

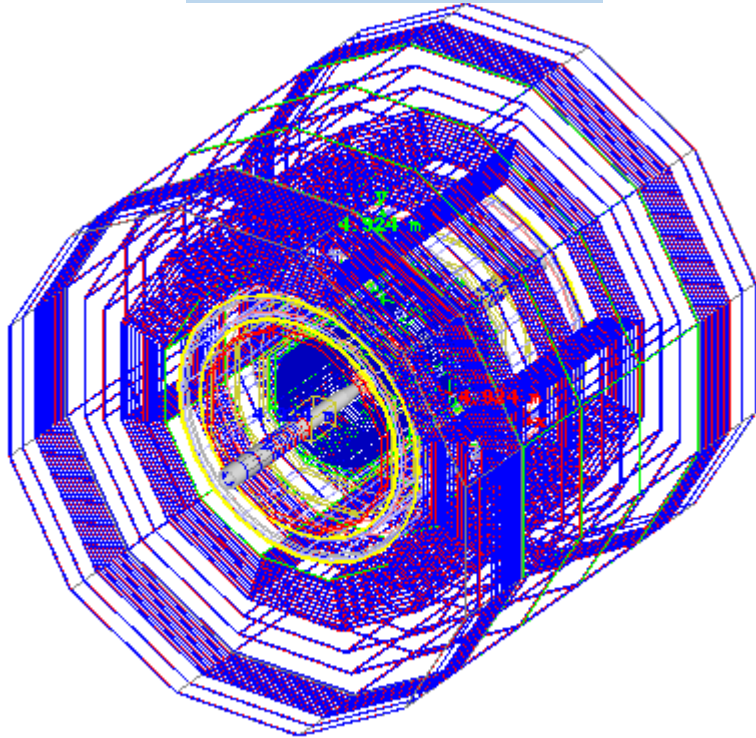
Progress of software — CEPC_v4

Using updated Tube_cepc driver for new MDI.

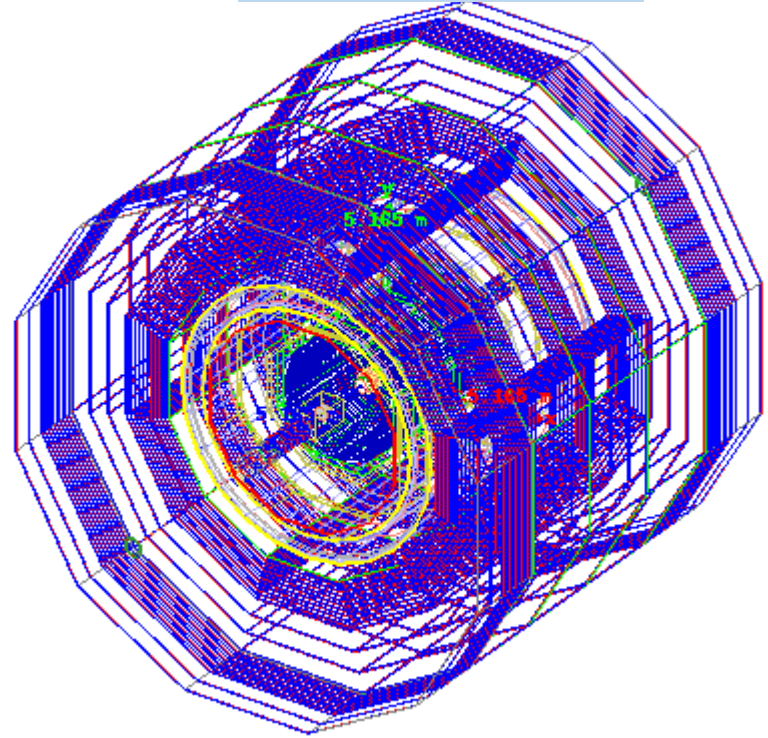
It has been created in database of 202.122.37.75 by Qiumei.

Sub-detector	CEPC_v1	CEPC_v4
Tube & Mask	Single pipe	New MDI design—doubly pipe
Lcal	R: 60 mm ~ 172 mm	R: 25 mm ~ 100 mm
VXD	16mm/62.5mm, 37mm/125mm, 58/125mm	Same as CEPC_v1, first layer can be updated to R = 15.5mm
FTD	220mm, 371.3mm, 645mm, 846mm, 1057.5mm, 1848.5mm , 2250mm	Need to be updated (5 or 7 layer?)
SIT & SET	153mm, 300mm, 1811mm, 1813.5mm	Same as CEPC_v1
TPC	Sensitive Radius: 384mm ~ 1718mm	Same as CEPC_v1
Ecal	R: 1843mm ~ 2028mm; Z: 2450mm ~ 2635mm; Cell size: 5.0833mm Rin_endcap: 226.8 mm	Cell size: 10.1667mm Rin_endcap: 245 mm
Hcal	R: 2058mm ~ 3385.53mm; Cell size: 10.408 mm; 48 layers	R: 2058mm ~ 3143.43mm; Z: 2650mm ~ 3736.43mm; 40 layers
Yoke	Rin = 4415(barrel), 300(endcap)	Rin = 4174(barrel), 300(endcap) (240 for MDI)
Field	3.5 T	3.0 T

CEPC_v4 R = 7.415 m



CEPC_v1 R = 7.656 m



Workable but not optimized/fixed as stable version!

Discussion and Next to do

- Optimized by detector expert
 - Gap for electronic cable
 - etc
- Optimized by physical requirement
 - 7 layers FTD needed/wanted?
 - 5 or 6 or 7?
 - If want to change flexibly, [SiTracker01](#) driver can be used.
- Any more modification?
- Once fixed, move to official database