

# Minutes

## of the Thirty-Third Meeting of the Nuclear Physics European Collaboration Committee (NuPECC)

held on November 6/7, 1998, in Caen

Participants:

- J. Äystö
- T. Døssing
- J. Durell
- E. Fernández (ECFA)
- S. Galès (Chairman)
- D. Guerreau
- M. Harakeh
- M. Huyse
- J. Jastrzebski
- H. Karow (ESF)
- H. Leeb
- M. Lozano
- G. Løvhøiden
- R. Malfliet (ECT\*)
- J. Martino
- W. von Oertzen (EPS)
- G. Ricco
- A. Shotter
- I. Sick
- Ö. Skeppstedt
- H.J. Specht
- A. Wagner
- Th. Walcher

A. Fonseca, G.-E. Körner, G. van Middelkoop and E. Migneco could not attend.

## **Agenda**

- 1.) Minutes of the Last Meeting
- 2.) Report of the Chairman
- 3.) Nuclear Physics News International
- 4.) NuPECC Handbook 4<sup>th</sup> Edition
- 5.) Budget 1998 - 1999
- 6.) Concerted Action, PANS, ECT\*
- 7.) Report of Search Committee, Election of New Chairman
- 8.) Relation with ESF
- 9.) Resources in Nuclear Physics
- 10.) NuPECC Study Group on Radioactive Beam Facilities
- 11.) NuPECC Study Group on Computational Nuclear Physics
- 12.) New Initiatives
- 13.) Miscellaneous
- 14.) Next meeting(s)

## **1. Minutes of the last meeting**

The minutes of the thirty-second meeting are agreed upon without changes.

## **2. Report of the chairman**

- S. Galès welcomes Th. Walcher (Mainz) as new member.

- During the INPC'98 conference in Paris in August, S. Galès had some discussions with R. Siemssen, the resigning Chairman of the NuPECC Study Group on Radioactive Beam Facilities, and several members of this working group. The decision was taken to propose B. Jonson to take the chair of this working group starting January 1, 1999. The next meeting of the working group will take place on December 7-8, 1998, at Mainz. S. Galès will send a letter to R. Siemssen to thank him for his contribution and to B. Jonson to formally nominate him. The subject will be discussed under point 10 of the agenda.

S. Galès met with B. Aune, G. Geschonke, K. Hübner and A. Tkatchenko at CERN on September 16, 1998, in order to discuss the re-use of LEP equipment in view of the design and construction of a ELFE type electron accelerator. The Director general of CERN has participated to that meeting. During the TESLA Board Collaboration meeting on October 6, 1998, S. Galès discussed the subject also with B. Wiik, Director of DESY. A discussion on this point will take place under point 12 of the agenda.

- A short text about NuPECC's activities has been sent to the Physical and Engineering Sciences Committee (PESC) of the ESF. A copy is enclosed.

- The „NuPECC Progress Report 1998“ on NuPECC activities has also been sent to ESF; a copy is enclosed.

- S. Galès has sent a letter to J. Vervier about the future of the Concerted Action within EU. A copy of this letter has been sent to all NuPECC members. This point will be discussed under point 6 of the agenda.

- S. Galès has sent an answer to Uppsala along the lines discussed in the previous meeting; a copy has been sent to all NuPECC members.

- Strong interactions have been maintained with the PANS working group to organise the upcoming workshop on November 27 and 28, 1998, at Orsay. This will also be discussed under point 6 of the agenda.

- S. Galès has had discussion and interaction with B. Frois, the Chairman of the Nuclear Physics Working Group of the OECD Megascience Forum, who will meet on Nov 9 and 10, 1998, at the OECD Headquarters in Paris. A version of the conclusions of this working group is available.

- The tables and text prepared by A. Shotton on the "Resources in Nuclear Physics" have been sent to all NuPECC members and will be discussed under point 9 of the agenda.

- The results of the discussions of the Search Committee for a new Chairman of NuPECC will be discussed under point 7 of the agenda.

## **3. Nuclear Physics News International**

The present contract with Gordon & Breach is running until the end of 1998, and will be extended without changes for another two years.

The last meeting of the Editorial Board was held in connection with INPC'98 on August 29, 1998, in Paris.; a copy of the minutes of this meeting is enclosed.

Each member of NuPECC is encouraged to propose possible contributions, and to make sure that major scientific journals in their country receive a copy of NPN.

A pile of copies should be made available at the CERN Users' Office.

Suggestions are made to re-activate the „sleeping“ correspondents and to interact more frequently with the community.

The wish that the Nuclear Physics Board of the EPS contributes financially has been expressed regularly in previous years, but never led to a success.

#### **4. NuPECC Handbook Fourth Edition**

The new edition of the NuPECC Handbook is ready. Publication is envisaged by the end of 1998; the funds for that are available within the budget of the Concerted Action FINA. As the Third Edition from November 1995, the Fourth Edition will also be made available in the WorldWideWeb under the homepage of NuPECC at „<http://www.nupecc.org>“

#### **5. Budget 1998 - 1999**

J. Martino shows the income as well as the expected expenditure of NuPECC for the year 1998, and a proposal of the budget for 1999. Copies of his transparencies are included.

In the discussion of point 6 of the agenda, it turns out that NuPECC should ask for an increase in the membership fee by about 10 %; this seems reasonable in view of the fact that the last increase (9 %) dates back to 1994 after the budget had been constant 1991-1993.

#### **6. Concerted Action, PANS, ECT\***

##### **Concerted Action**

In the Fifth Framework Programme the present TMR programme will be extended and called „Improving Human Potential“. Its LSF will be renamed „Access to Major Infrastructure“ (200 MEuro instead of 128 MEuro) and 3 parts of the latter survive as

- Transnational Access to Major Infrastructure (access for researchers) with 120 MEuro instead of 92 MEuro, where we have today 10 LSF in nuclear physics,
- Research Infrastructure: RTD projects with 50 MEuro instead of 24 MEuro
- Infrastructure Co-operation Networks( previous „Concerted Actions“) with 30 MEuro instead of 2 MEuro

The call for proposal will go out between January and March 1999, asking for submission 2 months later.

Possible extensions of the present activities could be to include an electron facility in the „Transnational Access“; this will have to be discussed; to include as and „RTD“ project the continuation of the present RTD programme including the initiative on instrumentation such as a Ge Tracking Wall and the design of 2<sup>nd</sup> Generation RIB; maybe the design of an ELFE type accelerator pending on the outcome of the discussion under point 12 of the agenda. In the „Infrastructure Co-operation Network“ should be included the ECT\* workshop activities (200kEuro/y) as well as the PANS activities.

So in conclusion, for the next meeting of the Concerted Action FINA in Padova/Venice on February 4 to 6, 1999, the following proposals should be prepared:

- ECT\* (R. Malfliet)
  - PANS (W. von Oertzen)
  - Representative of the e-m community
  - RTD activities RIB and instrumentation (J. Äystö);
- all should be invited to be presented at Padova/Venice.

## **PANS**

The next workshop will be held in Orsay on November 27/28, 1998, where the progress of the three envisaged projects - website, popular book, travelling exhibition - will be discussed and exposed to a number of critical people. A copy of the programme and the list of participants is enclosed. For financing of the workshop, the PANS Study Group received 10 kEuro freed within the Concerted Action FINA. The application for money within the Fifth Framework Programme will also be discussed. Even if such an application will be accepted, the money will not be available before the year 2000, so there is money needed for continuation in 1999.

There is a general agreement that for NuPECC it would be more advantageous to ask for an increase in the membership fee than to ask for contributions for particular projects. This is taken back to point 5 of the agenda.

## **ECT\***

R. Malfliet, who became Director of ECT\* on October 1, 1998, reports on the present situation of ECT\*.

The biggest problem at the moment is the fact that the proposal for workshops for next year at the EU has been turned down due to referees' reports. Although some money has been put aside previously, there will be a lack of funds of about 200 kEuro. This money could be made available within the Concerted Action FINA (see above).

In a meeting in January 1998, funding agencies from France, Germany and Italy agreed to come up for half of the increase in budget for ECT\* from 700 kEuro to 1.4 MEuro, i.e. 350 kEuro. A Memorandum of Understanding has been signed in the meantime, which also includes the modalities for the transfer of the money. For the other half, letters have been sent to the funding agencies of „smaller“ countries asking for support in the range of 15 - 20 kEuro. R. Malfliet will contact NuPECC members in order to help in their countries.

Also Japan is contributing to ECT\* by paying for an alpha-workstation and three people for its installation.

D. Brink has left Trento, after having been Vice-Director of ECT\* for eight years.

The next meeting of the Board of Directors will be held on November 14, 1998. There are plans to enlarge the number of members, and the NuPECC members are asked to send proposals to R. Malfliet.

## **7. Report of Search Committee, Election of New Chairman**

The information NuPECC had on the term of its present Chairman is documented in the minutes of the 24<sup>th</sup> meeting, point 3, the 25<sup>th</sup> meeting, point 4, the 27<sup>th</sup> meeting, point 3, and the 28<sup>th</sup> meeting, point 3, see copies enclosed. Accordingly, NuPECC and its Chairman assumed his term to end on December 31, 1998. More information was added by a mail from H. Karow to S. Galès from October 12, 1998, stating that the term of the present Chairman ends on December 31, 1999. A copy of this mail is enclosed.

Since the work of the Search Committee has progressed quite far, S. Galès agrees that the election of the new Chairman takes place, and that the present and the new chairman agree on a date when the new chairman will take over.

A copy of the report of the Search Committee is enclosed. The most mentioned candidate is J. Äystö, followed by G. van Middelkoop. The ballot among those two candidates yields the following results:

J. Äystö	18
G. van Middelkoop	1
Abstentions	1

J. Äystö agrees, so S. Galès will write a letter to ESF, asking that his mandate be terminated on June 30, 1999, J. Äystö be appointed by the ESF Executive Council as „Acting Chairman“ starting on July 1, 1999, and J. Äystö be nominated as Chairman by the ESF General Assembly, which will take place in November 1999, for a period of three years starting on January 1, 2000. S. Galès will also write a letter to the Finnish funding agency informing them accordingly.

## **8. Relation with ESF**

H. Karow reports on considerations within the ESF to improve the links with its Associated Committees and reflections on a harmonisation of their Terms of Reference. NuPECC's Terms of Reference should be completed by adding a sentence on the procedure of the election of a new chairman.

There was a change in the Secretary General in the ESF; P. Fricker has been replaced by E. Banda (Spain). The new chairman of PESC is now J. Rojo (Spain).

More applications for Associated Committees have been received by ESF and have to be discussed.

PESC established a working group which started to assess the NuPECC Recommendations and will meet within the next months. A little group within NuPECC should be elected in order to discuss with the PESC working group. Questions that came up about the scope of NuPECC have already been answered last year in the negotiations about the new Terms of Reference; S. Galès refers to the NuPECC Report „Impact and Applications of Nuclear Science: Opportunities and Perspectives“ (December 1994).

## **9. Resources in Nuclear Physics**

The introduction by A. Shotter as well as tables and charts as approved by the NuPECC members have been sent out. After some discussion, it is agreed upon to consider the survey as an internal report of NuPECC for the time being, which is available to the NuPECC members at their disposal. The introductory text should be completed by adding the original questionnaire, a thorough description on how the data was generated and country-specific qualifiers. So each member of NuPECC is asked to send his specific comments to A. Shotter. A final decision will be taken at the next meeting.

## **10. NuPECC Study Group on Radioactive Beam Facilities**

The Study Group has not met since the last NuPECC meeting; its next meeting will be held on December 7 and 8, 1998, in Mainz. First drafts of some chapters of the report will be discussed. After this meeting, B. Jonson will take over the chairmanship from R. Siemssen (see point 2 of the

agenda). For the next NuPECC meeting, B. Jonson will be invited and asked to give an intermediate report on the status of the work of the Study Group.

## 11. NuPECC Study Group on Large Scale Computing

H. Leeb distributes the final report of the working group, where the comments that came up at the last NuPECC meeting were taken into account. NuPECC would like to thank the Study Group for their effort and express its appreciation. In order to proceed further, it is recommended to attach to the physics a section explaining the technical content of the project and a comparison with other similar initiatives. H. Leeb is asked to contact R. Malfliet to see how ECT\* can be included in such a project. S. Galès will write a letter to H. Leeb along these lines. A recommendation from NuPECC will be elaborated and discussed at the next meeting.

## 12. New Initiatives

### a) Re-use of LEP cavities

The summary E. Fernández wrote on this point for the next ECFA meeting reads as follows:

*„- The possibility of using the LEP superconducting cavities for an ELFE-type machine after the end of LEP, which is envisioned for the end of the year 2000, was raised by the NuPECC Chairman in a letter addressed to the CERN Director General on September 29, 1998.*

*- The letter was answered on October 8, 1998, and a copy of these letters was distributed to the members of NuPECC.*

*- CERN has also done a study of the feasibility of such a machine using of the cavities, and a rough conceptual design. The study has been published as CERN SL/98-060 (RF), by G. Geschonke and E. Keil.*

*- The conceptual report is for a machine with a quasi-continuous electron beam of 25 GeV, a current of 150  $\mu$ amps on target, and a relative momentum spread of rms  $3.5 \times 10^{-4}$ .*

*- The design is challenging but it can be met. It requires some refurbishing of the cavities with reduced performances (between 5 to 10 % of the total 288 cavities), but there is expertise and infrastructure at CERN for that operation.*

*- In addition to the cavities there is other important and costly equipment which should also be available at CERN at the end of LEP, such as the klystrons and other elements of the RF system.*

*- The machine will require a new cryogenic plant and a new injector. The conceptual design calls for a racetrack of roughly 1300m x 300m.*

*- During the discussion at the NuPECC meeting several comments were made as to the opportunity of this initiative, the timing versus other projects, in particular the presumed energy upgrades of CEBAF, the chances to be realised and the support by the Nuclear Physics community.*

*- It was stressed by some that such a large project, to be realised, would need a strong support from a dedicated community.*

*- The conclusion was that the Chairman will contact again CERN to clarify which next steps would be required to fully explore the possibility of building the machine at CERN. The issue will presumably have to be discussed at the CERN Scientific Policy Committee.“*

NuPECC is setting up a Working Group to discuss with the community and CERN; members of the Working Group are J. Martino, G. Ricco, I. Sick and Th. Walcher.

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Other important initiatives considered for the future are

- b) the reparation of a new survey on nuclear physics applications and
- c) discussions and actions to improve the interest of young students in today's nuclear physics

### **13. Miscellaneous**

- A report from the common NuPECC-ECFA spin-off study group is highly desirable.
- H. Specht reports on a Letter of Intent for a new hadron facility, including intense antiproton beams. The NuPECC members would like to receive this proposal before any discussion on NuPECC's opinion on the scientific case takes place.

### **14. Next Meetings**

The next meetings will take place on February 19 and 20, 1999, in Sevilla, and on June 18 and 19, 1999, in Uppsala.

München, December 6, 1998

A handwritten signature in black ink, consisting of a stylized 'G' followed by 'E' and 'K' with a long horizontal line extending to the right.

(Gabriele-Elisabeth Körner)