

# Bericht vom RECFA und C11

KET Jahrestagung 17. 11. 2012 in Bad Honnef  
Thomas Müller, Institut für Experimentelle Kernphysik, KIT

# 1. RECFA Mitglieder (3 + 3 Jahre)

**Chairman** Dr M. Krammer *Appointed 1 Jan.. 2012*

**Secretary** Prof. K. Long *Appointed 1 July 2010*

## Members

Austria	Dr C.E. Wulz	<i>Appointed Dec. 2011</i>
Belgium	Prof. J. D'Hondt	<i>Appointed Oct. 2012</i>
Bulgaria	Prof. R. Tsenov	<i>Appointed Oct. 2011</i>
Czech Republic	Dr J. Chyla	<i>Appointed Jan. 2007</i>
Denmark	Dr P. Hansen	<i>Appointed Jan. 2007</i>
Finland	Prof. P. Eerola	<i>Appointed Dec. 2011</i>
France	Dr Y. Karyotakis	<i>Appointed Oct. 2007</i>
Germany	Prof. Th. Müller	<i>Appointed Dec. 2009</i>
Greece	Prof. K. Fountas	<i>Appointed Dec. 2011</i>
Hungary	Dr F. Sikler	<i>Appointed Jan. 2011</i>
Italy	Prof. A. Zoccoli	<i>Appointed Jan. 2012</i>
Israel	Prof. H. Abramowicz	<i>Appointed Dec. 2011</i>
Netherlands	Prof. F. Linde	<i>Appointed Sept. 2004</i>
Norway	Prof. G. Eigen	<i>Appointed Aug. 2011</i>
Poland	Prof. A.F. Zarnecki	<i>Appointed Jan. 2009</i>
Portugal	Prof. G. Barreira	<i>Appointed July 1996</i>
Romania	Dr C. Alexa	<i>Appointed Feb. 2011</i>
Serbia	Prof. P. Adžic	<i>Appointed July 2012</i>
Slovak Republic	Dr B. Tomasik	<i>Appointed Dec. 2011</i>
Spain	Prof. M. Cavalli-Sforza	<i>Appointed Nov. 2008</i>
Sweden	Prof. R. Brenner	<i>Appointed July 2011</i>
Switzerland	Prof. Th. Gehrman	<i>Appointed Jan. 2010</i>
United-Kingdom	Prof. K. Long	<i>Appointed Jan. 2009</i>
CERN	Prof. Ph. Bloch	<i>Appointed Jan. 2009</i>

## Ex-Officio Members

CERN	Prof. R. Heuer	<i>Appointed Jan. 2009</i>
	Prof. S. Bertolucci	<i>Appointed Jan. 2009</i>
DESY	Prof. J. Mnich	<i>Appointed Jan. 2009</i>
INFN	Prof. U. Dosselli	<i>Appointed Jan. 2009</i>
Scientific Secretary for the Strategy Session	Prof. T. Nakada	<i>Appointed March 2011</i>

## Also Invited

EPS-HEPP Board Chair	Prof. P. Sphicas	<i>Appointed August 2011</i>
ApPEC Representative	Prof. M. Bourquin	<i>Appointed Oct. 2008</i>
CERN Head of International Relations	Prof. F. Pauss	<i>Appointed Jan. 2009</i>

## Observer

Russian Federation	Prof. V. Matveev	<i>Appointed Jan. 2007</i>
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## 2. Deutsche Plenary ECFA Mitglieder (6 Jahre)

Th. Müller (e.o.)	<i>Jan. 2005</i>
K. Borrás	<i>April 2012</i>
J. Dingfelder	<i>April 2012</i>
M. Krämer	<i>April 2011</i>
M. Lindner	<i>Jan. 2008</i>
<b>K. Moenig</b>	<i>Jan. 2006</i>
U. Ratzinger	<i>Dec. 2007</i>
A. Schönig	<i>April 2012</i>
M. Schumacher	<i>April 2012</i>
A. Stahl	<i>April 2012</i>
D. Zeppenfeld	<i>Jan. 2008</i>

**2013 müssen 2 neue Mitglieder benannt werden**

## 3. Aktivitäten

### 3.1 Komitees

#### a. ICFA-ILC:

- LCB (Linear Collider Board) mit 16 Mitgliedern wird gegründet
- Soll Linear Collider Direktorat aufsetzen und beaufsichtigen
- Zusammenarbeit mit FALC (Funding Agencies for Large Colliders)
- 5 Mitglieder aus Europa:
  - Generaldirektor CERN R. Heuer
  - HEP-Direktor DESY J. Mnich
  - Representant von Russland (Dubna-Direktor V.A. Matveef)
  - Zwei von RECFA nominierte Repräsentanten:
    - Beschleuniger: L. Rivkin
    - Physik/Detektor: F. LeDiberder

#### b. ICFA Neutrino Panel:

- Bis Jan 2013 werden 16 Mitglieder gesucht;
  - Deutscher Kandidat Achim Stahl

## 3.2 Review Panels

Funktion: Beraten, kommentieren (z.B. bei Lancierung von EU-Projekten)

### a. *Review Panel* für Detektor F/E in Europa

Beratung von F/E-Anträgen zur Detektorentwicklung

Chair: Y. Karyotakis;

Pannel: R. Brenner, M. Diemoz, D. Eckstein, E. Koffeman, Y. Karyotakis,  
G. Mikenberg, H.G. Moser, T. Sumiyoshi, C. Padilla, A. White

Host: DESY

Erstes Treffen: Mai 2012

### b. *Review Panel* zum LHeC Projekt

Review des Conceptual Design Reports

Chair: Th. Muller

Pannel: P. Bloch, T. Gehrmann und F. Linde, Th. Muller

Status: Bericht wurde offiziell an RECFA am 7. Oktober eingereicht

Offizielles Statement vor dem PECFA am 22. November

## 3.3 REISEN 2012

### a. RECFA Treffen 2012

- Holland (NIKHEF/Amsterdam) 18./19. Februar
- Polen (Krakau) 11./12. Mai
- Schweiz (PSI/Villingen) 19./20. Juli
- Italien (Frascati) 5./6. Oktober
- Serbien\* (Belgrad) 19. Oktober
- CERN 22./23. November

\* neu assoziiertes CERN-Mitglied

### b. Plenar ECFA Treffen 2012

- Schweiz (PSI/Villingen) 19. Juli
- CERN 22. November

### c. RECFA-Treffen 2013

- Frankreich 15./16. März
- Dänemark 3./4. Mai
- Schweden 20. Juli (EPS)
- Ungarn 4./5. Oktober
- CERN 21./22. November

### d. Plenar ECFA-Treffen 2013

- Schweden 20. Juli
- CERN 21./22. Nov.      Zwischenbericht Deutschland

## 4. IUPAP-C11

- International Union of Pure and Applied Physics
- Unterorganisation der UNESCO
- Gegründet 1922

>>To assist in the worldwide development of physics, to foster international cooperation in physics, and to help in the application of physics toward solving problems of concern to humanity.<<

<http://www.iupap.org/commissions/c11/>

### 4.1 Aktivitäten

#### a. Young Scientist Prize

- Dr. T. Katori (MIT) Neutrino Physik am Beschleuniger
- Dr. Phillip Urquijo (Bonn) Physik Schwerer Quarks mit Belle und LHCb

#### b. Konferenzen/Konferenzorte

- LP2013 (Palo Alto), IPAC2013 (Shanghai)
- TIP2014 (Amsterdam), ICHEP2014 (Valencia), NEUTRINO2014 (Boston)
- LP2015 (Ljubljana)



## 4.2 C11-Mitglieder

**Chair: Hiroaki Aihara** (2011) (2008)

Department of Physics, University of Tokyo

**Vice - Chair: Francois Le Diberder** (2011) (2008)

Laboratoire de l' Accelérateur Lineaire

Universite Paris - Sud

**Members:**

**Sergio Ferraz Novaes** (2011)

Instituto de Fisica Teórica

UNESP, São Paulo

**Robert Mann** (2011)

Department of Physics and Astronomy

University of Waterloo

**Xiaoyan Shen** (2011)

Institute of High Energy Physics

Chinese Academy of Sciences (CAS)

**Jiří Hořejší** (2011)

Institute of Particle and Nuclear Physics

Charles University

**Thomas Muller** (2011) (2008)

Institut für Experimentelle Kernphysik

Karlsruher Institut für Technologie KIT

**Umberto Dosselli** (2011) (2008)

INFN Padova

**Vladimir Kekelidze** (2011)

Dubna

**Kok Khoo Phua** (2011)

Institute of Advanced Studies

Nanyang Technological University

**Juan Fuster** (2011)

IFIC

Universitat de Valencia

**Per Olof Hulth** (2011)

Stockholm University

**Mark Lancaster** (2011)

University College London

**Professor Soo-Bong Kim** (2011)

Seoul National University

Anhang: LHeC



- 2006 Idea presented to the Open Symposium on European Strategy, DESY 06-006, by J. Dainton, M. Klein, et al.
- 2008 Presentations at EPAC08, Genoa, Italy
- 2008-10 Three CERN-ECFA-NuPECC workshops on Accelerator, Detector, Physics (New Physics, QCD, EWK and parton densities)
- 2010 Presentations at IPAC10, Kyoto, Japan
- 2011 Status report at ECFA Nov. 2011
- 2012 Conceptual design report (631 pages) delivered: <http://arxiv.org/abs/1206.2913>
- 2012 CERN-ECFA-NuPECC Workshop in Chavannes (June 2012)  
<https://indico.cern.ch/conferenceDisplay.py?confId=183282>

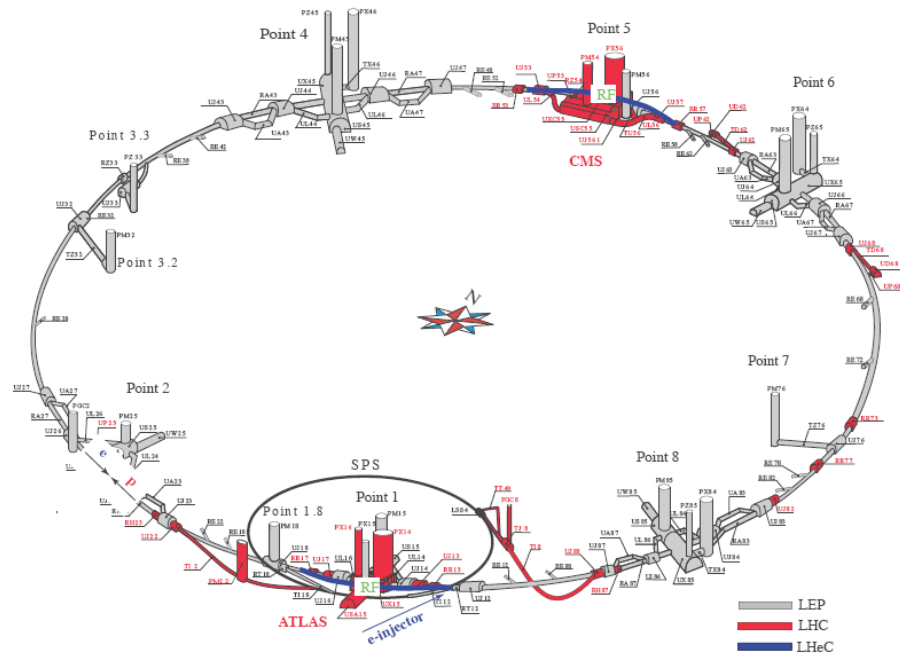


Figure 7.1: Schematic Layout of the LHeC: In grey the LEP tunnel now used for the LHC, in red the LHC extensions. The two LHeC bypasses are shown in blue. The RF is installed in the central straight section of the two bypasses. The bypass around Point 1 hosts in addition the injection.

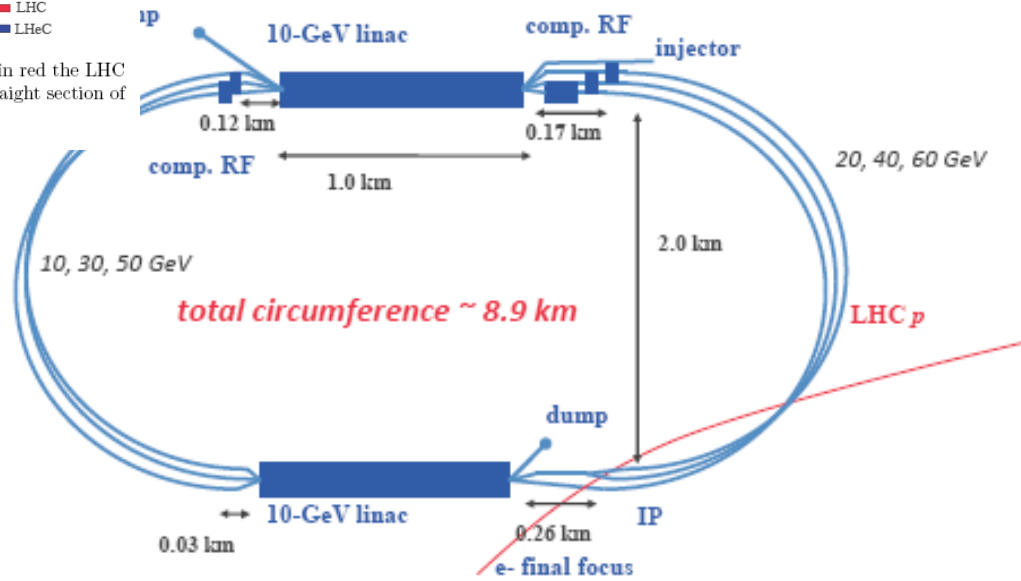


Figure 8.5: LHeC ERL layout including dimensions.

- The CDR of a Large Hadron Electron Collider (LHeC) will constitute an important input to the update of the European Strategy in Particle Physics which will take place during 2012-2013.
- ECFA acknowledges the large effort, enthusiasm and ingenuity of the LHeC community displayed in the CDR.
- It is our opinion that only the linac-ring option is viable. We point out that there are still important issues with respect to the physics potential, the accelerator and the detector to be addressed.
- We regard the design effort carried out on the machine as very valuable also for other projects.
- Most important is to assemble a strong community in particle and nuclear physics to push further this challenging project, and to secure resources for the ensuing R&D projects towards the formulation of a TDR.