

**RIBF workshop: Probing Neutron-Proton Pair Correlations
- pairing models, cross section measurements and reaction mechanisms**

Location: RIKEN Nishina Center, Japan

Date: November 19-20, 2010 (Friday - Saturday).

Neutron-proton pairing correlations have been investigated with tremendous efforts. However, the nature and the interplay between $T=0$ and $T=1$ pairs are still the subject of debate because of the inconclusive experimental evidences. This situation may be about to change with the recent advent of radioactive $N=Z$ beams. The purpose of the workshop is to organize a collaborative effort between experimentalists, structure and reaction theorists to advance the systematic study of neutron-proton correlations in the nuclei that are becoming accessible through rare isotope accelerators worldwide such as RIBF.

The workshop format will be based on the invited talks and discussion sections covering three essential components in the neutron-proton pairing research: nuclear structure theory for pairing models, theory for direct reaction mechanisms, as well as experimental signatures and cross section measurements. Open sections will be arranged between the main sections of invited talks for discussing about the challenges and opportunities. The program will begin on Friday morning (Nov. 19) with an overview talk about the neutron-proton pairing correlation in both experimental and theoretical studies. It will be followed by a series of talks and discussions about structure studies with the interacting shell model, mean-field and interacting boson models. The morning section on the second day will be scheduled to the topics of knockout and transfer reaction models as well as the cross section measurements. In the afternoon, short contributions will be presented by participants to bring new ideas and directions into this research. The last session will be dedicated to making future plans of both experimental and theoretical actions, as well as establishing collaborations for this interdisciplinary project. The workshop will end on Saturday evening (Nov. 20).

Nine invited speakers include G. F. Bertsch (U. Wash, USA), M. Horoi (CMU, USA), A. O. Macchiavelli (LBNL, USA), M. Matsuo (Niigate, Japan), J. Meng (Peking, China), Y. Sun (SJTU, China), I. J. Thompson (LLNL, USA), J. A. Tostevin (Surrey, UK), P. Van Isacker (GANIL, France). About 40 participants are expected for this workshop.

Application for RIBF-related symposium

October 5, 2010

1: Subject of the symposium

Probing Neutron-Proton Pair Correlations

2: Brief Description of the Symposium

See attached document

3: Organizers

Jenny Lee* RI Phys. Lab., Nishina Center

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4: Budget request **¥230,000-**

Local expenses: ¥180,000-

¥10,000 * 3 days * 6 persons = ¥180,000-

(¥6,700 (Toyoko Inn) * 3 nights * 6 persons = ¥120,600-)

Coffee: ¥50,000-

7 breaks * 3bottles * ¥2,100(Tullys)+ snack

5: Date

Nov 19-20, 2010