

Software Coordinators Report

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ILD SW-Ana Meeting, Sep 9, 2020

- Generator
- Reconstruction
- Monte Carlo Production

report from *ILD Software Convenors Meeting* today

- tau polarization issue in Higgs decays
- in exclusive $H \rightarrow \tau\tau$
- error message from Tauola in Pythia:
 - 4-momentum not conserved
- A. Miyamoto has found a bug
fix/workaround
 - in code that deals with transverse polarization conservation in $H \rightarrow \tau\tau$
 - -> could comment out this code in Pythia
- proposed to Whizard authors
 - will provide a patch release 2.8.5
- will affect angular distribution
- and have incorrect total spin information
- **cannot study Higgs CP properties in τ decays**
 - this has been also the case in previous samples

resolution:

- should go ahead with this fix
- physics analysts have to be aware of that
- NB: longitudinal polarization is correct

should be ready to **start with generation very soon** ...

- merged last PRs from MarlinReco:
 - non-positive definite covariance matrix for neutral particles
 - includes new IsolatedPhotonFinder
- installed in cvmfs (SL6) and afs (SL6, CentOS7, ubuntu 18.4) :

`/cvmfs/ilc.desy.de/sw/x86_64_gcc82_sl6/v02-02`

`/afs/desy.de/project/ilcsoft/sw/x86_64_gcc82_sl6/v02-02`

`/afs/desy.de/project/ilcsoft/sw/x86_64_gcc82_centos7/v02-02`

`/afs/desy.de/project/ilcsoft/sw/x86_64_gcc75_ub1804/v02-02`

- need to move ilcsoft cvmfs server to centOS7 before fall
 - SL6 will be phased out then
 - nevertheless start production with this version

- working with generator group on preparing the 250 production
 - meta data, directories, scripts
- KEK computing center recently had a downtime and was upgraded
- this caused some issues:
 - IPV6 vs IPV4, access to VOMS server
 - now have only CentOS7 and cannot compile against SL6 release - . . .
- most of them are already addressed or should be fixed soon
- also have now 300 TB disk storage for ILC usage at KEK
 - accessible as *KEK-DISK* from ILCDirac