



***Call for Proposals of Nuclear-Physics Experiments
at RI Beam Factory***

September 10, 2010

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This is a call for proposals of nuclear-physics experiments at the RI Beam Factory (RIBF) operated by RIKEN Nishina Center for Accelerator-Based Science (RNC) and Center for Nuclear Study (CNS), University of Tokyo.

The PAC (Program Advisory Committee) will review all nuclear physics proposals for RIBF facilities, including CRIB and SHARAQ operated by CNS, based on their scientific merits and feasibility. The PAC reports the results of recommendations of each proposal to the director of RNC, while those for experiments using CRIB and SHARAQ will be submitted to the director of CNS.

The PAC is composed of international members, and the PAC meeting is held twice a year, usually in June and December.

Since the date of the 8th PAC meeting has been fixed on Dec. 3-4 (or 5), 2010, we now start to call for proposals to be discussed at the 8th PAC meeting. The spokesperson of a proposal is requested to give an oral presentation at the PAC meeting which is open to the public. For each submitted proposals, a few PAC members will be assigned as reviewers to review the proposal in detail prior to the PAC meeting. The PAC members, thus, may contact the spokesperson prior to the meeting if necessary.

Approved experiments should be completed within two years, in principle. If an experiment does not finish within 2 years, a request for an extension or a new experimental proposal must be submitted.

We call for proposals for the following types:

1. nuclear physics experiments at our accelerator facility,
2. development of experimental equipment that requires beam-time use, and

3. construction of large size instrumentations, such as a spectrometer, whose feasibility study has been completed (Note : the two-year rule is not applied to the proposals of this type).

As to item 1, we request an update-proposal of previously approved proposals for the PAC to review if the approved experiment can be scheduled to run by using the beams projected to run in 2011. Those who want to make significant updates to their proposals can submit a new one, in which one should state clearly what has changed since the proposal was approved and also describe any changes that might affect the physics case originally presented so that the PAC can determine if it remains at the same priority. (Please also indicate the originally assigned experimental-program-number). Our tentative two-year plan of primary beams for BigRIPS-based experiments is as follows:

(Autumn 2010: d , ^{14}N , & ^{48}Ca)
Spring 2011: ^{124}Xe , & d , ^{14}N
Autumn 2011: ^{238}U & Xe
Spring 2012: (open)

Please note that this is only a tentative schedule. The order of primary-beams and elements are subject to change depending on the situation of the beam development and the condition of the accelerator operation.

The submitted proposal must contain a cover sheet, and a detailed description of the proposed experiment or construction. The cover sheet can be downloaded from the web site <http://www.nishina.riken.jp/UsersGuide/NP-PAC/index.html>. Detailed information on the proposed experiment should be described in a free format, and attached to the cover sheet for submission. It should include the following description:

1. Goals and methods of the proposed experiment or proposed development
2. Setup, and conditions
3. Estimation of beam time requested
4. Readiness

Information on the facility including the primary beam list is available at

<http://www.nishina.riken.go.jp/UsersGuide/index-RIBF.html> .

The following is a list of contact persons of the experimental equipments. Those who

plan to use the following facilities are requested to get in touch with the contact persons prior to the proposal submission.

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|-----------------|-----------------|------------------------------|
| 1. GARIS : | Kosuke Morita | (morita@ribf.riken.jp) |
| 2. CRIB : | Shigeru Kubono | (kubono@cns.s.u-tokyo.ac.jp) |
| 3. RIPS : | Hideki Ueno | (ueno@riken.jp) |
| 4. BigRIPS : | Toshiyuki Kubo | (kubo@ribf.riken.jp) |
| 5. ZeroDegree : | Nori Aoi | (aoi@riken.jp) |
| 6. SHARAQ : | Tomohiro Uesaka | (uesaka@cns.s.u-tokyo.ac.jp) |

Please note that we are going to suspend the acceptance of proposals of CRIB experiments after the next PAC for an indefinite period of time. Namely, the CRIB will not be included in the *Call for Proposals* after the next PAC until otherwise notified. For details, one can contact the director of CNS.

The personal information given in the submitted proposal will be used for the PAC evaluation purpose only. The titles, name of spokespersons including their affiliation of the PAC-approved proposals will appear in the Nishina Center web site, and publication if necessary.

Proposal should be sent to Dr. Hideki Ueno of User Support Office.

Dr. Hideki Ueno
User Support Office
RIKEN Nishina Center for Accelerator-Based Science
2-1, Hirosawa, Wako, Saitama, 351-0198, JAPAN
Email :UserSupportOffice@ribf.riken.jp .

Key dates:

Issuance of this Call for Proposal:	Sep. 10, 2010
Deadline of proposal submission:	Oct. 8, 2010
8 th PAC meeting:	Dec. 3-4 (or 5), 2010