

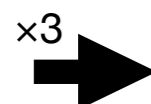
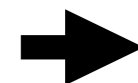
New Layer3 geometry
Status and plans

Isabella Garzia

February 28, 2023

L3 stratification

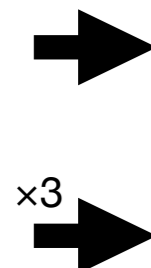
LAYER 3	material	thickness	fill factor	rad length		tot	
cathode	kapton	25	1,00000	0,000087489	1,28E-03	1	1,28E-03
	epoxy	15	1,00000	0,000044170			
	carbonfiber	60	1,00000	0,000214286			
	epoxy	15	1,00000	0,000044170			
	honeycomb	1900	1,00000	0,000144773			
	epoxy	15	1,00000	0,000044170			
	kapton	50	1,00000	0,000174978			
	epoxy	15	1,00000	0,000044170			
	kapton	50	1,00000	0,000174978			circuito catodico
	copper	3	1,00000	0,000208914			
	peek	4750	0,00634	0,000098886			
gem	copper	5	0,66000	0,000229805	0,000639643	3	0,002028224
	kapton	50	0,81000	0,000141732			
	copper	5	0,77000	0,000268106			
	peek	1750	0,00634	0,000036432			
	peek	1750	0,00634	0,000036432			
	peek	1750	0,00634	0,000036432			
anode	copper	5	0,88000	0,000306407	5,72E-04	1	0,002744
	kapton	50	0,20000	0,000034996			
	copper	5	0,20000	0,000069638			
	epoxy	25	1,00000	0,000073616			
	kapton	25	1,00000	0,000087489			
	epoxy	15	1,00000	0,000044170	0,001125575	1	
	kapton	125	1,00000	0,000437445			
	epoxy	15	1,00000	0,000044170			
	honeycomb	3900	1,00000	0,000297165			
	epoxy	15	1,00000	0,000044170			
	carbonfiber	60	1,00000	0,000214286			
	epoxy	15	1,00000	0,000044170			
	copper	5	1,00000	0,000348189	0,000523168	1	ground plane
	kapton	50	1,00000	0,000174978			
	kapton	50	1,00000	0,000174978	0,000523168	1	faraday cage
	copper	5	1,00000	0,000348189			
						TOT	
						0,0060533	



**X0 tot =
0,0155596**

L3 stratification

LAYER 3	material	thickness	fill factor	rad length		tot	
cathode	kapton	25	1,00000	0,000087489	1,28E-03	1	1,28E-03
	epoxy	15	1,00000	0,000044170			
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	kapton	125	1,00000	0,000437445			
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	copper	5	1,00000	0,000348189	0,000523168	1	ground plane
	kapton	50	1,00000	0,000174978			
	kapton	50	1,00000	0,000174978	0,000523168	1	faraday cage
	copper	5	1,00000	0,000348189			



x3

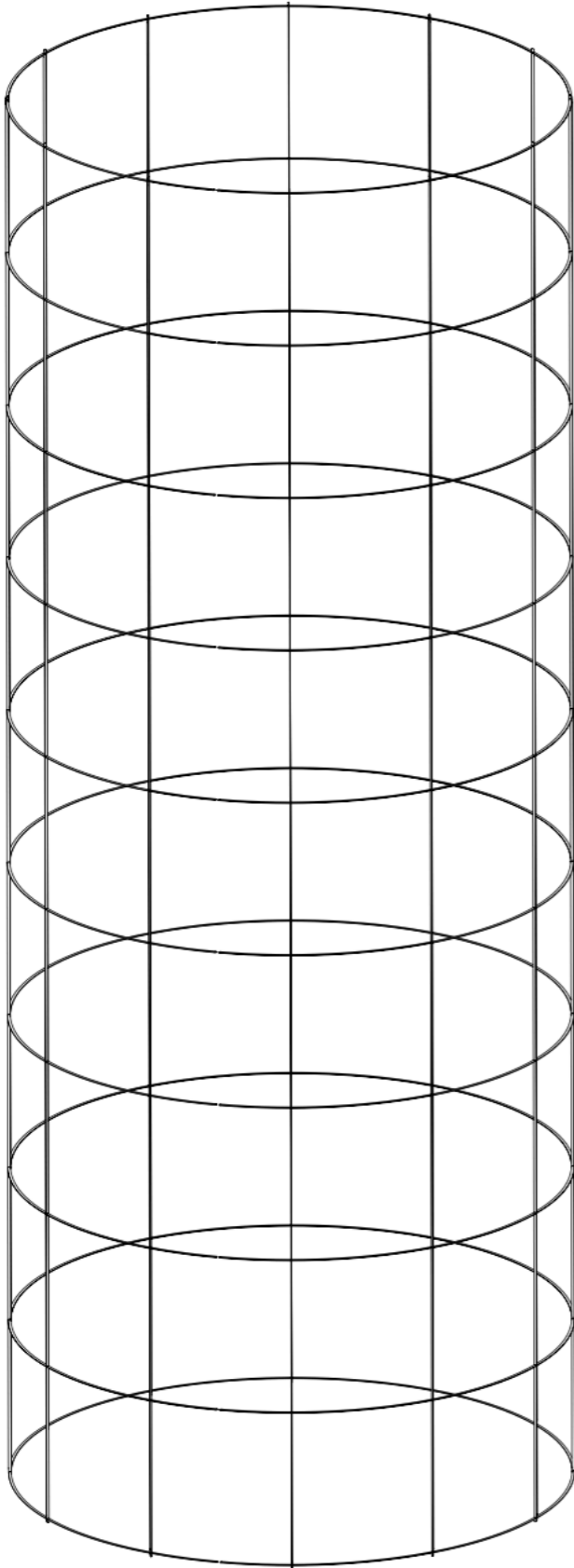
TOT
0,0060533

No grids
0.0058451

No ff
0.038

Only cath. grid
~ 0.02

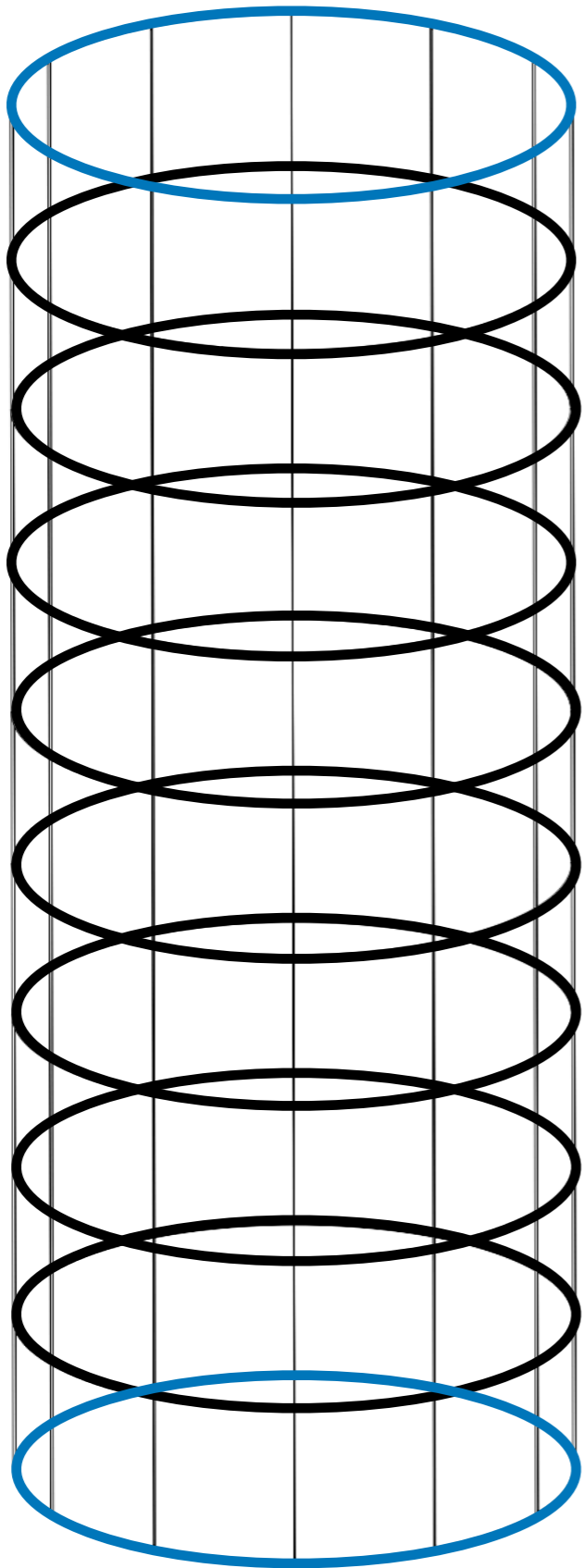
L3 GRID



10 rings + 12 Rods

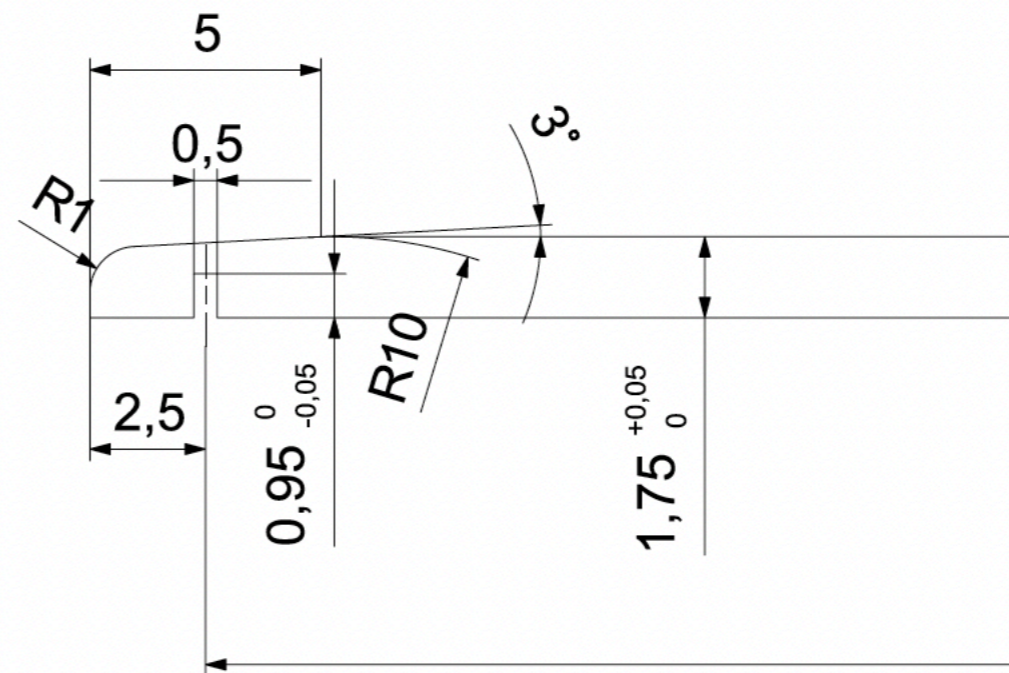
- **GEM1**
- **GEM2**
- **GEM3**
- **Cathode**

L3 GRID: plan for the CgemBoss implementation

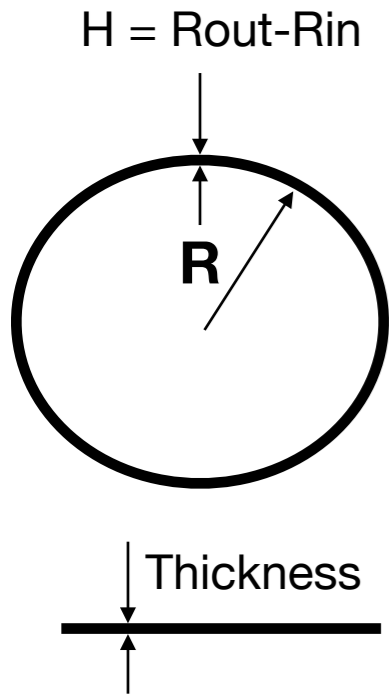




10 rings + 12 Rods

8+2



L3 GRID: Summary Table



	GC	G1	G2	G3
R1 2*H	328.3 mm 9.3 mm	338.3 mm 3.3 mm	342.3 mm 3.3 mm	346.3 mm 3.3 mm
R2 2*H	328.3 mm 8.5 mm	338.3 mm 3.0 mm	342.3 mm 3.0 mm	346.3 mm 3.0 mm
Thickness	0.3 mm	0.3 mm	0.3 mm	0.3 mm
Lrod Hrod	981 mm 4.75 mm	981 mm 1.75 mm	981 mm 1.75 mm	981 mm 1.75 mm
 	97.6 mm 2.5 mm	97.6 mm 2.5 mm	97.6 mm 2.5 mm	97.6 mm 2.5 mm
Thickness rods	0.3 mm	0.3 mm	0.3 mm	0.3 mm

NEW L3 implementation: plans

Update the grids parameters

```
Cgem/CgemGeomSvc/CgemGeomSvc-00-00-40/dat/cgem_model_6_default.txt
```

Add rings and rods in

```
Simulation/BOOST/CgemSim/CgemSim-01-00-40/src/BesCgemConstruction.cc
```

When?

Maybe I will be able to start a first implementation in April