

## **VII. LIST OF PUBLICATIONS & PRESENTATIONS**

**RIKEN Nishina Center for Accelerator-Based Science****Publications****[Book · Proceedings]**

(Others)

Enyo H.: "Prospect of RIKEN RI Beam Factory for Coming 5 Years", Proceedings of International Symposium on Exotic Nuclei (EXON2012), (Far Eastern Federal University), Vladivostok, Russia, pp. 441–448 (2012).

Motobayashi T.: "World new facilities for radioactive isotope beams", Proceedings of INPC2013 - International Nuclear Physics Conference, EPJ Web of Conferences 66, 01013 (2014).

**Oral Presentations**

(International Conference etc.)

Enyo H.: "Prospect of RIKEN RI Beam Factory for Coming 5 Years", The VI International Symposium on Exotic Nuclei (EXON2012), (Far Eastern Federal University), Vladivostok, Russia, Oct. (2012).

Enyo H.: "Nuclear Physics in Japan-Prospects being engaged in RIBF, J-PARC and other facilities", The 2012 Fall meeting of the Division of Nuclear Physics (DNP2012), CA, USA, Oct. (2012).

Motobayashi T.: "Experimental challenges for heavy element synthesis at new-generation RIB facilities", International Workshop on Open problems and futher directions in heavy element nucleo-synthesis, (ATOMKI), Debrecen, Hungary, Apr. (2013).

Enyo H.: "Future Nuclear Physics Facilities around the world", IUPAP WG.9 Nuclear Science Symposium, (Frascati National Laboratory), Italy, May. (2013).

Motobayashi T.: "World new facilities for radioactive ion beams", International Nuclear Physics Conference (INPC2013), (Istituto Nazionale di Fisica Nucleare), Firenze, Italy, June. (2013).

Motobayashi T.: "Coulomb dissociation experiments", 7th European Summer School on Experimental Nuclear Astrophysics, (INFN Catania), Santa Tecla, Italy, Sep. (2013).

Motobayashi T.: "In-beam  $\gamma$ -ray spectroscopy at RIBF", French-Japanese Symposium on Nuclear Structure Problems, (CNRS, CEA), Paris, France, Sep. (2013).

Enyo H.: "RIKEN Radio Isotope Beam Factory, Japanese Flag Ship for Nuclear Science", The first International African Symposium on Exotic Nuclei (IASEN2013), Cape Town, South Africa, Dec. (2013).

Motobayashi T.: "Nuclear structure studies of very neutron-rich nuclei at RIKEN RIBF", International Symposium on Nuclear Physics (ISNP2013), (Bhaba Atomic Research Center), Mumbai, India, Dec. (2013).

Motobayashi T.: "Nuclear physics and nuclear astrophysics at light- and heavy-ion accelerators in Japan", 6th Asian Nuclear Physics Association Symposium, (Variable Energy Cyclotron Center), Kolkata, India,

Feb. (2014).

Motobayashi T.: "Nuclear astrophysics studies at the RIKEN RIBF", 11th Russbach School on Nuclear Astrophysics, (GANIL, EPS), Russbach, Austria, Mar. (2014).

(Domestic Conference)

延與秀人: "理研における中性子利用研究-事始め-", H23 年度理研シンポジウム「理研から発信する中性子利用の新たな展開-ものづくり産業利用に向けた小型中性子源の開発-」, 埼玉県 和光市, 11月 (2011).

延與秀人: "Nishina Center Overview", 理研-IMP ワーク ショップ, 埼玉県 和光市, 4月 (2013).

延與秀人: "Introduction to RIKEN Nishina Center for Accelerator-Based Science", Workshop on the INFN-RIKEN collaboration on nuclear physics activities, (イタリア文化会館), 東京, 5月 (2013).

**Quantum Hadron Physics Laboratory****Publications****[Journal]**

- (Original Papers) \*Subject to Peer Review
- Hidaka Y. and Yamamoto A. :“Charged vector mesons in a strong magnetic field”,Phys. Rev. D**87**, 094502 (2013)\*.
- Miura K., Hidaka Y., Satow D., and Kunihiro T. :“Neutrino spectral density at electroweak scale temperature”,Phys. Rev. D**88**, 065024 (2013)\*.
- Kouno H., Makiyama T., Sasaki T., Sakai Y., and Yahiro M. :“Confinement and Z3 symmetry in three-flavor QCD”,J. Phys.**G40**,095003 (2013)\*.
- Aoki S., Balog J., Doi T., Inoue T., and Weisz P. :“Short Distance Repulsion Among Baryons”,Int. J. Mod. Phys.**E22**,1330012 (2013)\*.
- Endres M. G., :“Numerical study of unitary fermions in one spatial dimension”,Phys. Rev. A**87**, 063617 (2013)\*.
- Masuda K., Hatsuda T., and Takatsuka T. :“Hadron-Quark Crossover and Massive Hybrid Stars”,Astrophys. J.**764**,12 (2013)\*.
- Hyodo T., Hatsuda T., and Nishida Y. :“Universal physics of three bosons with isospin”,Phys. Rev. C**89**, 032201 (2014)\*.
- Gong M., Alexandru A., Chen Y., Doi T., Dong S. J., Draper T., Freeman F., Glatzmaier M., Li A., Liu K. F., and Liu Z. (chiQCD Collaboration) :“Strangeness and charmness content of nucleon from overlap fermions on 2+1-flavor domain-wall fermion configurations”,Phys. Rev. D**88**, 014503 (2013)\*.
- Araki Y. and Kimura T. :“Phase structure of 2-dimensional topological insulators by lattice strong coupling expansion”,Phys. Rev. B**87**, 205440 (2013)\*.
- Aoki S., Ishii N., Doi T., Ikeda Y., T.Ionoue T. :“Asymptotic behavior of Nambu-Bethe-Salpeter wave functions for multi-particles in quantum field theories”,Phys. Rev. D**88**, 014036 (2013)\*.
- Yamamoto A., and Hirono Y. :“Lattice QCD in rotating frames”,Phys. Rev. Lett.**111**,081601(2013)\*.
- Hama Y., Tsitsishvili G., and Ezawa Z. F. :“Nambu-Goldstone modes and the Josephson supercurrent in the bilayer quantum Hall system”,Prog. Theor. Exp. Phys.,053I01 (2013)\*.
- Suzuki H. :“Energy-momentum tensor from the Yang-Mills gradient flow”,Prog. Theor. Exp. Phys., 083B03 (2013)\*.
- Tanizaki Y. :“Flow equation of functional renormalization group for three-body scattering problems”,Prog. Theor. Exp. Phys., 113A01(2013)\*.
- Kurth T., Ishii N., Doi T. , Aoki S. , and Hatsuda T. :“Phase shifts in I=2  $\pi\pi$ -scattering from two lattice approaches”,JHEP**1312**015 (2013)\*.
- Sekine A, Nakano T. Z., Araki Y., and Nomura K.

- :“Strong Coupling Expansion in a Correlated Three-Dimensional Topological Insulator”,Phys. Rev. B**87**, 165142 (2013)\*.
- Hayata T. :“Dynamical Mass Generation of Light-vector Mesons from QCD Trace Anomaly”,Phys. Rev. D**88**,036007(2013)\*.
- Inoue T., Aoki S., Doi T., Hatsuda T. , Ikeda T. , Ishii N., Murano K. , Nemura H., Sasaki K. (HAL QCD Collaboration) :“Equation of State for Nucleonic Matter and its Quark Mass Dependence from the Nuclear Force in Lattice QCD”,Phys. Rev. Lett.**111**,112503(2013)\*.
- Endres M., Kuroki T. , Suguno F., and Suzuki H. :“SUSY breaking by nonperturbative dynamics in a matrix model for 2D type IIA superstrings”,Nucl. Phys.B**876**,758-793 (2013)\*.
- Hirono Y., Nitta M., and Yasui S. :“Vortices and Other Topological Solitons in Dense Quark Matter”,Prog. Theor. Exp. Phys.,012D01(2013)\*.
- Tanizaki Y. , Fejos G., and Hatsuda T. :“Fermionic Functional Renormalization Group Approach to Superfluid Phase Transition”,Prog. Theor. Exp. Phys.,043I01(2014)\*.
- Fukuda R. , Fukushima K. , Hayata T., and Hidaka Y. :“Sign problem and the chiral spiral on the finite-density lattice”,Phys. Rev. D**89**,014508 (2014)\*.
- Eto M., Hirono Y. , and Nitta M. :“Domain Walls and Vortices in Chiral Symmetry Breaking”Prog. Theor. Exp. Phys.,033B01(2014)\*.
- Mao H., Wei T., and Jin J. :“Chiral soliton model at finite temperature and density”,Phys. Rev. C**88**,035201 (2013)\*.
- Mao H. :“On the symmetry improved CJT formalism in the O(4) linear sigma model”,Nucl. Phys.A**925**,185-198 (2014)\*.
- Tanizaki Y. :“Fermionic Functional Renormalization Group Approach to Bose-Einstein Condensation of Dimers”,Prog. Theor. Exp. Phys.,023A04(2014)\*.
- Ikeda Y., Charron B., Aoki S., Doi T., Hatsuda T., Inoue T., Ishii N., Murano K., Nemura H., and Sasaki K. (HAL QCD Collaboration) :“Charmed Tetraquarks Tcc and Tcs from Dynamical Lattice QCD Simulations ”,Phys. Lett.B**729**,85-90 (2014)\*.
- Satow D. :“Ultrasoft fermion mode and off-diagonal Boltzmann equation in quark-gluon plasma at high temperature”,Phys. Rev. D**87**,096011 (2013)\*.
- Kamikado K. and Kanazawa T. :“Chiral dynamics in a magnetic field from the functional renormalization group ”,JHEP**03**,009 (2014)\*.
- Ndaidon P., Endo S., and Ueda M. :“Microscopic Origin and Universality Classes of the Efimov Three-Body Parameter”,Phys. Rev. Lett**112**, 105301(2013)\*.
- Yan M., DeSalvo B. J., Huang Y., Ndaidon P., and Killian T. C. :“Rabi Oscillations between Atomic and Molecular Condensates Driven with Coherent One-Color Photoassociation ”,Phys. Rev. Lett**111**, 150402(2013)\*.

Nawa K., Ozaki S., Nagahiro H., Jido D., and Hosaka A. :“Complex 2D Matrix Model and Geometrical Map on Complex-Nc Plane ”,Prog. Theor. Exp. Phys.,083D01(2013)\*.

Hatta Y., Kanazawa K., and Yoshida S. :“Double-spin asymmetry  $A_{LT}$  in open charm production ”,Phys. Rev. D**88**,014037(2013)\*.

Beppu H. , Kanazawa K., Koike Y., and Yoshida S. :“Three-gluon contribution to the single spin asymmetry for light hadron production in pp collision ”,Phys. Rev. D**89**,034029(2014)\*.

Ohnishi S., Ikeda Y. *et al.* “Signature of strange dibaryons in kaon- and photon-induced reactions ”,Phys. Rev. C**88**,025204 (2013)\*.

Ozaki S. :“QCD effective potential with strong  $U(1)_{em}$  magnetic fields ”,Phys. Rev. D**89**,054022(2014)\*.

Fujii H., Honda D., Kato M., Kikukawa Y., Komatsu S., and Sano T. :“Hybrid Monte Carlo on Lefschetz thimbles - A study of the residual sign problem ”,JHEP**1310**,147 (2013)\*.

#### [Book • Proceedings]

(Original Papers)

Charron B. (HAL QCD Collaboration) :“A comparative study of two lattice approaches to two-body systems ”,PoS LAT2013,223 (2013).

Doi T. (HAL QCD Collaboration) :“Cutoff effects on lattice nuclear forces ”,PoS LAT2013,226(2013).

Ikeda Y. (HAL QCD Coll.) :“Search for possible bound Tcc and Tcs on the lattice ”,PoS LAT2013,261(2013).

Yamamoto A. and Hirono Y. :“Rotating lattice ”,PoS LAT2013,351(2013).

Hidaka Y. , Tsitsishvili G. , and Ezawa Z. F. :“Goldstone Modes in Bilayer Quantum Hall Systems at  $\nu = 2$  ”,Journal of Physics: Conference Series**456**,0120 (2013).

Tada T., :“Sine Square Deformation and String Theory ”,Proceedings of the 12th Asia Pacific Physics Conference (APPC12) ,013003(2014).

Tachibana Y. and Hirano T. :“Emission of Low Momentum Particles at Large Angles from Jet ”,Nucl. Phys.**A904-905**,1023c-1026c(2013).

Hatsuda T. :“Heavy quarkonium in hot medium ”,Nucl. Phys.**A904-905**,210c-216c (2013).

Hatsuda T. :“Strangeness nuclear physics from lattice QCD ”,Nucl. Phys.**A914**,211-219 (2013).

Doi T. (HAL QCD Collaboration) :“Few-baryon interactions from lattice QCD ”,Few-Body Syst. **54**,827-833 (2013).

#### Oral Presentations

(International Conference etc.)

Hattori K.: “Vacuum birefringence and real-photon decay in strong magnetic fields”, International School on Neutron Star Matter, YITP, Japan, Mar. (2014).

Hattori K.: “Photon propagation in strong magnetic fields – vacuum birefringence and real-photon decay”, Fron-

tiers of Hadronic Physics: Brains Recirculate Two, BNL, USA, Mar. (2014).

Kanazawa T.: “Chiral model analysis of QCD in magnetic fields”, German-Japanese Seminar 2013 ”Lattice Field Theory on multi-PFLOPS computers” Regensburg, Germany, Nov. (2013).

Kamikado K: “Effects of baryon number density fluctuation around QCD critical point ” , Extreme QCD 2013 Bern, Switzerland, Aug. (2013).

Naidon P: “Microscopic origin of the Efimov three-body parameter ”, HPCI Workshop on Few-body systems and multi-particle resonances RIKEN, Wako, Japan, October (2013).

Naidon P: “Universality of the three-body parameter in atomic Efimov physics”, 2013 joint meeting of the APS Division of Atomic, Molecular, & Optical Physics and the CAP Division of Atomic, Molecular & Optical Physics (DAMOP 2013) Quebec city, Canada, June (2013).

Naidon P: “Universality of the Efimov three-body parameter”, First international conference on Few-body Physics in Cold Atomic Gases Beijing, China, April (2013).

Doi T.: “Cutoff effects on Lattice Nuclear Forces”, The 31st International Symposium on Lattice Field Theory (Lattice 2013) Mainz, Germany, Jul.-Aug. (2013).

Doi T.: “Lattice in Nuclear Physics”, 10th European Research Conference on Electromagnetic Interactions with Nucleons and Nuclei (EINN2013) Paphos, Cyprus, Nov. (2013).

Doi T.: “Hadron interactions from Lattice QCD”, The workshop on strangeness nuclear physics (SNP2013) Xiamen, China, Dec. (2013).

Doi T.: “Baryon interactions from lattice QCD”, KEK theory center workshop on J-PARC hadron physics in 2014 Tokai, Japan, Feb. (2014).

Doi T.: “Nucleon spin from lattice QCD”, Workshop on High-energy QCD and nucleon structure Tokai, Japan, Mar. (2014).

Fejos G.: “Chiral symmetry breaking patterns in the  $U(n)xU(n)$  meson model”, Workshop on Future Prospects of Hadron Physics at J-PARC and Large Scale Computational Physics in 2013 Tokai, Japan, February(2013).

Fejos G.: “Strongly coupled fermionic superfluidity and the functional renormalization group method” Eotvos University Particle Physics Meeting Budapest, Hungary, September(2013).

Fejos G.: “Chiral symmetry breaking patterns in the  $U(n)xU(n)$  meson model” New Frontiers in QCD 2013 Kyoto,Japan December(2013).

Satow D.: “(Quasi-) Nambu-Goldstone Fermion in Hot QCD Plasma and Bose-Fermi Cold Atom System”, NFQCD 2013 Kyoto, Japan, Nov. (2013).

Satow D.: “Ultrasoft Fermion Mode at Finite Temperature and Density”, Frontiers of Hadronic Physics: Brain

- Circulation Kick off Workshop BNL, USA, Mar. (2013).
- Tada T: "Sine Square Deformation and string theory", The 12th Asia Pacific Physics Conference Chiba, Japan, July (2013).
- Tada T: "Sine Square Deformation and string theory", Todai/Riken joint workshop on Super Yang-Mills, solvable systems and related subjects Tokyo, Japan, Oct. (2013).
- Tada T: "Sine Square Deformation and string theory", 3rd Bangkok workshop on high energy theory Bangkok, Thailand, Jan. (2014).
- Hidaka Y, "Vector mesons in a strong magnetic field", New Frontiers in QCD 2013 Kyoto, Japan, Nov. (2013).
- Hidaka Y. "Symmetry breaking of QCD in a strong magnetic field", Frontiers of Hadronic Physics New York, USA, Mar. (2013).
- Hidaka Y. "QCD in a strong magnetic field", Recent progress in hadron physics -From hadrons to quark and gluon Soul, Korea, Feb. (2013).
- Yamamoto A.: "Strong external electric fields in lattice QCD", Extreme QCD 2013 Bern, Switzerland, August (2013).
- Yamamoto A. and Hirono Y. : "Rotating lattice", The XXXI International Symposium on Lattice Field Theory Meintz, Germany, August (2013).
- Hayata T., Nawa K., Hatsuda T. : "Heavy quarkonium spectral functions with complex potential from Gauge/Gravity duality", Heavy quarks and quarkonia in thermal QCDS Trent, Italy, April (2013).
- Nawa K., Ozaki S., Nagahiro H., Jido D. and Hosaka J. : "Complex 2D matrix model and its application to no-decoherence hadron structures", XV International conference on hadron spectroscopy (Hadron2013) Nara, Japan, Nov. (2013).
- Matsuki K. and Seo K. : "Chiral particle/photon emission from heavy-light mesons", Hadron nuclear physics in 2013 Zhangjiajie, China, July (2013).
- (Domestic Conference)
- 金澤拓也, Tilo Wettig, 山本直希: "高密度 QCD の Banks-Casher 関係式とランダム行列理論", 日本物理学会 2013 年秋季大会高知大学朝倉キャンパス, 9 月 (2013).
- 上門和彦: "Real Time Correlation Function in the O(N) model from the Functional-RG", RCNP/九大研究会「ハドロン物理と原子核物理のクロスオーバー」九州大学, 福岡, 9 月 (2013).
- 上門和彦, 国広悌二, 大西明, 森田健司: "Effects of baryon number density fluctuation on QCD critical point", 日本物理学会秋季大会高知大学, 高知県, 9 月 (2013).
- Naidon P: "Origin and Universality of the Efimov three-body parameter", Physical Society of Japan (JPS) meeting Tokai University, Hiratsuka, Japan, March (2014).
- R. Kurita and T. Hirano: "重イオン衝突反応における核生成ダイナミクス", 日本物理学会秋季大会高知, 日本, Sep. (2013).
- 谷崎佑弥: "非相対論的な少数系に対する汎関数繰り込み群の構造" 日本物理学会高知, 日本, 9 月 (2013).
- 土井琢身: "格子 QCD による原子核物理・核力計算の現状と展望", 新学術領域「素核宇宙融合による計算科学に基づいた重層的物質構造の解明」のまとめと今後を語る研究会鳴子, 日本, 12 月 (2013).
- 土井琢身: "格子 QCD による原子核物理", 「京」、ポスト「京」と基礎物理和光, 日本, 1 月 (2014).
- 土井 琢身: "Quark mass dependence of Three-nucleon forces in Lattice QCD", 日本物理学会平塚, 日本, 3 月 (2014).
- 日高義将, 早田智也, 広野雄二: "非一様相における南部・ゴールドストンの定理", 日本物理学会 2013 年秋季大会高知, 日本, 9 月 (2013).
- 日高義将: "時空対称性を含む南部・ゴールドストンの定理の一般化", 基研研究会「熱場の量子論とその応用」京都, 日本, 8 月 (2013).
- 日高義将, 山本新: "強磁場中でのベクトル中間子", 日本物理学会第 68 回年次大会広島, 日本, 3 月 (2013).
- 日高義将: "南部・ゴールドストンの定理の非相対論的な系への一般化", 日本物理学会第 68 回年次大会広島, 日本, 3 月 (2013).
- 山本新, 広野雄士: "Lattice QCD in rotating frames", 日本物理学会第 68 回年次大会 高知, 日本, 9 月 (2013).
- 名和要, 尾崎翔, 永廣秀子, 慶道大介, 保坂淳: "Complex 2D matrix model and internal structure of resonances", ハドロン物理と原子核物理のクロスオーバー九州大学, 日本, 9 月 (2013).

**Theoretical Nuclear Physics Laboratory****Publications****[Journal]**

- (Original Papers) \*Subject to Peer Review
- Avogadro P., and Nakatsukasa T.: “Efficient calculation for the quasiparticle random-phase approximation matrix”, Phys. Rev. C **87**, 014331-1–014331-7 (2013). \*
- Fukuoka Y., Shinohara S., Nakatsukasa T., and Yabana K.: “Deformation and cluster structures in <sup>12</sup>C studied with configuration mixing using Skyrme interactions”, Phys. Rev. C **88**, 014321-1–014321-14 (2013). \*
- Yoshida K. and Nakatsukasa T.: “Shape evolution of giant resonances in Nd and Sm isotopes”, Phys. Rev. C **88**, 034309-1–034309-15 (2013). \*
- Inakura T., Nakatsukasa T., and Yabana K.: “Low-energy E1 strength in select nuclei: Possible constraints on neutron skin and symmetry energy”, Phys. Rev. C **88**, 051305(R)-1–051305(R)-5 (2013). \*
- Gu H. Q., Liang H. Z., Long W. H., Van Giai N., and Meng J.: “Slater approximation for Coulomb exchange effects in nuclear covariant density functional theory”, Phys. Rev. C **87**, 041301(R) (2013). \*
- Liang H. Z., Nakatsukasa T., Niu Z. M., and Meng J.: “Feasibility of the finite-amplitude method in covariant density functional theory”, Phys. Rev. C **87**, 054310 (2013). \*
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- Niu Z. M., Niu Y. F., Liu Q., Liang H. Z., and Guo J. Y.: “Nuclear  $\beta^+$ /EC decays in covariant density functional theory and the impact of isoscalar proton-neutron pairing”, Phys. Rev. C **87**, 051303(R) (2013). \*
- Shen S. H., Liang H. Z., Zhao P. W., Zhang S. Q., and Meng J.: “Pseudospin symmetry in supersymmetric quantum mechanics. II. Spin-orbit effects”, Phys. Rev. C **88**, 024311 (2013). \*
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- Iida K., and Oyamatsu K.: “Symmetry energy, unstable nuclei and neutron star crusts”, The European Physical Journal A **50**, 42 (2014). \*
- Dinh Dang N.; “Giant dipole resonance in highly excited nuclei”, EPJ Web of Conferences **66**, 02024-p.1–02024-p.4 (2014). \*
- Dey B., Mondal D., Pandit D., Mukhopadhyay S., Pal S., Bhattacharya A., De A., Banerjee K., Dinh Dang

N., Quang Hung N., Banerjee S.R.: “Probing the critical behavior in the evolution of GDR width at very low temperatures in  $A \sim 100$  mass region”, Phys. Lett. B **731**, 92–96 (2014). \*

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Dinh Dang N.: “Damping of giant dipole resonance in highly excited nuclei”, Acta Physica Polonica B **44**, 595 – 604 (2013).

(Review)

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**[Book · Proceedings]**

- (Original Papers) \*Subject to Peer Review

Ebata S., Inakura T., and Nakatsukasa T.: “Time-dependent density-functional studies on strength functions in neutron-rich nuclei”, Proceedings of 5th International Conference on Fission and properties of neutron-rich nuclei (ICFN5) (World Scientific), Sanibel Island, USA, 2012–7, World Scientific, Singapore, p. 635–642 (2013).

Liang H. Z., Meng J., Nakatsukasa T., Niu Z. M., Ring P., Roca-Maza X., Van Giai N., and Zhao P. W.: “Nuclear charge-exchange excitations in localized covariant density functional theory”, EPJ Web of Conferences Vol. 66, The 25th International Nuclear Physics Conference, Florence, Italy, 2013–6, EDP Sciences, Les Ulis, p. 02064 (2014). \*

Matsuo M., Hinohara N., Sato K., Matsuyanagi K., Nakatsukasa T., and Yoshida K.: “Quadrupole shape dynamics from the viewpoint of a theory of large-amplitude collective motion”, Proceedings of 20th Nuclear Physics Workshop “Marie and Pierre Curie”, Kazimierz, Poland, Sep., 2013, IOP Publishing, Bristol, p. 054020 (2013). \*

鷺山広平: “微視的反応模型による低エネルギー重イオン反応”, 原子核研究 Vol.58 Supplement 2 2013 年夏の学校特集号, 蒲郡, 2013–8, 原子核研究, pp. 27–32 (2014).

**Oral Presentations**

- (International Conference etc.)

Nakatsukasa T.: “Stochastic generation of low-energy configurations and configuration mixing calculation”, INT workshop on Computational and Theoretical Advances for Exotic Isotopes in the Medium Mass Region, (INT, University of Washington), Seattle, USA, March–April (2013).

Nakatsukasa T.: “Time-dependent density-functional theory with the continuum”, ECT\* workshop THE XO

- on Nuclear structure and astrophysical applications, (ECT\*), Trento, Italy, July (2013).
- Nakatsukasa T.: "Rotational effects on nuclear structure properties", 8pi Spectrometer Symposium: a Celebration of Discovery, (TRIUMF), Vancouver, Canada, July (2013).
- Nakatsukasa T.: "Finite amplitude method in linear response TDDFT calculations", International School on Nuclear Physics, Neutron Physics and Applications, (Bulgarian Academy of Sciences), Varna, Bulgaria, September (2013).
- Nakatsukasa T.: "Basic issues in theories of large amplitude collective motion", INT workshop on Quantitative Large Amplitude Shape Dynamics: fission and heavy ion fusion, (INT, University of Washington), Seattle, USA, September–November (2013).
- Liang H. Z.: "Localized form of Fock terms in nuclear covariant density functional theory", THE XO Workshop on Nuclear Structure and Astrophysical Applications, (ECT\*), Trento, Italy, Jul. (2013).
- Liang H. Z., Meng J., Nakatsukasa T., Niu Z. M., Ring P., Roca-Maza X., Van Giai N., and Zhao P. W.: "Nuclear charge-exchange excitations in localized covariant density functional theory", The 25th International Nuclear Physics Conference, (INFN), Florence, Italy, Jun. (2013).
- Liang H. Z.: "Pseudospin symmetry in supersymmetric quantum mechanics", iTHES workshop on "Exploration of hidden symmetries in atomic nuclei", (RIKEN), Wako, Jul. (2013).
- Liang H. Z., Meng J. Shen S. H., Van Giai N., Zhang S. Q., Zhang Y., and Zhao P. W.: "Pseudospin symmetry in nuclear single-particle spectra and its perturbative interpretation", The XX International School on Nuclear Physics, Neutron Physics and Applications, (Institute for Nuclear Research and Nuclear Energy), Varna, Bulgaria, Sep. (2013).
- Liang H. Z., Nakatsukasa T., Niu Z. M., and Meng J.: "Finite amplitude method in covariant density functional theory", The 20th Nuclear Physics Workshop "Marie & Pierre Curie", (Maria Curie-Sklodowska University), Kazimierz, Poland, Sep. (2013).
- Liang H. Z.: "Nuclear charge-exchange excitation and its microscopic mechanism", Seminar of Institute of Theoretical Physics, Chinese Academy of Sciences, (Institute of Theoretical Physics, Chinese Academy of Sciences), Beijing, China, Nov. (2013).
- Liang H. Z.: "Nuclear collective excitations in covariant density functional theory", The 4th Lectures on Covariant Density Functional Theory in Nuclear Physics, (Guangxi Normal University), Guilin, China, Nov. (2013).
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### Oral Presentations

(International Conference etc.)

- Itaru Nakagawa, "Recent Results on PHENIX Longitudinal Asymmetry Measurements", 3rd Workshop on the QCD Structure of the Nucleon (University of the Basque Country) Bilbao, Spain, 2012/10/22
- Hideto En'yo, "Nuclear Physics in Japan Prospects being engaged in RIBF, J-PARC and other facilities", The 2012 Fall meeting of the Division of Nuclear Physics (DNP2012) (University of California), Hyatt Regency Newport Beach, CA, USA, 2012/10/24
- Hideto En'yo, "Prospect of RIKEN RI Beam Factory for Coming 5 Years", The traditional VI International Symposium on EXOtic Nuclei (EXON2012) (JINR), Far Eastern Federal University, Vladivostok, Russia, 2012/10/3
- Park Sanghwa, "W Physics Result of PHENIX", XXI International Workshop on Deep-Inelastic Scattering and Related Subjects (Center for Particle Physics of Marseilles (CPPM)), Marseilles, France, 2013/04/23
- Yuji Goto, "PHENIX detector upgrades for enhanced physics programs", XXI. International Workshop on Deep-Inelastic Scattering and Related Subjects (Center for Particle Physics of Marseilles), Marseilles, France, 2013/04/24
- Hideto En'yo, "Nishina Center Overview", 理研-IMP ワークショップ (理研), 理研 RIBF 棟大会議室, 2013/04/17
- Hideto En'yo, "Introduction to RIKEN Nishina Center for Accelerator-Based Science", Workshop on the INFN-RIKEN collaboration on nuclear physics activities (INFN), イタリア文化会館, 2013/05/17
- Hideto En'yo, "Future Nuclear Physics Facilities around the world", IUPAP WG.9 Nuclear Science Symposium (Frascati National Laboratory (LNF)), Frascati National Laboratory (LNF), Italy, 2013/05/29
- Ralf Seidl, "Results from W-Production at RHIC", ECT\* workshop: Flavor Structure of the Nucleon Sea (ECT\*), Trento, Italy, 2013/07/01
- Kim Chong, "Status of W Physics at PHENIX", The 12th Asia Pacific Physics Conference (AAPPS, JPS, JSAP),

- Makuhari, Chiba, Japan, 2013/07/15
- Yoshimasa Ikeda, "Measurement of Azimuthal Anisotropy of hadron in Au+Au collision at  $\sqrt{s_{NN}} = 39, 62$  and 200 GeV in PHENIX experiment at RHIC", The 12th Asia Pacific Physics Conference (AAPPS, JPS, JSAP), Makuhari, Chiba, Japan, 2013/07/17
- Kawama, Daisuke, "Experimental investigation for mass modification of vector mesons (J-PARC E16 experiment)", The 12th Asia Pacific Physics Conference (AAPPS, JPS, JSAP), Makuhari, Chiba, Japan, 2013/07/18
- Yoshimasa Ikeda, "Measurement of azimuthal anisotropy of hadrons in Au+Au collisions from the beam energy scan program by the PHENIX experiment at RHIC.", SQM 2013 (Univ. of Birmingham), Birmingham, UK, 2013/07/17
- Yasuyuki Akiba, "Workshop Summary", PHENIX workshop on Physics Prospects with Detector and Accelerator Upgrades (RIKEN Radiation Lab.), Wako, Japan, 2013/08/02
- Yasuyuki Akiba, "Photons and Dilepton Physics at RHIC", Future Trends in High Energy Nuclear Collisions (清华大学), Beijing, China, 2013/08/19
- Megumi Sekine, "Multiple Species Beam Production on Laser Ion Source for electron beam ion source in Brookhaven National Laboratory", The 15th International Conference on Ion Sources (NIRS), Makuhari, Chiba, Japan 2013/09/12
- Yasuhiro Fuwa, "Interaction of plasmas in laser ion source with double laser system", The 15th International Conference on Ion Sources (NIRS), Makuhari, Chiba, Japan 2013/09/12
- Yasuhiro Fuwa, "Comparison of graphite materials for targets of laser ion source", The 15th International Conference on Ion Sources (NIRS), Makuhari, Chiba, Japan 2013/09/12
- Ikeda Shunsuke, "Investigation of effect of solenoid magnet on emittances of ion beam from laser ablation plasma", The 15th International Conference on Ion Sources (NIRS), Makuhari, Chiba, Japan 2013/09/12
- Ikeda Shunsuke, "Creation of cocktail beam from alloy target with Laser", The 15th International Conference on Ion Sources (NIRS), Makuhari, Chiba, Japan 2013/09/12
- Masashi Kumaki, "Determination the Thickness Used for Plasma Generation by Laser Irradiation on Sputtering Target", The 15th International Conference on Ion Sources (NIRS), Makuhari, Chiba, Japan 2013/09/12
- Shunsuke Ikeda, "Control of plasma shape with pulsed solenoid on laser ion source", Young research symposium 2013 (Brookhaven national laboratory), Brookhaven national laboratory, NY, USA, 2013/10/14
- Yuji Goto, "Drell-Yan experiments at Fermilab/RHIC/J-PARC", QCD Frontier 2013 (Thomas Jefferson National Accelerator Facility), Newport News, VA, USA, 2013/10/21
- Wataru Nakai, "Development of the GEM Tracker for the J-PARC E16 experiment", IEEE NUCLEAR SCIENCE SYMPOSIUM 2013 (IEEE Nuclear and Plasma Sciences Society), Seoul, Korea, 2013/10/27-11/02
- Kanno Koki, "Development of a Hadron Blind Detector for the J-PARC E16 Experiment", IEEE NUCLEAR SCIENCE SYMPOSIUM 2013 (IEEE Nuclear and Plasma Sciences Society), Seoul, Korea, 2013/10/28
- Yoki Aramaki, "Experimental approach to the mass modification in nucleus by the J-PARC E16 experiment", YITP workshop on Hadron in Nucleus (YITP), Kyoto, Japan, 2013/11/02
- Ralf Seidl, "Fragmentation function measurements", XV International Conference on Hadron Spectroscopy (Hadron 2013) (科研費新学術領域研究「新ハドロン」総括班), Nara, Japan, 2013/11/07
- Yuji Goto, "Polarized nucleon-structure physics at RHIC-PHENIX", XV International Conference on Hadron Spectroscopy (Hadron 2013) (科研費新学術領域研究「新ハドロン」総括班), Nara, Japan, 2013/11/07
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- Hideto En'yo, "RIKEN Radio Isotope Beam Factory, Japanese Flag Ship for Nuclear Science", IASEN 2013 (Joint Institute for Nuclear Research), Lord Charles Hotel, Cape Town, South Africa, 2013/12/03
- Ralf Seidl, "Polarized fragmentation function measurements at Belle", Indiana-Illinois Workshop on Fragmentation Functions (Indiana University, University of Illinois), Bloomington, IN, USA, 2013/12/12
- Itaru Nakagawa, "Latest Results of Nucleon Spin Structure Measurement from PHENIX", High Energy Physics in LHC Era (Universidad Tecnica Federico Santa Maria) Valparaiso, Chile, 2013/12/17
- (Domestic Conference etc.)
- 延興秀人, "理研における中性子利用研究 -事始め-", 理研シンポジウム「理研から発信する中性子利用の新たな展開 ~ものづくり産業利用に向けた小型中性子源の開発~」(理化学研究所), 理研和光事業所 鈴木梅太郎ホール, 2011/11/17
- Kim Chong, "Recent status of PHENIX spin program", 「高エネルギーQCD・核子構造」研究会 (KEK), Tokai, Japan, 2014/03/08
- 不破康裕, "マルチパルスレーザーを用いたレーザーイオン源", 第10回日本加速器学会年会 (日本加速器学会), 名古屋, 日本, 2013/08/03
- 四日市悟, "vector meson の媒質中での崩壊の測定とその解釈", 研究会 原子核媒質中のハドロン研究=魅力と課題=(高エネルギー物理学研究機構), 高エネルギー物理学研究機構 東海一号館, 2013/08/06
- 小松雄哉, "J-PARC E16 実験における大型 GEM フォイル

- を用いた飛跡検出器の開発”, 日本物理学会 2013 年秋季大会 (日本物理学会), 高知大学朝倉キャンパス、日本, 2013/09/20
- 秋葉康之, ”RHIC での衝突エネルギー走査実験や多種原子核衝突を通じたクォーク物質性の研究”, 日本物理学会 2013 年秋季大会 (日本物理学会), 高知大学朝倉キャンパス、日本, 2013/09/21
- 林真一, ”Dielectron measurement in  $\sqrt{s} = 5.02$  TeV p+Pb collisions at LHC-ALICE”, 日本物理学会 2013 年秋季大会 (日本物理学会), 高知大学、日本, 2013/09/21
- 水野三四郎, ”RHIC-PHENIX 実験における高次方位角異方性の直接光子依存性測定”, 日本物理学会 2013 年秋季大会 (日本物理学会), 高知大学、日本, 2013/09/21
- 峰谷崇, ”PHENIX-VTX を用いた電子対の 2 次崩壊点及び DCA 測定の現状”, 日本物理学会 2013 年秋季大会 (日本物理学会), 高知大学、日本, 2013/09/21
- 星野知也, ”RHIC-PHENIX 実験  $\sqrt{s_{NN}} = 200$  GeV 原子核衝突における強磁場探索”, 日本物理学会 2013 年秋季大会 (日本物理学会), 高知大学、日本, 2013/09/21
- 後藤雄二, ”RHIC-PHENIX 実験の検出器高度化計画”, 日本物理学会 2013 年秋季大会 (日本物理学会), 高知大学、日本, 2013/09/22
- Ralf Seidl, ”Accessing the sea quark polarization via W to mu measurements in PHENIX”, 2013 Fall Meeting of the Japanese Physical Society (Japanese Physical Society), Kochi, Japan, 2013/09/22
- 川間大介, ”J-PARC E16 実験に用いる GEM 検出器の中性子耐性テストについて”, 第 10 回 Micro-Pattern Gas Detector 研究会 (京都大学、KEK 測定器開発室), 京都, 2013/12/14
- 峰谷崇, ”高エネルギー原子核衝突における重いクォークの測定”, Heavy Ion Pub (名古屋大学・大阪大学・広島大学), 京都, 2013/12/20
- 熊木雅史, ”Present Status of Laser Ion Source with ps Laser System at BNL”, ビーム物理学学会 2013 (沖縄科学技術大学院大学), 沖縄、日本, 2013/09/12
- 荒巻陽紀, ”金+金衝突における方位角ごとの中性パイ中間子測定”, 日本物理学会 第 69 回年次大会 (日本物理学会), 東海大学湘南キャンパス、平塚、日本, 2014/03/27
- 中井恒, ”J-PARC E16 実験のための GEM 飛跡検出器の磁场中での性能評価”, 日本物理学会 第 69 回年次大会 (日本物理学会), 東海大学湘南キャンパス、平塚、日本, 2014/03/27
- 池田峻輔, ”Magnetic control of plasma flux for laser ion source”, 日本物理学会 第 69 回年次大会 (日本物理学会), 東海大学湘南キャンパス、平塚、日本, 2014/03/28
- 池田義雅, ”RHIC-PHENIX 実験における核子当たり 39GeV 金原子核衝突のハドロン方位角異方性の測定”, 日本物理学会 第 69 回年次大会 (日本物理学会), 広島大学, 2014/03/29
- 辻智也, ”Event plane dependence of neutral pion production in Pb+Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with ALICE”, 日本物理学会 第 69 回年次大会 (日本物理学会), 東海大学湘南キャンパス、平塚、日本, 2014/03/30
- 水野三四郎, ”RHIC-PHENIX 実験における AuAu 衝突を用いた直接光子の方位角異方性の研究”, 日本物理学会 第 69 回年次大会 (日本物理学会), 東海大学湘南キャンパス、平塚、日本, 2014/03/30
- 八野哲, ”Neutral pion analysis in pp collisions at 8TeV with ALICE”, 日本物理学会 第 69 回年次大会 (日本物理学会), 東海大学湘南キャンパス、平塚、日本, 2014/03/30
- 星野知也, ”PHENIX 実験  $\sqrt{s_{NN}} = 200$  GeV 金原子核衝突における電子対測定を用いた強磁場探索”, 日本物理学会 第 69 回年次大会 (日本物理学会), 東海大学湘南キャンパス、平塚、日本, 2014/03/30
- Kim Chong, ”Introduction and Status of W physics in PHENIX Muon Arms”, Korean Physical Society 2013 Fall meeting (Korean Physical Society), Changwon, Korea, 2013/10/30
- Moon Taebong, ”The Measurement of D<sup>0</sup> Meson in P+P Collisions at  $\sqrt{s}=200$  GeV using the VTX in the PHENIX Experiment at RHIC”, Korean Physical Society 2013 Fall meeting (Korean Physical Society), Changwon, Korea, 2013/10/30
- Yoon Inseok, ”Report of Anaylsys Progress : A<sub>LL</sub> of  $\pi^0$  production at  $\sqrt{s} = 510$  GeV at PHENIX”, Korean Physical Society 2013 Fall meeting (Korean Physical Society), Changwon, Korea, 2013/10/30
- Park Sanghwa, ”Sea Quark Polarization Measurement via W-boson to Muon Decays at RHIC-PHENIX”, Korean Physical Society 2013 Fall Meeting (Korean Physical Society), Changwon, Korea, 2013/10/30

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### Publications

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- (Original Papers) \* Subject to Peer Review
- Adiperdana B., Dharmawan I.A., Siregar R.E., Sulaiman S., Ibrahim M.I.M., and Watanabe I., "Muon Site Estimation on  $\text{La}_2\text{CuO}_4$  Using Dipole Field and Density Functional Theory Calculation", AIP Conf. Proc. **1554**, 214-217 (2013)
- Agnello H., Outa H., FINUDA collaboration, "Search for the neutron-rich hypernucleus  $9\Lambda\text{He}$ ", Phys. Rev. C86 (2012) 057301 \*
- Agnello H., Outa H., FINUDA collaboration, "Results on  $\Delta p$  emission from K- absorption at rest on light nuclei", Nucl. Phys. A914 (2013) 310-314
- Agnello H., Outa H., FINUDA collaboration, "First determination of the one-proton induced Non-Mesonic Weak Decay width of p-shell  $\Lambda$ -Hypernuclei", Phys. Lett. B738 (2014) 499-504 \*
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- Bakule P., Beer G.A., Contreras D., Esashi M., Fujiwara Y., Fukao Y., Hirota S., Iinuma H., Ishida K., Iwasaki M., Kakurai T., Kanda S., Kawai H., Kawamura N., Marshall G.M., Masuda H., Matsuda Y., Mibe T., Miyake Y., Okada S., Olchanski K., Olin A., Onishi H., Saito N., Shimomura K., Strasser P.E., Tabata M., Tomono D., Ueno K., Yokoyama K., Yoshida S., "Measurement of muonium emission from silica aerogel", Prog. Theor. Exp. Phys. (2013), 103C0. \*
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- Bazzi M., Iwasaki M., Okada S., SIDDHARTA collaboration, "X-ray transition yields of low-Z kaonic atoms produced in Kapton", Nucl.Phys. A916 (2013) 30-47 \*
- Bazzi M., Iwasaki M., Okada S., SIDDHARTA collaboration, "Preliminary study of kaonic deuterium X-rays by the SIDDHARTA experiment at DAFNE", Nucl.Phys. A907 (2013) 69-77 \*
- Bhang H., Ajimura S., Aoki K., Banu A., Fukuda T., Hashimoto O., Hwang J.I., Kameoka S., Kang B.H., Kim E., Kim J.H., Kim M., Maruta T., Miura Y., Miyake Y., Nagae T., Nakamura M., Nakamura S.N., Noumi H., Okada S., Okayasu Y., Outa H., Park K., Saha P.K., Sato Y., Sekimoto M., Takahashi T., Tamura H., Tanida K., Toyoda A., Tshoo K., Tsukada K., Watanabe T., Yim H.J., "The Strong Three-body Weak Interaction Contribution in the Nonmesonic Weak Decay of p-shell  $\Lambda$  Hypernuclei", Few Body Syst. 54 (2013) 1239-1243 \*
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- [Book · Proceedings]**
- (Original Papers) \*Subject to Peer Review
- McLerran, L, "The Color Glass Condensate, Glasma and the Quark Gluon Plasma in the Context of Recent pPb Results from LHC", Journal of Physics Conference Series Volume 458 Article Number 012024, 2013
- McLerran, L, "High energy nuclear physics: from bear mountain to the LHC", 100 Years of Subatomic Physics Page 171-197, 2013
- Liao, JF, "Hard Probe of Soft Matter Geometry and Fluctuations from RHIC to LHC", AIP Conference Series 11th Conference on the Intersections of Particle and Nuclear Physics Volume 1560 Pages 669-671, 2013

**Oral Presentations**

(International Conference etc.)

Koji Kashiwa, "Phase structure and Hosotani mechanism in QCD-like gauge theory with compact dimensions", 31th International Symposium on Lattice Field Theory (Lattice 2013) (Johannes Gutenberg University Mainz), Mainz, 2013/08/02

Koji Kashiwa, "Phase diagram and Hosotani mechanism in QCD-like theory with compact dimensions", Workshop on QCD under extreme condition (AEC, Univ. Bern), Bern, 2013/08/07

Akihiko Monnai, "Pre-equilibrium dynamics of QCD matter by gluon splitting", New Frontiers in QCD 2013 (YITP), YITP, Kyoto, Japan, 2013/12/13

**RBRC Computing group****Publications****[Journal]**

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- N. H. Christ, T. Izubuchi, C. T. Sachrajda, A. Soni, J. Yu, "Long distance contribution to the KL-KS mass difference" arXiv:1212.5931 [hep-lat], Phys.Rev. D88 (2013) 1, 014508\*.
- RBC and UKQCD Collaborations (R. Arthur et al.), "Domain Wall QCD with Near-Physical Pions", arXiv:1208.4412 [hep-lat], Phys.Rev. D87 (2013) 094514\*.
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- Lin M, Ohta, S: "Nucleon structure from 2+1-flavor dynamical DWF lattice QCD at nearly physical pion mass", Progress in Particle and Nuclear Physics Volume 67 Issue 2 Pages 218-222, 2012/04/01 \*
- Tiburzi B, : "Chiral symmetry restoration from a boundary", Physical Review D Volume 88 Issue 3 Article 034027 Page 1-8, 2013/08/23 \*
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- Matthew R. Buckley and Ethan T. Neil: "Thermal Dark Matter from a Confining Sector", arXiv:1209.6054, Phys. Rev. D 87:043510, 2013 \*.
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Izubuchi, T: "Nucleon Structure by Lattice QCD", PHENIX Workshop on Physics Prospects with Detector and Accelerator Upgrades RIKEN, Wako, Japan, 2013/07/29.

Izubuchi, T: "Lattice QCD and the HEP Intensity Frontier", Lattice QCD Computational Science Workshop, Oak Ridge National Laboratory, TN, 2013/04/29.

Izubuchi, T: "Nucleon electric dipole moment studies using statistical error reduction techniques on lattice", Seminar at MIT Lattice Club, MIT, MA, 2013/04/03.

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Izubuchi, T: "Lattice-QCD Calculations for EDMs", Winter Workshop on Electric Dipole Moments (EDMs13), Fermi National Accelerator Laboratory, IL, 2013/02.

Izubuchi, T: "Muon g-2 on Lattice", HET/RIKEN lunch Seminar, Brookhaven National Laboratory, Upton, NY, 2013/9.

Ishikawa, Tomomi: "Neutral B meson mixing with static heavy and domain-wall light quarks", 31st International Symposium on Lattice Field Theory (LATTICE 2013) Mainz, Germany, 2013/7/29-2013/8/3.

Tiburzi, B: "Towards exploring fundamental symmetries with lattice QCD", Institute for Nuclear Theory Program 13-2b "Nuclei and Fundamental Symmetries", Seattle Washington, 2013/08/14.

Tiburzi, B: "Chiral symmetry restoration from a boundary", Nuclear Theory seminar, Lawrence Berkeley National Laboratory, California, 2013/03/07.

Tiburzi, B: "Anatomy of hadronic parity violation on the lattice", Theory seminar, Thomas Jefferson National Laboratory, Newport News Virginia, 2013/02/01.

Tiburzi, B: "Looking under the femtoscope: a focus on strong interactions", Physics Department Colloquium, The College of William and Mary, Williamsburg Vir-

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- Neil Ethan: "Composite Bosonic Dark Matter", RIKEN Lunch Seminar, Brookhaven National Laboratory, Brookhaven, NY, 2013/12.
- Neil Ethan: "Two Tales of Composite Dark Matter", RIKEN Nuclear Theory Seminar, Brookhaven National Laboratory, Brookhaven, NY, 2013/4.
- Neil Ethan: "Two Tales of Composite Dark Matter", Nuclear and Particle Theory Seminar, MIT, Cambridge, MA, 2013/2.
- Neil Ethan: "Lattice field theory: QCD and beyond", Invited presentation, APS Four Corners Section 2013 Meeting, University of Denver, 2013/10.
- Neil Ethan: "Splitting the Higgs boson: Composite models at the high-energy frontier" Physics Colloquium, University of Colorado, Boulder, CO, 2013/3.
- Meifeng Lin: "Nucleon Form Factors with 2+1 Flavors of Domain Wall Fermions and All-Mode-Averaging", 31th International Symposium on Lattice Field Theory (Lattice 2013) (Johannes Gutenberg University Mainz), Mainz, 2013/08/01.
- Kelly, C: "Standard Model Direct CP-violation in  $K \rightarrow \pi \pi$  Decays from First Principles using Lattice QCD", RBRC Scientific Review Committee Meeting, Brookhaven National Laboratory, 2013/11/01.
- Syrtsyn Sergey: "Neutron-Antineutron Oscillation Matrix Elements on a Lattice", "Lattice Meets Experiment : Beyond the Standard Model", Brookhaven National Laboratory, Upton, NY, USA, 2013/12/5-6.
- Syrtsyn Sergey: 2. Nucleon Structure and Quark Angular Momentum from Lattice QCD at the Physical Point, theory seminar in ITEP, Moscow, Russia, Sep 5, 2013.
- Syrtsyn Sergey: "Review of Hadron Structure Calculations on a Lattice", plenary presentation at LATTICE 2013, Mainz Germany, 2013/7/29-8/3.
- Syrtsyn Sergey: "Generalized form factors and decomposition of nucleon spin from lattice QCD", APS Topical Group on Hadronic Physics meeting, Denver, Colorado, USA, 2013/04/11.
- Syrtsyn Sergey: "Nucleon Structure from Lattice QCD at the Physical Point", APS April meeting, Denver, Colorado, 2013/4/13-16.

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- T. Blum, M. Hayakawa, T. Izubuchi: "Update on the hadronic light-by-light contribution to the muon  $g - 2$  and inclusion of dynamically charged sea quarks", PoS LATTICE2013 (2014) 439 .
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- Adare A, *et al.* (the PHENIX Collaboration): "J/psi suppression at forward rapidity in Au+Au collisions at  $\sqrt{s_{NN}}=200$  GeV", Phys. Rev. C 84, 054912, 2011-11-21 \*
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- Adare A, *et al.* (the PHENIX Collaboration): "Nuclear Modification Factor for Open-Heavy-Flavor Production at Forward Rapidity in Cu+Cu Collisions at  $\sqrt{s_{NN}}=200$  GeV", Phys. Rev. C 86, 024909, 2012-08-20 \*

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- lision at  $\text{sqrt}s = 200 \text{ GeV}$ ", Phys. Rev. D 88, 032006, 2013-08-08 \*
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## Radioactive Isotope Physics Laboratory

### Publications

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### [Book · Proceedings]

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 Nishimura S.: "Decay spectroscopy of very neutron-rich nuclei at RIBF", 25<sup>th</sup> International Nuclear Physics Conference (INPC2013), Firenze, Italy, June 2-7 (2013).  
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 Nishimura S.: "Neutron-rich nuclei lifetimes for  $r$ -process", Seventh European Summer School on Experimental Astrophysics, Santa Tela, Italy, Sep. 15-27 (2013).  
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 Fujita S., Hori A., Motizuki Y., Takahashi K., Nakai Y., Kawamura K., Motoyama H.: "Densification of layered firm of the ice sheet in the vicinity of Dome Fuji, Antarctica", The Fourth Symposium on Polar Science, Tokyo, Japan, Nov 12-15 (2013).  
 Sakurai H.: "Recent results at RIBF" Invited talk at XLI International Workshop on Gross Properties of Nuclei and Nuclear Excitations, Hirschegg (Austria), Jan. 26 - Feb. 1, 2013.  
 Sakurai H.: "Emergence of Exotic Nuclei" Invited talk at GSI Kolloquium, Darmstadt (Germany), Feb. 5, 2013.  
 Sakurai H.: "Nuclear data produced at the RIBF", Invited talk at New Energy Forum 2013, Xi'an, China, Sept., 2013.  
 Sakurai H.: "Overview of RIBF" Invited talk at 1st RIBF-RISP Joint Workshop, Daejeon, Korea, Nov., 2013.  
 Sakurai H.: "The RIKEN RI Beam Factory –Its Scientific Programs–", Invited talk at 17<sup>th</sup> International Conference on Accelerators and Beam Utilization (ICABU 2013), Daejeon, Korea, Nov. (2013).  
 Sakurai H.: "Present Status of RIBF", Invited talk at JUSTIPEN-JUSEIPEN Joint Workshop, Wako, Japan, Dec., 2013.  
 Kubono S.: "Low-Energy RI Beams and Nuclear Clusters in Explosive Burning - RI beam methods and pp-chain breakout -", Invited talk at VI European Summer School on Experimental Nuclear Astrophysics, September 15-27, 2013, Santa Tecla, Italy, (To be published).  
 Kubono S. : "Low-Energy Reactions in Astrophysics" Invited talk at An inauguration symposium for Center for Nuclear Astrophysics (CNA), Shanghai Jiao Tong University in Shanghai, China. May 29-31, 2013.  
 Kubono S. : "Experimental Approach to Astrophysical Nuclear Reactions", Invited talk at International workshop on Nuclear Sciences with High-intensity Lasers, Osaka University. February 3, 2014.  
 Isobe T.: "ANAROOT: new online/offline framework for RIBF data analysis based on ROOT", RIBF Users meeting, RIKEN, Wako, June (2013)  
 Isobe T.: "H(R)IC experiment at RIBF", RIBF-ULIC-mini Workshop: Nuclear symmetry-energy and nucleus-nucleus collision simulation, RIKEN, Wako, July (2013)  
 Isobe T.: "Nuclear Physics at RIBF", 3rd RIKEN-Liverpool Symposium, Univ. of Liverpool, Liverpool UK, July

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- Isobe T.: "Status of SPiRIT for heavy ion collision experiment", SAMURAI international workshop, Tokyo institute of Technology, Tokyo, September (2013)
- Isobe T.: "SAMURAI-TPC with GET system for next generation HIC experiments", French – Japanese LIA Symposium, Paris, September (2013)
- Doornenbal P.: "In-Beam Gamma-Ray Spectroscopy at the RIBF" Invited talk at the 1<sup>st</sup> RISP-RIBF Workshop, Daejon, Korea, November 7-8, 2013
- Otsu H.: "SAMURAI Spectrometer", The 1<sup>st</sup> RISP-RIBF Workshop, Daejon, Korea, November 7-8, 2013.
- Doornenbal P.: "Status of the EURICA Project", Invited talk at the 3<sup>rd</sup> EGAN Workshop, Liverpool, UK, June 24-26, 2013
- Doornenbal P.: "In-Beam Gamma-Ray Spectroscopy at the RIBF", Invited talk at Nuclear Structure Physics with Advanced Gamma-Detector Arrays (NSP13), Padova, Italy, June 10-12, 2013
- Doornenbal P.: "In-beam gamma-ray spectroscopy at the RIBF - Present limitations and future perspectives (SHOGUN)", Invited talk at the IFJ PAN - RIKEN JSPS Collaboration Workshop, Zakopane, Poland, Mar 20- 21, 2013
- Lorusso G.: "Spectroscopy of N = 82 nuclei and the physical conditions of the *r*-process", The first International African Symposium on Exotic Nuclei IASEN 2013, Cape Town, South Africa, December 2-6, 2013
- Lorusso G.: "Decay Spectroscopy of exotic nuclei at RIBF—The EURICA project", The 12th International Symposium on Origin of Matter and Evolution of Galaxies, Tsukuba, Japan, November 18-21, 2013
- Lorusso G.: "Spectroscopy of N = 82 nuclei and the physical conditions of the r-process", XXXIII Mazurian Lakes Conference on Physics Frontiers in Nuclear Physics, Piaski, Poland, September 1-7, 2013
- Watanabe H.: "Shape-phase transitions in very neutron-rich nuclei from 40Zr to 46Pd", The 7th International Symposium on Chiral Symmetry in Hadrons and Nuclei, October 27-30, 2013, Beihang University, Beijing, China
- Watanabe H.: "Recent results of decay spectroscopy at RIBF", Heavy Ion Accelerator Symposium on Fundamental and Applied Science (HIAS2013), April 8-12, 2013, Australian National University, Canberra, Australia
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- (Domestic Conference)
- 櫻井博儀: "非対称核物質 EOS への挑戦" (招待講演), 日本物理学会第 68 回年次大会 (日本物理学会), 広島, 3 月 (2013)
- 岸田隆 : "リスクの時代と科学" 鳥居薬品外部講師講演会、東京 (2013、2 月)
- 岸田隆 : "エネルギー問題 の考え方" 鳥居薬品外部講師講演会、東京 (2013、9 月)
- 八木彩祐未、磯部忠昭 et al.: "Report on the recent EURICA Campaign aiming at  $\beta$ -decay study around  $^{78}\text{Ni}$ ", 日本物理学会第 68 回年次大会, 広島, 3 月 (2013).
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- 大道理恵、磯部忠昭 et al.: "LaBr<sub>3</sub> 検出器を用いた中性子過剰核の励起状態の寿命測定", 日本物理学会平成 25 年秋季大会, 高知, 9 月 (2013).
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## Spin Isospin Laboratory

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- C. L. Bai, H. Sagawa, M. Sasano, T. Uesaka, K. Hagino, H. Q. Zhang, X. Z. Zhang, F. R. Xu “Role of T=0 pairing in Gamow-Teller states in N = Z nuclei”, Physics Letters B **719**, 116 (2013).
- E. Khan, N. Paar, D. Vretenar, L. G. Cao, H. Sagawa, G. Colo, “Incompressibility of finite fermionic systems: Stable and exotic atomic nuclei”, Physical Review C **87**, 064311 (2013).
- A. Li, E. Hiyama, X. R. Zhou, and H. Sagawa, “Tensor correlation, pairing interaction, and deformation in Ne isotopes and Ne hypernuclei”, Physical Review C **87**, 014333 (2013).
- A. Li, X. R. Zhou, and H. Sagawa, “Tensor force and shape evolution of Si isotopes in the Skyrme-Hartree-Fock model”, Progress of Theoretical and Experimental Physics **2013**, 063D03 (2013).
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- Y. Maeda, T. Saito, H. Miyasako, T. Uesaka, S. Ota, S. Kawase, T. Kikuchi, H. Tokieda, T. Kawabata, K. Yako, T. Wakasa, S. Sakaguchi, R. Chen, H. Sakaguchi, T. Shima, T. Suzuki, and A. Tamii “Study of the Three-Nucleon Force Effects in the H-2(p, n) Breakup Reaction at 170 MeV”, Few-Body Systems **54**, 1311 (2013).
- H. Matsubara, M. Takaki, T. Uesaka, S. Shimoura, N. Aoi, M. Dozono, T. Fujii, K. Hatanaka, T. Hashimoto, T. Kawabata, S. Kawase, K. Kisamori, Y. Kikuchi, Y. Kubota, C. S. Lee, H. C. Lee, Y. Maeda, S. Michimasa, K. Miki, H. Miya, S. Noji, S. Ota, S. Sakaguchi, Y. Sasamoto, T. Suzuki, L. T. Tang, K. Takahisa, H. Tokieda, A. Tamii, K. Yako, Y. Yasuda, N. Yokota, R. Yokoyama, and J. Zenihiro, “Spectroscopic Measurement in He-9 and Be-12”, Few-Body Systems **54**, 1433 (2013).
- Y. Matsuda, H. Sakaguchi, H. Takeda, S. Terashima, J. Zenihiro, T. Kobayashi, T. Murakami, Y. Iwao, T. Ichihara, T. Suda, T. Ohnishi, Y. Watanabe, H. Otsu, K. Yoneda, Y. Satou, K. Ozeki, and M. Kanazawa “Elastic scattering of protons from  ${}^9\text{C}$  with a 290 MeV/nucleon

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- S. Michimasa, M. Takaki, M. Dozono, S. Go, H. Baba, E. Ideguchi, K. Kisamori, H. Matsubara, H. Miya, S. Ota, H. Sakai, S. Shimoura, A. Stoltz, T. L. Tang, H. Tokieda, T. Uesaka, and R. G. T. Zegers “Development of CVD diamond detector for time-of-flight measurements”, Nuclear Instruments and Methods in Physics Research Section B-Beam Interactions with Materials and Atoms **317**, 710 (2013).
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- J. Yasuda, T. Wakasa, M. Okamoto, M. Dozono, K. Hatanaka, M. Ichimura, S. Kuroita, Y. Maeda, T. Noro, Y. Sakemi, M. Sasano, and K. Yako “”, Progress of Theoretical and Experimental Physics **2013**, 063D02 (2013).

### Oral Presentations

(International Conference etc.)

- T. Uesaka: “Proposal of Joint Research on Mass measurements with storage rings”, RIKEN-CAS IMPJoint workshop, (RIKEN Nishina Center and Institute of Modern Physics, Chinese Academy of Science), Wako, Japan, Apr. (2013).
- T. Uesaka: “Giant Resonance Studies at RIBF”, Workshop on the INFN-RIKEN collaboration on nuclear physics activities, (RIKEN and INFN), Tokyo, Japan, May (2013).
- M. Sasano: “Gamow-Teller transitions from  $^{56}\text{Ni}$  and future studies of the ( $p,n$ ) reaction on unstable nuclei”, Gordon research conference, (Gordon research conference), Colby-Sawyer College, New London, NH, USA, Jun. (2013).
- T. Uesaka: “Spin-orbit splitting and Tensor Force”, RCNP Workshop on the Importance of Tensor Interactions in Nuclear and Hadron structure, (RCNP, Osaka University), Osaka, Japan, July (2013).
- J. Zenihiro: “Proton elastic scattering with RI beams”, 3rd International Symposium on Nuclear Symmetry Energy (NuSYM13), (NSCL/FRIB), Michigan, USA, July (2013).
- T. Uesaka: “Quasi-Free Scattering Experiments at RIBF”, 1st JCPRG-RNC Joint Workshop on Nuclear Data, (RIKEN and Hokkaido University), Saitama, Japan, Aug. (2013).
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## High Energy Astrophysics Laboratory

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- (Domestic Conference)
- 佐藤悟朗: "ASTRO-H 衛星搭載硬 X 線イメージャ (HXI) の開発" 宇宙科学技術連合講演会, 米子, 10 月 (2013).
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## Superheavy Element Production Team

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- [Book Proceedings]**
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**Radioactive nuclear beam group**  
**IPNS (Institute for Particle and Nuclear Studies)**  
**KEK (High Energy Accelerator Research Organization)**

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