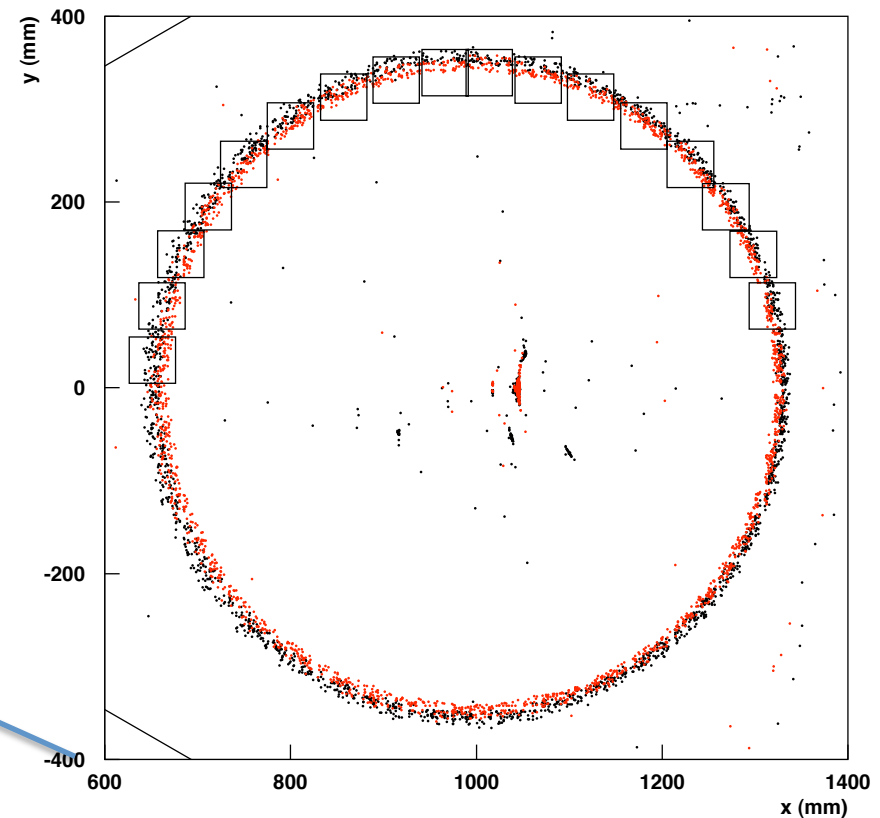
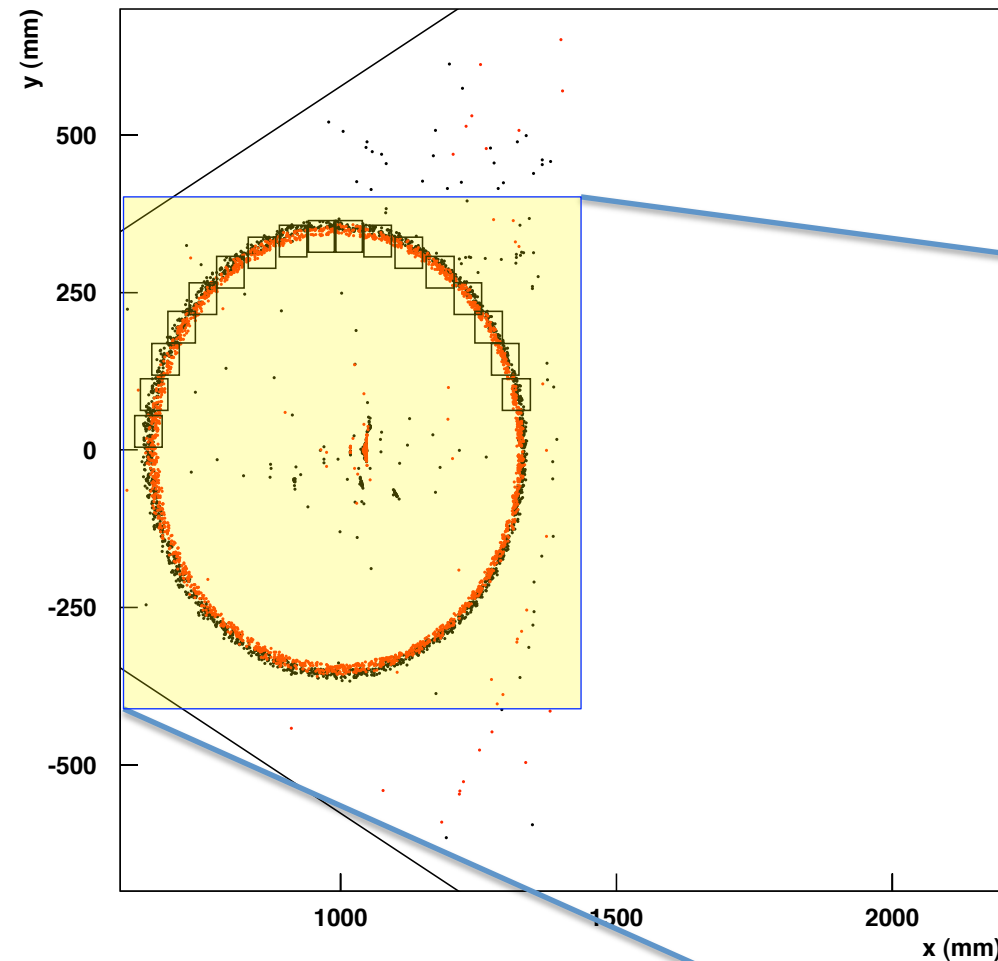
Only one isolated sector

No magnetic field

Aerogel & PMTs as in CLAS12

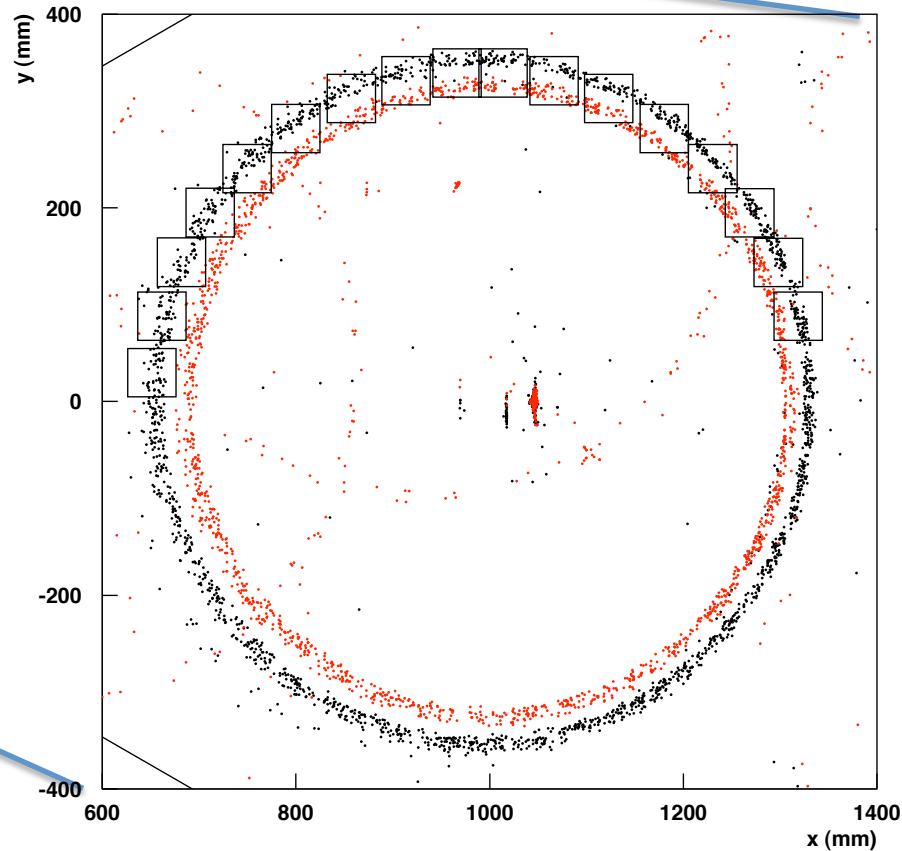
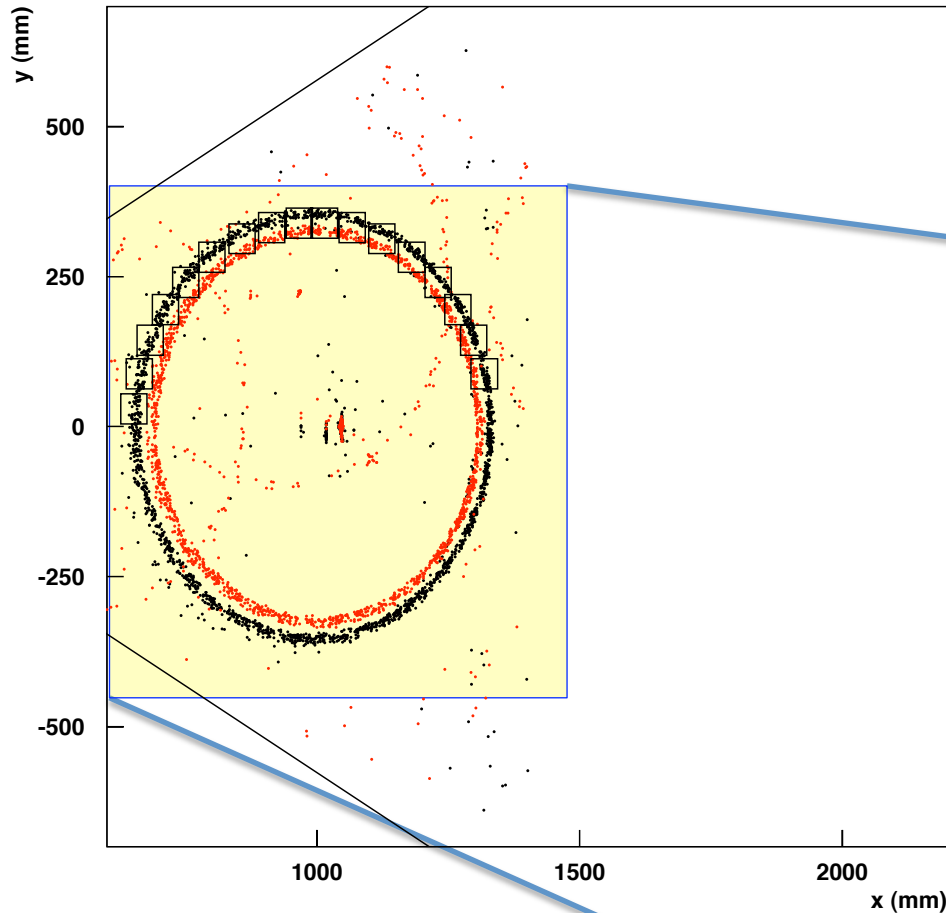


9° degrees, 8 GeV/c



PMTs:
v/cr aa([nn]) R 86 77 67 56 45 35 25 15 5
 $\sigma_{xx} = \cos(aa/[RAD]) * 340. + 990.$
 $\sigma_{yy} = \sin(aa/[RAD]) * 340.$

9° degrees, 4 GeV/c



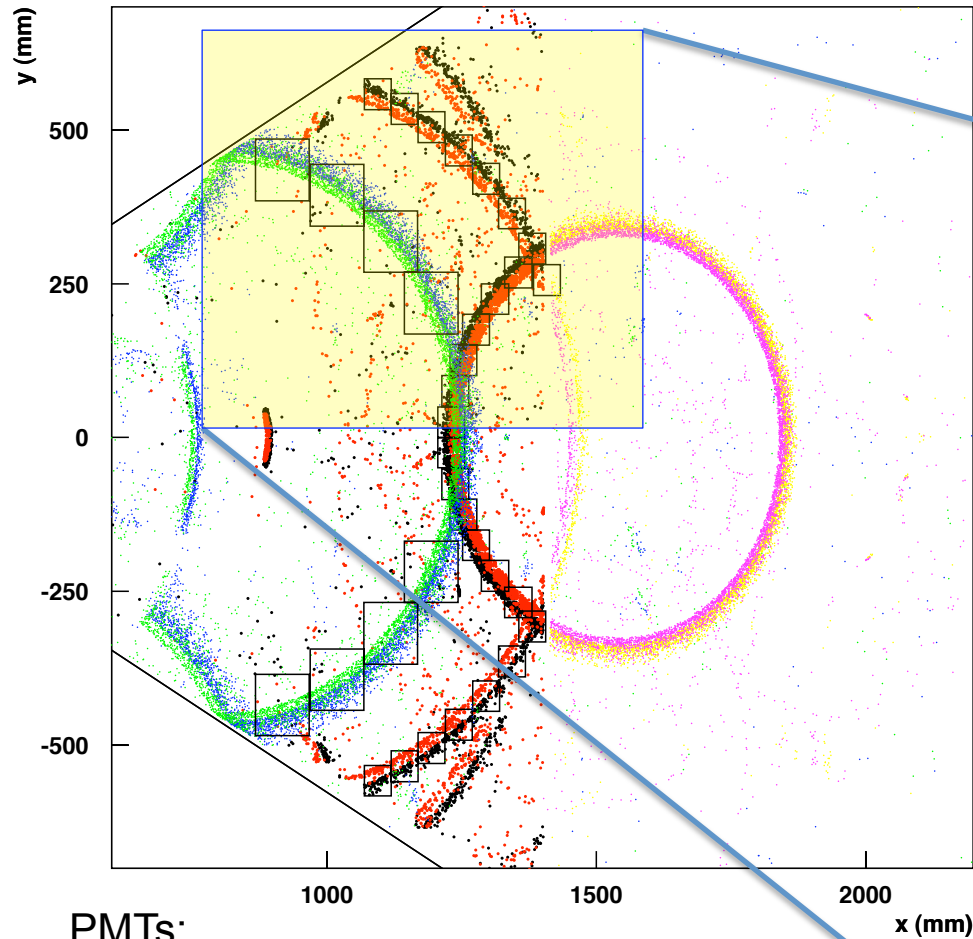
PMTs:

v/cr aa([nn]) R 86 77 67 56 45 35 25 15 5

sigma xx=cos(aa/[RAD])*340.+990.

sigma yy=sin(aa/[RAD])*340.

14° degrees, 6 GeV/c



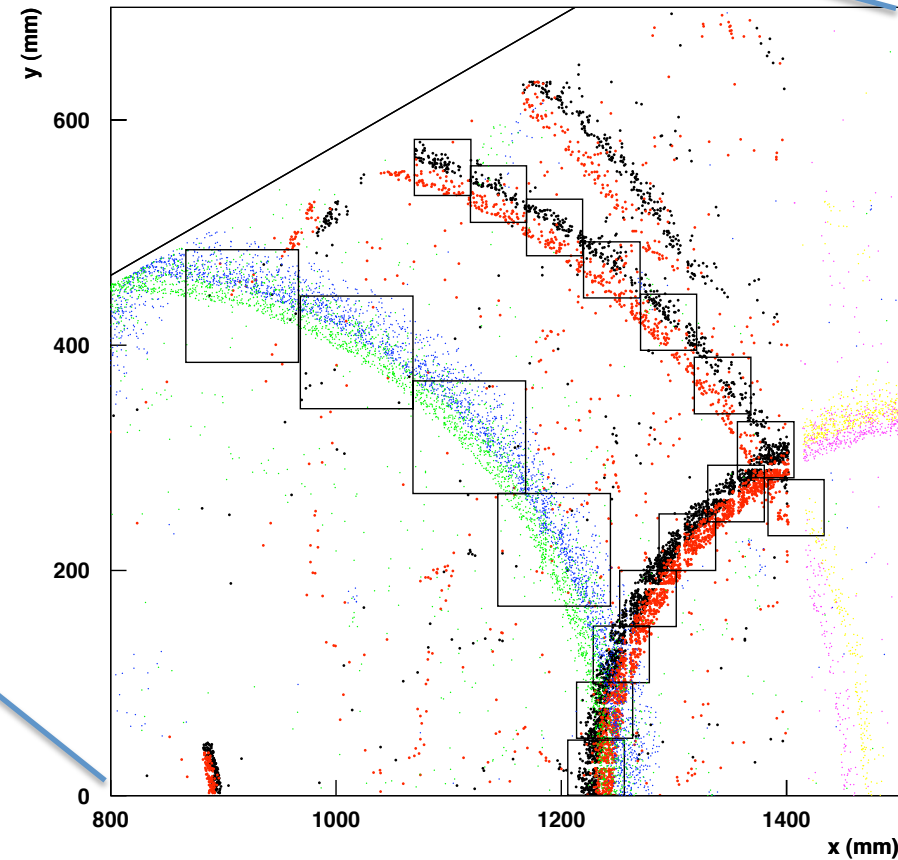
PMTs:

$$\text{sigma } xx = \cos(aa/[RAD]) * 605. + 860.$$

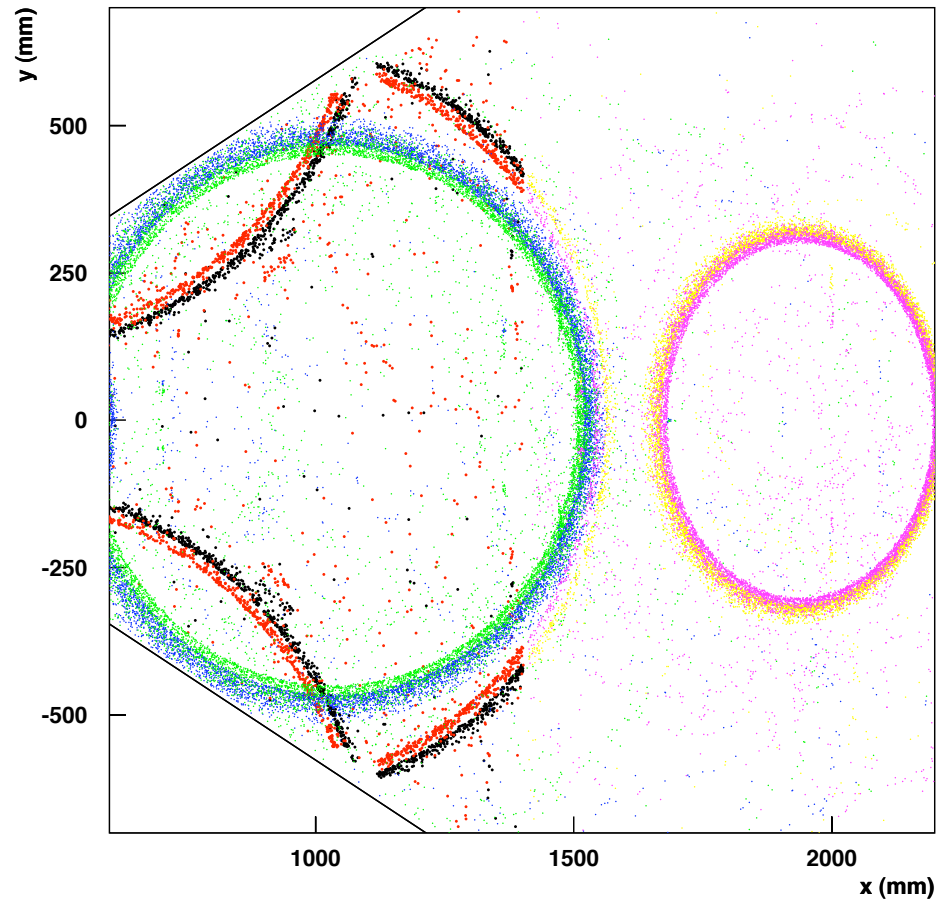
$$\text{sigma } yy = \sin(aa/[RAD]) * 605.$$

$$\text{sigma } xb = \cos(bb/[RAD]) * 350. + 1580.$$

$$\text{sigma } yb = \sin(bb/[RAD]) * 350.$$



18° degrees, 6 GeV/c



To be decided

Direct vs reflected light at LNF ?

- large box for mirrors
- can be done in fall ?

Kaon ID at CERN ?

- TOF group ?
- Simple cerenkov ?