

**Second EMMI-EFES workshop
on neutron-rich exotic nuclei
EENEN 10 Neutron-rich
nuclear matter - nuclear
structure and nuclear
astrophysics**

Report of Contributions

Contribution ID: 0

Type: **not specified**

Opening

Wednesday, 16 June 2010 09:00 (10 minutes)

Presenter: OTSUKA, Takaharu (Tokyo)

Contribution ID: 1

Type: **not specified**

Current status of FAIR

Wednesday, 16 June 2010 09:10 (30 minutes)

Presenter: LANGANKE, Karlheinz (GSI)

Session Classification: New experimental facilities

Contribution ID: 2

Type: **not specified**

Current status of RIBF

Wednesday, 16 June 2010 09:40 (30 minutes)

Presenter: SAKURAI, Hiroyoshi (RIKEN)

Session Classification: New experimental facilities

Contribution ID: 3

Type: **not specified**

Beta decay and electroncapture reactions in stars

Wednesday, 16 June 2010 10:40 (20 minutes)

Presenter: SUZUKI, Toshio (Nihon)

Session Classification: Nuclear Astrophysics

Contribution ID: 4

Type: **not specified**

Nucleosynthesis in core-collapse supernovae

Wednesday, 16 June 2010 11:00 (20 minutes)

Presenter: ARCONES, Almudena (Basel)

Session Classification: Nuclear Astrophysics

Contribution ID: 5

Type: **not specified**

Direct capture and the r-process

Wednesday, 16 June 2010 11:20 (20 minutes)

Presenter: OTSUKI, Kaori (Fukuoka)

Session Classification: Nuclear Astrophysics

Contribution ID: 6

Type: **not specified**

The search for the r-process site in explosions of massive stars

Wednesday, 16 June 2010 11:40 (20 minutes)

Presenter: FISCHER, Tobias (GSI)

Session Classification: Nuclear Astrophysics

Contribution ID: 7

Type: **not specified**

The weak vs. main r-processes in neutrino-driven winds

Wednesday, 16 June 2010 12:00 (20 minutes)

Presenter: WANAJO, Shinya (Munich)

Session Classification: Nuclear Astrophysics

Contribution ID: 8

Type: **not specified**

Beryllium isotopes studied in Fermionic Molecular Dynamics

Wednesday, 16 June 2010 13:30 (20 minutes)

Presenter: NEFF, Thomas (GSI)

Session Classification: Halos and Clusters I

Contribution ID: 9

Type: **not specified**

Coulomb breakups of two-neutron halo nuclei ^6He and ^{11}Li

Wednesday, 16 June 2010 13:50 (20 minutes)

Presenter: KIKUCHI, Yuma (Hokkaido)

Session Classification: Halos and Clusters I

Contribution ID: **10**

Type: **not specified**

Unified studies of structures and reactions by Generalized Two-Center Cluster Model

Wednesday, 16 June 2010 14:10 (20 minutes)

Presenter: ITO, Makoto (Kansai)

Session Classification: Halos and Clusters I

Contribution ID: 11

Type: **not specified**

New description of four-body breakup reaction

Wednesday, 16 June 2010 14:30 (20 minutes)

Presenter: MATSUMOTO, Takuma (Hokkaido)

Session Classification: Nuclear Reactions I

Contribution ID: 12

Type: **not specified**

Microscopic approach to scattering of unstable nuclei

Wednesday, 16 June 2010 14:50 (20 minutes)

Presenter: MINOMO, Kosho (Kyushu)

Session Classification: Nuclear Reactions I

Contribution ID: 13

Type: **not specified**

Solving a coupled-channels scattering problem by adding confining potentials

Wednesday, 16 June 2010 15:40 (20 minutes)

Presenter: SUZUKI, Yasuyuki (Niigata)

Session Classification: Nuclear Reactions II

Contribution ID: 14

Type: **not specified**

Systematic analysis of reaction cross section for deuteron induced reaction

Wednesday, 16 June 2010 16:00 (20 minutes)

Presenter: HASHIMOTO, Shintaro (JAEA)

Session Classification: Nuclear Reactions II

Contribution ID: 15

Type: **not specified**

Coulomb-excitation of the exotic, neutron-rich nuclei ^{94}Kr and ^{96}Kr

Wednesday, 16 June 2010 16:20 (20 minutes)

Presenter: ALBERS, Michael (Cologne)

Session Classification: Nuclear Reactions II

Contribution ID: 16

Type: **not specified**

Suppression of charge equilibration leading to the synthesis of exotic nuclei

Wednesday, 16 June 2010 16:40 (20 minutes)

Presenter: IWATA, Yoritaka (GSI)

Session Classification: Nuclear Reactions II

Contribution ID: 17

Type: **not specified**

Coulomb dissociation measurement of the $^{15}\text{O}(2p,\gamma)^{17}\text{Ne}$ cross section

Wednesday, 16 June 2010 17:00 (20 minutes)

Presenter: MARGANIEC, Justyna (GSI)

Session Classification: Nuclear Reactions II

Contribution ID: **18**

Type: **not specified**

Alpha resonance scattering measurements at CRIB

Wednesday, 16 June 2010 17:20 (20 minutes)

Presenter: YAMAGUCHI, Hidetoshi (CNS)

Session Classification: Nuclear Reactions II

Contribution ID: 19

Type: **not specified**

Importance Truncated No-Core Shell Model for the ab initio calculation of spectra and spectroscopy

Thursday, 17 June 2010 09:00 (20 minutes)

Presenter: ROTH, Robert (Darmstadt)

Session Classification: The nucleon-nucleon interaction, many-body forces, and ab-initio nuclear structure I

Contribution ID: 20

Type: **not specified**

Method to Monte Carlo Shell Model calculation for light nuclei by using UCOM interaction

Thursday, 17 June 2010 09:20 (20 minutes)

Presenter: LIU, Lang (Tokyo)

Session Classification: The nucleon-nucleon interaction, many-body forces, and ab-initio nuclear structure I

Contribution ID: 21

Type: **not specified**

In-medium similarity renormalization group for nuclei

Thursday, 17 June 2010 09:40 (20 minutes)

Presenter: TSUKIYAMA, Koshiroh (Tokyo)

Session Classification: The nucleon-nucleon interaction, many-body forces, and ab-initio nuclear structure I

Contribution ID: 22

Type: **not specified**

Three nucleon forces and shell evolution of medium-mass, neutron-rich nuclei

Thursday, 17 June 2010 10:00 (20 minutes)

Presenter: HOLT, Jason D. (Tennessee)

Session Classification: The nucleon-nucleon interaction, many-body forces, and ab-initio nuclear structure I

Contribution ID: 23

Type: **not specified**

Understanding one- and two-nucleon structure from (ab-initio) Green's function theory

Thursday, 17 June 2010 10:50 (20 minutes)

Presenter: BARBIERI, Carlo (RIKEN)

Session Classification: The nucleon-nucleon interaction, many-body forces, and ab-initio nuclear structure II

Contribution ID: 24

Type: **not specified**

Operator representation of realistic potentials for nuclear many-body calculations

Thursday, 17 June 2010 11:10 (20 minutes)

Presenter: WEBER, Dennis (GSI)

Session Classification: The nucleon-nucleon interaction, many-body forces, and ab-initio nuclear structure II

Contribution ID: 25

Type: **not specified**

Renormalization of the tensor force in effective interaction of nuclear force

Thursday, 17 June 2010 11:30 (20 minutes)

Presenter: TSUNODA, Naofumi (Tokyo)

Session Classification: Effect of tensor force

Contribution ID: 26

Type: **not specified**

Role of tensor force in light nuclei based on the tensor optimized shell model

Thursday, 17 June 2010 11:50 (20 minutes)

Presenter: MYO, Takayuki (Osaka)

Session Classification: Effect of tensor force

Contribution ID: 27

Type: **not specified**

Effect of tensor correlations on spin-dipole excitations

Thursday, 17 June 2010 12:10 (20 minutes)

Presenter: SAGAWA, Hiroyuki (Aizu)

Session Classification: Effect of tensor force

Contribution ID: 28

Type: **not specified**

Pygmy dipole excitations in neutron-rich nuclei

Thursday, 17 June 2010 13:40 (20 minutes)

Presenter: AUMANN, Thomas (GSI)

Session Classification: Collective excitations I

Contribution ID: 29

Type: **not specified**

Pygmy resonance and giant resonance in deformed nuclei

Thursday, 17 June 2010 14:00 (20 minutes)

Presenter: YOSHIDA, Kenichi (RIKEN)

Session Classification: Collective excitations I

Contribution ID: **30**

Type: **not specified**

Linear response calculation using canonical-basis TDHFB with a schematic pairing functional

Thursday, 17 June 2010 14:20 (20 minutes)

Presenter: EBATA, Shuuichirou (Tsukuba)

Session Classification: Collective excitations I

Contribution ID: 31

Type: **not specified**

Nonlinear collective oscillations of light nuclei in TDHFB with Gogny force

Thursday, 17 June 2010 14:40 (20 minutes)

Presenter: HASHIMOTO, Yukio (Tsukuba)

Session Classification: Collective excitations I

Contribution ID: **32**

Type: **not specified**

News from TDHF

Thursday, 17 June 2010 15:00 (20 minutes)

Presenter: MARUHN, Joachim (Frankfurt)

Session Classification: Collective excitations I

Contribution ID: 33

Type: **not specified**

Complete dipole strength distributions from polarized proton scattering at zero degrees

Thursday, 17 June 2010 15:50 (20 minutes)

Presenter: VON NEUMANN-COSEL, Peter (Darmstadt)

Session Classification: Collective excitations II

Contribution ID: 34

Type: **not specified**

Systematic calculations of electric dipole mode with fully selfconsistent Skyrme-HF+RPA

Thursday, 17 June 2010 16:10 (20 minutes)

Presenter: INAKURA, Tsunenori (RIKEN)

Session Classification: Collective excitations II

Contribution ID: 35

Type: **not specified**

Microscopic description of large-amplitude shape dynamics in neutron-rich Mg isotopes

Thursday, 17 June 2010 16:30 (20 minutes)

Presenter: HINOHARA, Nobuo (RIKEN)

Session Classification: Collective excitations II

Contribution ID: 36

Type: **not specified**

Application of relativistic density functional theory to charge exchange neutrino-nucleus reactions

Thursday, 17 June 2010 16:50 (20 minutes)

Presenter: MARKETIN, Tomislav (Zagreb)

Session Classification: Collective excitations II

Contribution ID: 37

Type: **not specified**

Recent progress in many-body models based on the covariant DFT

Thursday, 17 June 2010 17:10 (20 minutes)

Presenter: LITVINOVA, Elena (GSI)

Session Classification: Collective excitations II

Contribution ID: **38**

Type: **not specified**

Collectivity of low-lying Gamow-Teller strength for tin isotopes

Thursday, 17 June 2010 17:30 (20 minutes)

Presenter: MINATO, Futoshi (JAEA)

Session Classification: Collective excitations II

Contribution ID: 39

Type: **not specified**

Comments on the accuracy of nuclear structure models far from stability

Friday, 18 June 2010 09:00 (20 minutes)

Presenter: MOLLER, Peter (LANL)

Session Classification: Medium-heavy and (super-)heavy nuclei

Contribution ID: 40

Type: **not specified**

Derivation of IBM Hamiltonian and low-lying states of heavy neutron-rich nuclei

Friday, 18 June 2010 09:20 (20 minutes)

Presenter: NOMURA, Kosuke (Tokyo)

Session Classification: Medium-heavy and (super-)heavy nuclei

Contribution ID: 41

Type: **not specified**

Shape mixing dynamics in the low-lying states of proton-rich Kr isotopes

Friday, 18 June 2010 09:40 (20 minutes)

Presenter: KOICHI, Sato (Kyoto)

Session Classification: Medium-heavy and (super-)heavy nuclei

Contribution ID: 42

Type: **not specified**

Nuclear energy density functionals

Friday, 18 June 2010 10:30 (20 minutes)

Presenter: VRETENAR, Dario (Zagreb)

Session Classification: Density functionals, beyond mean-field models

Contribution ID: 43

Type: **not specified**

Beyond the relativistic mean-field approximation: configuration mixing calculations

Friday, 18 June 2010 10:50 (20 minutes)

Presenter: NIKSIC, Tamara (Zagreb)

Session Classification: Density functionals, beyond mean-field models

Contribution ID: 44

Type: **not specified**

Gradient method to solve the Hartree-Fock-Bogoliubov equation in the coordinate space

Friday, 18 June 2010 11:10 (20 minutes)

Presenter: ZHANG, Ying (Niigata)

Session Classification: Density functionals, beyond mean-field models

Contribution ID: 45

Type: **not specified**

Triaxial superdeformations in A ~ 40 region

Friday, 18 June 2010 11:30 (20 minutes)

Presenter: TANIGUCHI, Yasutaka (RIKEN)

Session Classification: Density functionals, beyond mean-field models

Contribution ID: 46

Type: **not specified**

Cluster features in ground and excited states of ^{12}C and ^8He

Friday, 18 June 2010 13:00 (20 minutes)

Presenter: KANADA-EN'YO, Yoshiko (Kyoto)

Session Classification: Halos and clusters II

Contribution ID: 47

Type: **not specified**

Cluster structures of excited states in 14C

Friday, 18 June 2010 13:20 (20 minutes)

Presenter: SUHARA, Tadahiro (Kyoto)

Session Classification: Halos and clusters II

Contribution ID: 48

Type: **not specified**

Halo structure involving core excitation in 15C

Friday, 18 June 2010 13:40 (20 minutes)

Presenter: FURUTACHI, Naoya (Hokkaido)

Session Classification: Halos and clusters II

Contribution ID: 49

Type: **not specified**

Alpha particle condensation in light nuclei

Friday, 18 June 2010 14:00 (20 minutes)

Presenter: FUNAKI, Yasuro (Tsukuba)

Session Classification: Halos and clusters II

Contribution ID: 50

Type: **not specified**

Spectroscopy of $N = 21$ isotones in the island of inversion studied with Antisymmetrized Molecular Dynamics

Friday, 18 June 2010 14:20 (20 minutes)

Presenter: MASAAKI, Kimura (Hokkaido)

Session Classification: Halos and clusters II

Contribution ID: 51

Type: **not specified**

Nuclear monopole interaction and shell structure evolution

Friday, 18 June 2010 14:50 (20 minutes)

Presenter: MUTO, Kazuo (Tokyo)

Session Classification: Shell Model

Contribution ID: 52

Type: **not specified**

New land of deformation south of ^{68}Ni

Friday, 18 June 2010 15:10 (20 minutes)

Presenter: SIEJA, Kamila (Strasbourg)

Session Classification: Shell Model

Contribution ID: 53

Type: **not specified**

Extrapolation method in the Monte Carlo Shell Model

Friday, 18 June 2010 15:30 (20 minutes)

Presenter: SHIMIZU, Noritaka (Tokyo)

Session Classification: Shell Model

Contribution ID: 54

Type: **not specified**

Closing

Friday, 18 June 2010 15:50 (20 minutes)

Presenter: RING, Peter (Munich)

Session Classification: Shell Model