Minutes of the FCC software informal meeting, 15 May 2014, 1:00pm Presents: Andrea Valassi, Benedikt Hegner, Christos Leonidopoulos, Colin Bernet, Patrick Janot, Paul Laycock

## DD4HEP:

- Although none of the proponents could be present at the meeting today, Clement posted a few slides on the <u>agenda</u>, which shows the implementation of the FCC-hh solenoid detector option in DD4HEP – for now only with empty volumes, soon to be filled with sensitive material. Progresses with GEANT4 interface are ongoing: first results should be ready in time for the FCC-hh workshop on 26-28 May.
- Paul Laycock indicated the Peter Kotska will be working on the implementation of the LHeC detector (also suitable for FCC-eh) in DD4HEP. Patrick will suggest Peter to subscribe to the fcc-experiments-sw-dev e-group.
- Federico Carminati will get in touch with the relevant parties for the first implementation of an FCC-ee tracking system (based on the ALICE inner tracker technology) in DD4HEP.

Framework developments:

- Benedikt delivered an example to the DD4HEP team to throw particle(s) from within the software framework. He will clean up the documentation, and add it to our developing <u>twiki</u> pages (under "FCCSoftware"). A complete documentation of the example is to be expected within the next two weeks, to allow anybody to start using the framework.
- Colin mentioned that he could start implementing the python analysis framework any time (i.e., as soon as Benedikt wants), as well as working on other well-defined projects for the software framework developments. A first list of projects can be perused in a <u>talk</u> recently given by Benedikt in the FCC-ee physics coordination meeting.
- Benedikt had a look at the DELPHES tutorial slides and exercises. The issue of the configuration language (TCL) was mentioned. Benedikt will prepare a definite proposal for an upgrade (e.g., towards python configuration), for implementation by the DELPHES team. The interface with our data model appears to be quite easy.

## <u>Open Source Software License for the FCC software</u>:

To avoid problems experienced by the LHC experiments, Benedikt suggested that we follow right away the recommendations of the "Open Source Software License Task Force" <u>report</u>. A license is needed as to protect the to-be-developed "FCC code" from being taken and sold by third parties. At the same time, our code will be "open source", i.e., openly shared for use and development within the high-energy physics community (ILC, CLIC, LHC experiments, ...) and beyond. Benedikt's proposal was adopted during the meeting. Benedikt will follow up with relevant actions to make it happen.

FCC-hh workshop (26-28 May):

Two presentations on the FCC software are foreseen. Benedikt Hegner will give the general presentation of the framework. For the presentation on DD4HEP, Clement, Andrea and Carlos will decide the speaker, and let Fabiola and Patrick know within the next days.

Next meeting: Thursday 22 May, 1pm-2pm, B40 lobby

Next Events (where software progress will have to be presented): FCC-hh physics <u>workshop</u>: 26-28 May CLICdp collaboration <u>meeting</u>: 10-11 June FCC-ee physics <u>workshop</u>: 19-21 Juin