

## Introduction to the Workshop

#### Wolfgang Lohmann, BTU and DESY



November 12, 2012

FCAL CERN Novembre 2012



# FCAL Collaboration



**Institutes involved:**AGH-UST, Cracow, Poland,ANL, Argonne, USA, CERN, Geneva, Switzerland, DESY, Zeuthen, Germany, IFIN-HH,and ISS Bucharest, Romania, INP PAN, Cracow, Poland, JINR, Dubna, Russia, LAL, Orsay, France, NCPHEP, Minsk, Belarus, SLAC, Menlo Park, USA, Stanford University, Stanford, USA, Tel Aviv University, Tel Aviv, Israel, Tohoku University, Sendai, Japan, UC California, Santa Cruz, USA, University of Colorado, Boulder, USA,Vinca,Belgrade, Serbia, Pontificia Universidad Catolica de Chile



Publications and Talks

**Publications** 

IEEE TRANSACTIONS ON NUCLEAR SCIENCE, VOL. 59, NO. 3, JUNE 2012

#### BeamCal Instrumentation IC: Design, Implementation, and Test Results

Angel Abusleme, Member; IEEE, Angelo Dragone, Gunther Haller, and Bruce A. Wooley, Fellow, IEEE

Konstantin Afanaciev et al.

Angel Abusleme et al.:

Investigation of the Radiation Hardness of GaAs Sensors in an Electron Beam

K. Afanaciev<sup>a</sup>, M. Bergholz<sup>b</sup>, P. Bernitt<sup>b1</sup>, G. Chelkov<sup>c</sup>, J. Gajewski<sup>d</sup>, M. Gostkin<sup>c</sup>,
Ch. Grah<sup>e2</sup>, R. Heller<sup>e</sup>, H. Henschel<sup>e</sup>, A. Ignatenko<sup>abe</sup>, Z. Krumshteyn<sup>c</sup>, S. Kulis<sup>d</sup>,
W. Lange<sup>e</sup>, W. Lohmann<sup>b</sup>, D. Mokeev<sup>f</sup>, V. Novikov<sup>f</sup>, M. Ohlerich<sup>be 3</sup>, A. Rosca<sup>ge</sup>,
A. Sapronov<sup>c</sup>, R.S. Schmidt<sup>be</sup>, S. Schuwalow<sup>e4</sup>, O. Tolbanov<sup>f</sup> and A. Tyazhev<sup>f</sup>

More will come (e.g. Diamond studies, Testbeam Analysis)

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**Publications and Talks** 

#### Forward Calorimeters Test Beam Results for Future Linear Colliders

Olga Novgorodova DESY, Germany [on behalf of the FCAL Collaboration] ICHEP2012, 4 --11 July, Melbourne, Australia

### Talks:

Posters:

Szymon  $\rightarrow$  IEEE (Linear Collider Event) Ivan  $\rightarrow$  LCWS UTA Arlington Andre  $\rightarrow$  LCWS UTA Arlington Wolfgang  $\rightarrow$  LCWS UTA Arlington Eliza  $\rightarrow$  Romanian Phys. Society



DBD (EDR) Preparation 2012



# Both drafts contain chapters describing the very forward calorimeters

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# The physics volume

This volume describes the physics possibility of ILC in the light of new LHC results and referring to the simulations based on the detailed detector design.

• The volume was written by the author group convened by M. Peskin, and its first draft was made open already in July and is kept improving.

You are welcome to read and comment. <u>http://lcsim.org/papers/DBDphysics.pdf/</u> It is ~3 times thicker than the original plan.

# **Detector chapters, ILD and SiD**

- Talks by the groups are planned in this session.
- There are some numbers still missing in these drafts (1 TeV simulation).
   We hope these can be filled soon.
- Both groups exceeded the expected limit of 150 pages.
   We will reconsider the limit while trying to remain within 10-20 % increase.

(These are the final report of our work during the LOI era. To convince experienced readers, detailed information will be useful.)



# Almost final version of the DBD: End of Novembre

## Presentation to PAC in mid December (Tokyo event)

Review by an extended PAC



#### What is left:

- Shorten the FCAL part in the ILD DBD
- The SiD part should have a few more informations
- A statement about 1 TeV
- Critical and Future R&D



#### Tungsten structure – well in time (CERN)

• Tungsten plates – ongoing

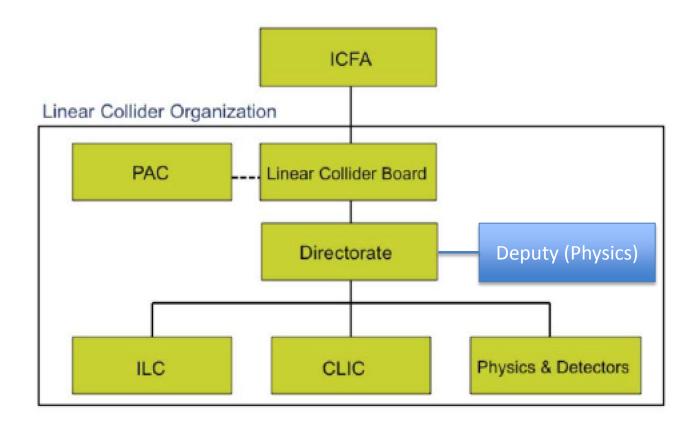
#### Design of sensor planes - needs conclusions soon

- Module construction and test devices (jigs, mechanics and electronics test facilities)
- Position control devices
- ASICs
- Power pulsing
- Data acquisition
- Tracking in front of the calorimeter

#### Marek agreed to present a detailed working plan -

Needs attention on this workshop

# LC organisation



- Recent discussions of the European Members of the LCB (5+5+5+1) and soon also advisory group

   discussions lead by ECFA chair Manfred Krammer
- Lyn Evans appointed director for the LC efforts (starting in 2013) ICFA announced in June

# Linear Collider Board

- LCB will have 16 members and will include the Directors of the world's HEP labs and 2 members from each region.
- European members will include CERN DG, head of PP at DESY, Dubna DG and 2 representatives nominated by ICFA.
- Probably will set up a European Advisory Board
- Joint meeting of LCB and ILCSC in Vancouver in February.



#### **Future Planning**

### Important Dates:

- ECFA workshop May 2013 (DESY)
- Snowmass (APS) June
- LCWS 2013 in Tokyo (Oct./Nov.)

### Our next meeting ???



ECFA LC2013