**Curriculum Vitae**


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| Dr.rer.nat. Mark-Christoph Spieker | Chieftan Way 77, Tallahassee, FL 32306 (USA) |
| Assistant Professor | +1(850)644-2066 |
| Florida State University | mspieker@fsu.edu |
| Department of Physics | `http://web2.physics.fsu.edu/~mspieker/` |


## Research Interest

Low-energy nuclear physics with focus on the experimental study of collective, emergent phenomena via coincident $\gamma$-ray and particle spectroscopy techniques. Phenomena studied are, *e.g.*, the Pygmy Dipole Resonance (PDR), $\alpha$ clustering, octupole excitations, and shape coexistence in atomic nuclei. Experiments are performed at Florida State University's John D. Fox Superconducting Linear Accelerator Laboratory, national laboratories like the Facility for Rare Isotope Beams (FRIB), and other international laboratories. Particle-$\gamma$ coincidence capabilities have been developed at the Super-Enge Split-Pole Spectrograph (SE-SPS) of the Fox Laboratory introducing the CeBrA ($CeBr_3$ Array) demonstrator. Ideas for coincident internal conversion electron and fission fragment spectroscopy are also pursued.

## Education

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| 10/2016 | **Dr.rer.nat (Experimentalphysik)** – PhD equivalent<br>"The origin of low-lying collective $E1$ and $E2$ strength in atomic nuclei"<br>Faculty of Mathematics and Natural Sciences, University of Cologne, Cologne, D-50937 (Germany) |
| 02/2013 | **Master of Science (Physics)**<br>"High-Resolution Study of Low-Spin States in $^{240}$Pu"<br>University of Cologne, Cologne, D-50937 (Germany) |
| 09/2010 | **Bachelor of Science (Physics)**<br>"Untersuchung von Quadrupolübergängen in $^{124}$Sn mit Hilfe der $(\alpha, \alpha'\gamma)$-Reaktion"<br>University of Cologne, Cologne, D-50937 (Germany) |
| 06/2006 | **Abitur**<br>Ratsgymnasium Bielefeld, Bielefeld, D-33602 (Germany) |

## Work and Research Experience

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|---|---|
| 10/2019 – present | Assistant Professor, Department of Physics, Florida State University, Tallahassee, FL 32306 (USA) |
| 11/2017 – 10/2019 | Research Associate, National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, MI 48824 (USA) |
| 04/2013 – 10/2017 | Research Assistant, Institute for Nuclear Physics, University of Cologne, Cologne, D-50937 (Germany) |
| 10/2010 – 03/2013 | Teaching Assistant (Studentische Hilfskraft), Institute for Nuclear Physics, University of Cologne, Cologne, D-50937 (Germany) |
| 04/2007 – 08/2007 | Volunteering (Ehrenamtliche Arbeit), Dornberger Lebensmittelkorb e.V., Bielefeld, D-33619 (Germany) |
| 08/2006 – 04/2007 | Civilian Service (Zivildienst), Caritasverband Bielefeld und Dornberger Lebensmittelkorb e.V., Bielefeld (Germany) |

## Honors and Awards

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|---|---|
| 04/2022 | **PAI Award for Excellence in Teaching and Research**<br>Department of Physics, Florida State University, Tallahasse, FL 32306 (USA) |
| 05/2021 | **First Year Assistant Professor (FYAP) Award**<br>Council on Research and Creativity (CRC), Florida State University, Tallahasse, FL 32306 (USA) |
| 06/2020 | **FRIB Visiting Scholar Award for Experimental Science 2020**<br>Facility for Rare Isotope Beams and National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, MI 48824 (USA) |
| 11/2017 – 10/2019 | **NSCL fellow**<br>National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, MI 48824 (USA) |
| 07/2016 | **Alumni of the 66$^{\text{th}}$ Lindau Nobel Laureate Meeting**<br>Executive Secretariat of the Council/Office of the Foundation Lindau Nobel Laureate Meetings, Lindau, D-88131 (Germany) |
| 2014 – 2016 | **H2 honors branch**<br>Bonn-Cologne Graduate School of Physics and Astronomy, University of Cologne, Cologne, D-50937 (Germany) |
| 2010 – 2012 | **Honors branch**<br>Bonn-Cologne Graduate School of Physics and Astronomy, University of Cologne, Cologne, D-50937 (Germany) |

## Research Grants

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|---|---|
| 2024 – 2028 | **CENTAUR – Center for Excellence in Nuclear Training and University-Based Research**<br>National Nuclear Security Administration (NNSA), DE-NA0004150 (USD 1,443,580; Subaward to Florida State University)<br>I. Wiedenhöver, S. Almaraz-Calderon, P.D. Cottle, M. Spieker, V. Tripathi |
| 2020 – 2024 | **WoU-MMA: Studies of Nuclear Structure and Nuclear Astrophysics**<br>National Science Foundation (NSF), PHY-2012522 (USD 7,600,000)<br>I. Wiedenhöver, S. Almaraz-Calderon, P.D. Cottle, M. Spieker, S. Tabor, V. Tripathi |

## Accepted Experimental Proposals

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|---|---|
| 2019 | **Octupole collectivity in $^{74,76}$Kr studied with inelastic proton scattering in inverse kinematics** (Experiment e19028)<br>National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, MI 48824, USA<br>PI M. Spieker, Co-PIs L. A. Riley and P. D. Cottle.<br>Experiment completion date: 08/14/2020 |

## Professional Services and Memberships

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|---|---|
| 03/2024 | External reviewer GRETA Director's Status Review, Lawrence Berkeley National Laboratory, Berkeley, California (USA) |
| 04/2023 | External reviewer GRETA Director's Status Review, Lawrence Berkeley National Laboratory, Berkeley, California (USA) |
| 02/2023 – present | Referee for Proceedings of the Royal Society A |
| 01/2023 | External reviewer for Natural Sciences and Engineering Research Council of Canada |
| 09/2022 – present | Webmaster ARUNA Website: `https://aruna.physics.fsu.edu` |
| 08/2022 – present | Member of high-resolution in-beam $\gamma$-ray spectroscopy committee for the low-energy community |
| 04/2022 | External reviewer GRETA Director's Status Review, Lawrence Berkeley National Laboratory, Berkeley, California (USA) |
| 03/2022 | NSF Panelist – Experimental Nuclear Physics Program |
| 12/2021 – 01/2023 | Member of "Deformation and collective states" working group, Nuclear Physics Midterm Plan at Legnaro National Laboratories (LNL), Italy `https://doi.org/10.1140/epjp/s13360-023-04249-x` |
| 02/2021 – 02/2022 | Chair of GRETINA-GRETA User Executive Committee |
| 08/2021 – present | Referee for Physics Letters B |
| 03/2021 | External reviewer for National Science Foundation (NSF) |
| 09/2020 – present | Referee for Nuclear Instruments and Methods in Physics Research A |
| 06/2020 | Reviewer for U.S. Department of Energy Office of Science Graduate Student Research (SCGSR) Program |
| 02/2020 – 02/2021 | Secretary of GRETINA-GRETA User Executive Committee |
| 02/2020 – 01/2024 | Member of GRETINA-GRETA User Executive Committee |
| 09/2019 – present | American Physical Society (APS) |
| 11/2017 – present | Referee for Physical Review Letters and Physical Review C |

## Departmental Service/Committees/Outreach

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|---|---|
| Fall 2023 – present | Organization of Nuclear Physics Seminar |
| Spring 2023 – present | Supervisory Committee Zhenqi Hua (FSU) |
| Spring 2023 | Three Minute Thesis (Judge) |
| Fall 2022 | Faculty representative at SESAPS-2023 graduate fair |
| Fall 2022 – present | FSU Physics Website & Newsletter Committee |
| Summer 2022 – present | Academic Advisor in FSU Physics Undergraduate Program |
| Spring 2021 – present | Supervisory Committee Gabriel Rodriguez (FSU) |
| Fall 2021 – present | Saturday Morning Physics |
| Spring 2021 – present | FSU APS Chapter |
| Spring 2021 – present | New Building and Renovations |
| Spring 2021 | Three Minute Thesis (Judge) |
| Spring 2020 – present | Webmaster Low-Energy Nuclear Physics Website `https://fsunuc.physics.fsu.edu` |
| Spring 2020 – present | Undergraduate Affairs Committee |

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| Fall 2019 | Tallahassee Science Festival (Volunteer) |

## Teaching

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|---|---|
| Spring 2024 | PHY2048C – General Physics A (course lead) [214 students] |
| Fall 2023 | PHY2049C – General Physics B (course lead) [214 students] |
| Fall 2022 | PHY2049C – General Physics B (course lead) [160 students] |
| Spring 2022 | PHY2048C – General Physics A (course lead) [200 students] |
| Fall 2021 | PHY2049C – General Physics B (instructor and lab coordinator) [80 students] |
| Spring 2021 | PHY2048C – General Physics A (instructor and lab coordinator) [70 students] |
| Fall 2020 | PHY2049C – General Physics B (instructor and lab coordinator) [70 students] |
| Spring 2020 | PHY2048C – General Physics A (instructor) [70 students] |

## Graduate Student Supervision

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|---|---|
| Summer 2022 – present | Dennis Houlihan |
| Spring 2021 – present | Bryan Kelly |
| Spring 2021 – present | Alex L. Conley |

## Undergraduate Student Supervision (Research)

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|---|---|
| Spring 2024 | Mill Heinze (Ursinus College - Honors Thesis; Co-Advisor) |
| Spring 2023 | Alyssa Himmelreich (Ursinus College; Co-Advisor) |
| Summer 2022 – Spring 2024 | Scott Baker (Honors Thesis) |
| Fall 2021 – Fall 2022 | Ramiro Renom |
| Fall 2021 | Patrick Peterson |
| Summer 2020 – Fall 2020 | Timothy Hancock |

## Invited Talks/Colloquia/Seminars (since October 2019)

2023 **Accessing the single-particle structure of the PDR and the CeBrA demonstrator for particle-$\gamma$ coincidence experiments at the FSU SE-SPS**
Nuclear Physics Seminar, Ohio University, Athens (OH, USA) *(invited seminar)*

2023 **Accessing the Single-Particle Structure of the PDR**
7$^{\text{th}}$ International Conference on Collective Motion in Nuclei under Extreme Conditions (COMEX7), Catania (Italy) *(invited talk)*

2023 **Opportunities for studying octupole collectivity at FRIB**
Theoretical Justifications and Motivations for Early High-Profile FRIB Experiments, Facility for Rare Isotope Beams (FRIB), Michigan State University, East Lansing, Michigan (USA) *(invited talk)*

2023 **Accessing the Single-Particle Structure of the PDR**
VI$^{\text{th}}$ Topical Workshop on Modern Aspects of Nuclear Structure – The Many Facets of Nuclear Structure, Bormio (Italy) *(invited seminar)*

2022 **Recent progress in and future prospects for in-beam $\gamma$-ray spectroscopy**
NSAC Long Range Plan Town Hall Meeting on Nuclear Structure, Reactions and Astrophysics, Argonne National Laboratory, Lemont, IL (USA) *(invited talk)*

2022 **Nuclear-structure studies with direct reactions and particle-gamma coincidences at FSU and NSCL**
89th Annual Meeting of the Southeastern Section of the APS, Oxford, MS (USA) *(invited talk)*

2022 **Accessing the single-particle structure of the PDR**
Workshop on Giant and soft modes of excitation in nuclear structure and astrophysics, European Center for Theoretical Studies in Nuclear Physics and Related Areas, Trento (Italy) *(invited talk)*

2021 **ARUNA Overview Talk**
Low Energy Community Meeting, Virtual Meeting via ZOOM *(invited talk)*

2021 **The Pygmy Dipole Resonance: Its Structure and Significance for Nuclear Astrophysics**
Virtual Physics Division Seminar via ZOOM, Argonne National Laboratory *(invited seminar)*

2020 **Isospin symmetry around $^{56}$Ni**
Virtual ZOOM Seminar, University of Massachusetts Lowell *(invited seminar)*

2020 **Isospin symmetry around $^{56}$Ni**
UK Lockdown Nuclear Seminars, http://ns.ph.liv.ac.uk/lockdownseminars.html *(invited seminar)*

2020 **$\alpha$-cluster states and their connection to the $E1$ strength of heavy nuclei**
43$^{\text{rd}}$ Symposium on Nuclear Physics, Instituto de Física, UNAM, Cocoyoc, Mexico. *(invited talk)*

2019 **Isospin symmetry around $^{56}$Ni**
Nuclear Physics Seminar, University of Cologne, Cologne, D-50937, Germany *(invited seminar)*

## Contributed Talks (since October 2019)

2022 **Octupole collectivity in $^{74,76}$Kr studied with inelastic proton scattering in inverse kinematics**
Nuclear Structure Conference, Lawrence Berkeley National Laboratory, Berkeley, CA (USA) *(contributed talk)*

## Scientific Publications

(1) Non-alphabetically-listed publications (peer-reviewed) and not including conference proceedings

2024 **Proton removal from $^{73,75}$Br to $^{72,74}$Se at intermediate energies**
M. Spieker, D. Bazin, S. Biswas, P. D. Cottle, P. J. Farris, A. Gade, T. Ginter, S. Giraud, K. W. Kemper, J. Li, S. Noji, J. Pereira, L. A. Riley, M. K. Smith, D. Weisshaar, and R. G. T. Zegers
Phys. Rev. C **109**, 014307 (2024)

2024 **The CeBrA demonstrator for particle-$\gamma$ coincidence experiments at the FSU Super-Enge Split-Pole Spectrograph**
A.L. Conley, B. Kelly, M. Spieker, R. Aggarwal, S. Ajayi, L.T. Baby, S. Baker, C. Benetti, I. Conroy, P.D. Cottle, I.B. D'Amato, P. DeRosa, J. Esparza, S. Genty, K. Hanselman, I. Hay, M. Heinze, D. Houlihan, M.I. Khawaja, P.S. Kielb, A.N. Kuchera, G.W. McCann, A.B. Morelock, E. Lopez-Saavedra, R. Renom, L.A. Riley, G. Ryan, A. Sandrik, V. Sitaraman, E. Temanson, M. Wheeler, C. Wibisono, and I. Wiedenhöver
Nuclear Instruments and Methods in Physics Research Section A **1058**, 168827 (2024)

2023 **Experimental study of excited states of $^{62}$Ni via one-neutron $(d,p)$ transfer up to the neutron-separation threshold and characteristics of the pygmy dipole resonance states**
M. Spieker, L. T. Baby, A. L. Conley, B. Kelly, M. Müscher, R. Renom, T. Schüttler, and A. Zilges
Physical Review C **108**, 014311 (2023)

2023 **Hexadecapole strength in the rare isotopes $^{74,76}$Kr**
M. Spieker, S.E. Agbemava, D. Bazin, S. Biswas, P.D. Cottle, P.J. Farris, A. Gade, T. Ginter, S. Giraud, K.W. Kemper, J. Li, W. Nazarewicz, S. Noji, J. Pereira, L.A. Riley, M. Smith, D. Weisshaar, R.G.T. Zegers
Physics Letters B **841**, 137932 (2023)

2022 **Investigation of octupole collectivity near the $A = 72$ shape-transitional point**
M. Spieker, L. A. Riley, P. D. Cottle, K. W. Kemper, D. Bazin, S. Biswas, P. J. Farris, A. Gade, T. Ginter, S. Giraud, J. Li, S. Noji, J. Pereira, M. Smith, D. Weisshaar, R. G. T. Zegers
Physical Review C **106**, 054305 (2022)

2021 **Microscopic Structure of the Low-Energy Electric Dipole Response of $^{120}$Sn**
M. Weinert, M. Spieker, G. Potel, N. Tsoneva, M. Müscher, J. Wilhelmy, A. Zilges
Physical Review Letters **127**, 242501 (2021)

2020 **Accessing the Single-Particle Structure of the Pygmy Dipole Resonance in $^{208}$Pb**
M. Spieker, A. Heusler, B.A. Brown, T. Faestermann, R. Hertenberger, G. Potel, M. Scheck, N. Tsoneva, M. Weinert, H.-F. Wirth, A. Zilges
Physical Review Letters **125**, 102503 (2020)

2020 **Collective 2p-2h intruder states in $^{118}$Sn studied via $\beta$ decay of $^{118}$In using the GRIFFIN spectrometer at TRIUMF**
K. Ortner, C. Andreoiu, M. Spieker, G.C. Ball, N. Bernier, H. Bidaman, V. Bildstein, M. Bowry, D.S. Cross, M.R. Dunlop, R. Dunlop, F.H. Garcia, A.B. Garnsworthy, P.E. Garrett, J. Henderson, B. Olaizola, J. Park, C.M. Petrache, J.L. Pore, K. Raymond, J.K. Smith, D. Southall, C.E. Svensson, M. Ticu, J. Turko, K. Whitmore, T. Zidar
Physical Review C **102**, 024323 (2020)

2019 **Experimental identification of the $T = 1, J^\pi = 6^+$ state of $^{54}$Co and isospin symmetry in $A = 54$ studied via one-nucleon knockout reactions**
M. Spieker, D. Weisshaar, A. Gade, B.A. Brown, P. Adrich, D. Bazin, M.A. Bentley, J.R. Brown, C.M. Campbell, C.Aa. Diget, B. Elman, T. Glasmacher, M. Hill, B. Longfellow, B. Pritychenko, A. Ratkiewicz, D. Rhodes, J.A. Tostevin
Physical Review C **100**, 061303(R) (2019)

2019 **Fine structure of the pygmy quadrupole resonance in $^{112,114}$Sn**
N. Tsoneva, M. Spieker, H. Lenske, A. Zilges
Nuclear Physics A **990**, 183 (2019)

2019 **One-proton and one-neutron knockout reactions from $^{56}$Ni to the $A = 55$ mirror pair $^{55}$Co and $^{55}$Ni**
M. Spieker, A. Gade, D. Weisshaar, B.A. Brown, J.A. Tostevin, B. Longfellow, P. Adrich, D. Bazin, M.A. Bentley, J.R. Brown, C.M. Campbell, C.Aa. Diget, B. Elman, T. Glasmacher, M. Hill, B. Pritychenko, A. Ratkiewicz, D. Rhodes
Physical Review C **99**, 051304(R) (2019)

2019 **Collectivity of the 2p-2h proton intruder band of $^{116}$Sn**
C.M. Petrache, J.-M. Régis, C. Andreoiu, M. Spieker, C. Michelagnoli, P.E. Garrett, A. Astier, E. Dupont, F. Garcia, S. Guo, G. Häfner, J. Jolie, F. Kandzia, V. Karayonchev, Y.-H. Kim, L. Knafla, U. Köster, B.F. Lv, N. Marginean, C. Mihai, P. Mutti, K. Ortner, C. Porzio, S. Prill, N. Saed-Samii, W. Urban, J.R. Vanhoy, K. Whitmore, J. Wisniewski, S.W. Yates
Physical Review C **99**, 024303 (2019)

2018 **High-resolution study of low-spin states in $^{240}$Pu: Octupole excitations, $\alpha$ clustering, and other structure features**
M. Spieker, S. Pascu, D. Bucurescu, T.M. Shneidman, T. Faestermann, R. Hertenberger, H.-F. Wirth, N.-V. Zamfir, A. Zilges
Physical Review C **97**, 064319 (2018), Editor's Suggestion

2018 **Shape coexisistence and collective low-spin states in $^{112,114}$Sn studied with the $(p, p'\gamma)$ DSA coincidence technique**
M. Spieker, P. Petkov, E. Litvinova, C. Müller-Gatermann, S.G. Pickstone, S. Prill, P. Scholz, A. Zilges
Physical Review C **97**, 054319 (2018)

2016 **The pygmy quadrupole resonance and neutron-skin modes in $^{124}$Sn**
M. Spieker, N. Tsoneva, V. Derya, J. Endres, D. Savran, M.N. Harakeh, S. Harissopulos, R.-D. Herzberg, A. Lagoyannis, H. Lenske, N. Pietralla, L. Popescu, M. Scheck, F. Schlüter, K. Sonnabend, V.I. Stoica, H.J. Wörtche, A. Zilges
Physics Letters B **752**, 102 (2016)

2015 **Origin of Low-Lying $E1$ Enhanced Strength in Rare-Earth Nuclei**
M. Spieker, S. Pascu, A. Zilges, F. Iachello
Physical Review Letters **114**, 192504 (2015)

2014 **Mixed-symmetry octupole and hexadecapole excitations in the $N = 52$ isotones**
A. Hennig, M. Spieker, V. Werner, T. Ahn, V. Anagnostatou, N. Cooper, V. Derya, M. Elvers, J. Endres, P. Goddard, A. Heinz, R.O. Hughes, G. Ilie, M.N. Mineva, P. Petkov, S.G. Pickstone, N. Pietralla, D. Radeck, T.J. Ross, D. Savran, A. Zilges
Physical Review C **90**, 051302(R) (2014)

2013 **Possible experimental signature of octupole correlations in the $0_2^+$ states of the actinides**
M. Spieker, D. Bucurescu, J. Endres, T. Faestermann, R. Hertenberger, S. Pascu, S. Skalacki, S. Weber, H.-F. Wirth, N.-V. Zamfir, A. Zilges
Physical Review C **88**, 041303(R) (2013)

(2) Peer-reviewed publications; not including conference proceedings

2024 **Measurement of $g_{9/2}$ strength in the stretched $8^-$ state and other negative parity states via the $^{51}$V$(d, p)^{52}$V reaction**
I. C. S. Hay, P. D. Cottle, L. A. Riley, L.T. Baby, S. Baker, A. L. Conley, J. Esparza, K. Hanselman, M. Heinze, D. Houlihan, B. Kelly, K. W. Kemper, G. W. McCann, R. Renom, A. Sandrik, D. Simms, M. Spieker, and I. Wiedenhöver
Physical Review C **109**, 024302 (2024)

2023 **$g_{9/2}$ neutron strength in the $N = 29$ isotones and the $^{52}$Cr$(d, p)^{53}$Cr reaction**
L. A. Riley, D. T. Simms, L. T. Baby, A. L. Conley, P. D. Cottle, J. Esparza, K. Hanselman,

I. C. S. Hay, M. Heinze, B. Kelly, K. W. Kemper, G. W. McCann, R. Renom, M. Spieker, and I. Wiedenhöver
Physical Review C **108**, 044306 (2023)

2023 **Photo-response of the $N = Z$ nucleus $^{24}$Mg**
Deary, J., Scheck, M., Schwengner, R., O'Donnell, D., Bemmerer, D., Beyer, R., Hensel, Th., Junghans, A. R., Kögler, T., Müller, S. E., Römer, K., Schmidt, K., Turkat, S., Urlaß, S., Wagner, A., Bowry, M., Adsley, P., Agar, O., Chapman, R., Crespi, F. C. L., Doherty, D. T., Gayer, U. Friman, Herzberg, R.-D., Isaak, J., Janssens, R. V. F., Kröll, T., Löher, B., Nara Singh, B. S., von Neumann-Cosel, P., Pellegri, L., Peters, E. E., Rainovski, G., Savran, D., Smith, J. F., Spieker, M., Thirolf, P. G., Triambak, S., Tornow, W., Venhart, M., Wiedeking, M., Wieland, O., Yates, S. W., Zilges, A.
The European Physical Journal A **59**, 198 (2023)

2023 **Production and discovery of neutron-rich isotopes by fragmentation of $^{198}$Pt**
Haak, K., Tarasov, O. B., Chowdhury, P., Rogers, A. M., Sharma, K., Baumann, T., Bazin, D., Bender, P. C., Chen, J., Estrade, A., Famiano, M. A., Foulds-Holt, D. C., Fukuda, N., Gade, A., Ginter, T. N., Gohier, R. W., Hausmann, M., Hill, A. M., Hoff, D. E. M., Klankowski, L., Kwan, E., Li, J., Liddick, S. N., Longfellow, B., Lyons, S., Morse, C., Portillo, M., Rhodes, D., Richard, A. L., Samaranayake, S., Sherrill, B. M., Smith, M. K., Spieker, M., Sumithrarachchi, C. S., Suzuki, H., Wang, K., Waniganeththi, S., Weisshaar, D., Zhu, S.
Physical Review C **108**, 034608 (2023)

2023 **Decay spectroscopy of $^{160}$Eu: Quasiparticle configurations of excited states and structure of $K^\pi = 4^+$ bandheads in $^{160}$Gd**
D. Yates, R. Krücken, I. Dillmann, P.E. Garrett, B. Olaizola, V. Vedia, F.A. Ali, C. Andreoiu, W. Ashfield, G.C. Ball, Z. Beadle, N. Bernier, S.S. Bhattacharjee, H. Bidaman, V. Bildstein, D. Bishop, M. Bowry, C. Burbadge, R. Caballero-Folch, D.Z. Chaney, D.C. Cross, A. Diaz Varela, M.R. Dunlop, R. Dunlop, L.J. Evitts, F.H. Garcia, A.B. Garnsworthy, S. Georges, S.A. Gillespie, G. Hackman, J. Henderson, B. Jigmeddorj, J. Lassen, R. Li, B.K. Luna, A.D. MacLean, C.R. Natzke, C.M. Petrache, A.J. Radich, M.M. Rajabali, P.H. Regan, Y. Saito, J. Smallcombe, J.K. Smith, M. Spieker, C.E. Svensson, A. Teigelhöfer, K. Whitmore, T. Zidar
Physiscal Review C **107**, 064309 (2023)

2023 **Relative population of states in $^{21}$Mg from few-nucleon removal reactions**
B. Longfellow, A. Gade, D. Bazin, P. C. Bender, M. Bowry, B. A. Brown, B. Elman, E. Lunderberg, D. Rhodes, M. Spieker, D. Weisshaar, S. J. Williams
Physical Review C **107**, 014620 (2023)

2023 **Large collectivity in $^{29}$Ne at the boundary of the island of inversion**
A. Revel, J. Wu, H. Iwasaki, J. Ash, D. Bazin, B.A. Brown, J. Chen, R. Elder, P. Farris, A. Gade, M. Grinder, N. Kobayashi, J. Li, B. Longfellow, T. Mijatovi, J. Pereira, A. Poves, A. Sanchez, N. Shimizu, M. Spieker, Y. Utsuno, D. Weisshaar
Physics Letters B **838**, 137704 (2023)

2022 **$^{54}$Fe$(d,p)^{55}$Fe and the evolution of single neutron energies in the $N = 29$ isotones**
L. A. Riley, I. C. S. Hay, L. T. Baby, A. L. Conley, P. D. Cottle, J. Esparza, K. Hanselman, B. Kelly, K. W. Kemper, K. T. Macon, G. W. McCann, M. W. Quirin, R. Renom, R. L. Saunders, M. Spieker, I. Wiedenhöver
Phys. Rev. C **106**, 064308 (2022)

2022 **Proton decay spectroscopy of $^{28}$S and $^{30}$Cl**
S.A. Gillespie, K.W. Brown, R.J. Charity, L.G. Sobotka, A.K. Anthony, J. Barney, A. Bonaccorso, B.A. Brown, J. Crosby D. Dell'Aquila, J. Elson, J. Estee, A. Gade, M. Ghazali, G. Jhang, Y. Jin, B. Longfellow, W.G. Lynch, J. Pereira, M. Spieker, S. Sweany, F.C.E. Teh, A. Thomas, M.B. Tsang, C.Y. Tsang, D. Weisshaar, H.Y. Wu, K. Zhu
Physical Review C **105**, 044321 (2022)

2022 **Lifetime analysis of $^{128,130}$Te via the Doppler-shift attenuation method**
S. Prill, A. Bohn, V. Everwyn, G. Häfner, F. Heim, M. Spieker, M. Weinert, J. Wilhelmy, A. Zilges
Physical Review C **105**, 034319 (2022)

2021 **In-beam $\gamma$-ray spectroscopy of $^{37-42}$P**
A.M. Hill, A. Gade, D. Bazin, B.A. Brown, B. Elman, P. Farris, J. Li, B. Longfellow, J. Pereira, A. Revel, D. Rhodes, M. Spieker, D. Weisshaar
Physical Review C **104**, 014305 (2021)

2021 **Low-energy excitations and $\gamma$-decay branchings in $^{124}$Sn via $(p, p'\gamma)$ at $E_p = 15$ MeV**
M. Färber, M. Weinert, M. Müscher, M. Spieker, J. Wilhelmy, A. Zilges
The European Physical Journal A **57**, 191 (2021)

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