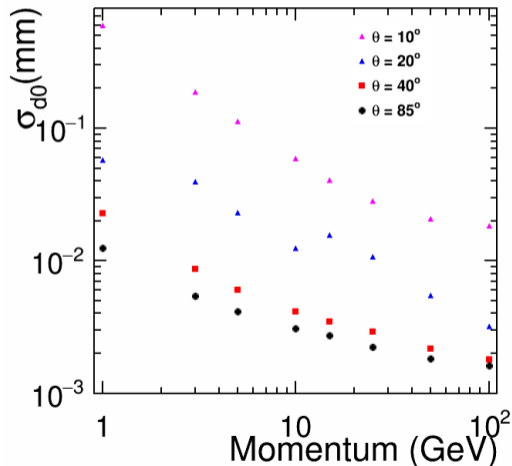# Software Coordinators Report

F.Gaede, DESY

ILD SW&Ana Meeting, Jan 24, 2018

- Generator
- Reconstruction
- Monte Carlo Production

- LC Generator Group Meeting @ CERN yesterday
  - together with Whizard authors
  - MB and JT attended

- agreement to store event and run number in LCEvent header
  - need **DDSim update** to copy information into output file

- some discussion on the generator status
  - ILD wishes not easy to implement in Whizard
  - have `genStat = 5` for particles in hard interaction (matrix element)
  - working on a different solution

- observed issues in `DDCellsAutomatonMV` tracking:
  - used in summer test production v01-19-04
  - *degraded D0 resolution* in forward tracks
- moved back to `SiliconTracking_MarlinTrk`
  - used also in DBD
  - worse tracking efficiency for low-pt tracks
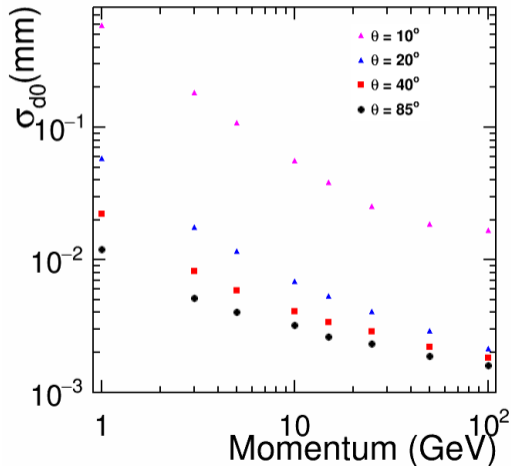

Impact Parameter Resolution

$\sigma_{d0}(mm)$ vs Momentum (GeV)

- $\theta = 10°$
- $\theta = 20°$
- $\theta = 40°$
- $\theta = 85°$

- switched back to `DDCellsAutomatonMV`
- modified `FullLDCTracking` to pick up leftover VXD hits for *incomplete* SiTracks

restore D0 resolution in forward tracks
- need further validation
- also in presence of *pair-bg*
- work in progress ...

Impact Parameter Resolution

σ_{d0}(mm)

- $\theta = 10°$
- $\theta = 20°$
- $\theta = 40°$
- $\theta = 85°$

Momentum (GeV)

Monte Carlo test production A.Miyamoto, H.Ono

- preparing scripts for the upcoming MC production
- need many *productions* as we have many channels
- will update resource needs for the production
  - observe rather large file sizes due to *hybrid simulation*

proposal:

- drop unneeded collections from reconstruction files. e.g.:
  - drop SDHCal hits if AHcal is used and vice versa