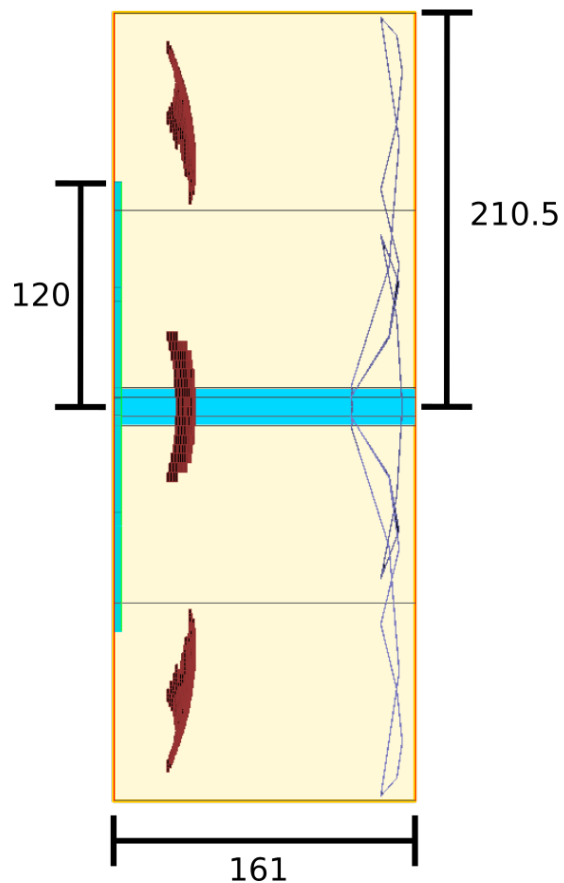


dRICH Envelope

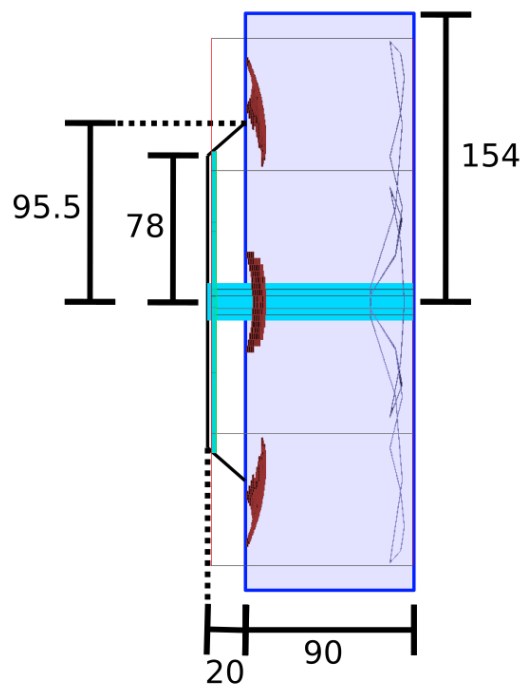
Christopher Dilks
ATHENA PID meeting
11 July 2021

[units=cm]

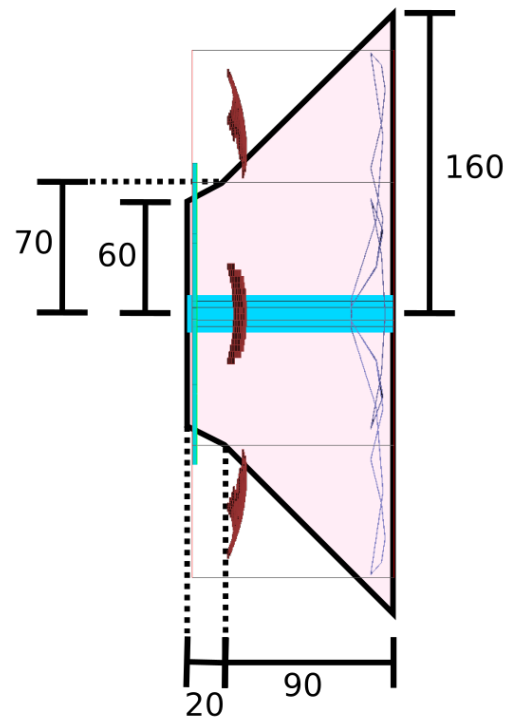
Fun4all

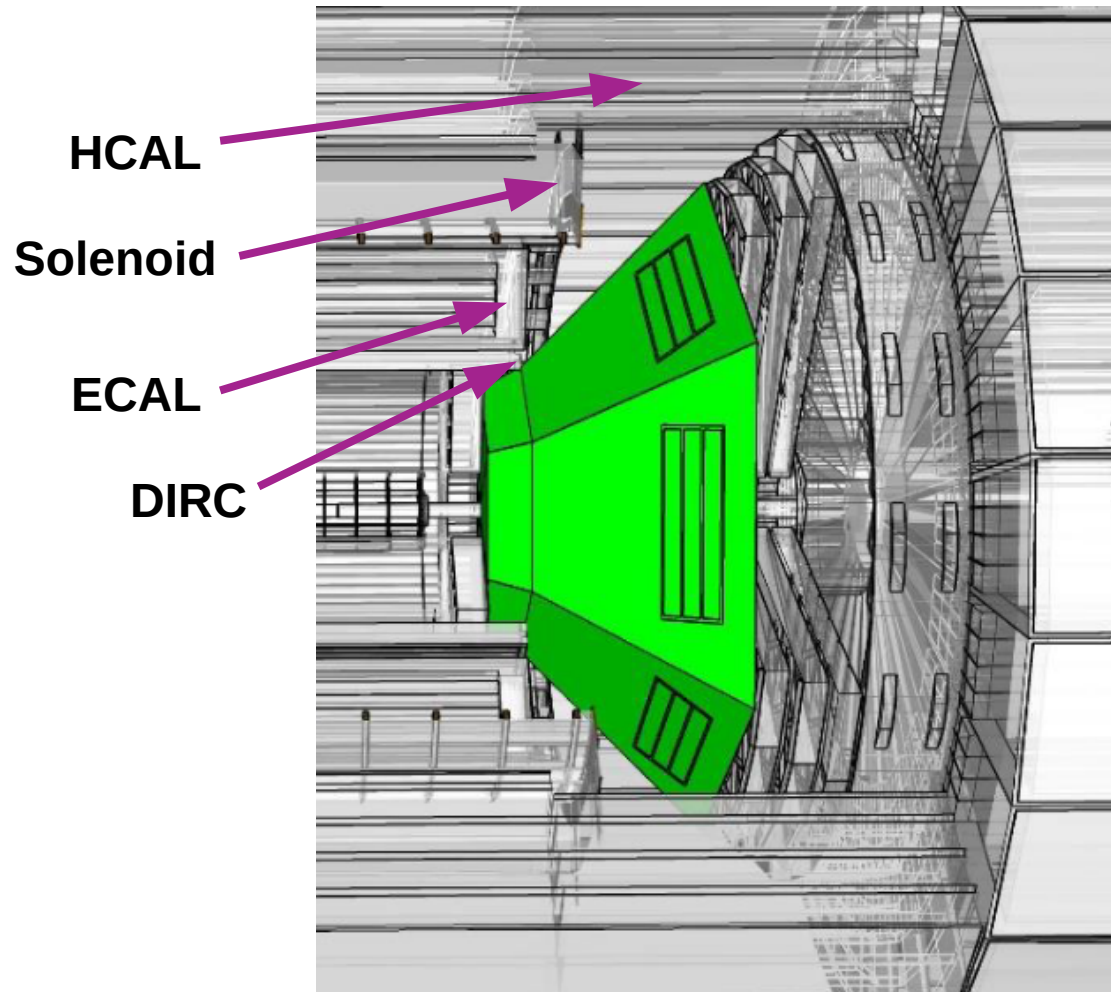


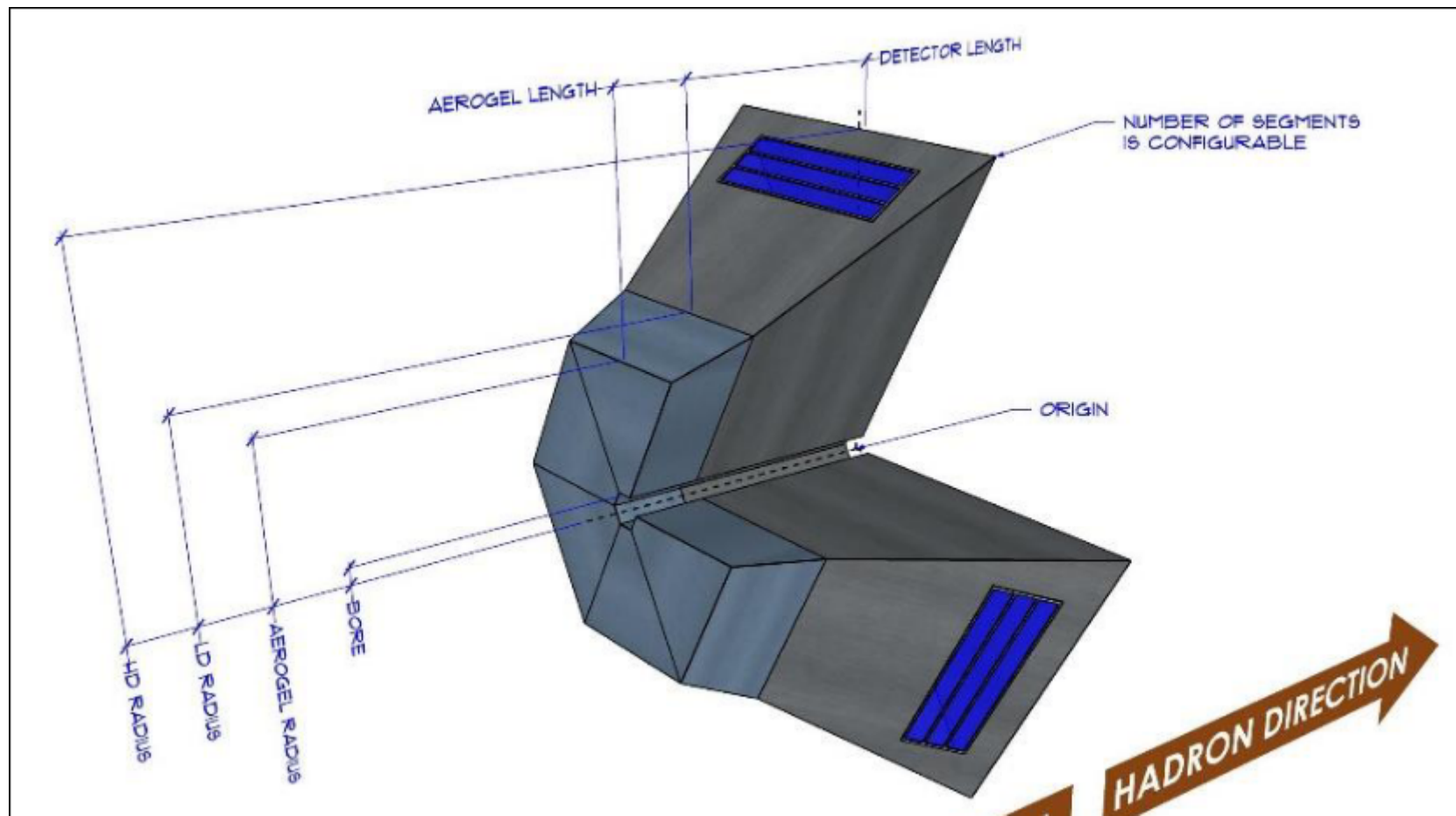
dd4hep Gaseous RICH Envelope

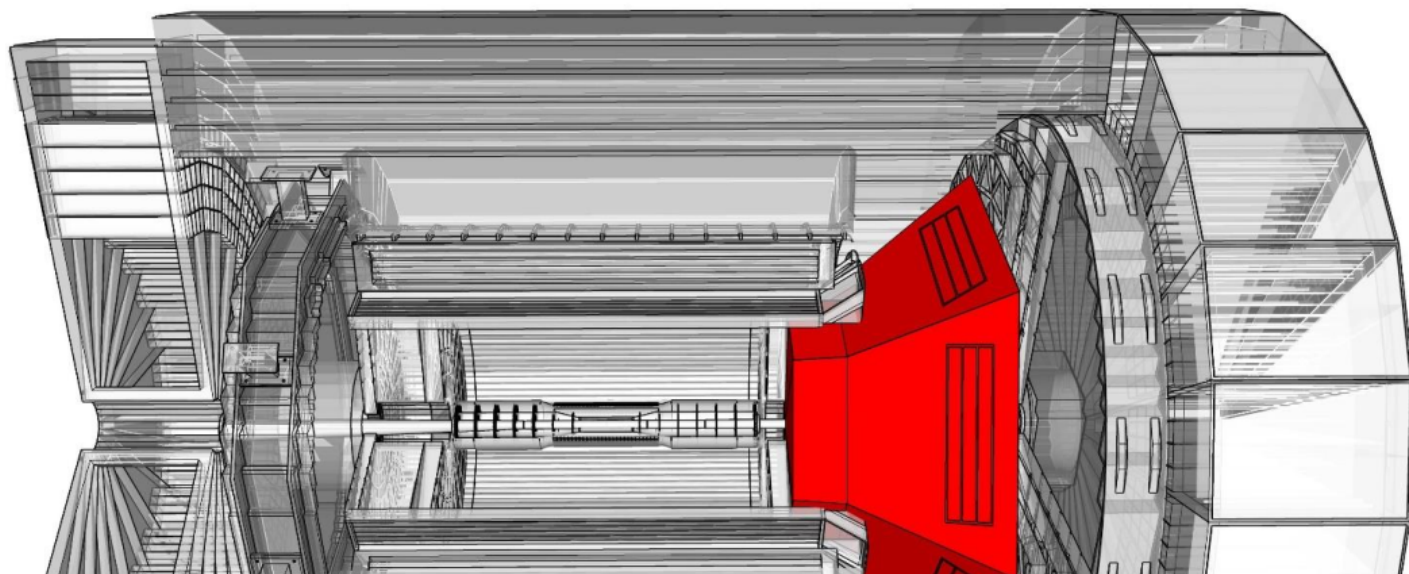


Menagerie, 1.5T, DIRC LD readout





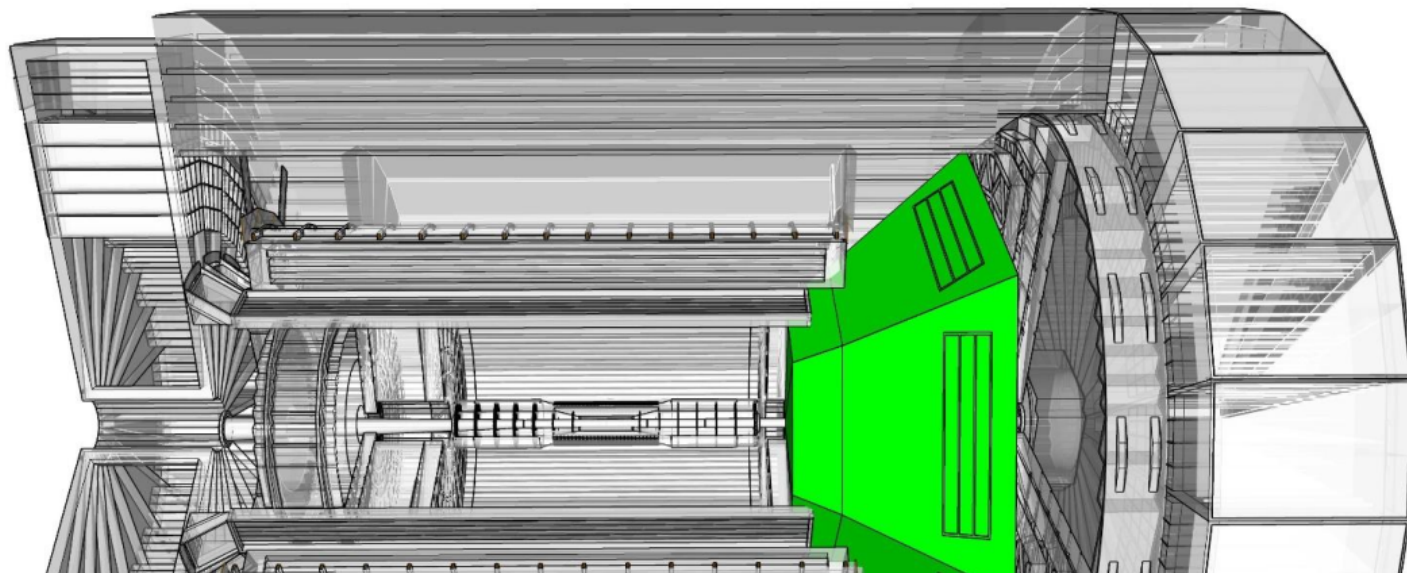




3 TESLA	Overall Length	150 cm
	Aerogel Length	40 cm
	Aerogel Radius	105 cm
	Detector Length	110 cm
	Bore	10 cm
	E1 (Far) Radius	200 cm
	E2 (Near) Radius	110 cm
	Offset	295 cm in Hadron Direction
	Segment Count	6
	Total Volume	9.99 m ³

1.5 TESLA	Overall Length	80 cm
	Aerogel Length	20 cm
	Aerogel Radius	75 cm
	Detector Length	60 cm
	Bore	10 cm
	HD Radius	160 cm
	LD Radius	85 cm
	Offset	260 cm in Hadron Direction
	Segment Count	6
	Total Volume	3.32 m ³

Figure 15: RICH Detector

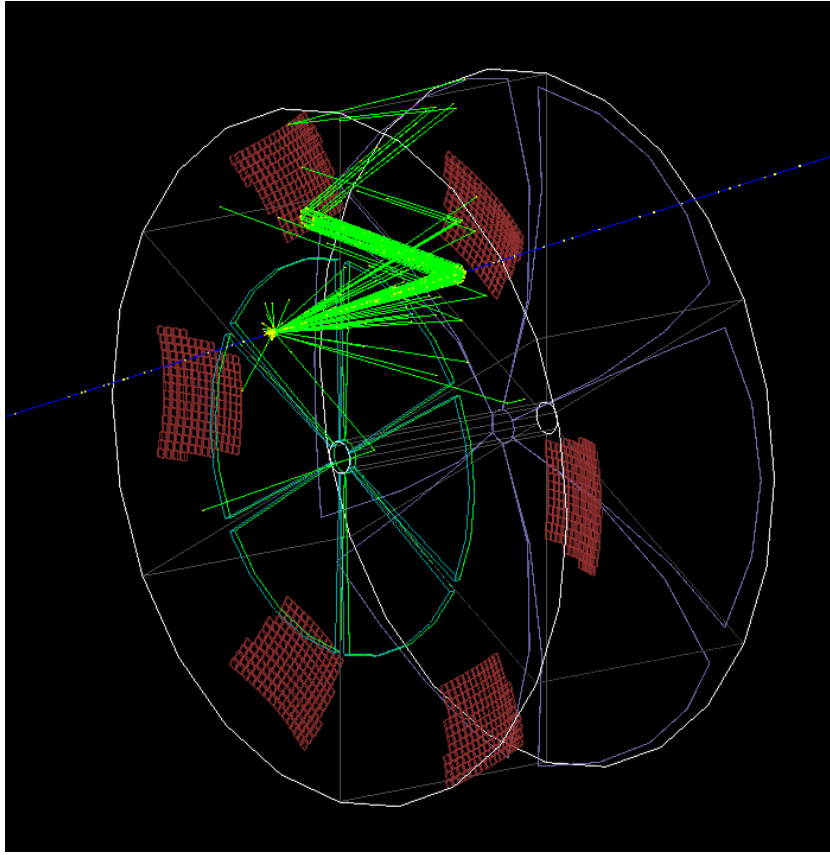


3 TESLA	Overall Length	145 cm
	Aerogel Length	35 cm
	Aerogel Radius	100 cm
	Detector Length	110 cm
	Bore	10 cm
	HD Radius	220 cm
	LD Radius	125 cm
	Offset	290 cm in Hadron Direction
	Segment Count	6
Total Volume	11.94 m ³	

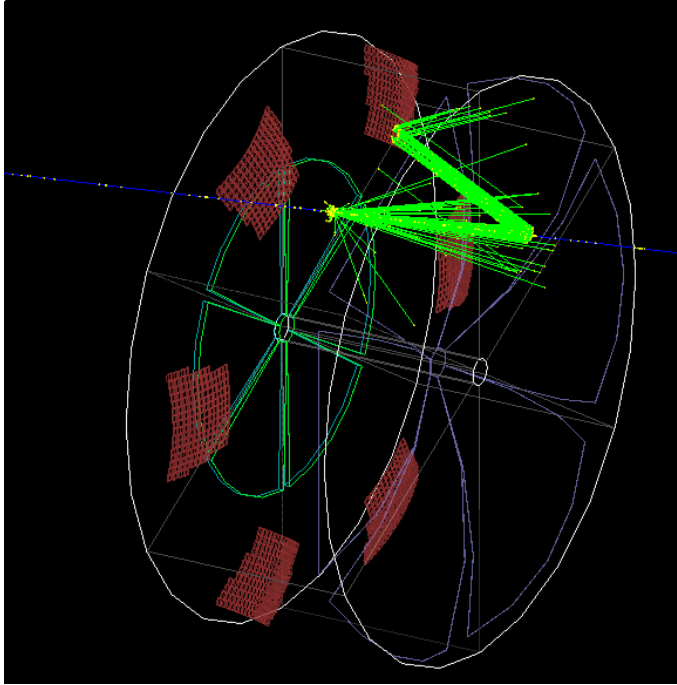
1.5 TESLA	Overall Length	110 cm
	Aerogel Length	20 cm
	Aerogel Radius	60 cm
	Detector Length	90 cm
	Bore	10 cm
	HD Radius	160 cm
	LD Radius	70 cm
	Offset	260 cm in Hadron Direction
	Segment Count	6
Total Volume	4.20 m ³	

Figure 26: RICH Detector

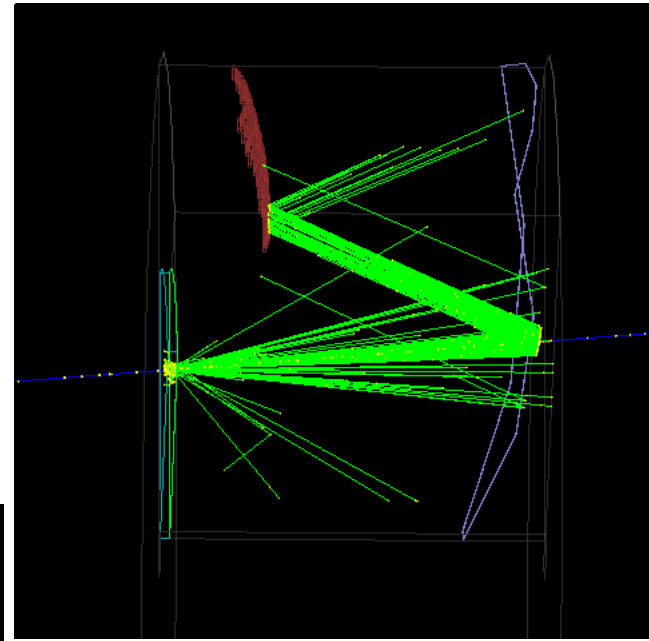
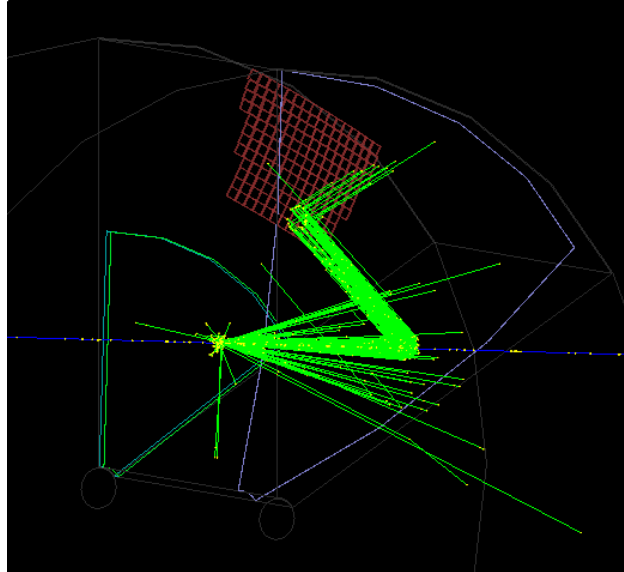
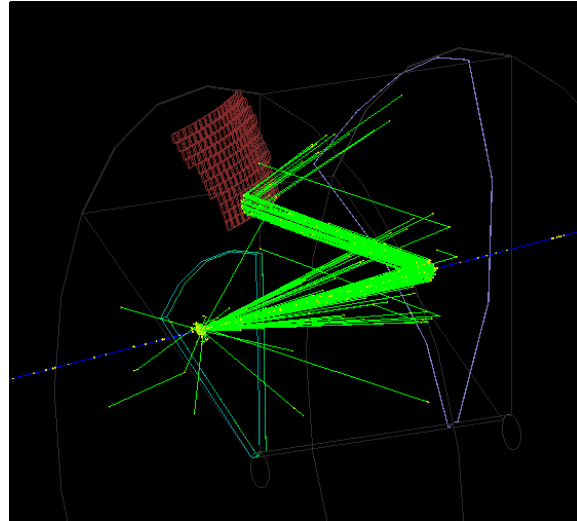
Fun4all Event



More Pictures

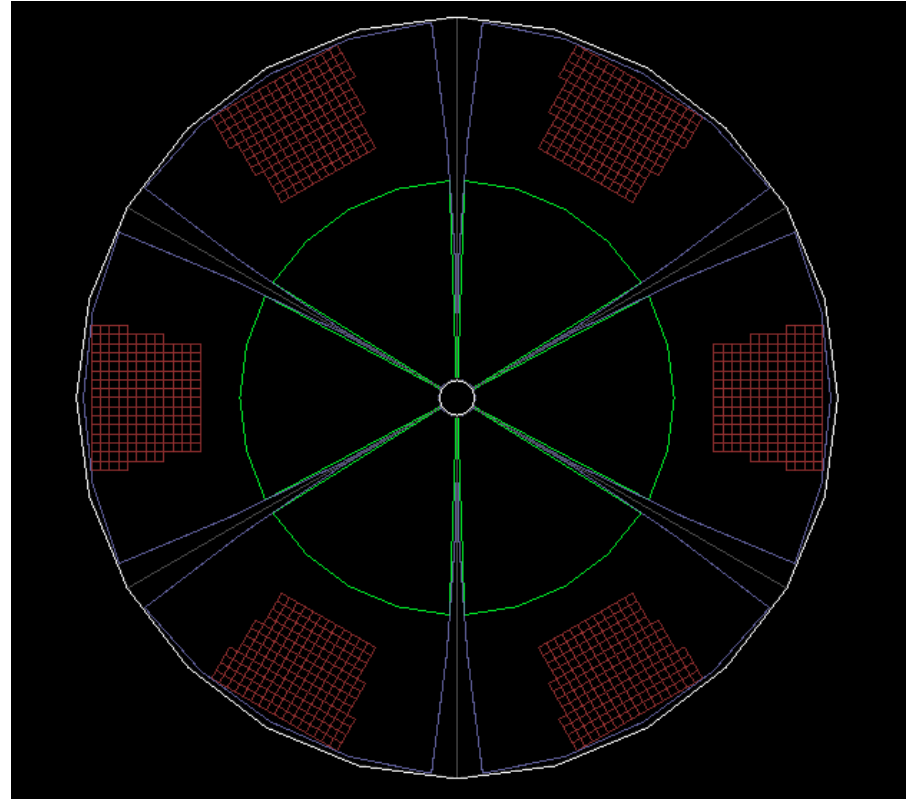
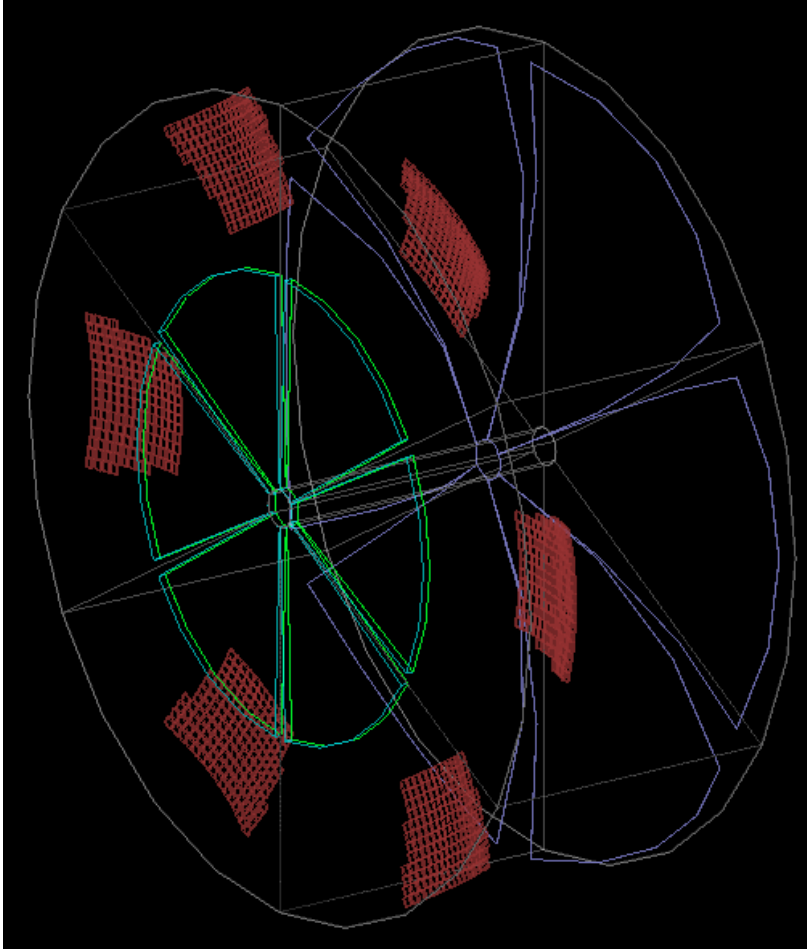


view from behind

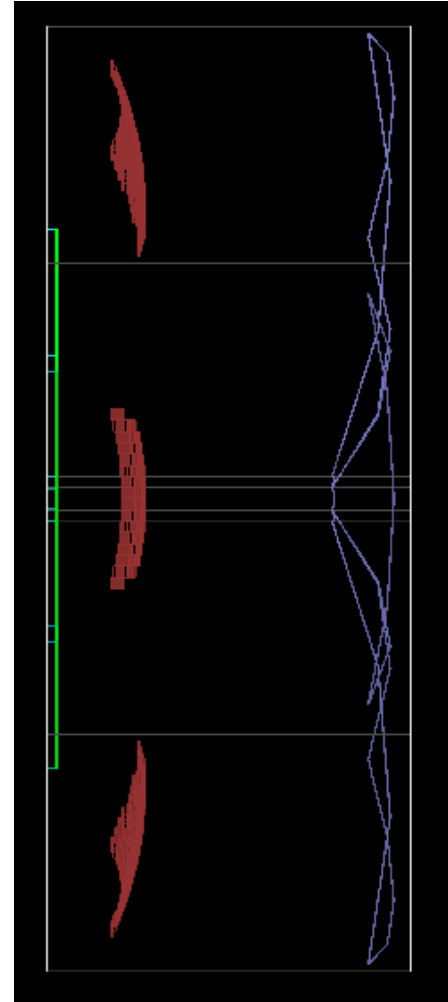
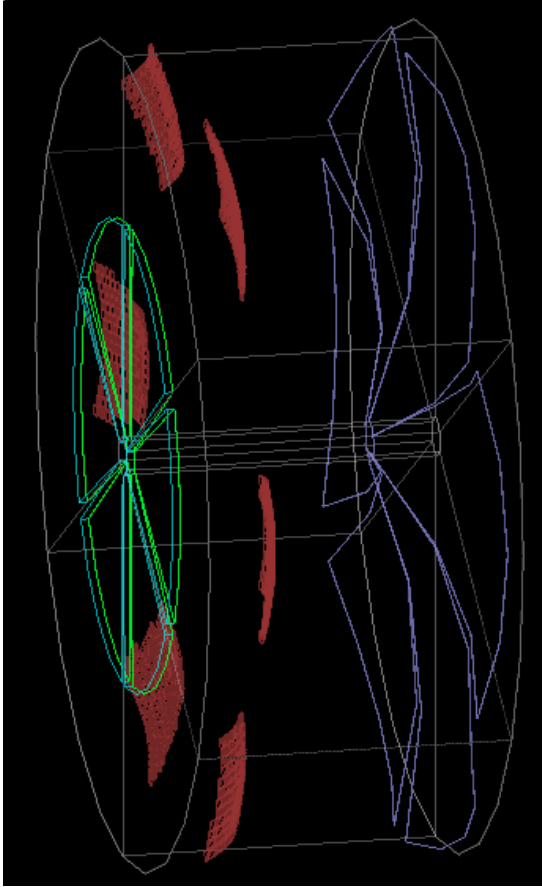


single petal views

Geometry Pictures

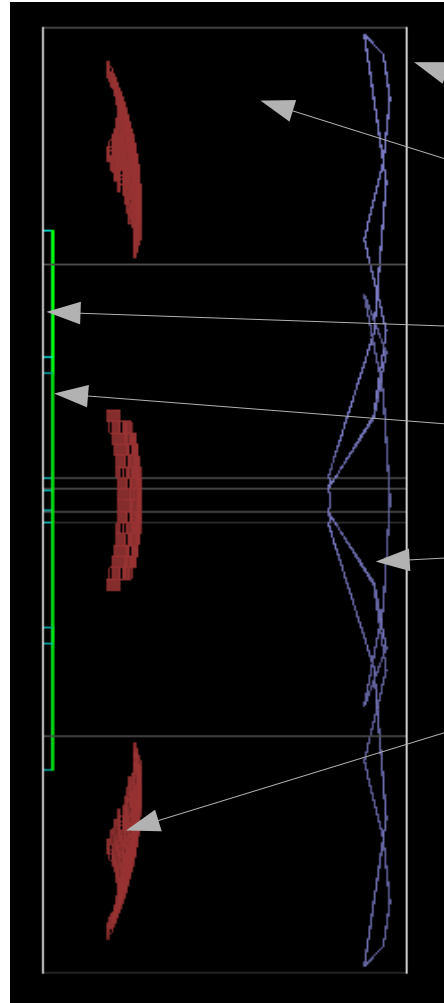


Geometry Pictures



Geometry Notes

Volume Hierarchy



Vessel (white) – Aluminum volume

Petal (grey) [x6] – Gas volume

Aerogel (blue)

Filter (green)

Spherical Mirror (purple)

Photosensors (PSST) (red)