Software Coordinators Report

ILD Software and Analysis Meeting

13.04.22

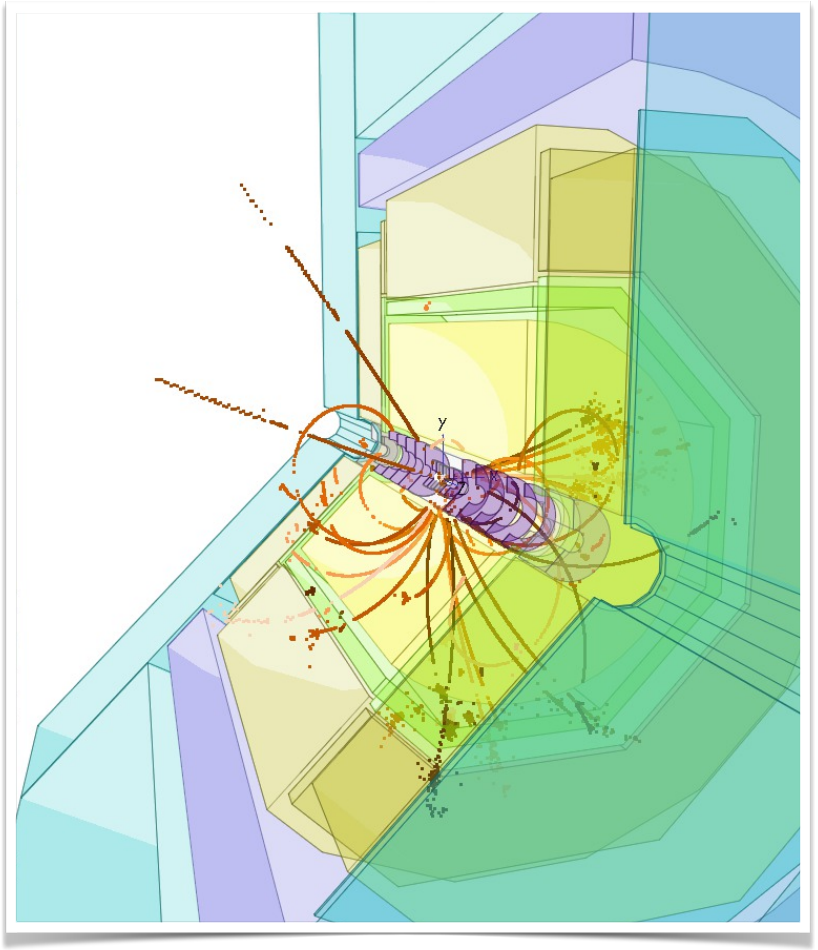
Frank Gaede, DESY

HELMHOLTZ RESEARCH FOR GRAND CHALLENGES

Outline

- Generator
- Simulation
- Reconstruction
- Monte Carlo Production

report from SW convenors meeting last Friday



Generator

J.Tian, M.Berggren

- ongoing work to sort out exact production scripts for aa->2f/4f and ae/ea->3f
  - make sure that there is no double counting and ID numbers are correct...
- have estimates for computing resources need for these virtual photon samples
- decided to generate the full statistics
- but produce the smaller (~year of H20) sample with full sim/rec first
  - if issues in analyses arise, produce more or fall back to SGV…

For the nominal integrated lumis for these samples (1/0.2/0.2/1 ab^{-1} for LR/LL/RR/RL):

	KEKcc cpu [Gs]	DST [TB]
aa_2f	5.0	42.5
ae/ea_3f	52.0	124.0
4f	2.0	6.4
Tot	59 (∼2000 years)	172.5

This is about the full H20 statistics, except for aa_2f where is ∼ 1/2 H20.
If this is to much, one could scale down aa_2f and ae/ea to 1 year of H20 (but keep 4f), which gives:

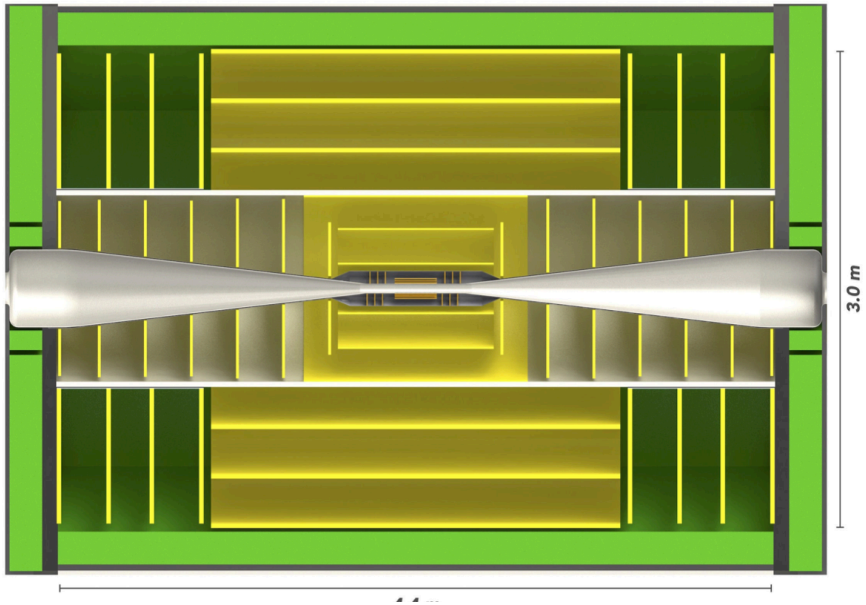
	KEKcc cpu [Gs]	DST [TB]
aa_2f	1.0	8.5
ae/ea_3f	5.2	12.4
4f	2.0	6.4
Tot	8.2 (∼300 years)	27.3

M.Berggren

April 7, 2022 1 / 1

Simulation

D.Jeans, M.Ruan

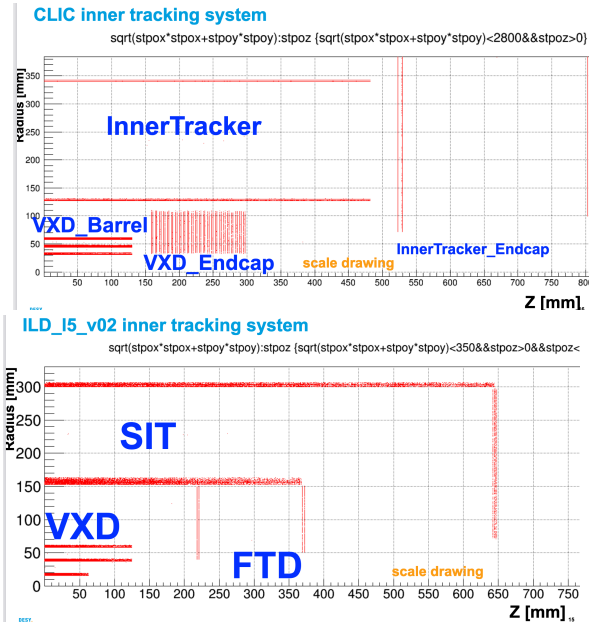


CLICdp Si-tracker layout

- D.Jeans has created an ILD w/ silicon tracking
- using the CLIC barrel tracker

- talked to Jan Klampka from F.Zarneckie's groups

- who is interested in getting the track reconstruction for the all-Si-ILD to work
  - based on ConformalTracking developed by CLIC



Reconstruction

T.Madlener, A.Irles

- T.Madlener created cvms release if **iLCsoft & Key4hep**
  - see talk later

Monte Carlo Production

R.Yonamine, H.Ono

- status of production:
  - 10% of Bhabha production completed
  - physics working group had checked these
    - see talk J.Kunath last meeting

- no problem found
- => production of pending 90% started