Date: Wed, 19 Jun 2019 17:17:06 +0200

From: Marek Idzik <idzik@ftj.agh.edu.pl>

To: "FCAL Members mailing list" <fcal-members@cern.ch>

Subject: Re: 42th FCAL Hardware WG Meeting - summary

Dear All,

I have not sent a summary from the last HWG meeting, since there was not real contribution - there was not time for it since we have had long discussion on possible application of FCAL groups to AIDA++ project.

The outcome of our discussion was:

We decided to apply with the project: "Precision compact electromagnetic calorimeter".

Main features/goals for this project could be:

- Improved uniformity and energy resolution (and so acceptance and spatial resolution as well)

– application of edgeless sensors

- Improved radiation hardness -  FCAL collaboration works with partners on application of rad-hard Si, Sapphire and GaAs sensors

- Optimized energy & position resolution – sensor granularity & absorber thickness matching the energy resolution needed

- Continuous ultra-low power readout (not only power pulsed readout)

- High time resolution, separation of beam background from the signal

- Detector alignment

- Miniaturization of the whole calorimeter (not only compact sensor modules, but also front-end, back-end electronics and DAQ)

The participating groups have not yet been fixed, but it will be done on the basis of possible contribution to the above points.

We should prepare 1st draft of or application by the end of this month, to have some time for discussion.

Marek