Software Coordinators Report

ILD Software and Analysis Meeting
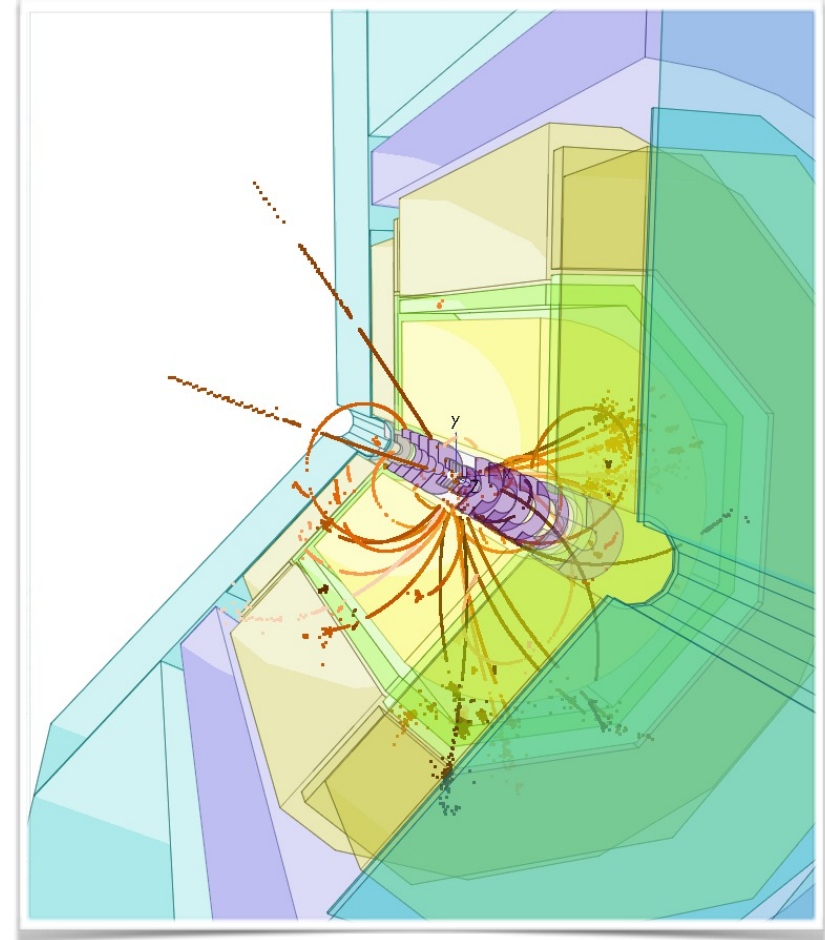
26.05.21

Frank Gaede, DESY

Outline

- Generator

- Simulation

- Reconstruction

- Monte Carlo Production

  - tutorials

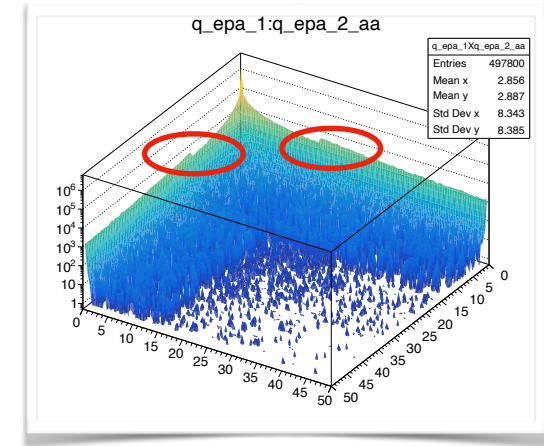   report from SW convenors meeting on Friday

Generator

J.Tian

- not too much news on generator side

- had a meeting w/ Whizard authors on the issue with photon-photon cross section

  - "not trivial to fix"

  - W. Kilian will ask student to have a closer look

- possible fall-back solution

  - reweight the cross section as a function of Q^2 to smoothen it correctly

- 6f generation currently paused

  - basically ready
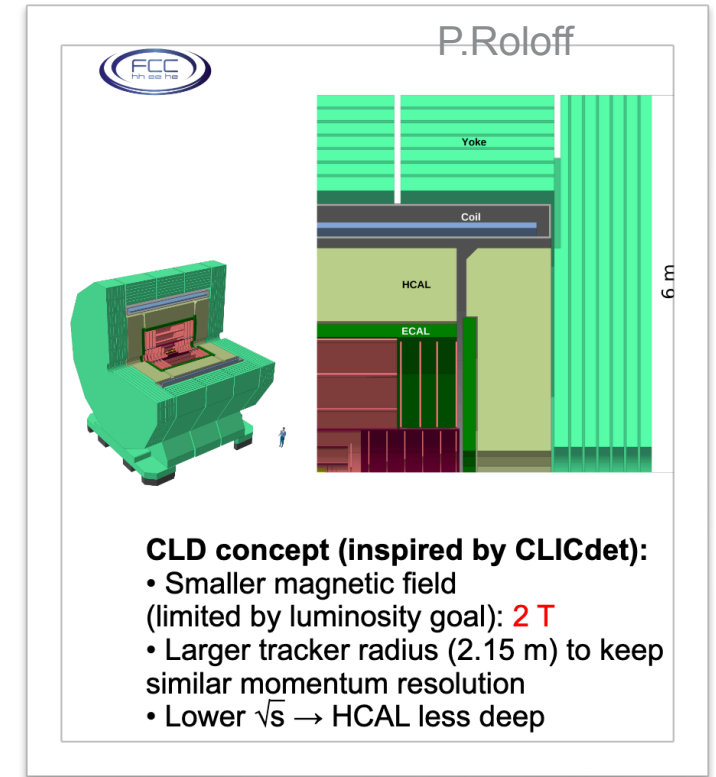
  - need tuning of resonant history

Simulation

D.Jeans

- some initial thoughts/discussion on preparing an ILD model with a silicon tracker

- could use CLICdp tracker "*out-of-the-box*"

  - would perfectly fit into **ILD-S** detector model

  - -> need adjustment of layout for **ILD-L**

  - NB: similar thing had been done for FCC-CLD

- main question: is this sth. ILD would like to study ?

  - what can we learn from this ?

  - some effort needed from software and analysis groups …

P.Roloff

CLD concept (inspired by CLICdet):
- Smaller magnetic field
(limited by luminosity goal): 2 T
- Larger tracker radius (2.15 m) to keep
similar momentum resolution
- Lower √s → HCAL less deep

Reconstruction
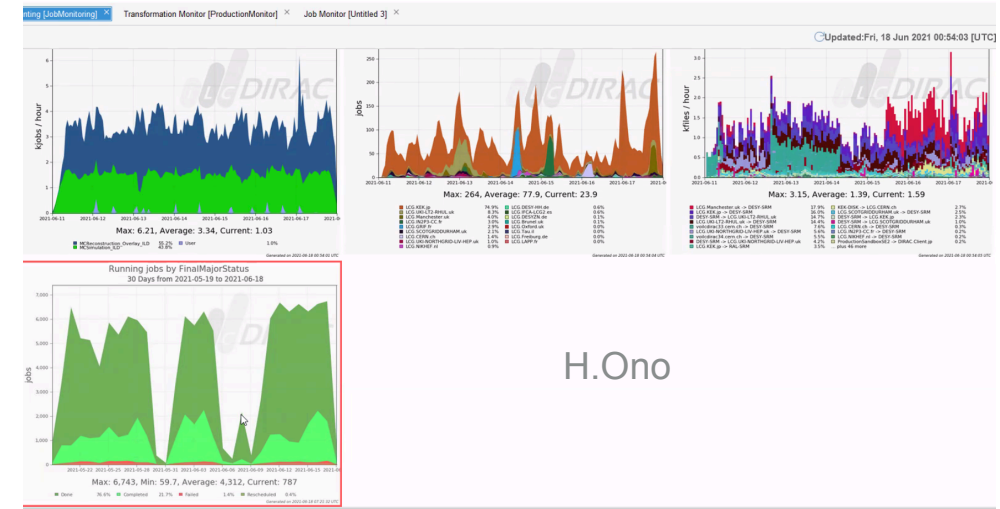
A.Irles, T.Madlener

- **ilcsoft v02-02-02 now released and installed in afs/cvms**

  - see mail T. Madlener

- some work planned on LCIO

  - would like to modernize LCIO **cmake, CI, etc.**

  - would need to **deprecate the f77 interface**

  - and maybe also **the C interface ?**

    - will first put a deprecation warning there

- preparing a new series of **developer releases w/ gcc10, python3,**...

  - e.g. at   /afs/desy.de/project/ilcsoft/sw/x86_64_gcc10_centos7/HEAD-2021-03-31/

- request for an update of the **RawCalorimeterHit** from CALICE

  - currently under discussion in CALICE…

Monte Carlo Production

H.Ono, A.Miyamoto

- **2f, 4f, H samples complete statistics done** -
  except 2f hadronic samples

H.Ono

- moving to finish 2f hadronic samples

  - currently **6-7 k jobs running in parallel**

  - expect ~2 months to finish

  - some issues observed last week due to network problems at DESY

- only left then

  - 6f samples (small cross section)
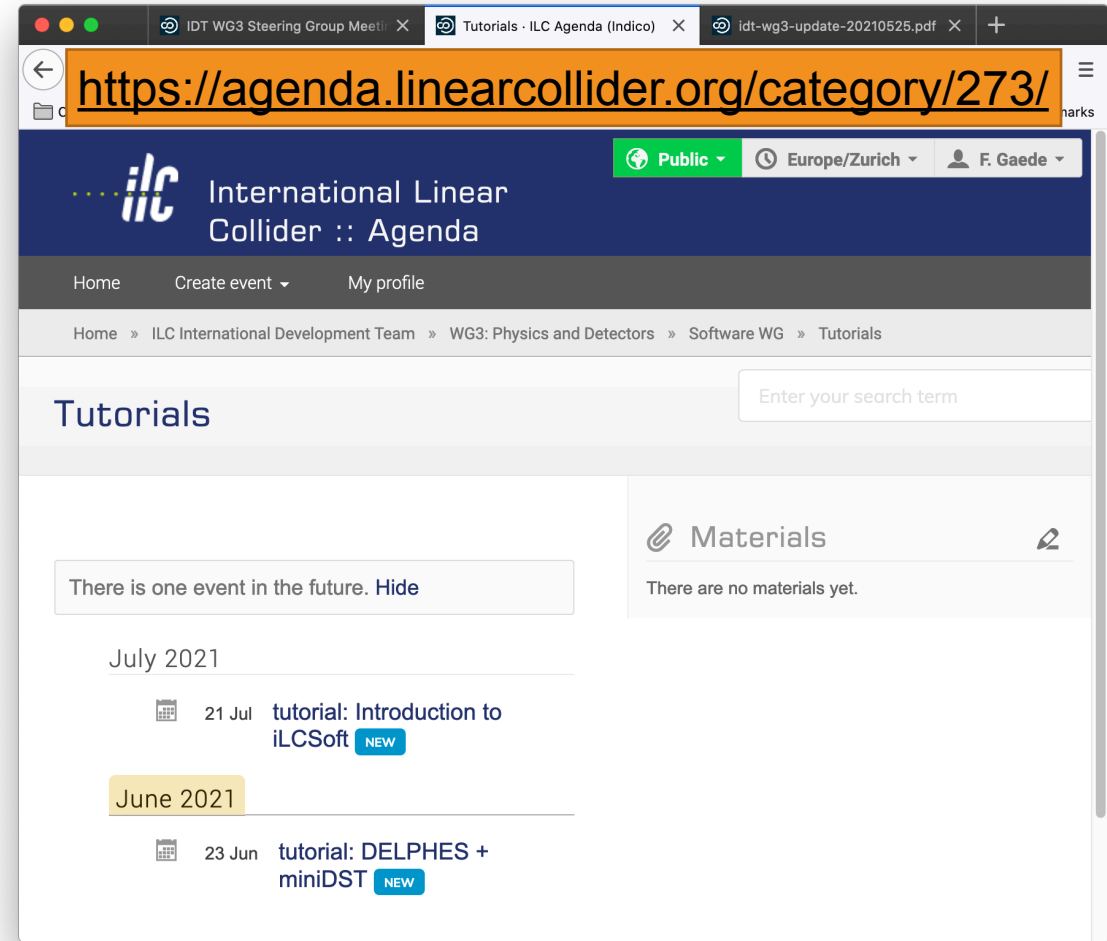
  - samples w/ virtual photons (larger cross section)

check status of production at this web page:

https://ild.ngt.ndu.ac.jp/mc-prod/prodmon/prodsum-mc2020.html

Regular ILC Software tutorials
organised by IDT-WG3-SW

- organising a series of monthly seminars tutorials

- **Wednesdays**
  - **06:30 PDT / 15:30 CEST / 22:30 JST**
  - 60~90 minutes

- first one will be **later today** - **June 23**:
  - DELPHES ILC card (Filip Zarnecki)
  - "make your first ILC Higgs plot" (Jenny List)

- second one on **July 21**:
  - Introduction to iLCSoft (Thomas Madlener)

- future candidates: SGV, LCFIPlus, PandoraPFA, ddsim/DD4hep,…

- what do you want to see covered ?
  - send your suggestions to:
    ilc-swc-coreATml.post.kek.jp

https://agenda.linearcollider.org/category/273/