

A. 査読付き原著論文 ※逆年代順に記載。

- A18. Tomoya Naito, Tomohiro Oishi, Hiroyuki Sagawa, and Zhiheng Wang, “Comparative study on charge radii and their kinks at magic numbers”, [Physical Review C 107, 054307 \(2023\)](#).
- A17. T. Oishi, “Time-dependent Dirac equation applied to one-proton radioactive emission”, [Phys. Rev. C 107, 034301 \(2023\)](#).
- A16. Goran Kruzic, T. Oishi, and Nils Paar, “Magnetic quadrupole transitions in the relativistic energy density functional theory”, [The European Physical Journal A, Vol. 59 \(3\), page 50 \(2023\)](#).
- A15. T. Oishi, Ante Ravlic, and Nils Paar, “Symmetry breaking of Gamow-Teller and magnetic-dipole transitions and its restoration in calcium isotopes”, [Phys. Rev. C 105, 064309 \(2022\)](#).
- A14. T. Oishi, Goran Kruzic, and Nils Paar, “Discerning nuclear pairing properties from magnetic dipole excitation”, [The European Physical Journal A, Vol. 57 \(6\), page 1-7 \(2021\)](#).
- A13. Goran Kruzic, T. Oishi, and Nils Paar, “Evolution of magnetic dipole strength in 100-140 Sn isotope chain and the quenching of nucleon g factors”, [Physical Review C 103, 054306 \(2021\)](#).
- ~~A13.~~ (Cancelled due to the predatory journal. See D7.)
- A12. T. Oishi, Goran Kruzic, and Nils Paar, “Role of residual interaction in the relativistic description of M1 excitation”, [Journal of Physics G: Particle and Nuclear Physics, Vol. 47, 115106 \(2020\)](#).
- A11. Goran Kruzic, T. Oishi, and Nils Paar, “Magnetic dipole excitations based on the relativistic nuclear energy density functional”, [Physical Review C 102, 044315 \(2020\)](#).
- A10. Lorenzo Fortunato et al. with T. Oishi, “An overview of the scientific contribution of ANDREA VITTURI to nuclear physics”, [The European Physical Journal A, Vol. 56, number 49 \(2020\)](#).
- A9. T. Oishi and Nils Paar, “Magnetic dipole excitation and its sum rule in nuclei with two valence nucleons”, [Phys. Rev. C 100, 024308 \(2019\)](#).
- A8. T. Oishi, Lorenzo Fortunato and Andrea Vitturi, “Two-fermion emission from spin-singlet and triplet resonances in one dimension”, [Journal of Phys. G 45 \(10\), 105101 \(2018\)](#).
- A7. T. Oishi, “One-proton emission from the ${}^6_{\Lambda}\text{Li}$ hypernucleus”, [Phys. Rev. C 97, 024314 \(2018\)](#).
- A6. T. Oishi, Markus Kortelainen and Alessandro Pastore, “Dependence of two-proton radioactivity on nuclear pairing models”, [Phys. Rev. C 96, 044327 \(2017\)](#).
- A5. T. Oishi, Markus Kortelainen and Nobuo Hinohara, “Finite amplitude method applied to giant dipole resonance in heavy rare-earth nuclei”, [Phys. Rev. C 93, 034329 \(2016\)](#).
- A4. T. Oishi, Kouichi Hagino and Hiroyuki Sagawa, “Role of diproton correlation in two-proton emission decay of the ${}^6\text{Be}$ nucleus”, [Phys. Rev. C 90, 034303 \(2014\)](#).
- A3. Takahito Maruyama, T. Oishi, Kouichi Hagino and Hiroyuki Sagawa, “Time-dependent approach to many-particle tunneling in one dimension”, [Phys. Rev. C 86, 044301 \(2012\)](#).
- A2. T. Oishi, Kouichi Hagino and Hiroyuki Sagawa, “Effect of proton-proton Coulomb repulsion on soft dipole excitations of light proton-rich nuclei”, [Phys. Rev. C 84, 057301 \(2011\)](#).
- A1. T. Oishi, Kouichi Hagino and Hiroyuki Sagawa, “Diproton correlation in the proton-rich Borromean nucleus ${}^{17}\text{Ne}$ ”, [Phys. Rev. C 82, 024315 \(2010\)](#).

学位論文

(博士論文) Diproton Correlation and Two-Proton Emission from Proton-Rich Nuclei 東北大学(2014)

(修士論文) 密度依存デルタ関数型対相関力を用いた ${}^{17}\text{Ne}$ の三体構造計算 東北大学(2010)

B. 査読中プレプリント

B1. Nobuo Hinohara, T. Oishi and Ken'ichi Yoshida, "Triplet-odd pairing in finite nuclear systems (I): Even-even singly-closed nuclei", [arXiv: 2308.02617 \(2023\)](https://arxiv.org/abs/2308.02617).

C. 研究会プロシーディング (査読付き)

C6. Nils Paar, Goran Kruzic, and Tomohiro Oishi, "Nuclear magnetic transitions in the relativistic energy density functional approach" in HINPw6 - Hellenic Institute of Nuclear Physics, 6th International Workshop on Perspectives on Nuclear Physics: From Fundamentals to Applications, [European Physical Journal: Web of Conferences, Vol. 252, 02002 \(2021\)](https://doi.org/10.1051/epjconf/202125202002).

C5. T. Oishi, G. Kruzic, and N. Paar, "Relativistic energy-density functional approach to magnetic-dipole excitation", proceeding in 27th International Nuclear Physics Conference (INPC2019), [Journal of Physics: Conference Series, Vol. 1643, 012153 \(2020\)](https://doi.org/10.1051/epjconf/20201643012153).

C4. T. Oishi, and L. Fortunato, "TIME-DEPENDENT METHOD FOR MANY-BODY PROBLEMS AND ITS APPLICATION TO NUCLEAR RESONANT SYSTEMS", proceeding of "XXXV Mazurian Lakes Conferences on Physics", [Acta Physica Polonica B 49, pp 293-300 \(2018\)](https://doi.org/10.1515/apo-2018-0049).

C3. T. Oishi, "Time-dependent Calculations for Two-proton Decay Width with Schematic Density-dependent Contact Pairing Interaction", proceeding of PROCON2015, [Chinese Academy of Science, Nuclear Physics Review 33 \(2\), pp 203-206 \(2016\)](https://doi.org/10.1051/epjconf/201633203).

C2. T. Oishi, K. Hagino and H. Sagawa, "Time-Dependent Approach to Two-Proton Radioactivity", proceeding of the 12th Asia Pacific Physics Conference (APPC12) by Physical Society of Japan, [JPS Conf. Proc. Vol.1, 013056 \(2014\)](https://doi.org/10.1051/epjconf/20141013056).

C1. K. Hagino, H. Sagawa, and T. Oishi, "DINEUTRON CORRELATION IN THE GROUND STATE AND E1 EXCITATIONS OF BORROMEAN NUCLEI", [Modern Physics Letters A, Vol.25, 1842-1845 \(2010\)](https://doi.org/10.1051/epjconf/2010251842).

D. その他出版物 (査読なし)

D7. Esra Yuksel, T. Oishi, and Nils Paar, "Nuclear Equation of State in the Relativistic Point-Coupling Model Constrained by Excitations in Finite Nuclei", [Universe Vol. 7 \(3\), page 71 \(2021\)](https://doi.org/10.1051/epjconf/20217371).

D6. 大石知広 「海外通信：イタリアの古都 Padova から」、原子核研究 Vol. 63 (2), page 4-7 (2019).

D5. T. Oishi, Supplemental note for "Two-fermion emission from spin-singlet and triplet resonances in one dimension", arXiv: 1810.05521 (2018).

D4. T. Oishi and Lorenzo Fortunato, "Correlation Energy of Proton-Neutron Subsystem in Valence Orbit", arXiv: 1706.06115 (2017).

D3. L. Fortunato and T. Oishi, "Diagonalization scheme for the many-body Schroedinger equation", arXiv: 1701.04684 (2017).

D2. 大石知広 「スーパーRA としての研究活動と将来の展望」、Outreach journal by the GCOE programme in Tohoku University, Vol. 15, p9 (2012).

D1. T. Oishi, K. Hagino and H. Sagawa, "Analysis of ^{17}Ne nucleus by three-body model and di-proton correlation", 原子核研究 Vol. 55 (suppl. 1), page 63-66 (2011).

E. 競争的研究資金 (科研費など)

なし。

F. その他研究資金、フェローシップなど

F8. 2022年度湯川特別研究員 対象者：大石知広 財源：公益財団法人湯川記念財団

期間： 2022年5月から2024年4月まで。 金額： 33万円/月 (給与) + 年間17万円 (研究支援費)。

F7. Post-doctoral fellowship in the University of Zagreb, Croatia.

期間：September, 2021 – April 2022.

財源：“Exotic Nuclear Structure and Dynamics” (project No. TTP-2018-07-3554, director: Prof. Kosuke Nomura) by Croatian Science Foundation and Ecole Polytechnique de Lausanne.

代表者： Prof. Kosuke Nomura (Univ. of Zagreb, Croatia)

配分金額： 1100 ユーロ/月 (給与) + 年間 2000 ユーロ (研究支援費)。

F6. Post-doctoral fellowship in the University of Zagreb, Croatia.

期間：September, 2018 – August, 2021.

財源：[1] “Structure and Dynamics of Exotic Femtosystems” (project ID: IP-2014-09-9159) by Croatian Science Foundation; [2] “QuantiXLie Centre of Excellence” (project ID: KK. 01.1.1.01) by Croatian Government and the European Union.

代表者： Prof. Nils Paar (Univ. of Zagreb, Croatia)

配分金額： 1100 ユーロ/月 (給与) + 年間 2000 ユーロ (研究支援費)。

F5. Post-doctoral fellowship in the University of Padova, Italy

期間：September, 2016 – August, 2018.

財源：“Inter-disciplinary Applications of Nuclear Theory: from atoms and molecules to stars” (project code: PRAT no. CPDA154713).

代表者： Prof. Lorenzo Fortunato (Univ. di Padova, Italy)

配分金額： 1950 ユーロ/月 (給与) + 年間 3000 ユーロ (研究支援費)。

F4. Post-doctoral fellowship in Helsinki Institute of Physics and University of Jyväskylä, Finland

期間：April, 2014 – August, 2016.

財源：[1] Finland Distinguished Professor Programme (FiDiPro) 2012; [2] Centre of Excellence Programme 2012-2017 in Nuclear and Accelerator Based Programme at JYFL.

代表者：[1] Prof. Jacek Dobaczewski (Univ. of York, UK, and Univ. of Jyvaskyla, Finland);

[2] Dr. Markus Kortelainen (Univ. of Jyvaskyla, Finland).

配分金額 (上記2点の合算)： 3100 ユーロ/月 (給与) + 年間 1000 ユーロ (研究支援費)

F3. (学内研究支援予算) 東北大学大学院理学研究科「卓越した大学院拠点」2013年度リサーチアシスタント

期間：2013年5月から2014年2月まで。 金額：6.1万円/月 (給与) + 年間10万円 (研究支援費)。

F2. (学内研究支援予算) 東北大学 GCOE プログラム「物質階層を紡ぐ科学フロンティアの新展開」2012年度スーパーリサーチアシスタント

期間：2012年6月から2013年3月まで。 金額：8.8万円/月 (給与) + 年間20万円 (研究支援費)。

F1. (学内研究支援予算) 東北大学 GCOE プログラム「物質階層を紡ぐ科学フロンティアの新展開」2011年度リサーチアシスタント

期間：2011年5月から2012年3月まで。 金額：6.0万円/月 (給与) + 年間10万円 (研究支援費)。