

SUMMARY OF THE 77th MEETING OF ICFA

AUGUST 7, 2016

ICHEP2016, Chicago

Present: Halina Abramowicz, Jon Bagger, Pushpa Bhat (Secretary), Ariella Cattai, Eckhard Elsen, Lyn Evans, Jie Gao, Fabiola Gianotti, Mike Harrison, Sachio Komamiya, Francois Le Diberder, Nigel Lockyer, Ken Long, David MacFarlane, Victor Matveev, Joachim Mnich (Chair), Hugh Montgomery, Toshinori Mori, Harvey Newman, Lenny Rivkin (on the phone), Mike Roney, Roy Rubinstein, Yifang Wang, Harry Weerts, John Womersley, Akira Yamamoto, Hitoshi Yamamoto, Masa Yamauchi.

1. FALC Report

John Womersley reported on the FALC status. FALC supports a broad array of activities, but someone needs to push in order to make things happen. Womersley, who is currently the Chair of FALC, will become the Director General (DG) of the European Spallation Source (ESS) Laboratory in the fall of this year.

2. LCB/LCC Mandate

ICFA Chair Joachim Mnich, presented the LCB/LCC mandate updated by the working group comprising Mnich, Lockyer, Gianotti and Yamauchi. The draft mandate had been circulated to ICFA and LCB, and there had been extensive discussions at the LCB phone meeting after email comments by ICFA members.

Mnich outlined the changes in the update. The LCB/LCC structure is made leaner. An organigram was shown. The Project Advisory Committee (PAC), as well as the posts of three regional directors are eliminated. The Linear Collider Collaboration (LCC) will have a Director, a Deputy Director and three Associate Directors that oversee R&D (1) for ILC, (2) CLIC and (3) physics and detectors. The duration of the updated mandate is three years, to be reviewed again, at the latest, at the end of three years.

3. Update on Future HEP Projects

a) Fabiola Gianotti gave an update on the present and future machines and projects at CERN. She reported on the progress with LHC, approval of the HL-LHC project by CERN Council, accelerator technology R&D and on developing diversity in scientific program. She briefly discussed FCC and CLIC efforts. These projects will be further

addressed in the framework of the update of the European Strategy for Particle Physics, which will likely take place in 2019-20.

b) Nigel Lockyer said that Fermilab has a very diverse program, and the two flagship programs are the neutrino program and the LHC. There is also a precision physics program. MicroBooNE and NOvA (and MINERvA) are taking data. The machine is running well, delivering more POT than anticipated. A task force will look at getting to 1 MW with the existing complex. The CMS program continues to run great—Phase 1 upgrade being completed, Phase 2 will be a big undertaking. On the cosmic front – the Dark Energy Survey (DES) finished third year of data taking; DESI (led by SLAC), LSST projects are going well. The dark matter experiments – Darkside, LZ, Axion, superCDMS are making good progress. The g-2 commissions in the spring; Mu2e project is making progress. ICARUS comes to Fermilab in February 2017. The DUNE collaboration has now more than 800 people and continues to grow.

c) Yifang Wang reported that BEPC-II works very well; the design luminosity of 10^{33} has been reached. Data taking will continue until JUNO is ready. JUNO start up delayed by several months, start up ~2020. Cosmic Rays at High Altitude, CRHA, approved last year; the detector to be operational ~2020. Non-particle physics accelerator projects: spallation source to finish by 2018, light source near Beijing with construction start in 2018, ADS program going well.

As for CEPC, they were hoping for 800M RMBs in the five year plan but failed by one vote to have approval. There is modest funding from other sources for next 5 years. R&D to continue and they'll begin to build international collaboration for the project.

4. IUPAP Working Group on Accelerator Science

IUPAP has a new Working Group #14 on accelerator science with Lia Merminga as Chair; Mnich and Lenny Rivkin are members. This is an interim group to set up the "real" group. ICFA has to figure out how to interact WG14. Some ICFA panels could help as bridges between the two. Duplication of efforts should be avoided. The chairs of the two groups will be invited to each other's meetings

5. New ICFA Panel on Sustainable Accelerators and Colliders

As energy consumption is a major issue for existing and future accelerators, ICFA has initiated a new panel on Sustainable Accelerators and Colliders. Mike Seidel (PSI, Chair), David MacFarlane and Lenny Rivkin had been asked to produce a mandate for the Panel and propose initial membership. Rivkin submitted the proposed mandate

and membership list at this meeting. The document (posted on the web/agenda page) outlines strategy and coordination issues and topics to be explored by the new panel. There will be coordination between this panel and IUPAP WG14.

6. ICFA Panels

Pushpa Bhat gave a status report on the existing panels. (See <http://icfa.fnal.gov/> for information on the panels.) There was a discussion on policies on the duration of the panels, terms of panel chairs and members, and procedures for appointing chairs and members. Following proposals were made: (1) panels should be created with a defined initial duration, reviewed periodically and at the end of the initial period before renewing for an additional period; (2) panel chairs be appointed by ICFA for an initial term of three years, renewable for an additional term; (3) panel members are selected by the panel chair with input from the community and are to be approved by ICFA; (4) the mandate for the panel is provided by ICFA, in concurrence with the panel chair. Panels that should continue to exist in order to serve the interests of ICFA and the community could be Standing Committees. These committees should also be reviewed periodically, and the membership and chair positions updated.

7. Future ICFA Meetings

The next ICFA meeting will be in Valencia, Spain, on Thursday/Friday 16/17 February 2017; the following meeting will be at LP2017 in Guangzhou, China, on August 9, 2017. A 5-day ICFA seminar will be hosted in Canada (likely Ottawa) in the fall of 2017.

8. ICFA Executive Session

ICFA members met for a short Executive Session. Among the topics discussed were the LCC/LCB leaderships, outreach and promotion. Members present unanimously voted for Lyn Evans as the LCC Director. The process to appoint a new ICFA Beam Dynamics Panel chair was discussed.

The agenda page with slides of the talks linked is at

<https://indico.fnal.gov/conferenceDisplay.py?confId=12638/>

- 15:00 - 15:20 FALC Report 20'
Speaker: Dr. John Womersley (STFC, UK)
- 15:20 - 16:00 LCB/LCC Mandate 40'
Speaker: Dr. Joachim Mnich (DESY)
- 16:00 - 16:30 Update on future HEP projects (3x10') 30'
Speakers: Dr. Yifang Wang (IHEP, China), Dr. Fabiola Gianotti (CERN), Dr. Nigel Lockyer (Fermilab)
- 16:30 - 16:45 Break
- 16:45 - 17:05 IUPAP Working Group on Accelerator Science 20'
Speaker: Dr. Joachim Mnich (DESY)
- 17:05 - 17:20 Status Update: New ICFA Panel on Sustainable Accelerators/Colliders 15'
Speaker: Dr. Lenny Rivkin (PSI)
- 17:20 - 17:45 ICFA Panels 25'
Speakers: Dr. Pushpalatha Bhat (Fermilab), Dr. Joachim Mnich (DESY)
- 17:45 - 17:55 Future ICFA Meetings 10'
Speakers: Dr. Joachim Mnich (DESY), Dr. Pushpalatha Bhat (Fermilab)
- 17:55 - 18:00 AOB 5'
- 18:00 - 19:00 ICFA Executive Session