

# Minutes of PPAC on July 27, 2001

Place: RCNP, Osaka University, Meeting room (2nd floor of RCNP office building)

Date: July 27, 2001, 10:00 – 17:00

Attendee:

K. Sagara (Kyushu U.), H. Akimune (Konan U.), T. Kobayashi (Tohoku U.), H. Okamura (Saitama U.), M. Yahiro (Ryukyu U.), A. Ohnishi (Hokkaido U.), K. Masuda (Nagoya), T. Otuki (LNS Tohoku U.), M. Nomachi (Osaka U.), K. Sato (RCNP), H. Shimizu (RCNP), M. Fujiwara (RCNP), A. Hosaka (RCNP)

Absentee:

I. Endo (Hiroshima U.), K. Hicks (Ohio U.), T. Suzuki (Fukui U.), T. Kunihiro (YITP Kyoto U.)

\* PPAC requested H. Toki (RCNP, Director), Y. Sakemi (RCNP, BPAC secretary)

## 1. Report

\* General Report (H. Toki):

- Budget Status (Total 1.1 Byen) and Budget Request
- Physics of RCNP should be discussed.  
(Unstable Nuclei for RIKEN, Hypernuclei and Neutrino Mixing for KEK)

\* Report on the recent development of the cyclotron (K. Sato)

- FFAG at HIMAC will be constructed (200–250 MeV)
- High resolution is achieved  
(55 keV at 300 MeV, 12 keV at 300 MeV in dispersion matching mode)
- New developments on cyclotron was reported.

\* Report on the Steering Committee (H. Okamura)

- The new rule of BPAC member selections is reported to Nuclear Experiment Group of Japan (KAKUDAN).

**2. BPAC report** The results of BPAC meeting was reported by Y. Sakemi. They are also shown in the Annex, and the homepage,

[http://www.rcnp.osaka-u.ac.jp/Divisions/plan/b-pac/ex\\_appro/index.html](http://www.rcnp.osaka-u.ac.jp/Divisions/plan/b-pac/ex_appro/index.html) .

It was re-confirmed that PPAC approved UCN experiments as a test experiments. Neither additional budget nor additional beam time will not be approved before that group get clear achievements.

**3. Publication support for a cluster symposium** Proceedings publication support for “International Symposium on Clustering Aspects of Quantum Many-body Systems (PostYK01)”, Nov. 12-14, 2001, Kyoto, was requested by A. Ohnishi (Symposium secretary), and it was approved.

**4. Numerical Nuclear Data Request** It was requested to provide of numerical nuclear data created at RCNP to JCPRG (Japan Charged Particle Reaction data Group) by A. Ohnishi. It will be opened on the Web, and transformed in a worldwide exchange format (EXFOR).

The followings are approved by PPAC members and the director.

- (1) At the call for experiments, it is requested to provide JCPRG of numerical data when the results are published in original papers.
- (2) JCPRG make coding of the published paper into the NRDF (Nuclear Reaction Data File) format, and include the provided numerical data. in addition, JCPRG is requested to open them to public through the web, and transform it to EXFOR as far as they can.
- (3) The address and way to send data will be reported from JCPRG later.

**5. QPAC report** Current members of QPAC (PAC for LEPS at Spring8) are T. Hatsuda, I. Endo, Matsuda, M. Nomachi, H. Toki. The change of the members (H. Toki → A. Hosaka) was proposed and approved.

To the current call, 13 experiments are proposed. Among them, there were 3 proposals for developing detector systems. The selection and time sharing were discussed mainly through E-mails.

The total machine time for approved experiments was confirmed to be 500 hours, and the total machine time is 3,000–4,000 hours.

**6. Future Plan** RCNP future plan is discussed, and PPAC members agreed in following points.

- \* Quark Nuclear Physics in LEPS facility at Spring8 is without doubt a promising, unique and attractive direction of study, and should be proceeded. It is the current project and still under development. Thus future plans in this direction will be discussed later in the future.
- \* Election-Nucleus collider (e-A collider) proposed a few years ago will conflict with JHF project, because a few tens GeV/A is required for incident energy of hadrons and nuclei to get good luminosity. The cost for this part is huge, even if we utilize Spring8 electron beam.
- \* Proton machine with high intensity and almost continuous beam at around 1.5-1.6 GeV is attractive. We can proceed the physics developed in AVF and Ring Cyclotrons at current RCNP. The physics involved with this type of new accelerator facility is as follows.
  - \* Various Nuclear Beams at around 400 MeV/A:
    - Clear Spin-Isospin Spectroscopy with  $d$ ,  $^3\text{He}$  beams
  - \* Correlation and Medium Effects of Nucleons:
    - $(p, 3p)$ ,  $(p, 2pM)$  ( $M$ : meson)
  - \* Meson medium modifications:
    - pionic and other mesic atoms
  - \* Surface pion condensation:

## 7. Others

- \* Formal version of minutes of PPAC is opened on the web and to be written in English, and detailed version can be in Japanese.
- \* Next PPAC will be held on Jan. 8 (Tue.), 2002.