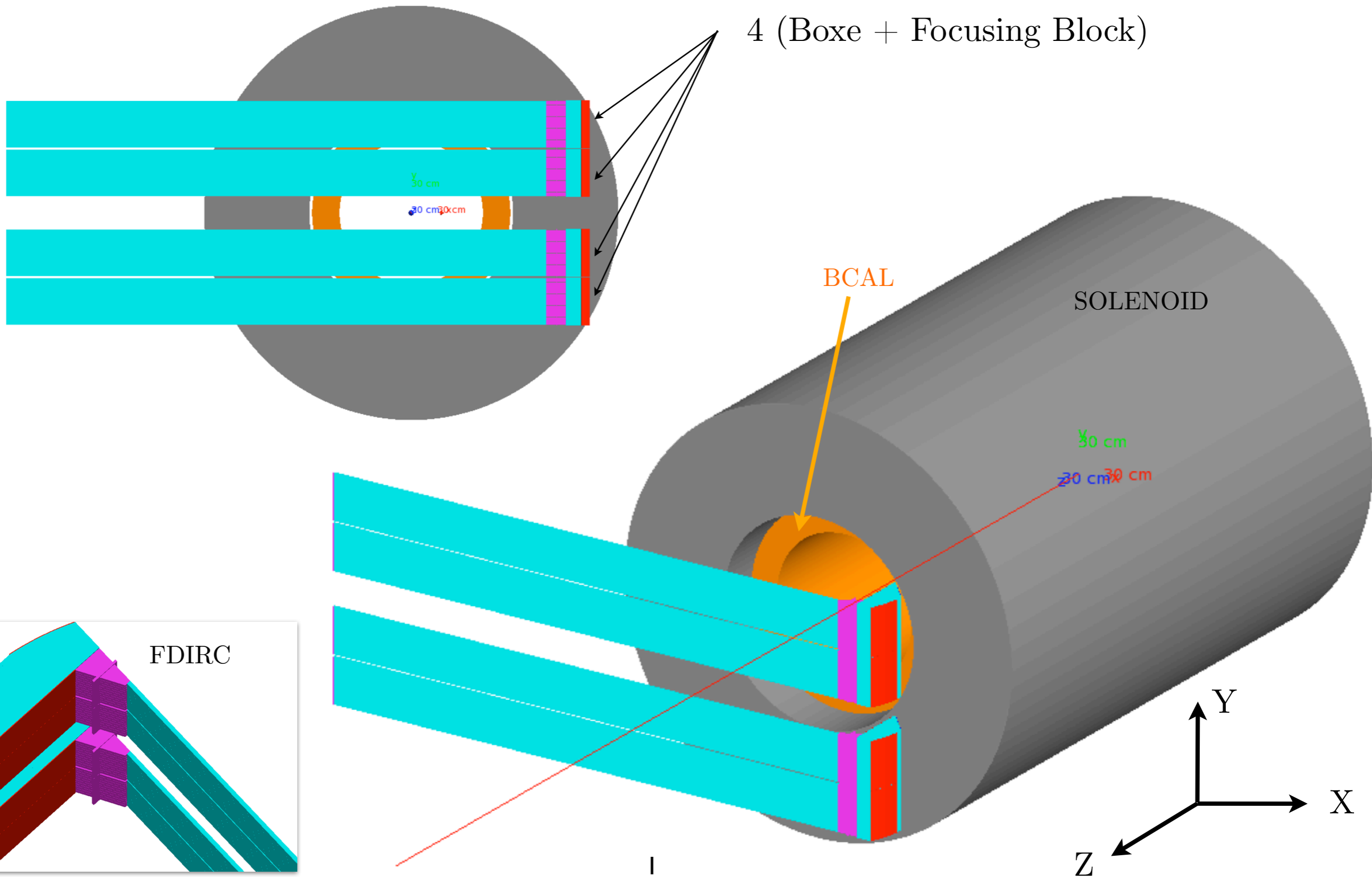


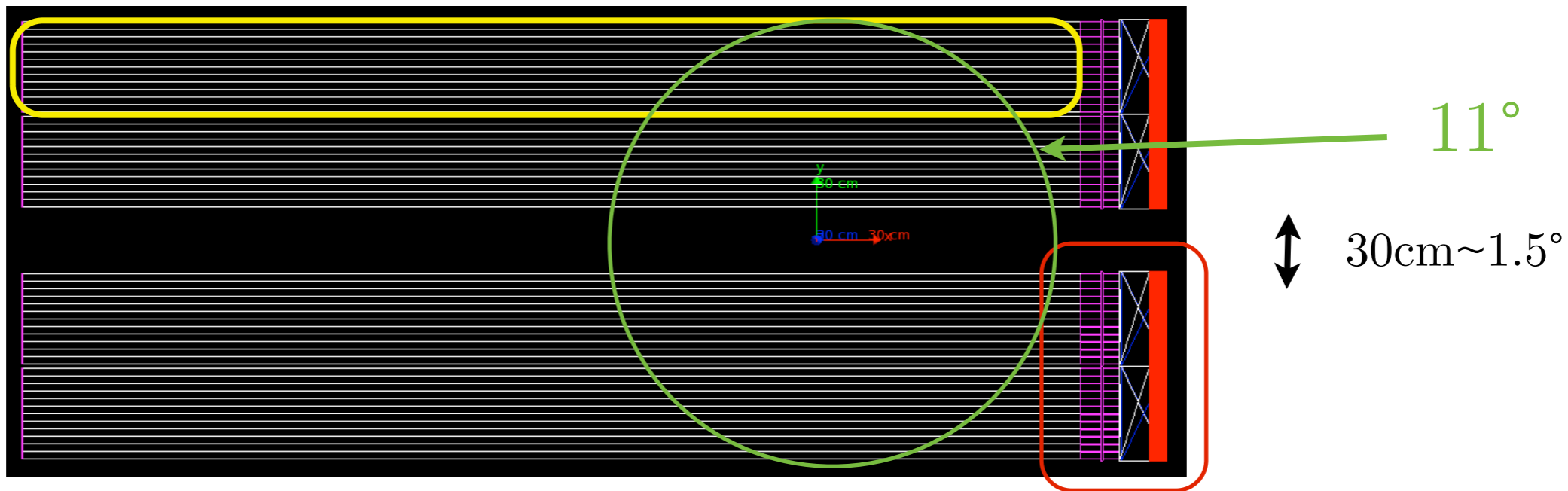
Focusing DIRC @ GlueX:

4 (Boxe + Focusing Block)

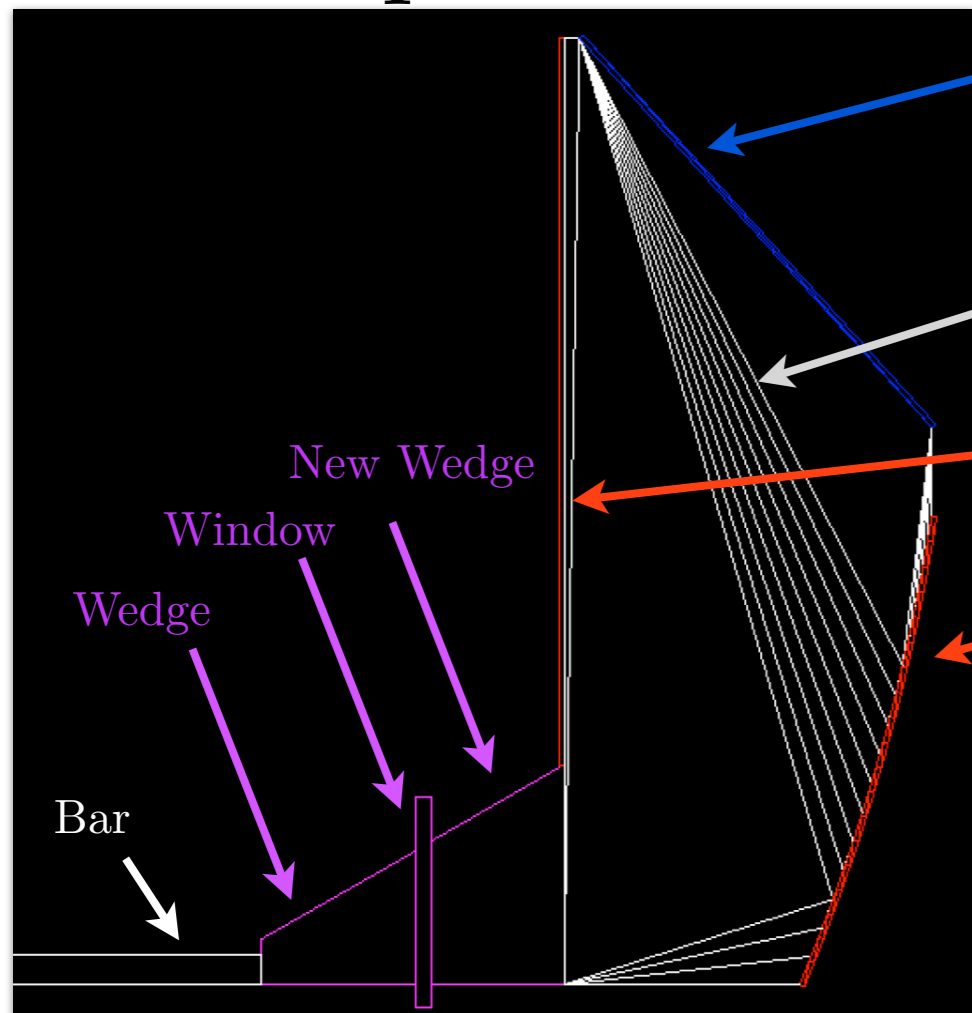


Back view:

1 Boxe



Top view:



PMTs detectors

FBLOCK (lines correspond to the mesh)

Flat mirror

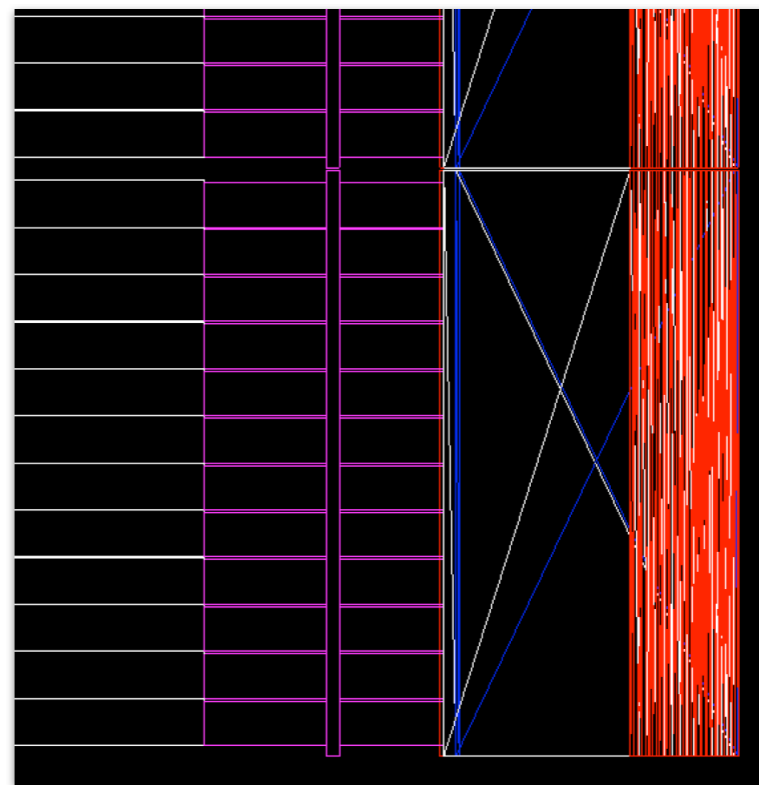
Cylindrical mirror

New Wedge

Window

Wedge

Bar



2mm=Distance between two FBLOCKS

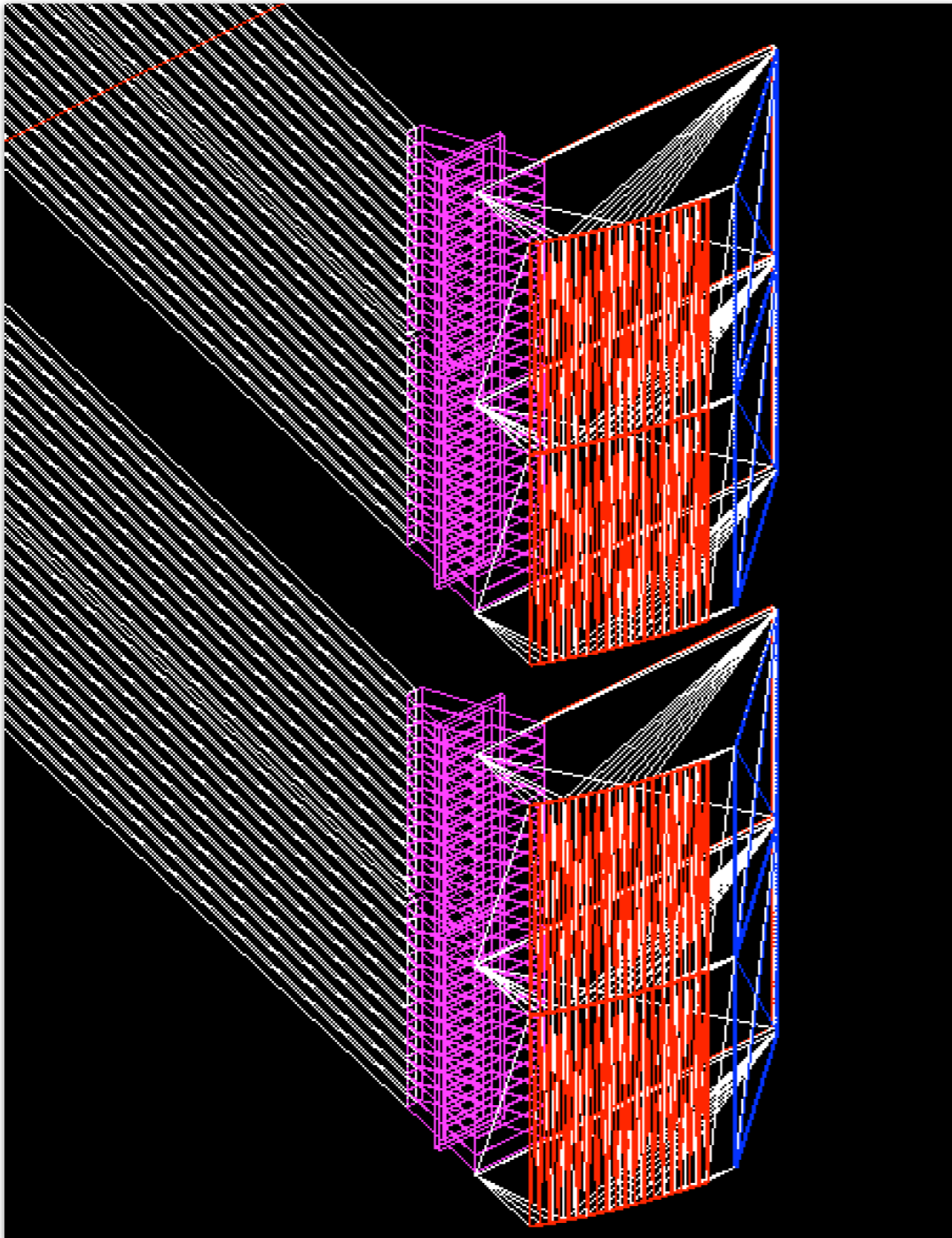
437mm
=Window
=Mirrors
=FBlock
=Detector



Babar Boxes

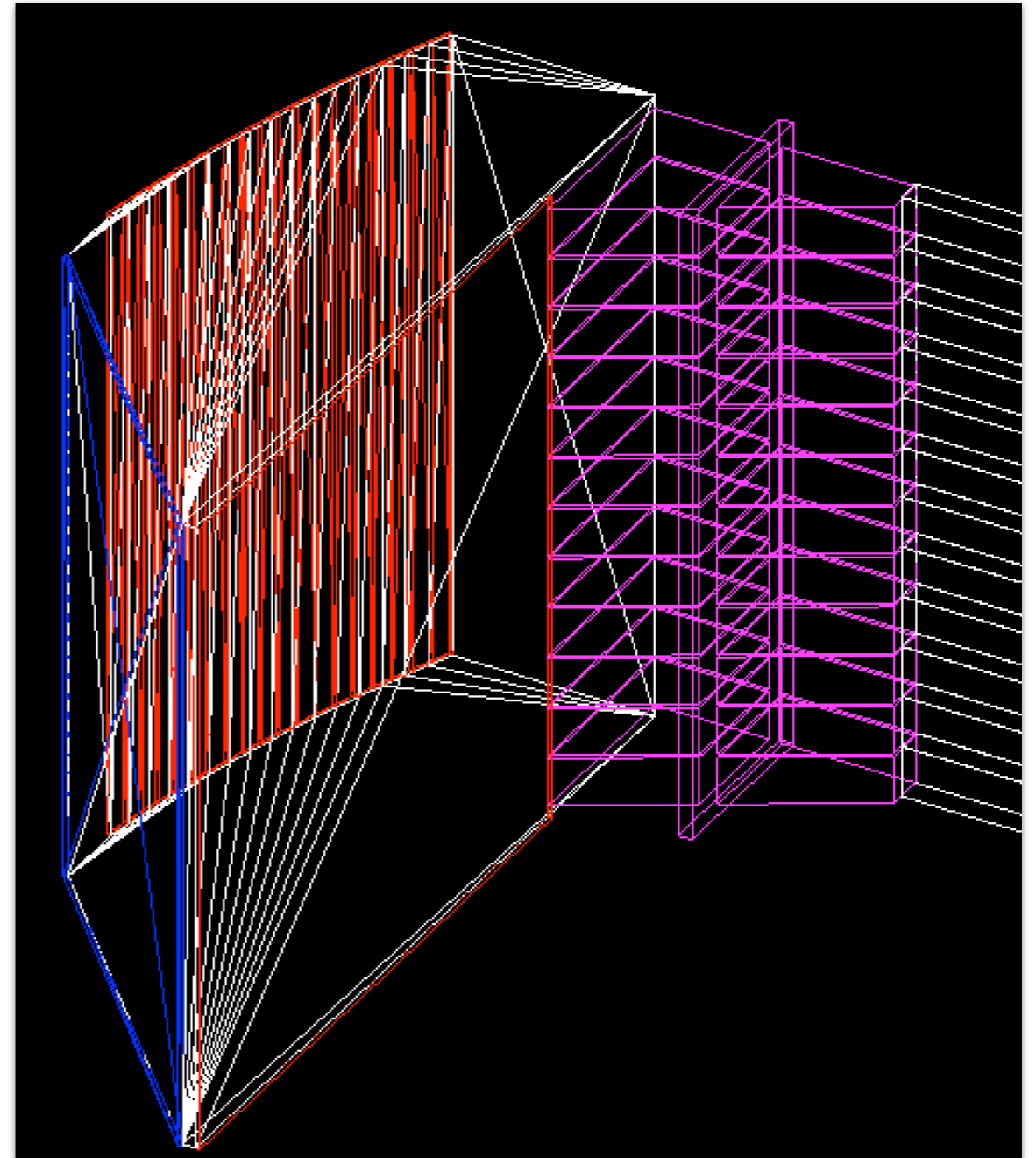
Focusing Block

(Prototype @ SLAC)

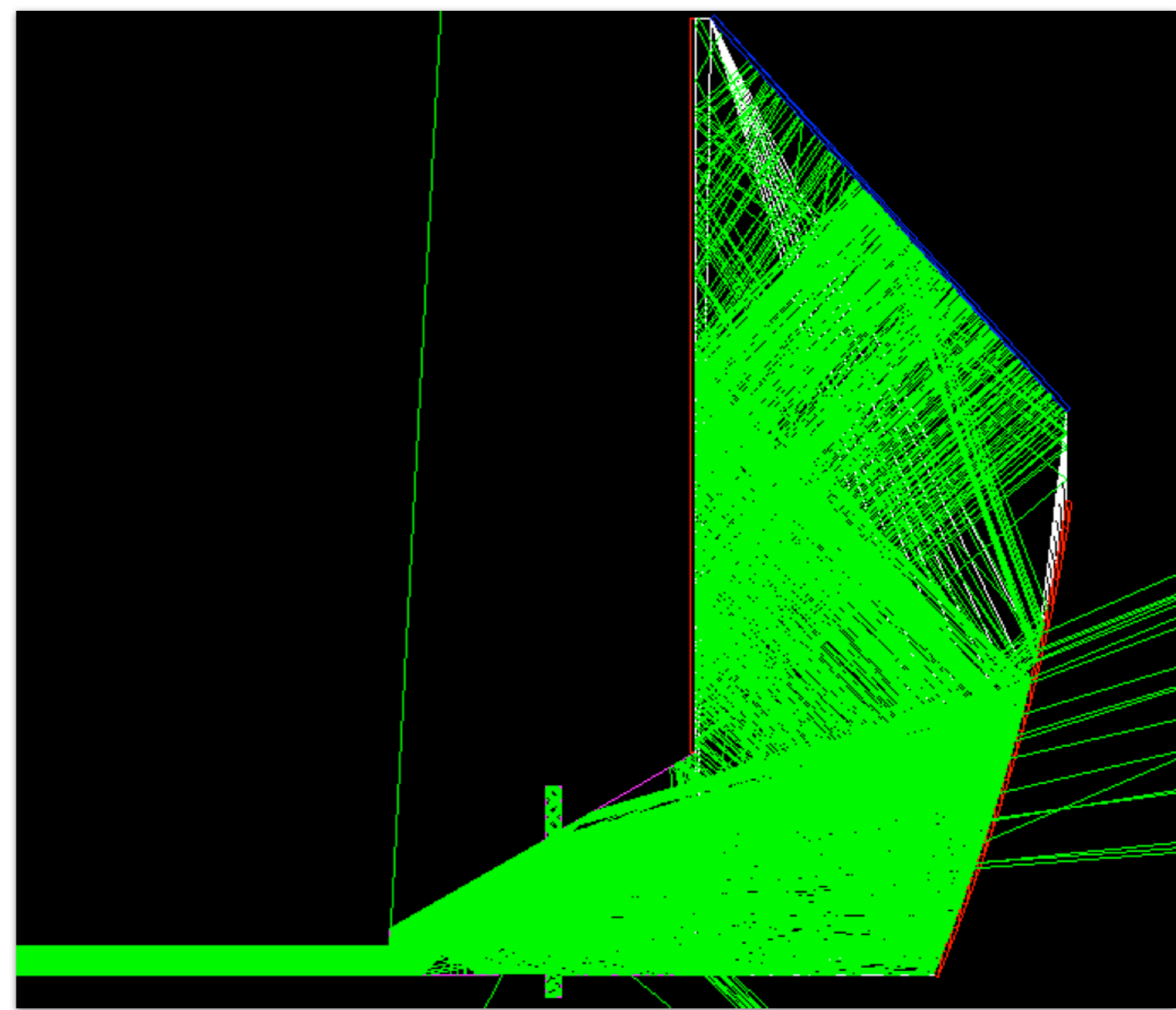
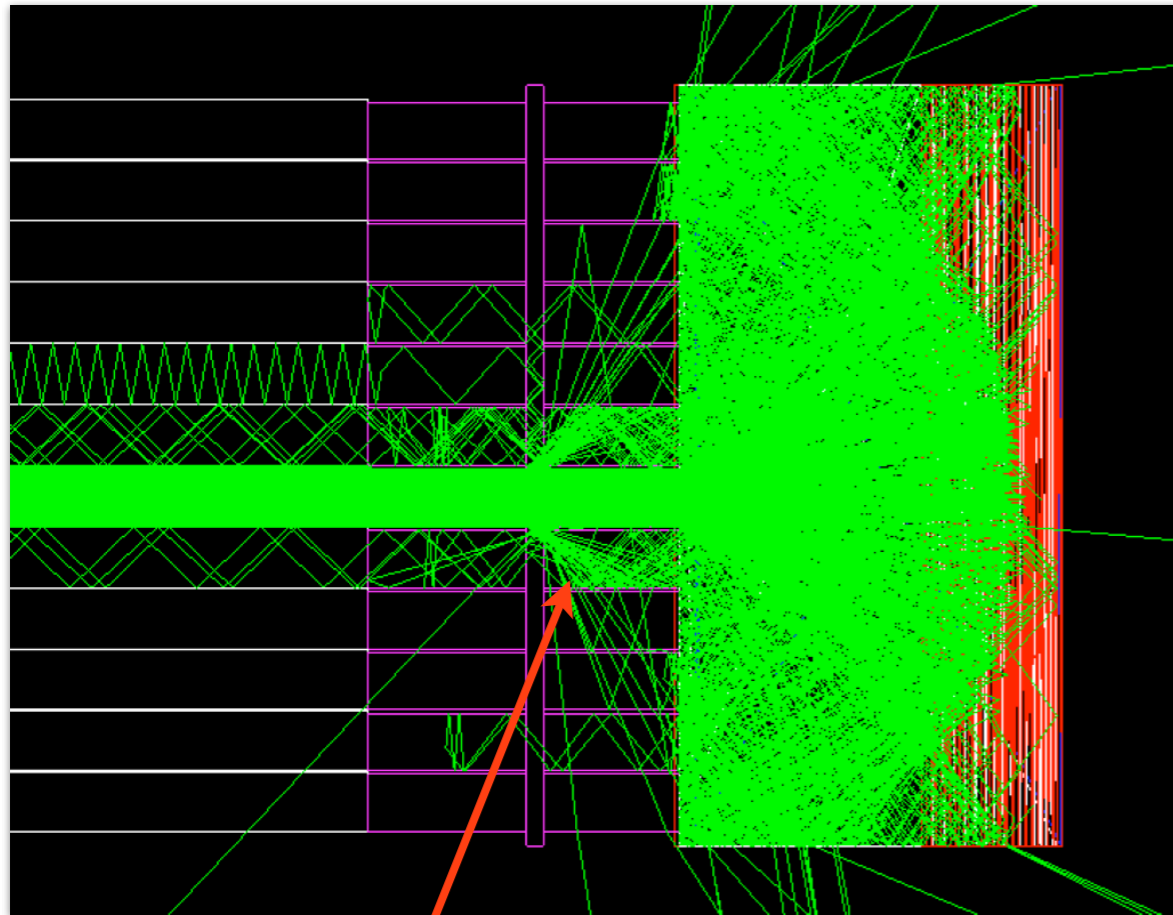


The 4 Focusing Blocks

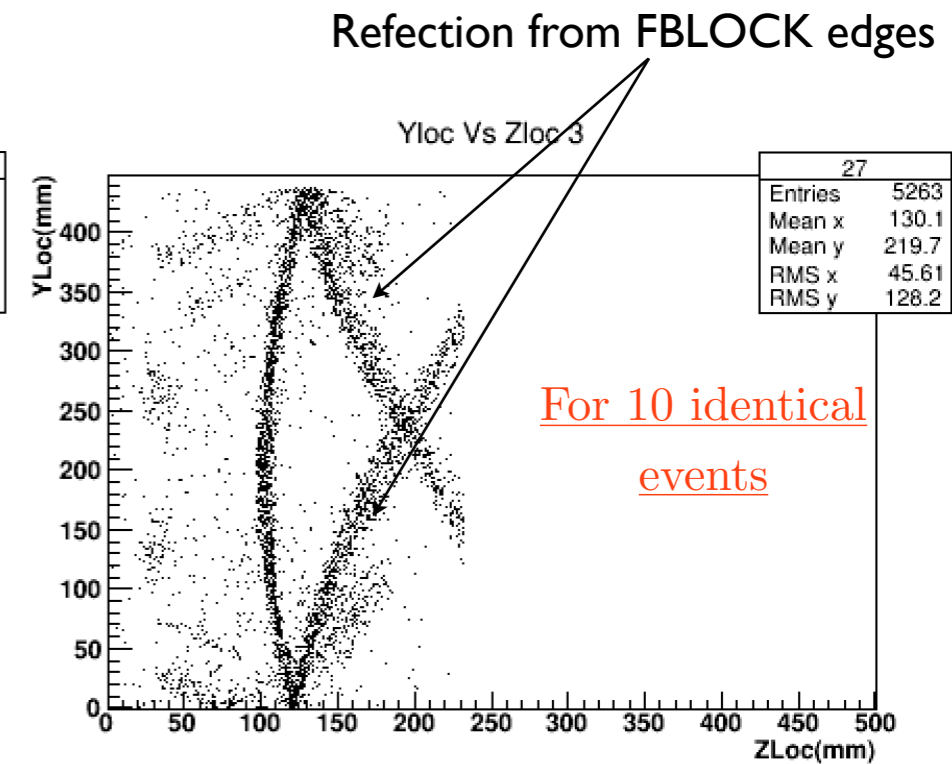
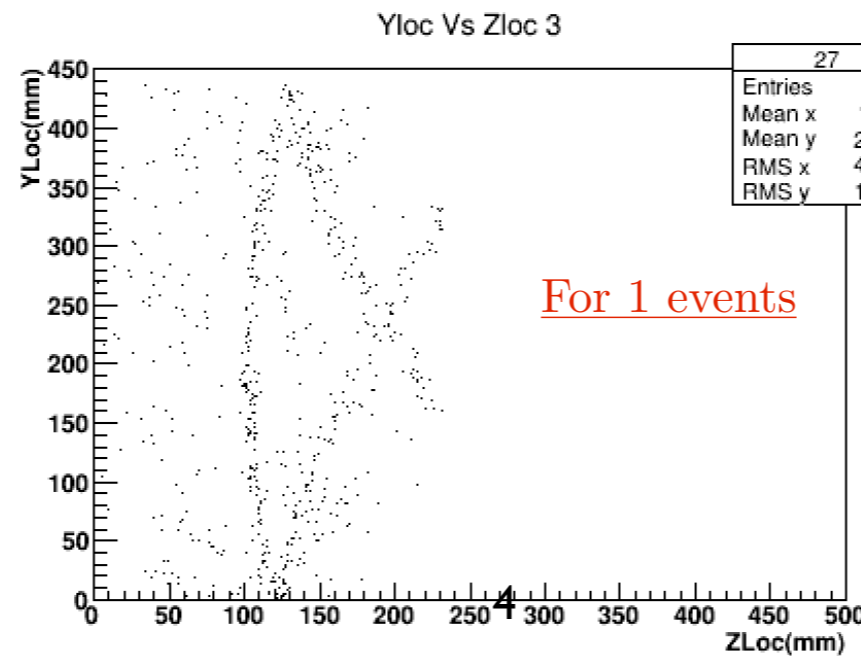
1 Focusing Blocks



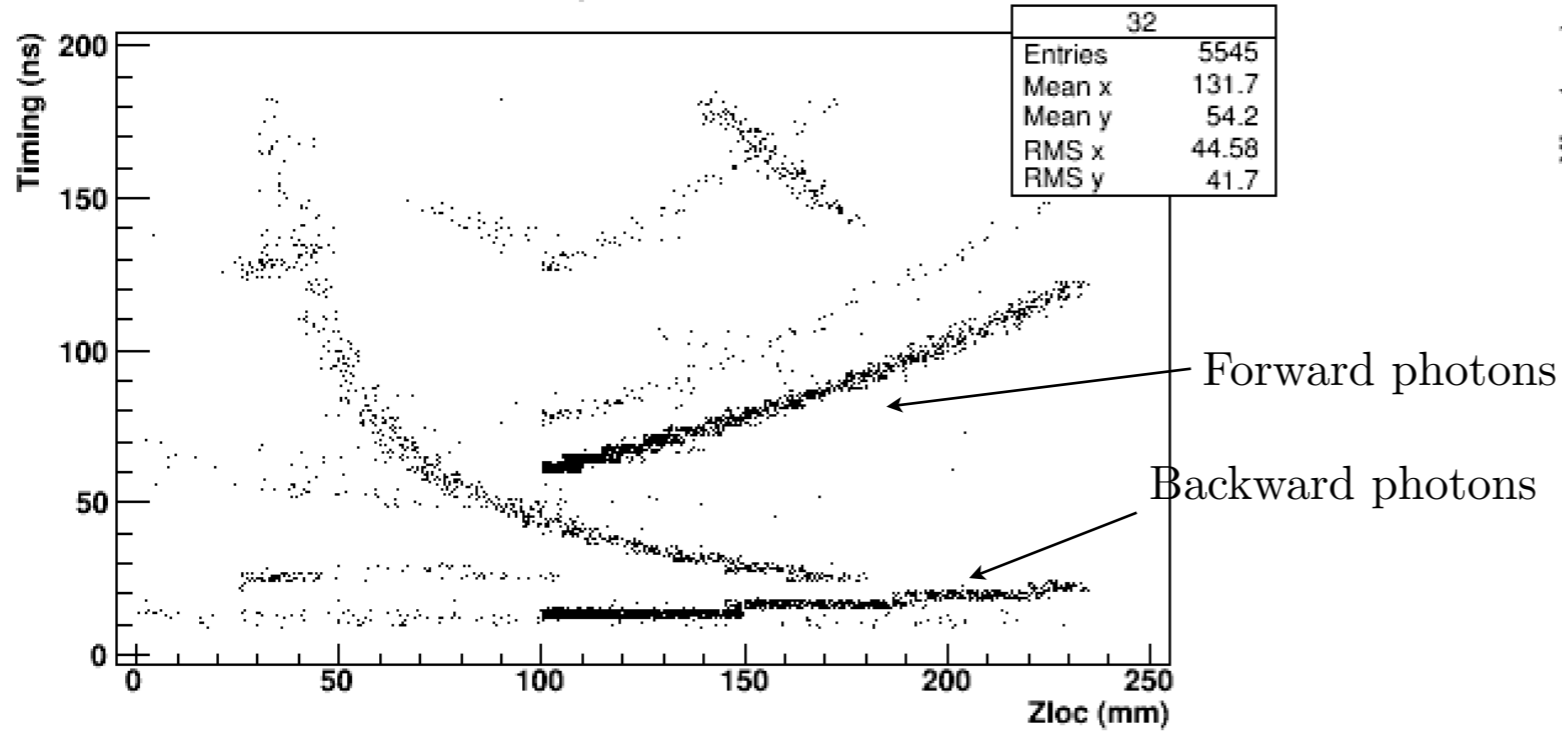
One event thrown perpendicularly to one bar:



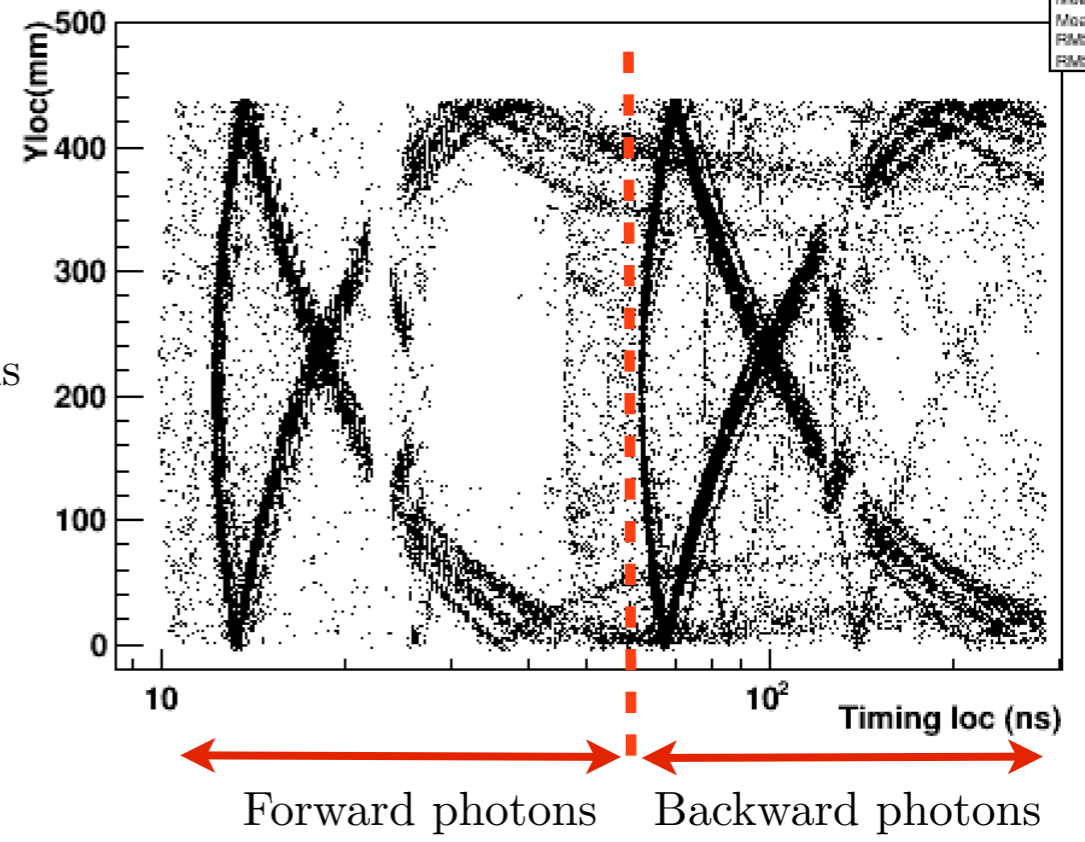
One can see here that the window introduce some «leaks» to the other bars



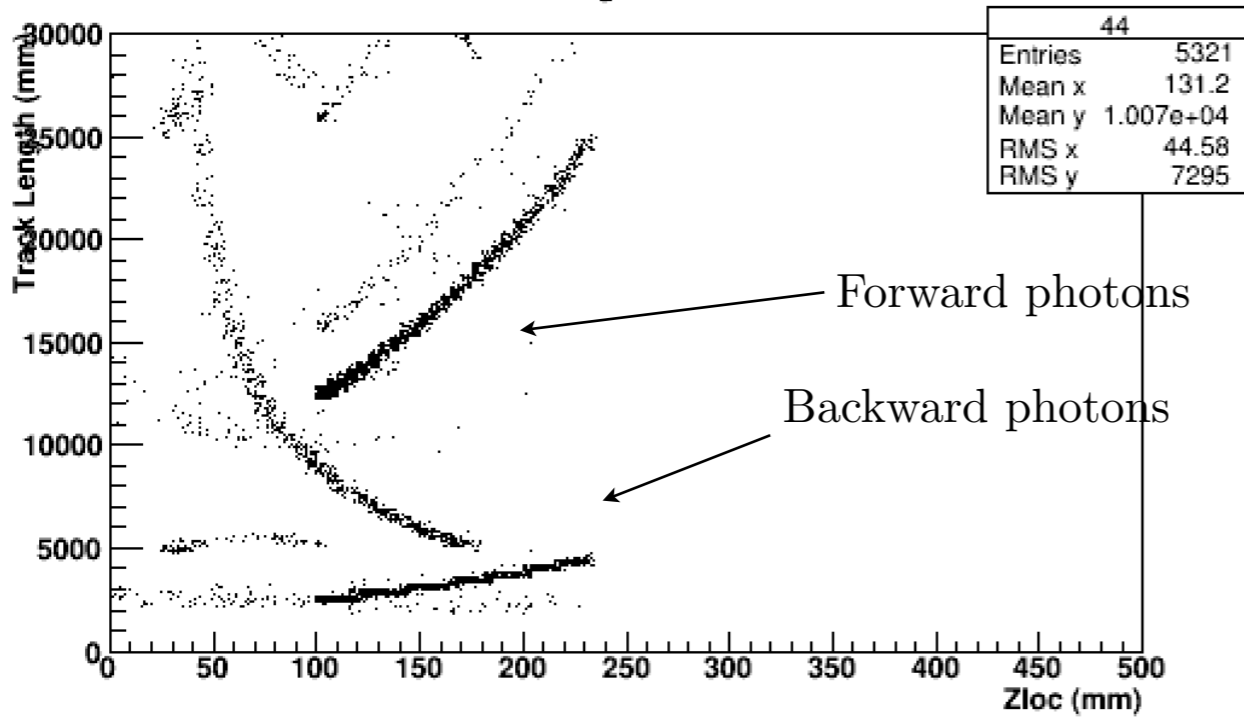
Timingloc Vs Zloc 3



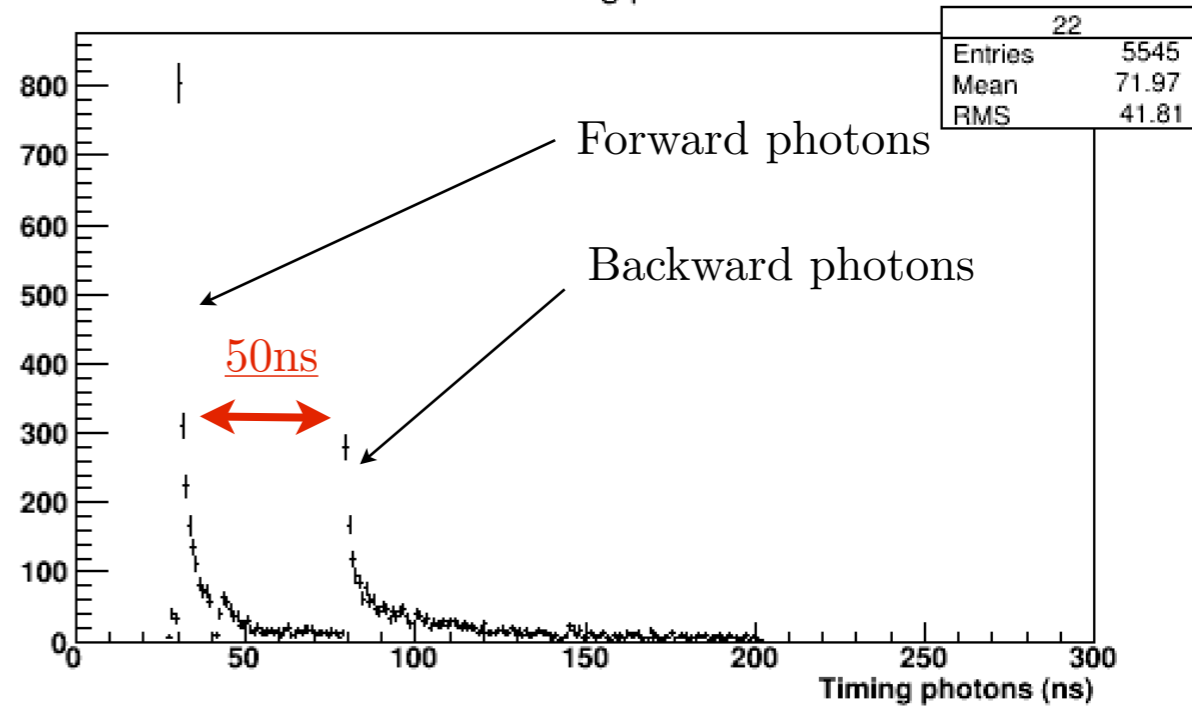
Yloc vs Timingloc 3



TrackLength Vs Zloc 3



Glocal Timing photon 3



WBS	Task	M&S Cost (Euros)
1.3	FDIRC Barrel (Focusing DIRC)	4.2M total
1.3.1	Radiator Support Structure (new support disc)	18.8k
1.3.2	New magnetic door and inner cylinder	100k
1.3.3	FDIRC photon camera background shielding	125k
1.3.4	Background shield displacement system and rails	31.3k
1.3.5	Bar box transport to Italy	125k
1.3.6	Radiator box/Photon camera assembly	1160k
1.3.6.1	FBLOCK and Wedge material and raw finish (12+2)	761.6k
1.3.6.2	FBLOCK polishing (12+2)	235.2k
1.3.6.3	FBLOCK mirror plating (12+2)	31.25k
1.3.6.4	New Wedge polishing (12+2)	19.04k
1.3.6.5	Gluing Wedge to Bar Boxes	12.5k
1.3.6.6	Clean room (in Italy)	25k
1.3.6.7	Clean room fixtures	25k
1.3.6.8	Shipping charges within US and for shipping to Italy	12.5k
1.3.6.9	QC of optics with digital arm	12.5k
1.3.6.10	Storage cost, services in Italy	25k
1.3.7	Photon Camera mechanical boxes	293.75k
1.3.8	Photodetector assembly	2004.5k
1.3.9	Calibration System	75.6k
1.3.10	Temperature, water, nitrogen, helium leak safety system	10.5k
1.3.11	Alignment services	37.5k
1.3.12	Mechanical Utilities	62.5k
1.3.12	System Integration	125k

→ 4 Blocks: 1.2M

→ ?

→ 571k€ for 4

Probably cheaper with the
MCP-PMTs ~170k\$

Table 1.3: M&S cost breakdown of major PID tasks, except electronics (FDIRC optics cost estimate is based on US-based quotes only and for quantity of 12+2) For currency conversion we used: 1.216 x Euro = 1 dollar.

