

Software Coordinators Report

ILD Software and Analysis Meeting

27.01.21

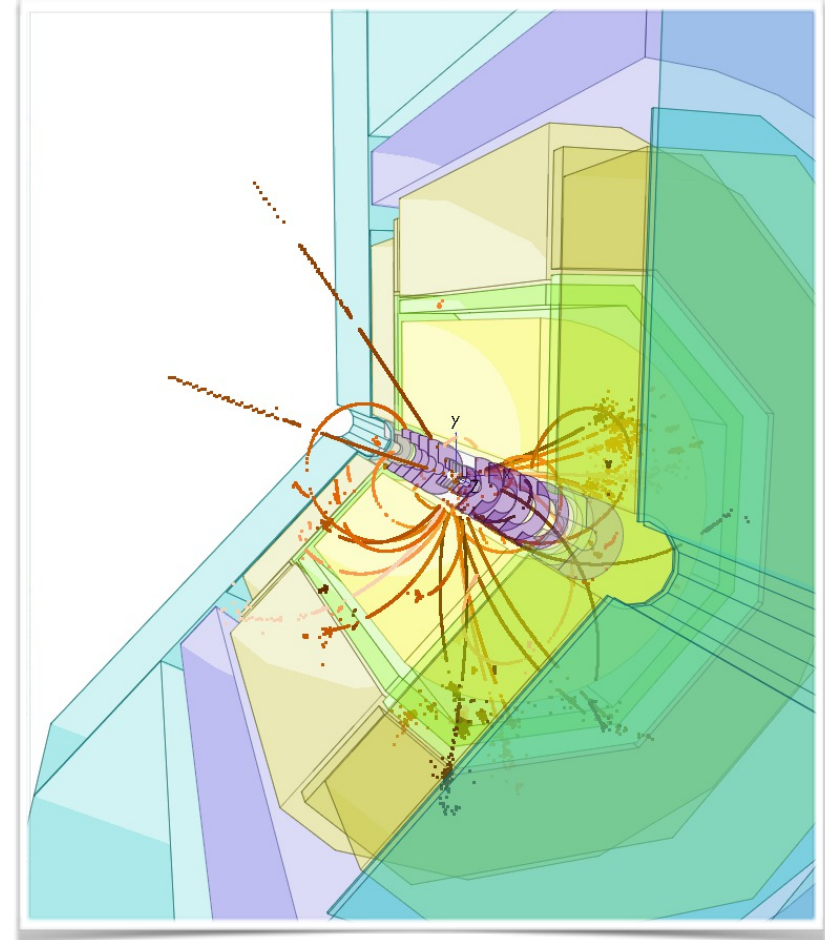
Frank Gaede, DESY



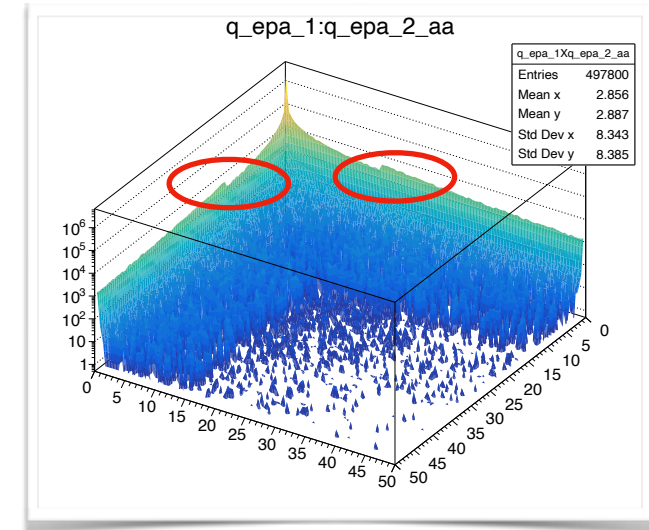
Outline



- Generator
- Simulation
- Reconstruction
 - next iLCSoft release
- Monte Carlo Production



- no news yet on problem with cross section of samples with virtual photons
 - still work in progress w/ Whizard authors
- continue work on new TrueJet implementation
- running with new MCParticle format
 - will create PR later today



Simulation

D. Jeans

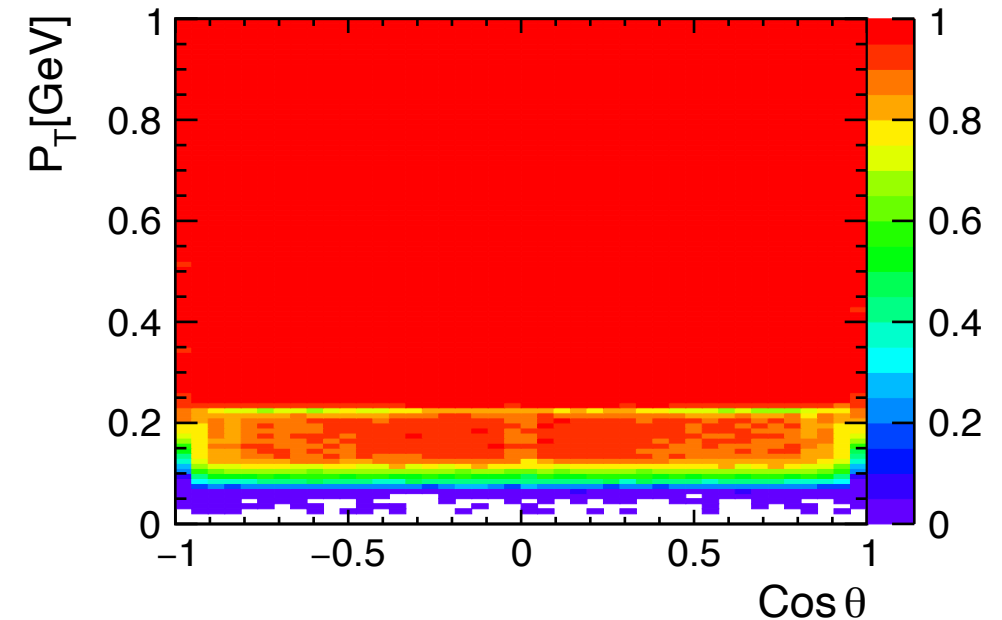
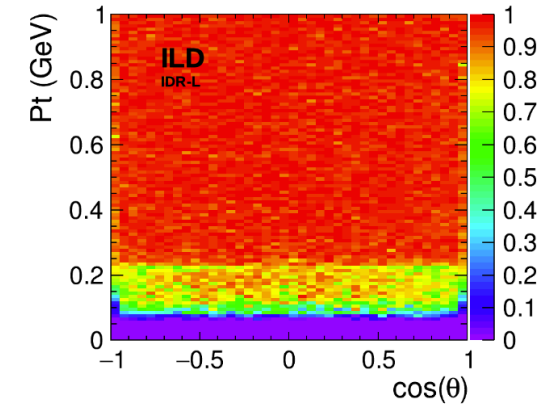


- started investigation of issue reported by SDHCAL experts:
 - observe inconsistent hit numbers between AHCAL and SDHCAL in hybrid simulation
 - in single particle events w/ pions observe:
 - smaller number of SDHCAL hits wrt AHCAL after simulation
 - larger number of SDHCAL hits wrt AHCAL after reconstruction - as expected
 - full reco for SDHCAL seemed OK from uds-calibration samples !?
 - also observed some crashes in SDHCAL reconstruction of Higgs signal samples
 - work in progress...
- continued to investigate spurious (\sim one per mille of 2f \rightarrow had jobs) crashes observed in running mass production
 - given the low occurrence of this, SW convenors agreed that this is not a problem for current production

Reconstruction

preparation of iLCSoft patch release

- improvements in reconstruction (and core tools) for analysis of large 250 GeV production
- MarlinReco:
 - ErrorFlow (Y.Radkhorrani):
 - proper treatment of covariance matrices for kinematic fitting (PR exists)
 - TrueJet (M.Berggren):
 - adjustment to new MCParticle truth format written by Whizard (PR expected today)
- ILDPerformance (S.Sassikumar)
 - added code to correctly create 2D tracking efficiency plots
- LCIO/SIO (R.Ete):
 - fixed bug w/ old/incomplete LCIO files
 - improved cmake build scripts





schedule for iLCSoft release

R.Ete, T.Madlener

- need to prepare a pre-release w/ all packages that need to be updated
 - pending PRs on Github
- issue w/ CI:
 - ran out of credits for running automated builds and tests on PRs in Travis
 - moving CI to Github-actions
 - needs to be done package by package
 - work in progress
- will soon provide pre-release for final testing in afs or cvmfs
- ...

Monte Carlo Production

H.Ono, A.Miyamoto

- started to process the 2f high statistics samples
- observed some crashes
 - likely due to time-outs in accessing the overlay samples
 - could be fixed w/ tuning (reducing) the number of concurrently running jobs
- currently adding more storage to the DESY-SE should help in running more jobs in parallel

check status of production at this web page:

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