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LC collaborations moving to new detector simulation framework: DD4HEP

CLIC is developing new detector concept for next round of studies

Dan is implementing ECAL choice for this model – i**mplementation will also be used by ILD**

We would like to work with DD4HEP since we're investing effort in the development

However: complete DD4HEP reco chain won't be ready until summer (and ILC collabs may be slower than CLIC to adopt) so will need to think about timing.

– validation is an important part
  – checking for overlaps
  – comparing with previous versions
  – stress testing
– working with detector optimisation group to fix procedures

Current framework is Mokka/Marlin:
  Mokka does simulation (Geant4)
  Detector geometries are in mySQL db, access to geometrical properties via GEAR package
  Reco/ana done via Marlin (/MarlinReco)
LCIO data format

SLIC is another Geant4-based sim package, but Mokka can simulate both ILD and SiD
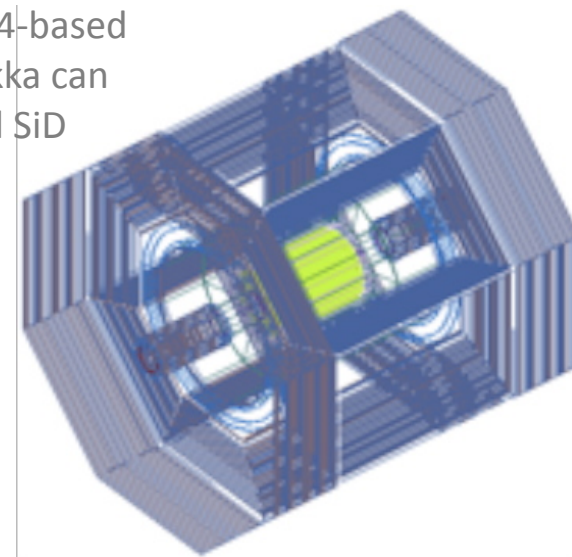
In Glasgow we have run Mokka/Marlin and simulated modified existing detector geometries (eg number of layers in calorimeter using CLIC-ILD) -> some experience.