ENSFN2012 Scientific Program

October 10

9:00-9:30  Registration
Chairperson: W. Nazarewicz (Univ. Tennessee/ORNL)

9:30-9:40  M. Honma (Univ. Aizu)
          Opening address

9:40-10:05 M. Hjorth-Jensen (Univ. Oslo)
          Evolution of shell structure in neutron-rich isotopes and the stability of nuclear matter

10:05-10:30 I. Tanihata (RCNP, Osaka. Univ.)
          An evidence of the tensor force in nuclear configuration

10:30-10:55 K. Sekiguchi (Tohoku Univ.)
          Experimental approach to three nucleon forces via few nucleon systems

          Break (10:55-11:25)

Chairperson: N. Itagaki (YITP, Kyoto Univ.)

11:25-11:50 B. R. Barrett (Univ. Arizona)
          Microscopic calculations of nuclear structure beyond the 0p-shell

11:50-12:15 K. Takayanagi (Sophia Univ.)
          Effective Hamiltonian in non-degenerate model space

12:15-12:40 N. Shimizu (CNS, Univ. Tokyo)
          History and future perspectives of the Monte Carlo shell model method

12:40-12:55 L. Liu (Peking Univ.)
          No-core Monte Carlo shell-model calculation for $^{10}$Be and $^{12}$Be low-lying spectra

          Lunch (12:55-14:10)

Chairperson: H. Sakurai (Univ. Tokyo/RNC, RIKEN)

14:10-14:35 A. Gade (MSU)
          Nuclear spectroscopy with fast exotic beams

14:35-15:00 G. Neyens (KU Leuven)
          Ground state moments of neutron-rich K and Al isotope as probes for changes in shell structure

15:00-15:25 Y. Utsuno (JAEA)
          Towards unified description of the shell evolution

          Break (15:25-15:55)

Chairperson: P. Van Isacke (GANIL)

15:55-16:20 N. Aoi (RCNP, Osaka Univ.)
          Study of shell evolution with in-beam gamma-ray spectroscopy

16:20-16:45 T. Duguet (CEA Saclay)
          How shall we talk about the shell structure?

          Reception (17:30-19:30) at “GOTEN”, Sanjo Conference Hall B1
October 11

Chairperson: R. V. F. Janssens (ANL)

9:00-9:25 A. Schwenk (TU Darmstadt)
Three-nucleon forces and nuclei at the extremes

9:25-9:50 B. A. Brown (MSU)
Pairing and shell gaps

9:50-10:15 H. Nakada (Chiba Univ.)
Mean-field and RPA approaches to stable and unstable nuclei with semi-realistic NN interactions

10:15-10:30 D. Steppenbeck (CNS, U. Tokyo)
Investigating the strength of the N=34 subshell closure in $^{54}$Ca

Break (10:30-11:00)

Chairperson: B. A. Brown (MSU)

11:00-11:25 P. Van Isacker (GANIL)
Shell-model derivation of the shears mechanism

11:25-11:50 N. Tajima (Fukui Univ.)
Angular correlation between proton and neutron rotors

11:50-12:15 K. Nomura (Univ. Koeln)
Interacting boson model with energy density functionals

12:15-12:30 S. Zhu (ANL)
First $\beta$-decay study with CARIBU and Gammasphere: $^{142,144}$Cs $\rightarrow ^{142,144}$Ba

Lunch (12:30-13:30)

Chairperson: T. Nakatsukasa (RNC, RIKEN)

13:30-13:55 W. Nazarewicz (Univ. Tennessee/ORNL)
Microscopic description of the fission process

13:55-14:20 J. Meng (Peking Univ.)
Exotic nuclear structure and origin of the heavy nuclei with covariant density functional theory

14:20-14:45 Y. Iwata (GSI)
Time-dependent density functional calculations for fusion and fission

14:45-15:10 T. Uesaka (RNC, RIKEN)
Spin-isospin responses studies with RI-beams

Break (15:10-15:30)
Chairperson: J. Meng (Peking Univ.)

15:30-15:55  S. Shimoura (CNS, Univ. Tokyo)
             Physics opportunities using double-charge exchange reactions
15:55-16:20  M. Matsuo (Niigata Univ.)
             Continuum dipole response near the threshold and the direct neutron capture cross section at
             astrophysical energies
16:20-16:35  M.-K. Cheoun (Soongsil Univ.)
             High-lying Gamow-Teller excited states in the deformed nuclei, $^{76}$Ge, $^{82}$Se and $N' = 20$ nuclei
             in the island of inversion by the deformed quasi-particle RPA
16:35-16:50  S. Ebata (CNS, Univ. Tokyo)
             Systematic investigation of E1 strength for the isotopes from $Z = 28$ to $50$

Break (16:50-17:10)

Chairperson: T. Motobayashi (RNC, RIKEN)

17:10-17:35  A. B. Balantekin (Univ. Wisconsin-Madison)
             Neutrinos and rare isotopes
17:35-18:00  G. J. Mathews (Univ. Notre Dame)
             Updated nuclear equation of state for core-collapse supernovae and neutron stars: Effects of
             3-body forces, QCD, and magnetic fields
18:00-18:25  T. Kajino (NAO)
             Nuclear weak interactions, supernova nucleosynthesis and neutrino oscillation
             Nuclear structure inputs to the production of heavy nuclei in accretion-induced black hole
             formation
October 12
Chairperson: A. Gade (MSU)
9:00-9:25 R. V. F. Janssens (ANL)
Changes in shell structure in A ~ 60 neutron-rich nuclei as a function of spin
9:25-9:50 S. M. Lenzi (Univ. Padova)
Deformation and shape coexistence in neutron-rich nuclei at N=40
9:50-10:05 K. Yoshida (Niigata Univ.)
Skryme energy-density functional approach to collective modes of excitation in exotic nuclei
10:05-10:20 Y. Tsunoda (Univ. Tokyo)
Study of medium-mass nuclei by large-scale shell model calculations

Break (10:20-10:50)

Chairperson: Y. Akaishi (KEK)
10:50-11:15 D. J. Dean (ORNL)
Pairing reentrance phenomenon in heated rotating nuclei in the shell-model Monte Carlo approach
11:15-11:40 N. Pietralla (TU Darmstadt)
Exotic ideas on mixed proton-neutron symmetry and their manifestation in heavy nuclei
11:40-12:05 S. Pittel (Univ. Delaware)
Spherical to deformed shape transitions in the nucleon pair shell model
12:05-12:30 N. Yoshinaga (Saitama Univ.)
Band structure of neutron rich Se and Ge isotopes

Conference Photo & Lunch (12:30-13:40)

Chairperson: H. Horiuchi (RCNP, Osaka Univ.)
13:40-14:05 T. Nakamura (Tokyo Inst. Tech.)
Deformed halo nuclei probed by breakup reactions
14:05-14:30 R. Kanungo (St. Mary’s Univ.)
Soft dipole resonance and nucleon distribution in halo nuclei
14:30-14:55 P. Maris (Iowa St. Univ.)
Emergence of rotational bands in Be isotopes from ab initio calculations

Break (14:55-15:25)

Chairperson: S. Shimoura (CNS, Univ. Tokyo)
15:25-15:50 J. Maruhn (Univ. Frankfurt)
Exotic cluster structures in the mean-field theory
15:50-16:15 Y. Kanada-En’yo (Kyoto Univ.)
Structures of ground and excited states in C isotopes
16:15-16:30 T. Yoshida (CNS, Univ. Tokyo)
Density profiles in the intrinsic frame of light nuclei obtained from Monte Carlo shell model calculation
16:30-16:40 T. Otsuka (Univ. Tokyo)
Closing