

## Application Form for RIBF ULIC Mini-Workshop

Date: 2013/1/15  
 send to: [sympo-kyoyofat@ribf.riken.jp](mailto:sympo-kyoyofat@ribf.riken.jp)

## 1) Scheduled Date and Place of the mini-WS

Date: 2013/1/23 (yyyy/mm/dd) ~ (Number of Days: 0.5 days)  
 Place: RIKEN, Main research building, room#424

Prior to fixing date(s) of the symposium, please contact "Nuclear Physics Seminar Organizing Committee, RIKEN Nishina Center (NPSOC)" at [npsoc@ribf.riken.jp](mailto:npsoc@ribf.riken.jp) so as not to overlap your application with seminars or conferences in Nishina Center organized by NPSOC.

## 2) Title

Prospects on reaction studies using polarized targets with low energy beams

For approved proposals, title of the mini-WS will be published in RIKEN Accelerator Progress Report.

## 3) Brief Description (Free Format, in approx. 300 words)

Polarized targets offer new opportunities to investigate nuclear structure of exotic nuclei as well as nuclear interaction properties. Experimental studies of elastic scattering have been performed at RIKEN using a solid polarized proton target operated in a low magnetic field and at a high temperature [1,2]. More recently, a nucleon quasi-free scattering experiment at high energy using the same target technology has been performed at RIBF using beams of neutron-rich oxygen isotopes. The workshop aims to investigate the opportunity of using polarized targets to study reactions relevant to lower incident energies regime, e.g. transfer reactions, resonant scattering and also reactions of interest for few body physics. During the meeting, a point will be made on presently existing targets and ongoing developments, focusing especially on the abovementioned polarized proton target as well as the polarized  $^3\text{He}$  gas cell target. For the reactions of interest, we will recall the "plus" brought by spin observables as compared to studies with non-polarized beams/targets. Then we will discuss a few physics cases that can be tackled with e.g. slowed-down beams that RIBF can produce and examine the difficulties to perform inverse kinematics experiments using low energies beams of unstable nuclei with such targets. Those discussions should pave the way towards experiment proposals to be submitted in the near future.

[1] T.Uesaka et al., Phys.Rev. C 82, 021602 (2010)

[2] S.Sakaguchi et al., Phys.Rev. C 84, 024604 (2011)

## 4) Contact Persons

All contact persons should be listed. Please add extra lines if needed.

	Name	Affiliation	Tel	E-mail
Contact Person 1	D.Beaumel	RNC RIB physics lab	4748	<a href="mailto:beaumel@ipno.in2p3.fr">beaumel@ipno.in2p3.fr</a>
Contact Person 2	T.Uesaka	Spin-isospin Lab		<a href="mailto:uesaka@riken.jp">uesaka@riken.jp</a>
Contact Person 3				
Contact Person at RIBF				

If no one belongs to RIBF, please contact ULIC.

## 5) Participants List and Request for Financial Support

All participants should be listed. Please add extra lines if needed.

Name	Affiliation	Estimate of support				
		Local transport expenses		Lodging expenses		
		Route	Estimated Amount	Price	Night(s)	Total
T.Teranishi	Kyushu Univ.	Fukuoka/Haneda/wako	¥ 26,000	¥ 2,000	1	¥ 2,000
S.Sakaguchi	Kyushu Univ.	Fukuoka/Haneda/wako	¥ 43,000	¥ 2,000	1	¥ 2,000
K.Sekiguchi	Tohoku Univ.	Sendai/Haneda/Wako	¥ 20,000	¥ 2,000	1	¥ 2,000
W.Kim	Kyungpook Nat. Univ.(Kr)	Narita/Wako	¥ 6,000	¥ 6,000	1	¥ 6,000
T.Uesaka	RNC		¥ -			¥ -
D.Beaumel	RNC / IPNO		¥ -			¥ -
J.Lee	RNC		¥ -			¥ -
J.Gibelin	RNC / LPC Caen		¥ -			¥ -
N.Alahari	TITech / GANIL		¥ -			¥ -
TOTAL			¥			107,000

All of participants should be listed with a request of local transport and lodging expenses, if any.

- [Notes]
- Only local transport and lodging expenses in JAPAN will be provided. Overseas travel expenses will not be provided.
  - Those who come from Tokyo area will not be supported.
  - ULIC supports actual expenses.
  - Maximum amount of lodging expenses is 6,720 JPY/night.

## - Refreshments (coffee etc.)

This is not provided for mini-WS.

Request for Financial Support	¥	107,000
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Maximum amount of financial support is 150,000 JPY.