

Dr. Aslı KUŞOĞLU

Date of birth : 13 January 1984

Nationality : Turkish

Gender: Female

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Education

2011–2016 **PhD**

Istanbul University, Graduate School of Science and Engineering, Physics Department, Nuclear Physics Program, Istanbul, Turkey

Title of the Thesis: Nuclear Moments and Lifetimes of Excited States in Exotic Nuclei

Supervisors: Prof. Dr. Melih Bostan, Dr. Georgi Georgiev

Degree: 3.94/4.0

2006–2010 **MSc**

Istanbul University, Graduate School of Science and Engineering, Physics Department, Nuclear Physics Program, Istanbul, Turkey

Title of the Thesis: Evolution of Spin-orbit Potential with Valence Nucleon Numbers

Supervisors: Prof. Dr. Melih Bostan

Degree: 3.93/4.0

2003–2007 **BSc** (Double Program)

Istanbul University, Faculty of Engineering, Electrical-Electronics Engineering, Istanbul, Turkey

Degree: 2.72/4.0

2002–2006 **BSc** (Major Program), *highest ranking student of the department.*

Istanbul University, Faculty of Science, Physics Department, Istanbul, Turkey

Degree: 3.63/4.0

1998–2002 **High School**

Bahçelievler High School (Foreign Language High School), Istanbul, Turkey

Degree: 4.62/5.0

Academic Positions

2022- Research Scientist CSIII at Extreme Light Infrastructure - Nuclear Physics, Gamma Driven Experiments Department, ELIGANT Group

2020- Assistant Professor at Istanbul University, Physics Department, Nuclear Physics Division

2016-2020 Doctor Research Assistant at Istanbul University, Physics Department, Nuclear Physics Division

2016-2018 Post Doctoral Research Assistant at Extreme Light Infrastructure - Nuclear Physics, Gamma Driven Experiments Department to work on the design, construction and characterization of the ELIADE Spectrometer of HPGe Clover detectors and to take part in the activities related to the development of the experimental program with high-brilliance narrow-bandwidth gamma beams at ELI-NP.

2009-2016 Research Assistant at Istanbul University, Physics Department, Nuclear Physics Division

2012-2015 PhD student at Centre de Sciences Nucléaires et de Sciences de la Matière, Nuclear Structure Group to work on the subject of magnetic moment measurements of short-lived states of exotic nuclei with a grant by The Scientific and Technological Research Council of Turkey (TUBITAK) for one year.

2013-2014 Visiting Researcher at Institute for Nuclear Research and Nuclear Energy of the Bulgarian Academy of Science to work on EWIRA-ENSAR project under sub-task static moments of isomeric and short-lived excited states for 7 months

H-index and citations

10 H-index
262 Sum of Times Cited
249 Without Self citations

Scientific Experiences

PhD Thesis

Title **Nuclear Moments and Lifetimes of Excited States in Exotic Nuclei**

Abstract Knowledge of static nuclear moments is of great importance to get a clear understanding of the single-particle structure and the collective nature of nuclear states. The magnetic moment is sensitive to the single-particle nature of the valence nucleons, while the nuclear quadrupole moment provides a direct link to the deformation. These moments provide us an excellent tool to test the validity of nuclear theories.

The study outlined in this thesis is formed by two experiments. The first experiment, and the main part of the thesis, was performed at ALTO (Accélérateur Linéaire auprès du Tandem d' Orsay, France). A precise measurement of the g factor of the first-excited state in the self-conjugate ($N = Z$) nucleus ^{24}Mg was performed by a new time-differential recoil-in-vacuum method based on the hyperfine field of hydrogenlike ions. Theory predicts that the g factors of such states, in which protons and neutrons occupy the same orbits, should depart from 0.5 by a few percent due to configuration mixing and meson-exchange effects. The experimental result, $g = 0.538 \pm 0.013$, is in excellent agreement with recent shell-model calculations and shows a departure from 0.5 by almost 3 standard deviations, thus achieving, for the first time, the precision and accuracy needed to test the theory. Proof of the new method opens the way for wide applications including measurements of the magnetism of excited states of exotic nuclei produced as radioactive beams.

The second experiment was performed at RIKEN, Japan. We reported on a new measurement of the g factor of the $(13/2^+)$ isomeric state in the neutron-rich nucleus ^{69}Cu . This study demonstrates the possibility of obtaining considerable nuclear spin alignment for multi-quasiparticle states in single-nucleon removal reactions. The Time-Dependent Perturbed Angular Distribution (TDPAD) method was used to extract the gyromagnetic factor of the $(13/2^+)$ ($T_{1/2} = 351(14)$ ns) isomeric state of ^{69}Cu . Its g factor was obtained as $g(13/2^+) = 0.248(9)$. The experimentally observed spin alignment for the state of interest was deduced as $A = -3.3(9)\%$.

Experimental skills

- HPGe : ORGAM (ALTO, France)
- Clover and segmented HPGe detectors, digital electronics : ELIADE (ELI-NP, Bucharest)
- Scintillation Detectors : Eightfold segmented plastic scintillation detector (CSNSM, France), LaBr₃ (IFIN-HH, Romania)
- Spectrometer : RIPS (RIKEN, Japan)
- Plunger : Lifetime measurements with OUPS (CSNSM, France)
- Nuclear moment measurements with TDPAD and TDRIV techniques
- Lifetime measurements with RDDS
- Triggerless data acquisition systems
- Analysis of complex experimental data
- Preparation of experiments

Participated Experiments

- 2022 Measurement of the Radiative-Decay Probability of the Hoyle State, IFIN-HH, Bucharest, Romania
- 2022 The $^{72}\text{Ge}(p,p'\gamma)$ reaction – cross-section and $\gamma\gamma$ decay measurements, IFIN-HH, Bucharest, Romania
- 2022 Study of dipole strength below particle separation energy in ^{56}Fe , IFIN-HH, Bucharest, Romania
- 2022 Spectroscopy of the first excited 2^+ state of with inelastic proton scattering, IFIN-HH, Bucharest, Romania
- 2022 Search for pygmy dipole strength in $^{58,60}\text{Ni}$ at finite temperature, IFIN-HH, Bucharest, Romania
- 2022 Study of the isospin symmetry in ^{72}Kr at low temperature, IFIN-HH, Bucharest, Romania
- 2022 Position-Sensitivity in large volume LaBr₃:Ce:Sr and performances of the ELIGANT-GN detectors using 15.1 MeV gamma-rays, IFIN-HH, Bucharest, Romania
- 2021 Nuclear moments of excited states in neutron rich Sn isotopes studied by on-line PAC, CERN, Switzerland
- 2020 Lifetime measurements of excited states in ^{20}O populated by direct nucleon transfer, GANIL, Caen, France
- 2019 Spin-alignment in Coulomb fission reaction-applicability for g-factors, RIKEN, Japan
- 2018 Nuclear structure studies around ^{132}Sn through nuclear moment measurements of isomeric states, RIKEN, Japan
- 2018 Spectroscopy above the shape isomer in ^{238}U , ALTO, Orsay, France
- 2017 Nuclear moment studies of short-lived excited states towards the Island of Inversion g factor of $^{28}\text{Mg}(2^+)$ using TDRIV on H-like ions, CERN, Switzerland
- 2016 First in-beam test of a part of the new ELIADE detection system, IFIN-HH, Bucharest, Romania
- 2015 Spin-alignment in abrasion-fission reaction of a 345 MeV/u $^{238}\text{U}^{80+}$ beam - g-factor measurements of isomeric states, RIKEN, Japan
- 2015 Study of proton Shell evolution through magnetic moment measurements of Cu and Zn isotopes, RIKEN, Japan
- 2015 Lifetime and g-factor measurements of short-lived states in the vicinity of ^{208}Pb , GANIL, Caen, France
- 2015 Collective properties in low-lying states in ^{77}Cu via Coulomb excitation, RIKEN, Japan
- 2014 Lifetime Measurement of ^{100}Ru : A possible candidate for the E(5) critical point symmetry, ALTO, Orsay, France
- 2014 Single-particle structure in the second minimum. Search for high-K bands above fission isomers, ALTO, Orsay, France

- 2014 g factor measurements of short-lived states in the Mg isotopes towards the Island of Inversion. ^{26}Mg and ^{28}Mg , ALTO, Orsay, France (co-spokesperson)
- 2014 Search for X(5) symmetry in ^{78}Sr nucleus, ALTO, Orsay, France
- 2014 Time dependent recoil in vacuum for Na-like ^{56}Fe ions, ALTO, Orsay, France (Data analysis)
- 2013 Lifetime measurements using the RDDS method after incomplete fusion, ALTO, Orsay, France
- 2013 Nuclear moments and nuclear orientation from incomplete fusion and transfer reactions, ALTO, Orsay, France (Data analysis)
- 2012 Search for X(5) symmetry in ^{168}W nucleus, ALTO, Orsay, France
- 2012 Probing the boundary of shape coexistence south of $Z=82$: Lifetime measurements of excited states in ^{170}Os using the RDDS method, ALTO, Orsay, France
- 2012 Development of the Time Dependent Recoil In Vacuum technique for “radioactive-beam” geometry, ALTO, Orsay, France (PhD work)
- 2012 Polarization of ^8Li with Tilted Foils Technique, CERN, Geneva, Switzerland
- 2011 Nuclear moments of isomeric states in deep-inelastic reactions, LNL, Padova, Italy
- 2011 Delayed shape transition in ^{196}Os , LNL, Padova, Italy
- 2011 RDDS lifetime measurement in the region of the neutron-rich doubly magic ^{132}Sn : Lifetime of the 6^+ state in ^{136}Te , LNL, Padova, Italy
- 2011 Lifetime of the 0_2^+ state in ^{156}Dy , IFIN-HH, Bucharest, Romania (Data analysis)
- 2011 Lifetime of the 0_2^+ state in ^{160}Er , ALTO, Orsay, France
- 2010 Lifetime measurement of the 4^- state in ^{34}P using fast time coincidences of $\text{LaBr}_3\text{-LaBr}_3\text{-HPGe}$ detectors, IFIN-HH, Bucharest, Romania
- 2010 $^{75-77}\text{Cu}$: probing the $Z=28$ shell gap around doubly magic ^{78}Ni , GANIL, Caen, France
- 2010 Lifetime measurement in neutron-rich Ni, Cu and Zn isotopes, LNL, Padova, Italy
- 2009 Study of neutron-rich nuclei around $N=50$ toward ^{78}Ni : $\gamma\text{-}\gamma$ thick target experiment with the $^{82}\text{Se} + ^{238}\text{U}$ reaction, LNL, Padova, Italy

Proposed Experiments

- 2017 Detector efficiency calibration and polarization sensitivity for high energy γ -rays, Spokesperson: **A. Kusoglu**, IFIN-HH, Romania.
- 2016 Letter of Intent: High precision electromagnetic moment measurements with stable and radioactive nuclei with GALILEO and GALILEO plunger, Spokespersons: A. Goasduff and **A. Kusoglu**, Physics for Nuclear Physics (INFN), Legnaro National Laboratories (LNL), Italy.
- 2016 Letter of Intent: Electromagnetic moment measurements with radioactive ion beams using GALILEO Gamma-ray array, Spokespersons: A. Goasduff and **A. Kusoglu**, Physics for Nuclear Physics (INFN), Legnaro National Laboratories (LNL), Italy.
- 2014 g factor measurements of short-lived states in the Mg isotopes towards the Island of Inversion. ^{26}Mg and ^{28}Mg , Spokespersons: G. Georgiev, A. E. Stuchbery and **A. Kusoglu**, ALTO, Orsay, France

National and International Projects

- 2019-2020 Title: Coulomb Fission Reaction and Applicability for g-factor measurements, Project No: BYP-2019-34943, Istanbul University Scientific Research Projects (BAP) Scientific Publication Project, as a coordinator.
- 2018-2019 Title: g factor measurements for rare isotope studies, Project No: BYP-2018-29999, Istanbul University Scientific Research Projects (BAP) Scientific Publication Project, as a coordinator.
- 2016-2018 Title: Electromagnetic moment measurements and nuclear spin orientation in different types of reactions, Project No: BYP-2016-22348, Istanbul University Scientific Research Projects (BAP) Scientific Publication Project, as a coordinator.

- 2014-2016 Title: Nuclear Moments and Lifetimes of Excited states in Exotic Nuclei, Project No: 46811, Istanbul University Scientific Research Projects (BAP) Thesis Project, as a researcher.
- 2011-2014 Title: Investigation of the transitional neutron-rich osmium isotopes, Project no: 15539, Istanbul University Scientific Research Projects (BAP) International Research Project with LNL, Padova, Italy, as a researcher.
- 2010-2012 Title: Study of Lanthanum Bromide crystals as a new scintillator material for application and basic research, Project no: 109T613, joint research project between The Scientific and Technological Research Council of Turkey (TÜBİTAK) and The National Authority for Scientific Research of Romania (ANCS), as a researcher.
- 2007-2009 Title: Evolution of Spin-Orbit Potential with Valence Nucleon Numbers, Project No: 2850, Istanbul University Scientific Research Projects (BAP) Thesis Project, as a coordinator.
- 2005-2008 Title: European nuclear structure integrated infrastructure initiative (EURONS) Project: Research Activities of Southeast and Northeast European Nuclear Physics Groups at the European Large Scale Facilities: Status and Future Possibilities, Project No:506065, as a researcher.

Languages

- Turkish Native speaker
 English Fluent, written and spoken
 (Council of Higher Education Language Examination, 80.0 /100.0)

Computer skills

- OS Linux, Windows
 Programming C/C++, Fortran77, Fortran 90-95
 Physics tools Root, PACE4, LISE++
 Word processing Microsoft/Open Office, L^AT_EX

Teaching as Research Assistant to undergraduate students from 2009 to 2020

- Radiation and Health Physics Practice
 Nuclear Physics Practice
 Atomic and Molecular Physics Lab.
 Quantum Mechanics I Practice
 Quantum Mechanics II Practice
 Classical Theoretical Mathematics Practice
 General Physics Lab.
 Physics I Lab.(Mechanic)
 Physics II Lab.(Electric)
 Physics I Practice
 Physics II Practice
 Physics III Lab. (Optic)
 Electronic Lab. I
 Database applications
 Computer Programming I Practice (Fortran77, Fortran 90-95)
 Computer Programming II Practice (C/C++)
 Analysis I Practice
 Calculus I Practice

Calculus II Practice
Computer III Practice
Mathematical Methods in Physics Practice

Teaching as Assistant Professor to undergraduate, master and PhD students from 2020 to 2022

- Undergraduate

- General Physics I
- General Physics II
- Algorithm and Introduction to Computer Programming
- Statistical Methods In Physics
- Physics Laboratory II - Electricity and Magnetism
- Advanced Physics Applications
- Computer Programming II (C/C++)

- Master

- Experimental Nuclear Physics

- PhD

- Synchrotron Radiation and Its Applications I
- Synchrotron Radiation and Its Applications II
- Experimental Techniques and Data Analysis in Nuclear Physics II

Honors, awards and fellowships

- 2020 TUBITAK (The Scientific and Technological Research Council of Turkey) ULAKBIM International Scientific Publications Incentive Program, Publication Incentive Award
- 2019 Four times in the same year, TUBITAK (The Scientific and Technological Research Council of Turkey) ULAKBIM International Scientific Publications Incentive Program, Publication Incentive Award
- 2014 TUBITAK (The Scientific and Technological Research Council of Turkey) 2224- B Participation Support to Domestic Scientific Events
- 2012-2013 TUBITAK (The Scientific and Technological Research Council of Turkey) 2214-Foreign Research Scholarship (For PhD students)
- 2010 Poster is selected for publication at Zakopane Conference on Nuclear Physics Extremes of the Nuclear Landscape
- 2006 Highest ranking student of the department. Graduated from Istanbul University, Faculty of Science, Physics Department

Scientific Refereeing

- Jan. 2022 TUBITAK (The Scientific and Technological Research Council of Turkey) Project, 1001 - Program for Supporting Scientific and Technological Research Projects, as a observer panelist
- Apr. 2020 International journal of advances in engineering and pure sciences (Online), National Scientific Refreed Journal

Meetings Attended

Conferences

- Sep. 2014 NUBA Conference Series: Nuclear Physics and Astrophysics, Antalya, Turkey
Nuclear g-factor Time-Dependent Recoil in Vacuum in radioactive-beam geometry (Oral Contribution)

- Sep. 2010 Nuclear Structure Challenges with Radioactive Beams, Antalya, Turkey (*Local Organizing Committee*)
- Sep. 2010 Zakopane Conference on Nuclear Physics Extremes of the Nuclear Landscape, Krakow, Poland
The effect of valence neutrons on spin-orbit splitting (Poster Contribution)
- Oct. 2009 NUFRA 2009 Second International Conference on Nuclear Fragmentation From Basic Research to Applications, Kemer, Antalya
Shell Evolution in Exotic Nuclei (Poster Contribution)
- Jun. 2008 Nuclear Physics and Astrophysics: From Stable Beams to Exotic Nuclei, Kapadokya, Turkey
[Workshops](#)
- Jan. 2022 ELI-NP Young Researcher and Young Engineer Days, Bucharest, Romania
- Dec. 2021 ISOLDE Workshop and Users Meeting 2021, Zurich, France
- May. 2021 nu-Ball2 online scientific workshop, Orsay, France
- Feb. 2021 On-line 21th AGATA Week, Paris, France
- Feb. 2020 AGATA Turkey Collaboration Meeting, Ankara, Turkey
- Sep. 2018 gSPEC Workshop, Milan, Italy
g factor measurements for rare isotope studies (Oral Contribution)
- Sep. 2017 Workshop on implementation of GET electronics for RA4 ELI-NP detectors, ELI-NP, Romania
- Jun. 2017 NUSPIN 2017 Workshop, GSI, Darmstadt, Germany
High precision g-factor measurements with stable and radioactive nuclei and perspectives for experiments @SPES and @ELI-NP (Oral Contribution)
- May. 2014 Workshop on Nuclear, Astrophysics and Reactions, Istanbul, Turkey
- May. 2013 2nd Workshop on the physics at the ALTO facility, Orsay, France
- May. 2013 EWIRA/ENSAR meeting on static nuclear moment measurements with radioactive ion beams, Orsay, France
TDRIV on H-like ions in radioactive beam geometry (Oral Contribution)
- Jun. 2012 EGAN (European Gamma and Ancillary detectors Network) Workshop, Orsay, France
- Jun. 2010 High Resolution Gamma-Ray Spectroscopy Workshop, Caen, France
- May. 2010 AGATA PHYSICS WORKSHOP 2010, AGATA@Legnaro and AGATA@GSI, Istanbul, Turkey
(*Local Organizing Committee*)
- Jun. 2009 NEDA - New Neutron Detector for SPIRAL 2, Istanbul, Turkey (*Local Organizing Committee*)
[Schools](#)
- Jul. 2017 International School of Physics "Enrico Fermi" Course 201 "Nuclear Physics with Stable and Radioactive Ion Beams, Varenna, Italy
- Jun. 2016 NUBA-2016: The 3th International Nuclear Physics Summer School Course, Adrasan, Antalya
- Sep. 2014 Euroschool on Exotic Beams, Padova, Italy
Time Dependent Recoil In Vacuum: High-precision g-factor measurements of ^{24}Mg (Poster Contribution)
- Sep. 2010 17th Euroschool on Exotic Beams, Santiago de Compostela, Spain
Spin-Orbit Splitting Calculations for Some Closed-Shell Nuclei (Poster Contribution)
- Sep. 2008 The 6th Balkan School on Nuclear Physics, Troyan, Bulgaria
Isospin dependence of spin-orbit potential (Oral Contribution)
[Seminars](#)
- May. 2020 Magnetic Moment Measurements of Isomeric States, Punjab, Rupnagar, India.
- Apr. 2016 g-factor measurements and nuclear spin orientation in different types of reactions, LNL, Padova, Italy.
- May. 2013 Development of the Time Dependent Recoil In Vacuum technique for radioactive-beam geometry, CSNSM, Orsay, France.

Publication List

SCI/SCIE Indexed Journals

- [1] [First in-beam experiment with the ELIADe detectors: a spectroscopic study of \$^{130}\text{La}\$.](#)
L. Capponi, **A. Kuşoğlu***, P.-A. Söderström, D. Balabanski, G. Turturică, G. Bocchi, S. Chesnevskaya, A. Dhal, D. Dinescu, N. Djourellov, Y. Niu, A. Oprisa, A. Pappalardo, G. Suliman, and C. Ur.
Journal of Instrumentation **16**, T12001 (2021)
- [2] [Boulay et al. Reply: \$g\$ Factor of the \$^{99}\text{Zr}\$ \(\$7/2^+\$ \) Isomer: Monopole Evolution in the Shape-Coexisting Region.](#)
F. Boulay, G. S. Simpson, Y. Ichikawa, S. Kisiov, D. Bucurescu, A. Takamine, D. S. Ahn, K. Asahi, H. Baba, D. L. Balabanski, T. Egami, T. Fujita, N. Fukuda, C. Funayama, T. Furukawa, G. Georgiev, A. Gladkov, M. Hass, K. Imamura, N. Inabe, Y. Ishibashi, T. Kawaguchi, T. Kawamura, W. Kim, Y. Kobayashi, S. Kojima, **A. Kusoglu**, R. Lozeva, S. Momiyama, I. Mukul, M. Niikura, H. Nishibata, T. Nishizaka, A. Odahara, Y. Ohtomo, D. Ralet, T. Sato, Y. Shimizu, T. Sumikama, H. Suzuki, H. Takeda, L. C. Tao, Y. Togano, D. Tominaga, H. Ueno, H. Yamazaki, X. F. Yang, and J. M. Daugas.
Physical Review Letters **127**, 169202 (2021)
- [3] [\$g\$ Factor of the \$^{99}\text{Zr}\$ \(\$7/2^+\$ \) Isomer: Monopole Evolution in the Shape-Coexisting Region.](#)
F. Boulay, G. S. Simpson, Y. Ichikawa, S. Kisiov, D. Bucurescu, A. Takamine, D. S. Ahn, K. Asahi, H. Baba, D. L. Balabanski, T. Egami, T. Fujita, N. Fukuda, C. Funayama, T. Furukawa, G. Georgiev, A. Gladkov, M. Hass, K. Imamura, N. Inabe, Y. Ishibashi, T. Kawaguchi, T. Kawamura, W. Kim, Y. Kobayashi, S. Kojima, **A. Kusoglu**, R. Lozeva, S. Momiyama, I. Mukul, M. Niikura, H. Nishibata, T. Nishizaka, A. Odahara, Y. Ohtomo, D. Ralet, T. Sato, Y. Shimizu, T. Sumikama, H. Suzuki, H. Takeda, L. C. Tao, Y. Togano, D. Tominaga, H. Ueno, H. Yamazaki, X. F. Yang, and J. M. Daugas.
Physical Review Letters **124**, 112501 (2020)
- [4] [Evidence of octupole-phonons at high spin in \$^{207}\text{Pb}\$.](#)
D. Ralet, E. Clément, G. Georgiev, A. Stuchbery, M. Rejmund, P. Van Isacker, G. de France, A. Lemasson, J. Ljungvall, C. Michelagnoli, A. Navin, D. Balabanski, L. Atanasova, A. Blazhev, G. Bocchi, R. Carroll, J. Dudouet, E. Dupont, B. Fornal, S. Franchoo, C. Fransen, C. Müller-Gatermann, A. Goasduff, A. Gadea, P. John, D. Kocheva, T. Konstantinopoulos, A. Korichi, **A. Kusoglu**, S. Lenzi, S. Leoni, R. Lozeva, A. Maj, R. Perez, N. Pietralla, C. Shand, O. Stezowski, D. Wilmsen, D. Yordanov, D. Barrientos, P. Bednarczyk, B. Birkenbach, A. Boston, H. Boston, I. Burrows, B. Cederwall, M. Ciemala, J. Collado, F. Crespi, D. Cullen, H. Eberth, J. Goupil, L. Harkness, H. Hess, A. Jungclaus, W. Korten, M. Labiche, R. Menegazzo, D. Mengoni, B. Million, J. Nyberg, Z. Podolyák, A. Pullia, B. Quintana Arnés, F. Recchia, P. Reiter, F. Saillant, M. Salsac, E. Sanchis, C. Theisen, J. Valiente Dobon, and O. Wieland.
Physics Letters B **797**, 134797 (2019)
- [5] [\$B\(E2\)\$ anomalies in the yrast band of \$^{170}\text{Os}\$.](#)
A. Goasduff, J. Ljungvall, T. R. Rodríguez, F. L. B. Garrote, A. Etile, G. Georgiev, F. Giacoppo, L. Grente, M. Klintefjord, **A. Kuşoğlu**, I. Matea, S. Roccia, M. D. Salsac, and C. Sotty.
Physical Review C **100**, 034302 (2019)
- [6] [Inclusive cross sections for one- and multi-nucleon removal from Sn, Sb, and Te projectiles beyond the \$N=82\$ shell closure.](#)

- V. Vaquero, A. Jungclaus, J. L. Rodríguez-Sánchez, J. A. Tostevin, P. Doornenbal, K. Wimmer, S. Chen, E. Náchér, E. Sahin, Y. Shiga, D. Steppenbeck, R. Taniuchi, Z. Y. Xu, T. Ando, H. Baba, F. L. B. Garrote, S. Franchoo, A. Gargano, K. Hadynska-Klek, **A. Kusoglu**, J. Liu, T. Lokotko, S. Momiyama, T. Motobayashi, S. Nagamine, N. Nakatsuka, M. Niikura, R. Orlandi, T. Saito, H. Sakurai, P. A. Söderström, G. M. Tveten, Z. Vajta, and M. Yalcinkaya.
Physics Letters B **795**, 356 (2019)
- [7] [Interplay between nuclear shell evolution and shape deformation revealed by the magnetic moment of \$^{75}\text{Cu}\$.](#)
Y. Ichikawa, H. Nishibata, Y. Tsunoda, A. Takamine, K. Imamura, T. Fujita, T. Sato, S. Momiyama, Y. Shimizu, D. S. Ahn, K. Asahi, H. Baba, D. L. Balabanski, F. Boulay, J. M. Daugas, T. Egami, N. Fukuda, C. Funayama, T. Furukawa, G. Georgiev, A. Gladkov, N. Inabe, Y. Ishibashi, T. Kawaguchi, T. Kawamura, Y. Kobayashi, S. Kojima, **A. Kusoglu**, I. Mukul, M. Niikura, T. Nishizaka, A. Odahara, Y. Ohtomo, T. Otsuka, D. Ralet, G. S. Simpson, T. Sumikama, H. Suzuki, H. Takeda, L. C. Tao, Y. Togano, D. Tominaga, H. Ueno, H. Yamazaki, and X. F. Yang.
Nature Physics **15**, 321 (2019)
- [8] [In-beam \$\gamma\$ -ray spectroscopy of \$^{136}\text{Te}\$ at relativistic energies.](#)
V. Vaquero, A. Jungclaus, P. Doornenbal, K. Wimmer, A. M. Moro, K. Ogata, T. Furumoto, S. Chen, E. Náchér, E. Sahin, Y. Shiga, D. Steppenbeck, R. Taniuchi, Z. Y. Xu, T. Ando, H. Baba, F. L. B. Garrote, S. Franchoo, K. Hadynska-Klek, **A. Kusoglu**, J. Liu, T. Lokotko, S. Momiyama, T. Motobayashi, S. Nagamine, N. Nakatsuka, M. Niikura, R. Orlandi, T. Y. Saito, H. Sakurai, P. A. Söderström, G. M. Tveten, Z. Vajta, and M. Yalcinkaya.
Physical Review C **99**, 034306 (2019)
- [9] [High-resolution gamma-ray spectroscopy with ELIADe at the Extreme Light Infrastructure.](#)
P. A. Söderström, G. Suliman, C. A. Ur, D. Balabanski, T. Beck, L. Capponi, A. Dhal, V. Iancu, S. Ilie, M. Iovea, **A. Kuşoğlu**, C. Petcu, N. Pietralla, G. V. Turturică, E. Udup, J. Wilhelmy, and A. Zilges.
Acta Physica Polonica B **50**, 329 (2019)
- [10] [In-beam \$\gamma\$ -ray spectroscopy of the neutron-rich platinum isotope \$^{200}\text{Pt}\$ toward the \$N = 126\$ shell gap.](#)
P. R. John, J. J. Valiente-Dobón, D. Mengoni, V. Modamio, S. Lunardi, D. Bazzacco, A. Gadea, C. Wheldon, T. R. Rodríguez, T. Alexander, G. de Angelis, N. Ashwood, M. Barr, G. Benzoni, B. Birkenbach, P. G. Bizzeti, A. M. Bizzeti-Sona, S. Bottoni, M. Bowry, A. Bracco, F. Browne, M. Bunce, F. Camera, L. Corradi, F. C. L. Crespi, B. Melon, E. Farnea, E. Fioretto, A. Gottardo, L. Grente, H. Hess, T. Kokalova, W. Korten, **A. Kuşoğlu**, S. Lenzi, S. Leoni, J. Ljungvall, R. Menegazzo, C. Michelagnoli, T. M. ě, G. Montagnoli, D. Montanari, D. R. Napoli, Z. Podolyák, G. Pollarolo, F. Recchia, P. Reiter, O. J. Roberts, E. Şahin, M. D. Salsac, F. Scarlassara, M. Sferrazza, P. A. Söderström, A. M. Stefanini, S. Szilner, C. A. Ur, A. Vogt, and J. Walshe.
Physical Review C **95**, 064321 (2017)
- [11] [Toward lifetime and g factor measurements of short-lived states in the vicinity of \$^{208}\text{Pb}\$.](#)
D. Ralet, G. Georgiev, A. E. Stuchbery, E. Clément, A. Lemasson, C. Michelagnoli, M. Rejmund, L. Atanasova, D. L. Balabanski, G. Bocchi, R. Carroll, A. Dewald, J. Dudouet, B. Fornal, G. de France, S. Franchoo, C. Fransen, C. Müller-Gatermann, A. Goasduff, A. Gadea, B. Jacquot, P. R. John, D. Kocheva, T. Konstantinopoulos, A. Korichi, **A. Kusoglu**, S. M. Lenzi, S. Leoni, J. Ljungvall, R. Lozeva, A. Maj, A. Navin, R. Perez, N. Pietralla, C. Shand, O. Stezowski, and D. Yordanov.
Physica Scripta **92**, 054004 (2017)
- [12] [Lifetime measurements in \$^{100}\text{Ru}\$.](#)

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