

## SUMMARY OF THE TECHNICAL CONVENERS MEETING OF 15 September 2017

Present: Karsten, Akira, Matthew, Wataru, Auguste, Roman, Sergej, Imad, Paul, Akimasa, Claude.  
Invited: Daniel Jeans

### JUNE MEETING FOLLOW-UP:

Alejandro is actively tracking down several possible sources for the differences observed between the new beam-beam BG simulations and earlier results.

### INTERFACE DOCUMENTS:

Progress is reported for the various subdetectors:

- The Vertex has some input material from the review of the simulation of the services and will formalise it into the interface document for each technology.
- The TPC discussed the case at the recent LCTPC meeting and has a preliminary version for the micromegas option. The group is organizing itself to provide a coherent document.
- The ECAL has provided a pilot document and is currently updating the content.
- The HCAL requests pressure to move ahead, which was immediately granted.
- The VFS is defining the details of the interplay between its different detectors and will provide the document accordingly.

It was reminded that the deadline set by Karsten for preliminary versions of the interface documents is 20 October. An integration taskforce will be set up soon to exploit this information and to sketch a global ILD integration scheme accordingly.

### DETECTOR SIMULATION

Significant progress has happened in the calorimeters hybrid simulation:

- The SDHCAL has implemented its digitization in the central ILD software repository, and a GEANT physics list common to AHCAL and SDHCAL has been agreed. Some technical issues related to cell sizes have to be clarified between the experts.
- Daniel has finalized and implemented a layout for an ECAL hybrid simulation. In particular the scintillator thickness has been reduced back to 1.5mm to make the technical constraints on the RO layers less aggressive. Daniel expects to provide within o(1 week) a short summary of the layout description and rationale together with first validation checks.

The validation of the pilot physics samples simulated this summer currently involves very few people. The subdetectors are encouraged to strengthen their participation to this process in order to avoid possible late bad surprises.

### ILD TECHNICAL DELIVERABLE

A draft of the content of technical information to be documented ~end 2018 was presented by Claude and discussed. No comment was made on the overall spirit. The physics samples relevant for the detector options comparisons will have to be defined soon. A costing task force will also have to be set up to update the DBD estimations.

Comments on the deliverables draft content should be sent to Claude until next Wednesday 20. An updated version will then be distributed for final checks, and then submitted to the E.T. as input to the definition of the general ILD deliverables.

#### ILD SESSION OF THE LCWS STRASBOURG MEETING (23-27 October)

An ILD session of 4 hours is scheduled on the Wednesday afternoon. A preliminary agenda is being prepared by the E.T. Several technical talks are expected to review the status of ongoing studies. The session will also host a first general discussion on the expected ILD deliverables.

#### NEXT VIDYO MEETING:

- Between 9<sup>th</sup> and 20<sup>th</sup> October, 10:00 Paris time, doodle to be distributed.

#### SUMMARY OF SHORT TERM ACTIONS (until next meeting) :

- Further investigation of beam-beam BG simulations (Alejandro).
- Provide preliminary interface documents (all) and start setting up the integration taskforce (CDI)
- Solve remaining technical issues of HCAL hybrid simulation (Lyon, Daniel, Frank).
- Summarize the layout, rationale and checks of the ECAL hybrid simulation (Daniel)
- Define 500 GeV physics samples relevant for detector-oriented optimization (all with physics group).
- Finalize technical deliverables document (all)
- Define technical contributions to the LCWS17 ILD meeting