

Summary Notes of the Institute Board Meeting of the FCAL Collaboration

Held at DESY Zeuthen on 07 October 2013, 16:40-18:00

Present at DESY (9 representatives out of 17 FCAL institutes): A. ABUSLEME (**Pontificia Universidad Catolica de Chile**, Santiago), K. AFANACIEV (**NCPHEP**, Minsk), I. BOZOVIC-JELISAVCIC (**Vinca** Institute of Nuclear Sciences, Belgrade), M. IDZIK (**AGH** University of Science and Technology, Cracow), V. KRUCHONAK (**JINR Dubna**), A. LEVY (**Tel Aviv** University), W. LOHMANN (**DESY**), T. PREDA (**Institute for Space Science**, Bucharest), L. ZAWIEJSKI (**IFJ -PAN**, Crakow)

Attended via Webex: none

Apologies/absences: C. COCA (**IFIN-HH**, Bucharest)

Link to the Meeting (Indico page):

<https://indico.desy.de/conferenceTimeTable.py?confId=8669#20131007>

Link to the IB material: will be provided at the FCAL page

AGENDA:

- 1. Organizational issues (MoC, committees)**
 - 2. Publication policy**
 - 3. Tour de Table**
 - 4. Preparation of the next FCAL paper(s)**
 - 5. AOB**
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1) Welcome and Approval of Agenda

The Chairperson of the Institute Board (I. BOZOVIC JELISAVCIC), welcomed the participants - the agenda was approved.

2) Organizational issues

a) MoC

Discussion was initiated by the Chairperson on the possible Memorandums of Cooperation (MoCs) to be signed among the FCAL participating institutes. **Institute representatives confirmed with a majority (7/9) that the institutional level of agreement without financial commitment is acceptable.** For the two institutes (DESY, JINR) it might be an issue.

A. LEVY accepted to prepare a MoC draft based on the template provided by the Spokesman.

I. BOZOVIC JELISAVCIC agreed to make an inquiry on possible participation of the new institutes (LAPP Annecy, Spanish Network on Future Linear Colliders). W. LOHMANN will do the same concerning eventual participation of the German Universities in the FCAL.

b) Publication and Speakers Committees

IB unanimously agreed to integrate Publication and Speakers committees into one Publication and Speakers Committee (P&S Committee) as a 4-members body with a two years mandate.

IB voted (5 pro/2 contra/2 sustained) for the election procedure such that institutes representatives nominate the Chair of the P&S Committee, and the Spokesman in further interaction with the Chair comes with the proposal of the other 3 members of the Committee to be endorsed by the IB.

The IB Chair is committed to collect the nominations within two weeks from the Meeting and to organize a secret voting by the IB.

2) Publication policy

IB agreed unanimously to elect the P&S Committee Chair first, and then he/she will provide a draft of the publication policy to be discussed by the IB.

3) Tour de Table

The following institutes provided material for the Tour de Table: **Pontificia Universidad Catolica de Chile, Vinca** Institute of Nuclear Sciences, **AGH** University of Science and Technology, **Tel Aviv** University, **DESY, IFJ-PAN**. Other institutes are invited by the IB Chair (also via E-mail) to provide a same material for the record, also to be used in MoC preparatory phase. T. PREDA (**ISS**, Bucharest) and B. SCHUMM (**University of California**, Santa Cruz) submitted contributions for the Tour de Table summarized below.

A. ABUSLEME (**Pontificia Universidad Catolica de Chile**) pointed out that in the course of 2013 his group has tested a chip that includes ADC for BeamCal chip (with the 2nd version currently under study) and developed an analysis methodology for noise in sampled data systems. **Future plans:** In the incoming year they mainly plan to test and characterize the new design as well as to publish a test results. The group will also apply for a grant to support publication runs, travel and postdocs. **Manpower:** 1 MSc student (1 FTE), 1 Electronic Eng./MSc (0.5 FTE), 1 PI (0.5 FTE), **in total 2 FTE.**

I. BOZOVIC-JELISAVCIC (**Vinca** Institute of Nuclear Sciences) pointed out that the main contribution from Vinca came on the Physics Analysis and Simulation side where the group addressed the following topic: 4-f background in luminosity measurement, E scale and bias contribution to the systematic uncertainty of luminosity, beam-induced effects in luminosity measurement with the current activity on e-tagging parameterisation. **Future plans:** Impact of

IP positioning on luminosity measurement, impact on hadronic final states ($\gamma\gamma \rightarrow$ hadrons) in luminosity measurement, e-tagging for physics analysis (i.e. in the Higgs sector) - FCAL physics case. **Manpower:** 3 PhD+1 PhD student, **in total 2.5 FTE** with a possibility of a new PhD student in 2014.

M. IDZIK (**AGH** University of Science and Technology) presented dedicated activities on hardware for LumiCal (ASICs, detector modules, tungsten plates, ...) and test beams (preparation, running, data analysis) also to extend **in the future**. As Previous test beams have been done with single detector module and row tungsten material, for future test beam it is planned to use the flexible mechanical frame with tungsten plates and all of the detector modules. **Manpower:** 3 PhD + 1 PhD student + 1 MSc student, **total FTE will be provided**.

A. LEVY (**Tel Aviv** University) presented the recent group activities on upgrade of the probe station, test of a full sensor for the January test beam, work on sapphire sensors in preparation for the August test beam. **Future plans:** Prepare two test benches for sensors, work with the fixed read-out board, prepare two sensors (including bonding) for the January test beam. **Manpower:** 4 PhD + 1 PhD student, **total FTE will be provided**, with a possibility of 1 MSc student to join.

W. LOHMANN (**DESY**) reviewed present activities and **future plans** on test beam, test beam analysis, design studies, sensor characterization (diamond and GaAs) and new connectivity technologies. **Manpower:** 2 PhD + 2 PhD students, **in total 3.5 FTE** and one MSc student to come.

L. ZAWIEJSKI (**IFJ-PAN**) presented recent activities on the Laser Alignment System (LAS) for LumiCal and DAQ hardware, as well as the **future plans** to build a LAS prototype with FSI, to continue with DAQ hardware studies and to look into two-photon interactions at ILC/CLIC. **Manpower:** 2PhD + 2 MSc + 2 Eng. +1 PhD student, **total FTE 2.5**, expected to be extended to 3 FTE in 2014.

B. SCHUMM (**UC Santa Cruz**) group is involved in BeamCal simulation and reconstruction studies including in-situ Si-sensors radiation damage studies. **Future plans** will include novel sensor technologies. **Manpower:** 2PhD + 3 undergraduate students + 3 technical staff, with **total FTE 0.7**.

T. PREDA (**ISS**) presented recent activities on test beam and test beam analyses as well as MC simulation of test beam 2011 data, with the **future plans** to extend those activities for the next test beam campaigns. **Manpower:** 3 PhD + 2 PhD students, **total FTE 3.0**.

4) Preparation of the next FCAL paper(s)

After discussion it has been agreed that the paper with the test beam results should be prepared for publishing until the end of the year. A. LEVY accepted to collect contributions.

The overall FCAL activity paper is foreseen to be prepared for February 2014. Related activities will be governed by the P&S Committee Chair to be elected.

5) AOB

IB agreed to discuss informally AOB over the Collaboration dinner. The main outcome was **the host for the next FCAL Workshop, proposed and accepted to be ISS Bucharest.**

(Summary Notes drafted by I. BOZOVIC-JELISAVCIC - Belgrade, 16 October 2013)