

Software Coordinators Report

F.Gaede, DESY

ILD SW&Ana Meeting, June 5, 2019

- Generator
- Simulation
- Reconstruction
- Preparation of a future 250 GeV production

- compared cross sections for new 1 TeV 6f samples w/ nunuqqqq
 - JT observed a factor 2 difference in this cross section
 - goal: high- Q^2 WW samples for Jakob's IDR benchmark analysis
- decided to compare only the shapes of kinematic distributions as only those are relevant for the *IDR benchmark*

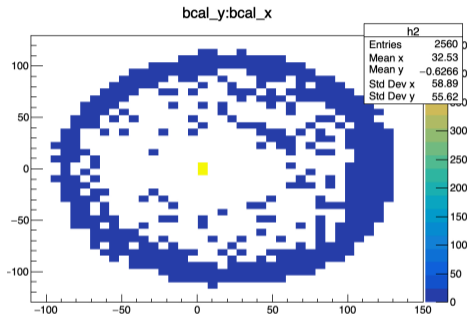
- started to produce test samples for 250 GeV
 - using Whizard 2.72
 - goal: create a *small but complete* test sample of 2f and 4f
- plan to have a generator expert meeting at University of Tokyo after LCWS in Sendai

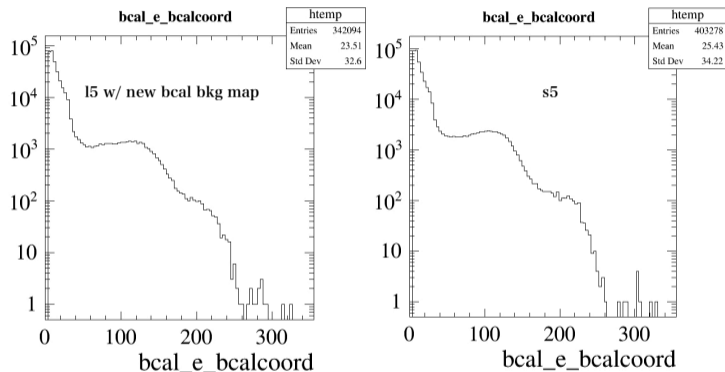
- nothing to report today

- observed issue with **re-reconstruction** of ILD_I5_v02 mono-photon samples
 - added correct BeamCal pairbg-map
 - using REC-files as input
 - resulting *Cluster* positions broken
- problem now understood and fixed by experts:
 - position of BeamCal clusters is computed from cellID
 - BeamCal uses cellID0 **and** cellID1 (> 32bit)
 - however cellID1 not stored in REC-files

To DO

- consistently fix this issue in **all digitizers**





- ▶ 2f_Z_nung samples
- ▶ ~100000 events
- ▶ BCal reco inputs (15) : BCal_New (Re-running digitizer as well as bcal reco).
- ▶ BCal bkg map (15) : New map prepared by Moritz (~ April 2 2019).

1

- plan to use disk-only storage
 - save SIM and DST files and $\sim 10\%$ of REC files
 - requires some development in ILCDirac job scripts or in our Marlin configuration

- what statistics to simulate ?
 - 2 ab^{-1} for every channel ?
 - probably a bit much ...
- need to have a more realistic estimate on required statistics and file sizes

- updated confluence page of 250 GeV To-Do-List:
 - <https://confluence.desy.de/display/ILD/Check-list+towards+a+new+250+GeV+ILD+MC+production>