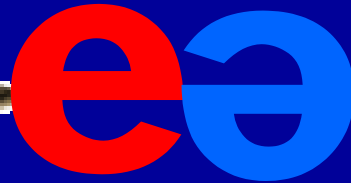


Simulations



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European Updates

- Simulation and reconstruction in Brahms split!
 - Full reconstruction modules for each subdetector.
 - Energy Flow package (SNARK) implemented.
- Mokka (G4) includes most detector elements.
 - ASCII output used by REPLIC and topol. cal. reco.
 - No track reconstruction yet.
- SIMDET 4.0 final version.
- SGV undergoing FORTRAN→C/C++
- Maintain functionality while shifting to G4 & OO
 - Mokka output → Brahms reco first connection.

Asian Updates

- JSF Root-based study framework
 - Event generation, detector sim, analysis modules
 - Reco output + job params, hist, etc. ->Root Trees
 - being used for full physics analyses.
- Geant4 Full simulation (Jupiter)
 - Modular, flexible
 - CDC, VTX, CAL (dummy material)
 - Full BDS & IP (reads machine decks)
 - →Full machine backgrounds

Updates

- pythia6.2, herwig6.5, pandora2.3, isajet7.48
- Continue GEANT4 development for full sim.
 - Outputs ROOT (SIO under development).
 - Common output data & format (LCIO)
- Background samples available for overlay.
- ~Fast simulation package being developed.
- Improvements in reconstruction and analysis
 - Both for JAS and ROOT
- Tighter integration with detector groups.

Collaboration

- Strengthening contacts between regions.
 - Working to define common elements.
- Active work on a common simulation output data format (interchange between regions).
- Discussing geometry packages.
- Looking for best aspects of current implementations
 - Flexibility of LCD system vs detail of Mokka
- Java modules provide interface to simulation & reconstruction packages in 3 regions (M.Ronan)
- Workshop planned for early May at SLAC.

Links and Mailing Lists

- lcd-sim: **Users** of simulation, reconstruction and analysis software.
- lcd-dev: **developers** of the simulation and analysis software.
- Regular meetings to discuss “nuts and bolts” issues.

- <http://www-sldnt.slac.stanford.edu/nld/>
- <http://acfahep.kek.jp/subg/sim/>
- http://www-zeuthen.desy.de/linear_collider/