

# ICFA Report to FALC

November 2014 to June 2015

J. Mnich (DESY)

June 19, 2015

# ICFA Membership

June 2015:

(new since July 2014)

## CERN Member States

**H. Abramowicz**

**R. Heuer**

**J. Mnich (Chair)**

## USA

**N. Lockyer**

**D. MacFarlane**

**I. Shipsey**

## Japan

**T. Mori**

**M. Yamauchi**

## Russia

**A. Bondar**

**S. Ivanov**

## Canada

**M. Roney**

## China

**Y. Wang**

## Other Countries

**M. Cho**

**L. de Paula**

**V. Matveev**

## C11

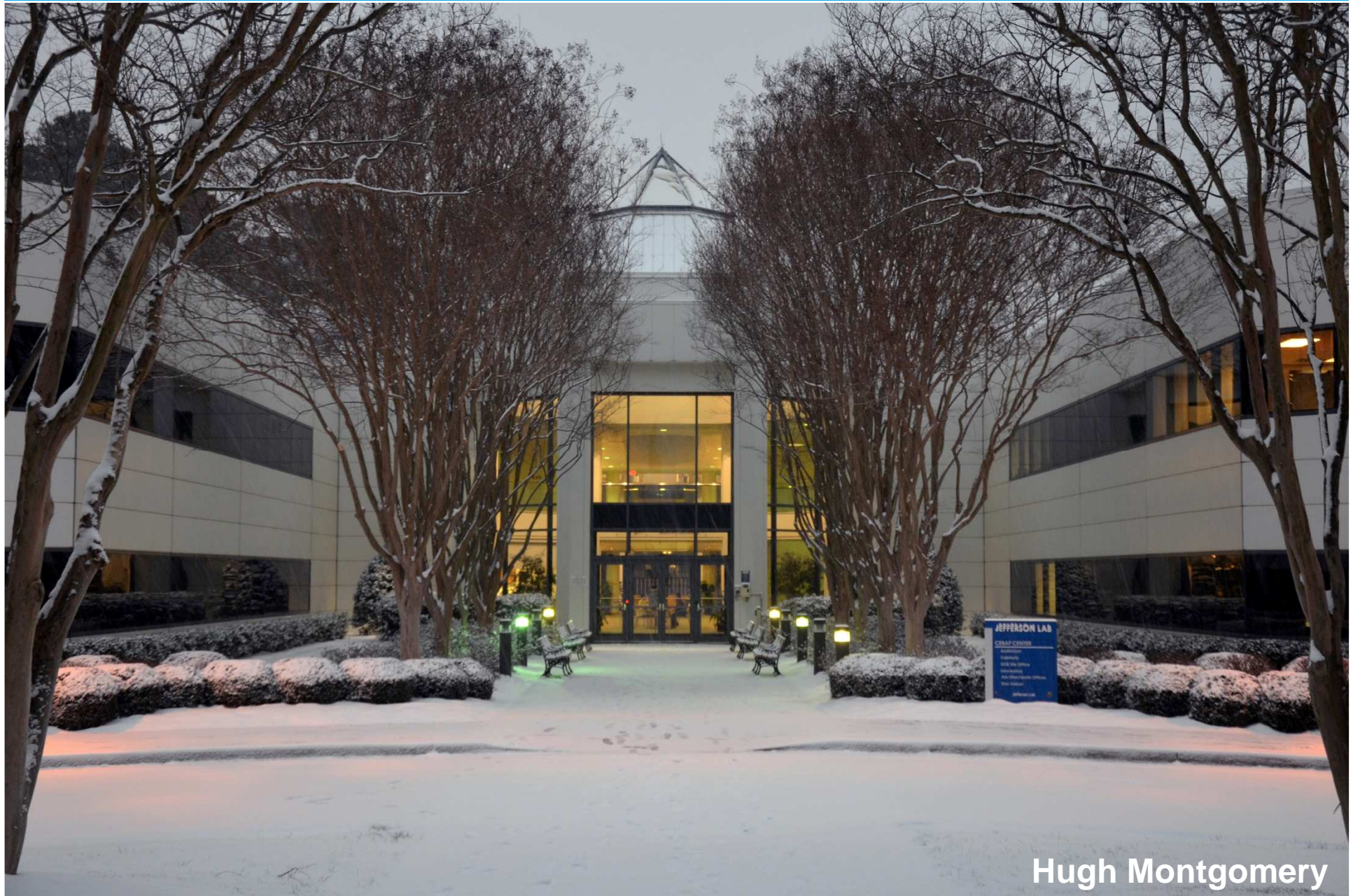
**J. Fuster**

**Secretary: R. Rubinstein**

# Meetings

- > The 11th ICFA seminar took place 27-30 October 2014 in Beijing.
  - ICFA meeting on 27 October
  - FALC meeting on 30 October.
  
- > An ICFA meeting was held on 26/27 February 2015 at Jlab.
  - Many thanks to Hugh Montgomery & JLab staff for their hospitality!
  - The presence of the lab directors of the world's leading particle physics laboratories at this annual meeting allows a more extensive discussion of the status of particle physics.

# JLab – an unexpectedly cold welcome ...



Hugh Montgomery

# International Linear Collider

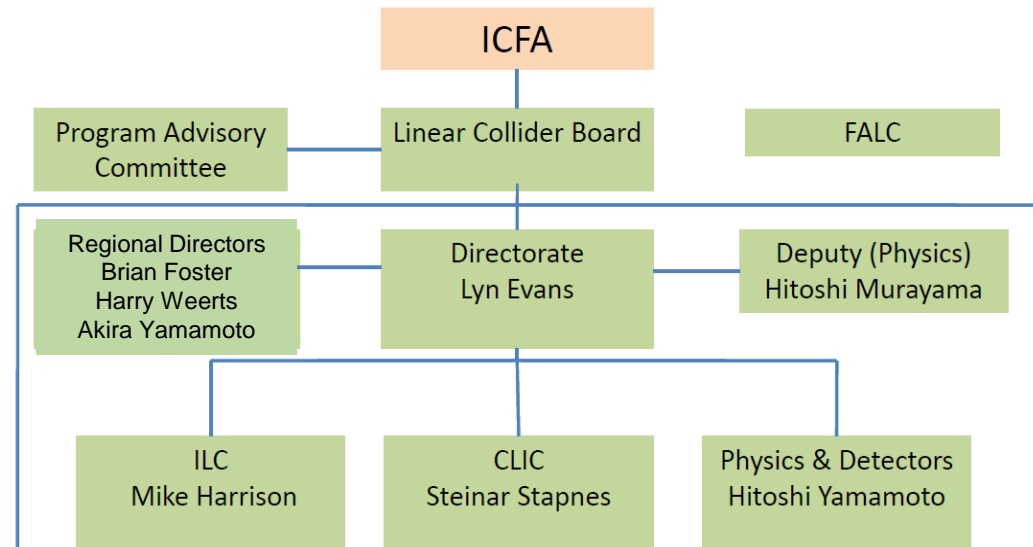
## > ICFA is closely following the progress of the ILC

- Monthly telephone meeting of the Linear Collider Board (LCB) established
- See report by Lyn



LINEAR COLLIDER COLLABORATION

## Organization



# ICFA and Accelerator Science

- > Proposal for a new IUPAP Working Group on Accelerator Science
- > ICFA as an existing IUPAP Working Group involved in accelerator-related issues was asked for comments:
  - ICFA represents the major labs worldwide that carry out research at the energy frontier
  - ICFA has well-established Panels very relevant to many aspects, including generic, of accelerator R&D
  - ICFA would welcome a new IUPAP working group which covers a broader area of accelerators than ICFA itself does; the new group should have links to ICFA and duplication should be avoided
  - ICFA Panels can be a bridge to the new group.
- > An interim working group is being set up by IUPAP to propose a charge and initial membership of the new Working Group, and ICFA has been asked for nominations to the interim working group.



# ICFA Panels

## > Reports from ICFA panels

- Standing Committee on Interregional Connectivity
- Beam Dynamics Panel
- Instrumentation Innovation and Development Panel
- Advanced and Novel Accelerators Panel
- The Study Group on Data Preservation in High Energy Physics
- Neutrino Panel

## > Proposed:

- Panel on Sustainable Accelerators and Colliders

# Sustainable Accelerators and Colliders

> Panel proposed by A. Suzuki.

> Goals:

- Improve power efficiency of every accelerator component
- Have energy recovery from the accelerator, and re-use it
- Have a stand-alone system to provide all or part of the accelerator power needs

> Important topic, with connections i.e. to efforts at ESS, EUCARD energy efficiency network, etc.

- Region representatives looking into initiatives in this area, with the aim of producing mandate and goal for potential panel, if topic found to be appropriate for ICFA.



# Future ICFA/LCB Meetings

- > 19 August 2015, Ljubljana (Lepton-Photon 2015)
- > 25/26 February 2016, KEK
- > Next ICFA seminar: Vancouver (2017)

# Next ICFA Seminar

**Vancouver, fall 2017**



ICFA web page: <http://www.fnal.gov/directorate/icfa/>

# Backup Slides

# InterActions.org

- > Well-established organisation for peer-reviews of laboratory outreach activities.
  - FNAL in July 2014
  - DESY in March 2015
  - Soon: publication of best-practices document.
- > InterAction has significant web presence (4300 subscribers), with specific hubs for dark-matter and neutrinos (to come in 2015).
- > Committee to review InterAction's digital presence formed in 2014.

# Committee on Interregional Connectivity

- > Committee monitors the world's networks and produces global view of HEP network use (covering by now 99% of world population).
- > Recognised need to bridge the digital divide! Compared to Europe, North America, East Asia and Australasia,
  - Russia, Latin America and Middle East are 5 years back in development;
  - Africa is 15 years behind!
  - Many developments – i.e. first 100G link to Latin America in 2015!
- > HEP's network use grows exponentially – this is crucial to LHC Run 2!
- > HEP is a driver of network developments and can help other fields of science.

# Beam Dynamics Panel

- > Mission: to encourage and promote international collaboration on beam dynamics studies for present and future accelerators.
- > Different panel working groups
  - High-intensity hadron beams,
  - Future light sources,
  - High-lumi e+e- colliders.
  - Broader scope than only HEP!
- > Decision to NOT have a circular e+e- Higgs collider design study under the roof of ICFA.

# Neutrino Panel

## > Mandate:

- To promote international cooperation in the development of the accelerator-based neutrino-oscillation programme and to promote international collaboration in the development of a a neutrino factory as a future intense source of neutrinos for particle physics experiments.

## > Initial report issued. Some major conclusions:

- LBNF and KyperK experiments are complementary – there are advantages in developing both!
- LBNF is making excellent progress in becoming an international facility.
- There is an emerging picture of LBNF and SBF in the Americas; HyperK in Asia, and the CERN Neutrino Platform in Europe.

## > Second report to be issued by September 2015.



# ICFA Web Page and Mandate

**ICFA: International Committee for Future Accelerators**

**Web site: <http://www.fnal.gov/directorate/icfa/index.html>**

## **Mandate:**

- **promote international collaboration on very high energy accelerators**
- **organize regularly world-inclusive meetings for the exchange of information on future plans**
- **organize workshops for the study of problems related to super high-energy accelerators**