IDEA Layout

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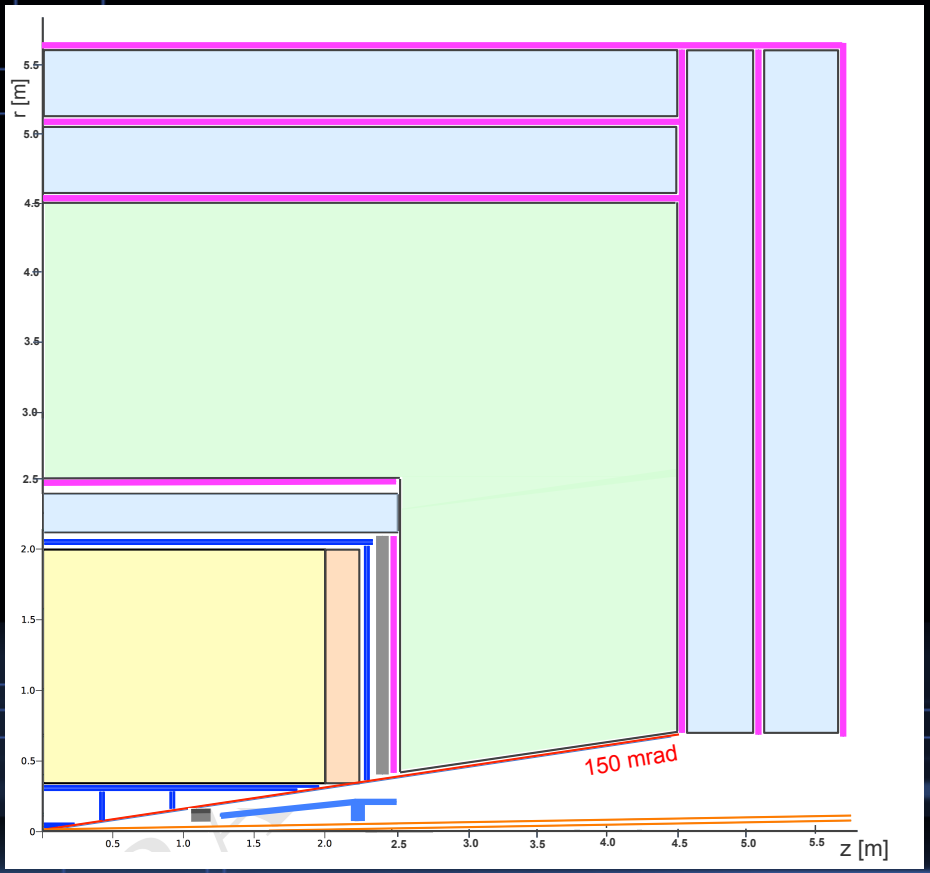
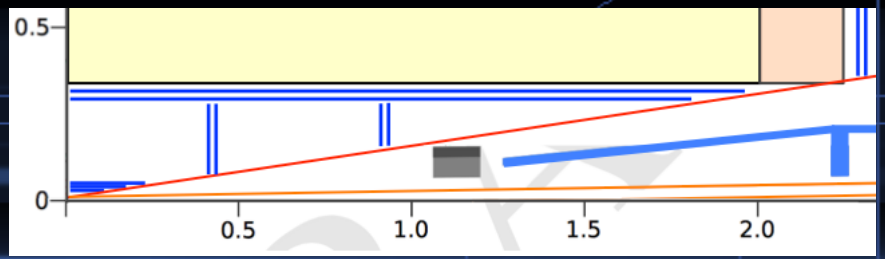


LEGENDA

- drift chamber
- drift chamber service area
- magnet and iron return yoke
- calorimeter
- Si wrapper double stereo layer 20 μm pitch
- μRwell double layer 70 μm pitch
- absorber 1.0 X_0
- luminometer
- steel simulating compensating and shielding solenoids
- vacuum tube



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Vertex Detector

Layer	R_{in} [mm]	Length [mm]	Thickness [μm]	X_0 [%]	pixel size [μm]
1	17	±110	300	0.3	20
2	23	±150	300	0.3	20
3	31	±200	300	0.3	20
4	260	±1718	950	1.0	20
5	280	±1850	950	1.0	20

Disk	R_{in} [mm]	R_{out} [mm]	z [mm]	Thickness [μm]	X_0 [%]	pixel size [μm]	Double layer
1	62	256	±400	300	1.0	20	yes
2	65	256	±420	300	1.0	20	yes
3	138	256	±900	300	1.0	20	yes
4	141	256	±920	300	1.0	20	yes

Drift Chamber

	R_{in} [mm]	R_{out} [mm]	z [mm]
drift chamber	300	2000	±2000
service area	300	2000	±(2000÷2250)

	inner wall	gas	wires	outer wall	service area
thickness [mm]	0.2	1700	1700	20	250
X_0 [%]	0.08	0.12	0.22	1.2	4.5

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Si wrapper

Layer	R_{in} [mm]	Length [mm]	Thickness [μm]	X_0 [%]	pixel size [μm]
1	2040	±2400	950	1.0	20
2	2060	±2400	950	1.0	20

Disks	R_{in} [mm]	R_{out} [mm]	z [mm]	Thickness [μm]	X_0 [%]	pixel size [μm]	stereo layers
1	360	2020	±2340	950	1.0	20	yes
2	360	2020	±2360	950	1.0	20	yes

End-plate absorber

	R_{in} [mm]	R_{out} [mm]	z [mm]	X_0 [%]
lead	374	2080	±(2450÷2455)	0.9

Magnet

	R_{in} [mm]	R_{out} [mm]	z [mm]	X_0 [%]
solenoid	2100	2400	±2500	0.9

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Pre-shower counter (double layers)

R_{in} [mm]	Length [mm]	Thickness [mm]	X_0 [%]	pixel size [μm]
2460	±2500	20	1.0	70

R_{in} [mm]	R_{out} [mm]	z [mm]	Thickness [mm]	X_0 [%]	pixel size [μm]
374	2080	±2460	20	1.0	70

Calorimeter (lead)

R_{in} [mm]	Length [mm]	Thickness [mm]	interaction lengths
2500	±2500	2000	10

R_{in} [mm]	R_{put} [mm]	z [mm]	Thickness [mm]	interaction lengths
±(380÷685)	4500	±(2500÷4500)	2000	10

Muon counters (three double layers) and return yoke (iron)

Layer	R_{in} [mm]	Length [mm]	Thickness [mm]	int. length	pixel size [μm]
μRwell	4520	±4500	20		70
iron	4540	±4500	500	2.5	
μRwell	5040	±4500	20		70
iron	5060	±4500	500	2.5	
μRwell	5560	±5580	20		70

Disk	R_{in} [mm]	R_{out} [mm]	z [mm]	Thickness [mm]	X_0 [%]	pixel size [μm]
μRwell	685	5540	±4520	20		70
iron	685	5540	±4540	500	2.5	
μRwell	685	5540	±5040	20		70
iron	685	5540	±5060	500	2.5	
μRwell	685	5540	±5560	20		70

IDEA Layout

Vertex Detector	14 m^2
Drift Chamber	50 m^3
Si wrapper	173 m^2
Pre-shower counter (double layers)	2×130 m^2
Muon counters (double layers)	2×1150 m^2