



French-Japanese Symposium on Nuclear Structure Problems  
-Organized in the framework of FJNSP LIA -

**September 30 - October 3**

**CNRS Auditorium  
3 rue Michel-Ange  
75016 PARIS**

**SCIENTIFIC PROGRAMME**

## Monday 30th September 2013

**8:30 – 9:00** – Registration (Entrance Hall of CNRS)

**9:00 – 9:10** – Welcome Address

### **SESSION 1**

**9:10 - 10:45**

Chairperson : Dominique Guillemaud Mueller

**Marek Lewitowicz** (GANIL)

Latest developments and results at GANIL (20+5)

**Tomohiro Uesaka** (RIKEN)

RIBF (20+5)

**Lucia Caceres** (GANIL)

Latest results with the LISE spectrometer (20+5)

**Tohru Motobayashi** (RIKEN)

In-beam gamma-ray spectroscopy at RIBF (15+5)

**10:45 - 11:10 Coffee break**

### **SESSION 2**

**11:10 - 12:45**

Chairperson : Tomohiro Uesaka

**Michiharu Wada** (RIKEN)

SLOWRI Facility (20+5)

**Thomas Duguet** (CEA/Irfu)

First ab-initio descriptions of medium-mass open shell nuclei (20+5)

**Takaharu Otsuka** (University of Tokyo)

Perspectives beyond the shell evolution (20+5)

**Anna-Maria Corsi** (CEA/Irfu)

MINOS : a new device for in-beam gamma spectroscopy and hydrogen-induced knockout reactions (15+5)

**13:00 - 14:15 Lunch**

### **SESSION 3**

**14:15 - 16:05**

Chairperson : Marek Lewitowicz

**Hervé Savajols** (GANIL)

SPIRAL2 (20+5)

**Jean-Charles Thomas** (GANIL)

DESIR (15+5)

**Antoine Drouart** (CEA/Irfu)

Status report on the Super Separator Spectrometer (15+5)

**Xavier Ledoux** (GANIL)

NFS (15+5)

**Tatsushi Shima** (RCNP)

Nuclear Astrophysics with Secondary-particle Beams (20+5)

**16:05 - 16:30 Coffee Break**

### **SESSION 4**

**16:30 - 17:30**

Chairperson : Hideki Ueno

**Iolanda Matea** (IN2P3/IPNO)

Latest developments on Paris (15+5)

**Maurycy Rejmund** (GANIL)

VAMOS (15+5)

**Gilles De France** (GANIL)

AGATA@GANIL (15+5)

**Tuesday 1<sup>st</sup> October 2013**

**SESSION 5**

**9:00 - 10:35**

Chairperson : Patricia Roussel-Chomaz

**Marlène Assié** (IN2P3/IPNO)  
The GASPARD Silicon array (15+5)

**Emmanuel Pollacco** (CEA/Irfu)  
GET (15+5)

**Geoffrey Grinyer** (GANIL)  
Active Target and Time Projection Chamber: ACTAR TPC (15+5)

**Tadaaki Isobe** (RIKEN)  
SAMURAI-TPC with GET system for next generation HIC experiments (10+5)

**Shinsuke OTA** (University of Tokyo)  
CNS Active Target (15+5)

**10:35 - 11:00 Coffee break**

**SESSION 6**

**11:00 - 12:40**

Chairperson : Tohru Motobayashi

**Miguel Marques** (IN2P3/LPC Caen)  
Exploring the structure of the most neutron-rich isotopes of Boron and Carbon (15+5)

**Naoyuki Itagaki** (YITP, Kyoto)  
Exotic cluster structure in light nuclei (20+5)

**Didier Beaumel** (IN2P3/IPNO and RIKEN)  
Direct reactions with exotic beams (15+5)

**Takahiro Kawabata** (Kyoto University)  
Alpha inelastic scattering and cluster structures in light nuclei (15+5)

**Yohei Matsuda** (Osaka University)  
Proton elastic scattering on proton-rich carbon isotopes:  $^9,^{10},^{11}\text{C}$  (10+5)

**13:00 - 14:15 Lunch**

## SESSION 7

14:15 - 16:00

Chairperson : Nicolas Alamanos

**Yosuke Kondo** (Tokyo Institute of Technology)

Invariant mass spectroscopy of unbound oxygen isotopes using SAMURAI (20+5)

**Valérie Lapoux** (CEA/Irfu)

Resonances of  $^{24}\text{O}$  and proton-nucleus interaction potentials of  $^{21-24}\text{O}$  via (p,p') scattering at RIBF using the MUST2 array (10+5)

**Megumi Niikura** (University of Tokyo)

$\beta$ -decay spectroscopy in the vicinity of  $^{78}\text{Ni}$  (10+5)

**Marcella Grasso** (IN2P3/IPNO)

Tensor force in the effective Skyrme and Gogny interactions. Phenomenological indications in a ground-state-focused study (10+5)

**Hiroyuki Sagawa** (University of Aizu)

Role of T=0 pairing in the ground states of N=Z nuclei and Spin-Isospin excitations (15+5)

**Eiji Uegaki** (Akita University)

Wobbling Motions Observed as Molecular Resonance in  $^{28}\text{Si} + ^{28}\text{Si}$  (10+5)

**16:05 - 16:35 Coffee Break**

## SESSION 8

16:35 - 17:30

Chairperson : Michiharu Wada

**Masayuki Matsuo** (Niigata)

Exotic aspects of pair correlation in neutron-rich nuclei (15+5)

**Georgi Georgiev** (IN2P3/CSNSM)

Polarisation and g factors (15+5)

**Eiji Ideguchi** (Osaka University)

Study of Neutron-rich Z=60 Nuclei (10+5)

**LIA Steering Committee Meeting (closed session)**

18:00 - 20:00

**Wednesday 2<sup>nd</sup> October 2013**

**SESSION 9**

**9:00 - 10:35**

Chairperson : Bertram Blank

**Kouji Morimoto** (RIKEN)

New result in the production and Decay of  $^{278}113$  (20+5)

**Radomira Lozeva** (IN2P3/IPHC)

Results with EURICA collaboration (20+5)

**Makoto Ito** (Kansai University)

Application of the generalized two-center cluster model to  $^{18}\text{O}$  (10+5)

**David Boilley** (GANIL)

Can we predict the fusion cross-section of super-heavy elements? (10+5)

**Danilo Gambacurta** (GANIL)

Collective Modes in Second RPA with Skyrme and Gogny Interaction (10+5)

**10:35 - 11:00 Coffee break**

**SESSION 10**

**11:00 - 12:40**

Chairperson : Takaharu Otsuka

**Olivier Dorvaux** (IN2P3/IPHC)

Very heavy and super-heavy nuclei (20+5)

**Yoritaka Iwata** (University of Tokyo)

The TDDFT calculations for low-energy heavy-ion collisions (15+5)

**Shintaro Go** (University of Tokyo)

Study of high spin states in  $^{35}\text{S}$  (10+5)

**Peter Schuck** (IN2P3/IPNO)

Alpha particle condensation in nuclear systems (10+5)

**Dominique Jacquet** (IN2P3/IPNO)

Probing super heavy element stability through fission time measurement (20+5)

**13:00 - 14:15 Lunch**

## SESSION 11

14:15 - 16:00

Chairperson : Didier Beaumel

**Denis Lacroix** (IN2P3/IPNO)

Pairing effects in small and large amplitude collective motion (10+5)

**Masashi Tomita** (Kansai University)

Coupled-channel studies of the  $p+^{12}\text{C}$  scattering with microscopic spin-orbit interactions (10+5)

**Fadi Ibrahim** (IN2P3/IPNO)

ALTO Facility (20+5)

**Kazuko Sugawara-Tanabe** (RIKEN)

Angular momentum dependence of moments of inertia due to Coriolis anti-pairing and blocking effects (10+5)

**Juzo Zenihiro** (RIKEN)

Study of simultaneous extractions of proton and neutron density distributions from proton elastic scattering of 90, 92, 94Zr at 200 and 300 MeV (10+5)

**Michael Urban** (IN2P3/IPNO)

Application of nuclear-physics methods to ultracold atoms : dipolar Fermi gases and Bose-Fermi mixtures (15+5)

**16:00- 16:30 Coffee Break**

## SESSION 12

16:30 – 17:55

Chairperson : Florent Staley

**Masaru Yosoi** (RCNP)

Hadron Physics Experiments at LEPS and LEPS2 (15+5)

**Atsushi Hosaka** (RCNP)

Exotic hadrons with heavy flavors (15+5)

**Guy Royer** (IN2P3/SUBATECH)

Fusion, fission, alpha and cluster emission and super-heavy element formation and decay within a generalized liquid drop model (10+5)

**Neil Rowley** (IN2P3/IPNO)

On the smooth and oscillatory Wong fusion cross sections (10+5)

**Kassem Moghrabi** (IN2P3/IPNO)

The many-body problem in nuclear matter (10+5)

**Symposium Dinner: 20:00 Restaurant “Le Congrès”**

**Thursday 3 October 2013**

**Auditorium Biopark  
Université Paris Diderot  
11 rue Watt  
75013 Paris**

**SESSION 13**

**9:30 - 10:45**

Chairperson : Valérie Lapoux

**Hideyuki Sakai** (RIKEN)

Spin-isospin responses studied by (p,n) reactions with SHARAQ (15+5)

**David Lunney** (IN2P3/CSNSM)

New magic in the atomic nucleus (10+5)

**Yutaka Watanabe** (KEK)

Present status of KEK isotope separation system (15+5)

**Katsuhisa Nishio** (JAEA)

Experimental study for heavy-ion induced fission (15+5)

**10:45- 11:15 Coffee break**

**SESSION 14**

**11:15 - 12:15**

Chairperson : Hideyuki Sakai

**Bertram Blank** (IN2P3/CENBG)

Two-proton radioactivity (15+5)

**Cédric Simenel** (The Australian National University)

Microscopic study of the effect of collective vibrations on low-energy fusion (10+5)

**Hideki Ueno** (RIKEN)

Present status of nuclear moment measurements at RIBF/Closing (20+5)