

Linear Collider Software <u>Meeting Close Out</u> Frank Gaede (DESY), Norman Graf (SLAC), Akiya Miyamoto (KEK), Mark Thomson (U.Cambridge)

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common simulation

- general consensus to work towards a common simulation application
 - build on the ongoing work for detector description and geometry (AIDA WP2)
- setup a working group to work towards that goal
- should start quite soon
 - this summer when DBD software work reduces
- define a geometry API for reconstruction, e.g.
 Gear

need to work on SDHcal and DHcal reconstruction

•develop clustering algorithms in pandora

LCIO

• no immediate action items identified

• Whizard will provide LCIO MCParticle files in the future

Common production

- no immediate action items identified
- already very good collaboration and splitting of the work load by Generator group and SCTG
- analysis groups need to make requests for number of (bg) events they need
 - backed up by 4-vector (fastsim) study

Tracking

general consensus to work towards a common track reconstruction package in C++

- in context of AIDA WP2
- implementation of FTF and TRF like algorithms for Si-Tracking

LCFIPlus

lots of progress with vertexing and flavor tagging

some minor issues to be addressed

e.g. singleton pattern for data model, documentation

Common DST Format

reached on consensus on collections on DST:

- MCParticles: one collection.
 - Complete Generator Event
 - Any particle that leaves a hit + its genealogy
- Tracks and Clusters: one collection. Needed for training of b-tagging
- PFO collection: one default collection of PandoraPFA PFOs
- Truth linking between rec MC.
 - Comparison between concepts to be done
- LCFIVertex objects: Primary and secondary vertices. Corresponding ReconstructedParticles.
- BCAL particles
- V0 particles
- DefaultAnalysisPFOs: Consolidated list of particles belonging to the BCAL particles, V0 particles, and particles belonging to the LCFI secondary vertices