# French Japanese Symposium on Nuclear Structure Problems

# **Tuesday 04 January 2011**

Welcome Reception (16:00-18:00)

# Wednesday 05 January 2011

# <u>Opening</u> (05 January 09:00-10:45)

## - Conveners: Motobayashi, Tohru

time	title	presenter
09:00	Symposium opening (00h15')	
09:1:	Nuclear Physics in France at GANIL (00h30')	GALES, Sydney
09:4:	Nuclear physics in Japan and RIKEN Nishina center (00h30')	EN'YO, Hideto
10:15	Nuclear physics in France and IN2P3 (00h30')	MARTINO, Jacques

## **Coffee break** (10:45-11:00)

# **<u>Opening / Physics Opportunities in New Generation Facilities</u> (05 January 11:00-12:30)**

### - Conveners: Gales, Sydney

time title	presenter
11:00 Nuclear Physics in France at CEA/DSM/Irfu (00h30')	ALAMANOS, Nicolas
11:30 Nuclear physics programs at RIBF (00h30')	SAKURAI, Hiroyoshi
12:00 Physics opportunities and status of the SPIRAL2 Project (00h30')	LEWITOWICZ, Marek

# Lunch (12:30-13:45)

## France Japan Collaboration 1 (05 January 13:45-15:15)

#### - Conveners: Alamanos, Nicolas

time	title	presenter
13:45	Exploration of the low-lying resonances of near-dripline nuclei: the <sup>6,7,8</sup> He and <sup>22,24</sup> O cases. (00h30')	LAPOUX, Valerie
14:15	High-resolution ion-optical analysis of RI beams with the SHARAQ spectrometer (00h30')	UESAKA, Tomohiro
14:45	Nuclear moments of micro-second isomeric fragment at BigRIPS (00h30')	DAUGAS, Jean-Michel

## Coffee break (15:15-15:30)

## France Japan Collaboration 2 (05 January 15:30-16:45)

### - Conveners: Korten, Wolfram

time	title	presenter
15:30	Production of spin-aligned RI beams via the two-step fragmentation reaction (00h30')	UENO, Hideki
16:00	Recent studies of transfer reactions with MUST2 at GANIL and RIKEN (00h30')	BEAUMEL, Didier
16:30	Lifetime measurement of $2^{+}_{1}$ states in <sup>74</sup> Zn using differential plunger technique at GANIL (00h15')	NIIKURA, Megumi

## Coffee break (16:45-17:00)

## Nuclear Structure 1 (05 January 17:00-18:15)

### - Conveners: Otsuka, Takaharu

time	title	presenter
17:00	Towards petascale nuclear-structure calculation: shell-model case (00h30')	UTSUNO, Yutaka
17:30	Recent progress of nuclear density functional calculations - towards next-generation supercomputer - (00h30')	INAKURA, Tsunenori
18:00	Tensor correlations and Spin Dependent excitations (00h15')	SAGAWA, Hiroyuki

# Thursday 06 January 2011

## Nuclear Structure 2 (06 January 09:00-10:45)

### - Conveners: Sakurai, Hiroyoshi

time	title	presenter
09:00	Systematic study of the many-particle and many-hole states in and around the Island of Inversion (00h30')	KIMURA, Masaaki
09:30	Coexistence of various deformed states and $\alpha$ clustering in <sup>42</sup> Ca (00h15')	TANIGUCHI, Yasutaka
09:45	Tops-on-top model for triaxially strongly deformed bands in even-A nuclei (00h15')	SUGAWARA-TANABE, Kazuko
10:00	Structure beyond the neutron drip-line: <sup>9</sup> He (00h15')	GIBELIN, Julien
10:15	Tensor correlation in light nuclei studied with the tensor optimized shell model (00h15')	MYO, Takayuki
10:30	Symmetry Energy, Pairing correlations in Nuclear Matter and Giant Resonances in Tin Isotopes (00h15')	CHEOUN, Myung Ki

## **<u>Coffee break</u>** (10:45-11:00)

## **Experimental Studies on Exotic Nuclei 1** (06 January 11:00-12:30)

## - Conveners: Azaiez, Faiçal

time	title	presenter
11:00	Two-proton radioactivity as a tool of nuclear structure (00h30')	BLANK, Bertram
11:30	The <sup>14</sup> Be(p,n) <sup>14</sup> B reaction at 69 MeV in inverse kinematics (00h15')	SATOU, Yoshiteru
11:45	Exploring Mg Isotope Structures through Beta-Delayed Decay of Spin-Polarized Na Isotopes (00h15')	SHIMODA, Tadashi
12:00	A New Method to Explorer High-Spin States by RI Beam Induced Fusion Reaction (00h15')	ODAHARA, Atsuko
12:15	The super-allowed Fermi type charge exchange reaction for studies of isovector non-spin-flip monopole resonance (00h15')	SASAMOTO, Yoshiko

## Symposium Photo (12:30-12:50)

## Lunch (12:50-14:05)

## Studies with Novel Equipment 1 (06 January 14:05-15:40)

#### - Conveners: Rousseau, Marc

time	title	presenter
14:05	MINOS: a proton target - vertex tracker device for the gamma spectroscopy of very exotic nuclei (00h30')	OBERTELLI, Alexandre
14:35	Elastic scattering of protons with RI beams (00h25')	ZENIHIRO, Juzo
15:00	Active target ACTAR for the low energy short lived radioactive beams (00h25')	NALPAS, Laurant
15:25	Studies of spin-dependent interactions in unstable nuclei with solid polarized proton target (00h15')	SAKAGUCHI, Satoshi

## Coffee break (15:40-15:55)

# Astrophysics (06 January 15:55-17:35)

- Cor	- Conveners: Lewitowicz, Marek		
time	title	presenter	
15:55	Supernova nucleosynthesis, neutrino oscillation, and nuclear weak interactions (00h30')	KAJINO, Toshitaka	
16:25	KEK isotope separation system for $\beta$ -decay spectroscopy of r-process nuclei (00h25')	WATANABE, Yutaka X.	
16:50	Spin Modes in Nuclei and Applications to Astrophysical Processes (00h15')	SUZUKI, Toshio	
17:05	New Insight into Photonuclear Reactions and Explosive Nucleosynthesis (00h15')	MATHEWS, Grant J.	
17:20	Proton-capture nucleosynthesis in neutrino-driven supernova explosions (00h15')	WANAJO, Shinya	

# **<u>RIBF Facility Tour</u>** (06 January 17:35-18:20)

# **<u>LIA Steering Committee meeting</u> (06 January 18:00-20:00)**

**Closed within Steering Committee members** 

# Friday 07 January 2011

## Nuclear Structure 3 (07 January 09:00-10:30)

### - Conveners: Grasso, Marcella

time	title	presenter
09:00	Presentation of the ALTO facility - Production of RIB by photofission - (00h30')	IBRAHIM, Fadi
09:30	Systematic study of E1 mode using Canonical-basis TDHFB (00h15')	EBATA, Shuichiro
09:45	Unified studies of even Be isotopes from bounds to continuums (00h15')	ITO, Makoto
10:00	Triaxial Nuclear Molecule <sup>28</sup> Si – <sup>28</sup> Si in Resonances (00h15')	UEGAKI, Eiji
10:15	Black-sphere approximation to nuclei and its application to reactions with neutron-rich nuclei (00h15')	KOHAMA, Akihisa

## Coffee break (10:30-10:45)

## Studies with Novel Equipment 2 (07 January 10:45-12:25)

## - Conveners: Blank, Bertram

time	title	presenter
10:45	The DESIR facility at SPIRAL2 (00h25')	THOMAS, Jean-Charles
11:10	Electron Scattering - towards Hofstadter's experiments for exotic nuclei - (00h25')	SUDA, Toshimi
11:35	The super separator spectrometer S3 – Physics Avenues (00h25')	SAVAJOLS, Herve
12:00	Pushing the limits of spectroscopy with S3 (00h25')	GALL, Benoit

## Lunch (12:25-13:40)

## Studies with Novel Equipment 3 (07 January 13:40-15:20)

#### - Conveners: Uesaka, Tomohiro

time	title	presenter
13:40	Physics Highlights with the LISE3 spectrometer at GANIL (00h25')	GREVY, Stephane
14:05	Status and overview of the BigRIPS in-flight separator at RIKEN RI beam factory (00h25')	OHNISHI, Tetsuya
14:30	SAMURAI - A large-acceptance spectrometer in RIBF - (00h25')	YONEDA, Ken-ichiro
14:55	VAMOS: "Hot" news and perspectives (00h25')	SCHMITT, Cristelle

## **Coffee break** (15:20-15:35)

## **Fusion and Fission (07 January 15:35-17:15)**

#### - Conveners: Hagino, Kouichi

time	title	presenter
15:35	Multi-nucleon transfer governed by the dynamics of charge equilibration (00h30')	IWATA, Yoritaka
16:05	A recent measurement of the ${}^{11}$ Be + ${}^{64}$ Zn quasi-elastic scattering angular distribution (00h25')	ALAMANOS, Nicolas
16:30	A la recherche analytique de la fusion entravee Analytical study of the fusion hindered (00h15')	ABE, Yasuhisa

	Fission Yields calculated from Dynamics on Five-Dimensional Potential energy surfaces (00h15')	MOLLER, Peter
17:00	Digital electronics for $\Box \gamma$ -ray spectroscopy - the path to low cross-sections : First evidence of a rotationnal band in <sup>246</sup> Fm (00h15')	PIOT, Julien

# Symposium Banquet (18:00-20:00)

# Saturday 08 January 2011

## Nuclear Structure 4 (08 January 09:00-10:30)

### - Conveners: Utsuno, Yutaka

time	title	presenter
09:00	Beyond-mean-field models for correlated nucleons. Applications of second random-phase approximation to $^{16}$ O and $^{40,48}$ Ca. (00h30')	GRASSO, Marcella
09:30	Derivation of the Interacting Boson Model from mean-field theory (00h30')	NOMURA, Kosuke
10:00	Large-amplitude quadrupole collective dynamics in neutron-rich Mg and Cr isotopes (00h15')	HINOHARA, Nobuo
10:15	Microscopic description of large-amplitude collective motions with local QRPA inertial masses (00h15')	SATO, Koichi

## Coffee break (10:30-10:45)

## **Experimental Studies on Exotic Nuclei 2** (08 January 10:45-12:15)

### - Conveners: Shimoura, Susumu

time	title	presenter
10:45	Proton resonance elastic scattering on light unstable nuclei (00h15')	TERANISHI, Takashi
11:00	Breakup of neutron rich nuclei and their exotic structures near the island of inversion (00h30')	NAKAMURA, Takashi
11:30	Invariant-mass spectroscopy of the unbound nucleus <sup>13</sup> Be (00h15')	KONDO, Yosuke
11:45	Gamow-Teller transitions in proton rich nuclei from the combined study of $\beta$ -decay and charge-exchange reaction (00h30')	FUJITA, Yoshitaka

## Lunch Box (12:15-13:30)

## Studies with Novel Equipment 4 (08 January 13:30-15:10)

#### - Conveners: Nakamura, Takashi

time	title	presenter
13:30	Status and scientific perspectives of the AGATA spectrometer (00h25')	KORTEN, Wolfram
13:55	Recent gamma ray spectroscopy in RIBF (00h25')	SCHEIT, Heiko
14:20	Status of the PARIS project (00h25')	ROUSSEAU, Marc
14:45	CNS GRAPE for high-resolution spectroscopy of in-flight gamma decay (00h25')	SHIMOURA, Susumu

### <u>Coffee break</u> (15:10-15:25)

# <u>Closing</u> (08 January 15:25-15:55)

- Cor	Conveners: Roussel-Chomaz, Patricia		
time	title	presenter	
15:25	Final Remark (00h30')	OTSUKA, Takaharu	