

Activities of the International Committee for Future Accelerators (ICFA)

July 2007 – August 2008
Roy Rubinstein – ICFA Secretary

1. Introduction

During the past year there were three meetings of ICFA: on 15 August 2007 during LP07 in Daegu, Korea; on 12/ 13 February 2008 at DESY; and on 2 August 2008 during ICHEP08 in Philadelphia. Directors of the world's major particle physics laboratories were also invited to the DESY meeting, which permitted a broader discussion of the present status and future prospects of particle physics.

The current ICFA membership is given in Appendix I.

2. Linear Collider – Accelerator

The International Linear Collider (ILC) Reference Design Report (RDR) was produced by the Global Design Effort (GDE) and approved by ICFA in August 2007. The GDE then worked on the Project Management Plan for the Engineering Design Phase, with originally planned completion in 2010. The funding cutbacks by UK and US at the end of 2007 caused a stretchout of this plan. There are now two technical

design phases, ending in 2010 and 2012, respectively, with a more focussed and prioritized R&D plan. ICFA issued a Statement

(http://www.fnal.gov/directorate/icfa/ICFA_LCFundingStatementFeb08.pdf)

on Funding for the Linear Collider pointing out that frontier science relies increasingly on stable international partnerships and the joining of forces to succeed, and urging governments to find ways to maintain the trust needed to move international scientific endeavors forward.

In the next phase of ILC design, considerable effort will be devoted to the study (and hopefully lowering) of the current estimated cost of conventional facilities. Also a “uniform” site will be studied and costed, rather than one site in each region as has been the practice so far. The Joint Institute for Nuclear Research (JINR), Dubna (Russia) has proposed a site near JINR for the ILC which is only a small distance underground, unlike the deep sites that have been studied so far, and this approach will be evaluated further. The strategy for choosing a site, and the criteria for a site, will be looked at in more detail than they have been up to now.

A Program Advisory Committee (PAC) has been formed by ILCSC to review design activities for both the ILC accelerator and the ILC detectors.

3. Linear Collider—Detectors

Sakue Yamada, KEK (Japan), was appointed as ILC Research Director by the ICFA International Linear Collider Steering Committee (ILCSC) in September 2007. He has formed a Directorate with the 3 co-chairs of the Worldwide Study (WWS), and has appointed an International Detector Advisory Group (IDAG) to help him evaluate the detector designs. During the past year, two of the four detector concept groups combined, leaving three which each produced an Expressions of Interest (EOI) in March 2008. These three groups will produce Letters of Intent (LOIs) by March 2009 for validation by IDAG; validation means ascertaining whether the proposed detector can do the required physics, and whether the proposing group will be strong enough to carry it out. The eventual goal is to have two complementary and contrasting detectors taking data at the ILC. It is anticipated that detector R&D will continue until ~2010; some time after that it should be possible to choose the final two detectors.

The detector schedule now proposed is synchronized to that of the accelerator, with the goal that a combined ILC proposal be produced in 2012.

There is increasing collaboration with the Compact Linear Collider (CLIC) community at CERN on linear collider detectors.

4. ICFA Seminar

The ICFA Seminar is held every three years, to provide an opportunity for an international exchange of information on plans for future facilities in the field of particle physics. The ninth in this series will be held at SLAC on 28-31 October 2008.

5. Funding Agencies for Large Colliders (FALC)

ICFA provided as requested a summary of particle physics roadmaps for a FALC annual report.

6. Neutrinos

ICFA issued a Statement

(http://www.fnal.gov/directorate/icfa/icfa_neutrino-facilitiesstatement0807.pdf)

on Future Neutrino Facilities, noting the recent advances in this field, and saying that it would be appropriate for ICFA to become more involved should efforts coalesce around a global project proposal.

7. Open Access Publishing

ICFA issued a Statement

(http://www.fnal.gov/directorate/icfa/icfa_open-accessstatement0807.pdf)

endorsing the goal of free and unrestricted access to peer-reviewed journals in particle physics without financial barriers for authors.

8. Reports

There were reports at ICFA meetings by InterAction, by those labs and regions represented at the 12/ 13 February 2008 meeting, and by ICFA's Panels. Among the latter reports was one showing that the "Digital Divide" between developed and developing countries is still widening.

ICFA MEMBERSHIP

August 2008

CERN Member States

R. Aymar
K. Meier
A. Wagner (Chair)

USA

J. Dorfan
P. Oddone
N. Roe

Japan

S. Komamiya
A. Suzuki

Russia

Y. Tikhonov
A. Zaitsev

Canada

W. Trischuk

China

H. Chen

Other Countries

C. Avila
S. C. Lee
G. Taylor

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G. Herten

(Secretary: R. Rubinstein)