International Molecule

"Nuclear forces and neutron-rich matter"

March 1-31, 2012

Seminar Room K102, Yukawa Institute for Theoretical Physics, Kyoto University (During 13-15 March, at Y306)

Scientific Program

March 6

10:00 K. Sekizawa (Tsukuba) "Time-Dependent Hartree-Fock Theory for Multi-Nucleon Transfer Reaction"

March 7

10:00 K. Iida (Kochi) "Equation of state of asymmetric nuclear matter, unstable nuclei, and nuclear pasta"

11:00 B. Schütrumpf (Frankfurt)"Pasta Structures at finite temperatur in TDHF"

14:00 P. Ring (TUM) "Covariant density functional theory: on the way to a microscopic derivation"

15:00 M. Kimura (Hokkaido) "Shape coexistence far from stability studied by antisymmetrized molecular dynamics"

March 8

10:00 K. Yoshida (Niigata)

"Skyrme energy-density functional approach to collective excitations in exotic nuclei"

11:00 M. Matsuo (Niigata)

"Pairing in neutron-rich nuclei in the HFB+QRPA approach"

March 12

10:00 K. Murano (RIKEN) TBA

11:00 E. Hiyama (RIKEN)"Few-body aspects of hypernclear physics"

14:00 M. Ito (Kansai) "Hybrid structure of clusters and valence neutrons in light neutron-rich nuclei"

15:00 Y. Fukuoka (Tsukuba) "Excitation mode of light nuclei studied with multi-Slater determinants"

One day workshops on large scale calculations 13-15 March

March 13

10:00 T. Myo (Osaka Tech.)"Role of tensor force in light nuclei with tensor optimized shell model"

11:00 Y. Funaki (RIKEN)"Gas-like alpha-particle states in ¹⁶O"

14:00 S. Ohkubo (Kochi)"Alpha clustering, linear chain structure and Bose-Einstein condensation"

15:00 T. Abe (CNS) "No-core Monte Carlo Shell Model in p-shell Nuclei"

March 14

10:00 Y. Tsunoda (Tokyo)

"Study of medium-mass nuclei by large-scale shell model calculations"

11:00 K. Tsukiyama (Tokyo)

"In-medium similarity renormalization group for closed- and open-shell nuclei."

14:00 K. Fukukawa (Kyoto) TBA

15:00 T. Suzuki (Nihon) "Nuclear forces and spin-dependent modes in nuclei"

Break 16:00-16:30

16:30 F. Kobayashi (Kyoto)

"A new approach to investigate dineutron correlation and its application to ¹⁰Be"

March 15

10:00 T. Mizusaki (Senshu) "New variational Monte Carlo method with energy variance extrapolation for large-scale shell-model calculations"

11:00 N. Shimizu (CNS)"Recent developments toward large-scale shell-model calculations"

14:00 P. Ring (TUM)

"Density functionals with spectroscopic properties and the microscopic theory of quantum phase transitions in nuclei"

15:00 H. Nakada(Chiba)

"Direct and indirect effects of realistic tensor force on nuclear structure"

10:00 Y. Hashimoto (Tsukuba)

"Nonlinear vibration and relaxation in Gogny-TDHFB calculation"

March 23

10:00 J. Terasaki (Tsukuba)"Overlap of QRPA states based on ground states of different nuclei"

11:00 P. Ring (TUM) "Relativistic theory of collective excitations in nuclei"

14:00 B. Balantekin (Wisconsin) TBA

March 29

10:00 S. Ebata (CNS)"Systematic investigation of the low-lying E1 strength with Canonical-basis TDHFB"

11:00 T. Yoshida (CNS)

"Algebraic truncation method in ¹²C and ¹⁶O based on alpha cluster model"