

# A very short SAND geometry update

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# DUNENDGGD

DUNENDGGD is based on GeGeDe (Brett Viren - BNL)

DUNENDGGD is widely used in the ND sub-groups

GDML output compatible with geant4 and root

Large flexibility to define the user-preferred detector configuration

Original : <https://github.com/gyang9/dunendggd>

Also in the SAND organization

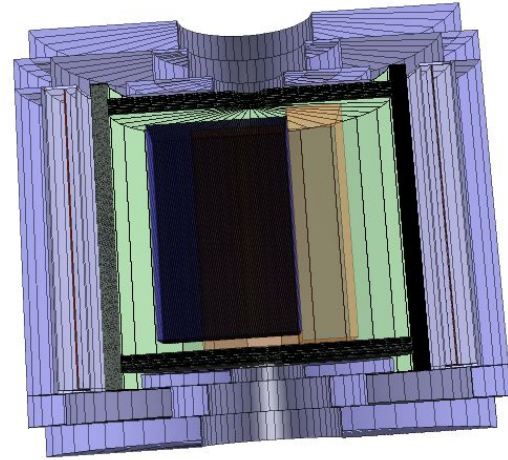
# Previous SAND geometry

Master branch geometry version 13  
for 3DST+TPC (averaged ECAL  
density)

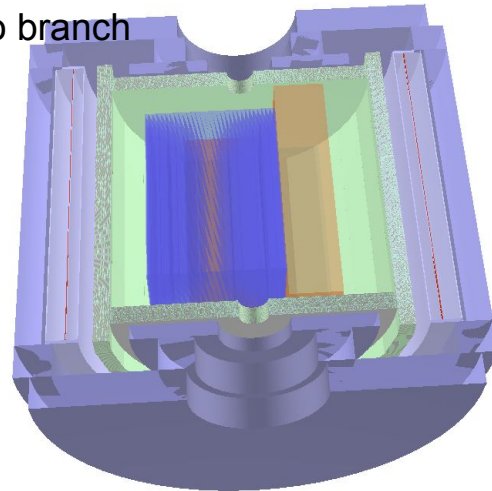
Other branch: ecal module branch  
(scintillator + slab scheme ecal), if we  
go for this, need to merge to the main  
branch (next slide)

I will need to collect latest  
configuration files for other alternative  
geometries

Master v13



Kloe\_emcalo branch



# Updated status

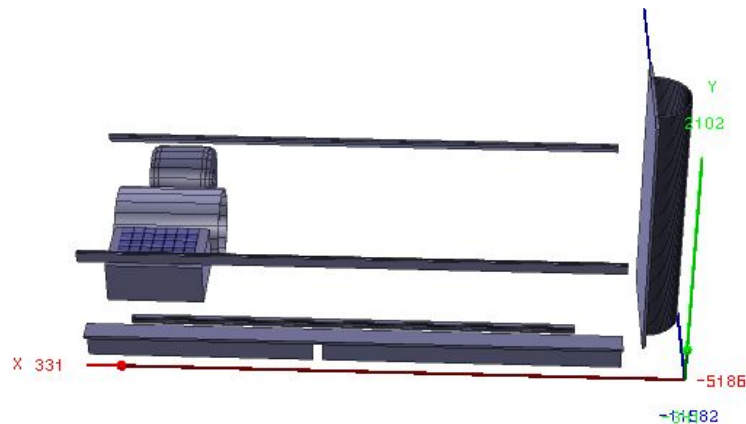
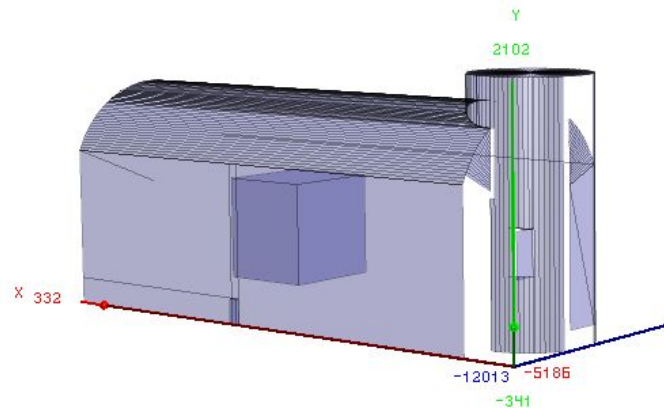
- The ECAL model with lead and scintillator layers alternating should be in the master branch: need to be confirmed by Matteo.
- Fixed a naming convention issue: the inner volume of KLOE is named volMain\_innerTracker now. It can contain 3DST + TPC or 3DST + STT or STT.
- Added a folder with existing gdml files. All these files should be considered as geometry v 14. I am not planning to do a mass production with these files soon since there is no fundamental change in terms of physics performance. But we should use these for future productions.

# Gdml folders

<https://github.com/DUNE-ND-SAND/dunendggd/tree/master/gdml>

Available geometries:

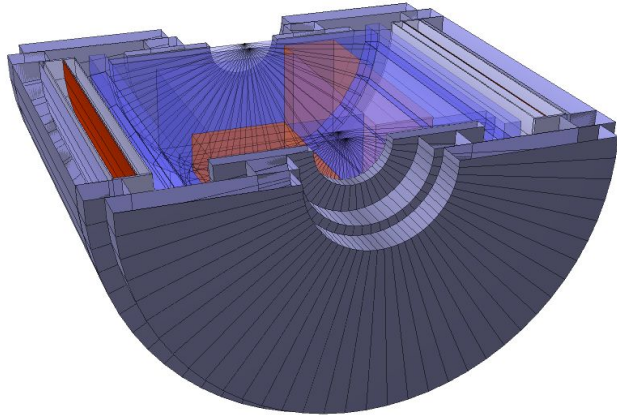
- Empty ND hall
- ND hall with LAr TPC
- ND hall with MPD
- ND hall with LAr + MPD
- ND hall with SAND
- ND hall with LAr + MPD + SAND



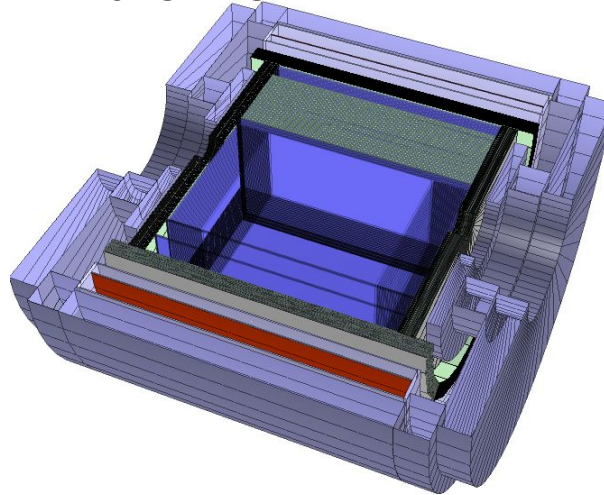
# SAND gdml files

The SAND detector includes all possible combinations

3DST + TPC



3DST + STT



STT-only

