Curriculum vitae of Dr. rer. nat. Konrad Schmidt

April 8, 2024

Personal information

Dr. Konrad Schmidt

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Gender: Male Date of birth: October 9, 1984 Nationality: German

PROFESSIONAL AFFILIATIONS

- HZDR (Helmholtz-Zentrum Dresden-Rossendorf)
- Institute of Radiation Physics at HZDR
- Division of Nuclear Physics at HZDR
- ChETEC-INFRA (Chemical Elements as Tracers of the Evolution of the Cosmos – Infrastructures for Nuclear Astrophysics) Horizon 2020 Starting Community
- ChETEC (Chemical Elements as Tracers of the Evolution of the Cosmos) COST Action
- JINA-CEE (Joint Institute for Nuclear Astrophysics - Center for the Evolution of the Elements) US National Science Foundation Physics Frontiers Center
- IReNA (International Research Network for Nuclear Astrophysics) US National Science Foundation AccelNet (Accelerating Research through International Network-to-Network Collaborations) Network of Networks
- R^3B (Reactions with Relativistic Radioactive Beams) collaboration
- JENSA (Jet Experiments in Nuclear Structure and Astrophysics) collaboration
- SECAR (Separator for Capture Reactions) collaboration

RESEARCH INTERESTS

Experimental nuclear astrophysics

- Astrophysically important nuclear capture reactions, especially reactions in
  - Big Bang nucleosynthesis and in p-p-chain hydrogen burning, as ^{3}He$(\alpha,\gamma)^7$Be
  - the α-rich freeze out, as ^{44}Ti production and destruction
- Nuclear reactions in processes powering type I X-ray bursts, as reactions in
  - the αp-process
  - the rapid-proton-capture process (rp-process)
- Proton-induced reactions and their applications in experimental astrophysics
- In-beam γ-ray spectroscopy, in laboratories on surface and underground
- Advantages of γ-ray counting in low-background environments
- Charged particle spectroscopy with Si detectors and detector arrays
- Neutron detection with proportional long-counters, as HabaNERO
- Development and support of experimental equipment, i. e.
  - at the shallow-underground accelerator laboratory Dresden Felsenkeller:
    - external and internal ion sources, 5 MV Pelletron accelerator and beam lines
    - combined gas-target setup (wall jet and extended static)
    - ultra-low-background activity counting detector setup
  - the Jet Experiments in Nuclear Structure and Astrophysics (JENSA) gas-jet target
  - the Separator for Capture Reactions (SECAR)
- Capabilities of AMS for astrophysical studies
- Nuclear (geo) cosmo-chronology

open for new challenges and ideas

AWARDS, CALLS AND PRIZES

April 2020 – March 2023 [7]

Fellowship

HZDR-High-Potential program
Helmholtz-Zentrum Dresden-Rossendorf, Germany

January 2020 [6]

Call for a temporary W1 professorship (without tenure)

Johann Wolfgang Goethe-Universität Frankfurt am Main, Germany
Rejection

July 2019 [5]

Travel award

Technische Universität Dresden, Excellence Initiative, Graduate Academy
TU Dresden, Germany

July 2015 – July 2018 [4]

Fellowship

JINA-CEE postdoctoral fellow
Joint Institute for Nuclear Astrophysics Center for the Evolution of the Elements, USA

July 2014 [3]

Best poster prize

European Physical Society
Nuclei in the Cosmos 2014 (NIC-XIII), Debrecen, Hungary

June – September 2014 [2]

Completion grant for doctoral candidates at TU Dresden

Technische Universität Dresden, Excellence Initiative, Graduate Academy
TU Dresden, Germany

April 2011 [1]

Best working group

Astrophysical Nuclear Reaction Network School
Abbey of Frauenwörth, Lake Chiemsee, Bavaria, Germany

EMPLOYMENT

April 2020 – Present

Staff scientist (HZDR-High-Potential fellow)

Experimental nuclear astrophysics
Helmholtz-Zentrum Dresden-Rossendorf, Germany
Division of Nuclear Physics

September 2018 – March 2020

Postdoctoral research associate (supported by DFG)

Development and support of experimental equipment for the shallow-underground accelerator laboratory Dresden Felsenkeller
Institute of Nuclear and Particle Physics, TU Dresden, Germany
Group of Prof. Dr. Kai Zuber

July 2015 – July 2018

Postdoctoral research associate (JINA-CEE postdoctoral fellow)

Development and support of the JENSA gas jet target
Joint Institute for Nuclear Astrophysics Center for the Evolution of the Elements (JINA-CEE), National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, USA
Group of Prof. Dr. Hendrik Schatz

June 2014 – July 2015

Graduate research assistant (supported by TUD Graduate Academy)

Low-background activity determination above and below ground
Helmholtz-Zentrum Dresden-Rossendorf, Germany
Group of PD Dr. Daniel Bemmerer

April 2011 – May 2014

Graduate research assistant (supported by DFG)

Experimental study of the ^{40}Ca$(\alpha,\gamma)^{44}$Ti reaction by activation and in-beam γ-spectroscopy
Helmholtz-Zentrum Dresden-Rossendorf, Germany

Group of PD Dr. Daniel Bemmerer

February 2010 – February 2011

Diploma research student

Experiments on the origin of ^{44}Ti in supernovae
Helmholtz-Zentrum Dresden-Rossendorf, Germany

Group of Dr. Daniel Bemmerer

June 2009 – January 2010

Student assistant

Characterization and calibration of weak ^{44}Ti sources
Helmholtz-Zentrum Dresden-Rossendorf, Germany

Group of Dr. Daniel Bemmerer

EDUCATION AND QUALIFICATION

October 2020

Radiation protection specialist

Karlsruhe Institute of Technology, Germany

Radiation protection on accelerators - complete course for operation and construction (course modules GH (GG), OH (OG, UH, FA) and BH (BG) for German Fachkundegruppen S1.1, S1.2, S1.3, S2.1, S2.2, S2.3, S4.1, S4.2, S4.2, S5, S6.1, S6.2, S6.3, S6.4)

June 2015

PhD in physics (Dr. rer. nat.) with distinction (summa cum laude)

TU Dresden, Germany

Thesis: Experimental study of the ^{40}Ca$(\alpha,\gamma)^{44}$Ti reaction by activation and in-beam γ spectroscopy
Supervisors: Prof. Dr. Kai. Zuber, PD Dr. Daniel Bemmerer

March 2011

Diploma in physics (Diplom-Physiker)

TU Dresden, Germany

Thesis: Experiments on the origin of ^{44}Ti in supernovae
Supervisors: Prof. Dr. Kai. Zuber, Dr. Daniel Bemmerer

TEACHING

April 2024 – July 2024

Seminar facilitator

Introductory seminar course on *State-of-the-art research in nuclear astrophysics* for second-year students in English language
TU Dresden, Germany

April 2022 – July 2022

Lecturer

Weekly lecture series on *Nuclear Astrophysics* (jointly with Prof. Dr. K. Zuber)
TU Dresden, Germany

April 2021 – July 2021

Lecturer

Weekly lecture series on *Nuclear Astrophysics* (jointly with Prof. Dr. K. Zuber)
TU Dresden, Germany

April 2020 – July 2020

Lecturer

Weekly lecture series on *Nuclear Astrophysics* (jointly with Prof. Dr. K. Zuber)
TU Dresden, Germany

April 2020 – July 2020

Supervisor

Supervising second-year students in giving a scientific talk in English language within the introductory seminar course on *Experimental Nuclear and Particle Physics*
TU Dresden, Germany

October 2019 – February 2020

Seminar facilitator

Introductory seminar course on *Experimental Nuclear and Particle Physics* for second-year students in English language
TU Dresden, Germany

October 2019 – February 2020

Seminar facilitator

Specialisation seminar course on *Recent findings in nuclear astrophysics and beyond* for third-year students in English language
TU Dresden, Germany

October 2019 – February 2020

Supervisor

Supervision of third-year students in the laboratory course on *Transmission of Thermal Neutrons*
TU Dresden, Germany

April – July 2019

Lecturer

Weekly lecture series on *Nuclear Astrophysics* (jointly with Prof. Dr. K. Zuber)
TU Dresden, Germany

April – July 2019

Exercise instructor

Teaching seminar of the weekly lecture series on *Nuclear Astrophysics*
TU Dresden, Germany

April – July 2019

Exercise instructor

Teaching seminar of the weekly lecture on *Modern Cosmology* by Prof. Dr. B. Kämpfer and PD Dr. D. Bemmerer
TU Dresden, Germany

April – July 2019

Seminar facilitator

Introductory seminar course on *Experimental Nuclear and Particle Physics for* for second-year students in English language
TU Dresden, Germany

April – July 2019

Supervisor

Supervision of third-year students in the laboratory course on *Transmission of Thermal Neutrons*
TU Dresden, Germany

March 2019

Lecturer

16th Russbach School on Nuclear Astrophysics
Russbach, Austria

October 2018 – February 2019

Supervisor

Supervision of third-year students in the laboratory course on *Transmission of Thermal Neutrons*
TU Dresden, Germany

March 2018

Lecturer

15th Russbach School on Nuclear Astrophysics
Russbach, Austria

April – July 2013

Supervisor

Supervision of second-year students in the laboratory course on *Activity Determination*
TU Dresden, Germany

April – July 2012

Exercise instructor

Teaching seminar of the weekly lecture on *Astroparticle Physics and Cosmology* by Prof. Dr. B. Kämpfer and PD Dr. D. Bemmerer
TU Dresden, Germany

April – July 2011

Exercise instructor

Teaching seminar of the lecture on *Astroparticle Physics and Cosmology* by Prof. Dr. B. Kämpfer and Dr. D. Bemmerer
TU Dresden, Germany

October 2007 – February 2008

Exercise instructor

Teaching seminar of the weekly lecture series on *Mathematics I (Transport Engineering)* for first-year students by Prof. Dr. M. Ludwig
TU Dresden, Germany

ADVISEES

Supervisor and second examiner

2024 [16] Bruno Klähn, TU Dresden, Germany. *Bachelor thesis*: Application of the ^{27}Al$(p,\gamma)^{28}$Si reaction for the detection efficiency calibration of gamma detectors. *First examiner*: Prof. Dr. D. Bemmerer.

2024 [15] Sebastian Werner, TU Dresden, Germany. *Bachelor thesis*: Investigation of the ^{13}C$(p,\gamma)^{14}$N reaction by in-beam γ-spectroscopy. *First examiner*: Prof. Dr. D. Bemmerer.

Co-supervisor

2023 [14] Sören Göhler, TU Dresden, Germany. *Bachelor thesis*: Target thickness determination of the Felsenkeller gas-jet target. *Primary supervisors*: Prof. Dr. D. Bemmerer, Prof. Dr. K. Zuber.

2023 [13] Bruno Poser, TU Dresden, Germany. *Bachelor thesis*: Production and characterization of a ^{16}O-beam for nuclear astrophysics at Felsenkeller. *Primary supervisors*: Prof. Dr. D. Bemmerer, Prof. Dr. K. Zuber.

2023 [12] Sebastian Frischmann, TU Dresden, Germany. *Bachelor thesis*: Activity determination of weak ^{44}Ti samples for astrophysics. *Primary supervisors*: Prof. Dr. D. Bemmerer, Prof. Dr. K. Zuber.

2022 [11] Simon Thilo Vincent, TU Dresden, Germany. *Bachelor thesis*: In-beam experiments at Felsenkeller for cosmic lithium-7 production. *Primary supervisors*: Prof. Dr. D. Bemmerer, Prof. Dr. K. Zuber

2022 [10] Fabia Dietrich, TU Dresden, Germany. *Bachelor thesis*: γ angular distribution of the ^{3}He$(\alpha,\gamma)^{7}$Be reaction at 0.8 MeV center of mass energy. *Primary supervisors*: Prof. Dr. K. Zuber, PD Dr. D. Bemmerer

2021 [9] Jannis Michaelis, TU Dresden, Germany. *Bachelor thesis*: In-beam γ spectroscopic study of the ^{3}He$(\alpha,\gamma)^{7}$Be reaction. *Primary supervisors*: Prof. Dr. K. Zuber, PD Dr. D. Bemmerer

2020 [8] Max Osswald, TU Dresden, Germany. *Bachelor thesis*: Test and calibration of high purity germanium detectors for the ^{3}He$(\alpha,\gamma)^{7}$Be reaction at Felsenkeller. *Primary supervisors*: Prof. Dr. K. Zuber, PD Dr. D. Bemmerer

2020 [7] Till Lossin, TU Dresden, Germany. *Bachelor thesis*: Commissioning and ^{4}He characterization of the terminal ion source at the Felsenkeller accelerator. *Primary supervisors*: Prof. Dr. K. Zuber, PD Dr. D. Bemmerer

2020 [6] Jonas Koch, TU Dresden, Germany. *Bachelor thesis*: Background and test of offline-counting gamma-ray detectors at Felsenkeller. *Primary supervisors*: Prof. Dr. K. Zuber, PD Dr. D. Bemmerer

2018 – Present [5] Steffen Turkat, TU Dresden, Germany. *PhD thesis (working title)*: Measurement of the ^{3}He$(\alpha,\gamma)^{7}$Be reaction for Big Bang nucleosynthesis. *Primary supervisors*: Prof. Dr. K. Zuber, PD Dr. D. Bemmerer

2015 – 2018 [4] Justin Browne, Michigan State University, USA. *PhD thesis*: Measurement of ^{34}Ar$(\alpha,\mathrm{p})^{37}$K using the JENSA gas jet target. *Primary supervisor*: Prof. Dr. H. Schatz

2012 – 2013 [3] Louis Wagner, TU Dresden, Germany. *Diplom thesis*: ^{14}N$(p,\gamma)^{15}$O reaction at HZDR Tandetron. *Primary supervisors*: Prof. Dr. K. Zuber, PD Dr. D. Bemmerer

2012 [2] Mirco Dietz, TU Dresden, Germany. *Bachelor thesis*: Preparation of a ^{44}Ti sample to study α-induced nucleosynthesis in supernovae. *Primary supervisors*: Prof. Dr. K. Zuber, Dr. D. Bemmerer

2011 – 2012 [1] Marie-Luise Menzel, TU Dresden, Germany. *Diplom thesis*: ^{22}Ne$(p,\gamma)^{23}$Na reaction at LUNA. *Primary supervisors*: Prof. Dr. K. Zuber, Dr. D. Bemmerer

PUBLICATIONS

Publications in peer-reviewed journals

Metrics 1 in Nature 5 in PRL 2 in ApP 16 in PRC 6 in EPJ A

[53] W. W. von Seeger, P. A. DeYoung, A. Spyrou, S. Karampagia, E. F. Brown, J. Browne, S. Ahn, K. Childers, B. P. Crider, A. C. Dombos, G. W. Hitt, C. Langer, S. N. Liddick, S. Lyons, Z. Meisel, F. Montes, F. Naqvi, W.-J. Ong, C. F. Persch, J. Pereira, C. Prokop, D. Richman, H. Schatz, and **K. Schmidt**. β-decay feeding intensity distribution of ^{64}Mn. Physical Review C **109**, 044312 (Apr 2024).

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

[51] J. Skowronski, E. Masha, D. Piatti, M. Aliotta, H. Babu, D. Bemmerer, A. Boeltzig, R. Depalo, A. Caciolli, F. Cavanna, L. Csedreki, Z. Fülöp, G. Imbriani, D. Rapagnani, S. Rümmler, **K. Schmidt**, R. S. Sidhu, T. Szücs, S. Turkat, and A. Yadav. Improved S factor of the ^{12}C(p,γ)^{13}N reaction at $E = 320\tilde{}620$ keV and the 422 keV resonance. Physical Review C **107**, L062801 (Jun 2023).

[50] J. Browne, K. A. Chipps, **K. Schmidt**, H. Schatz, S. Ahn, S. D. Pain, F. Montes, W.-J. Ong, U. Greife, J. Allen, D. W. Bardayan, J. C. Blackmon, D. Blankstein, S. Cha, K. Y. Chae, M. Febbraro, M. R. Hall, K. L. Jones, A. Kontos, Z. Meisel, P. D. O'Malley, K. T. Schmitt, K. Smith, M. S. Smith, P. Thompson, R. Toomey, M. Vostinar, and D. Walter. First direct measurement constraining the ^{34}Ar$(\alpha,$p$)^{37}$K reaction cross section for mixed hydrogen and helium burning in accreting neutron stars. Physical Review Letters **130**, 212701 (May 2023).

[49] S. Turkat, D. Bemmerer, A. Boeltzig, A. R. Domula, J. Koch, T. Lossin, M. Osswald, **K. Schmidt**, K. Zuber. A new ultra low-level HPGe activity counting setup in the Felsenkeller shallow-underground laboratory. Astroparticle Physics **148**, 102816 (Jun 2023).

[48] M. Heil, A. Kelić-Heil, L. Bott, T. Almusidi, H. Alvarez-Pol, L. Atar, L. Atkins, T. Aumann, J. Benlliure, K. Boretzky, B. Brückner, P. Cabanelas, C. Caesar, E. Casarejos, J. Cederkall, L. Chulkov, A. Corsi, J. Dueñas, P. Erbacher, S. Escribano Rodriguez, A. Falduto, M. Feijoo, A. Frotscher, J. Frühauf, I. Gašparić, M. J. G. Borge, J. Gerbig, R. Gernhäuser, M. Gilbert, J. Glorius, B. Gnoffo, K. Göbel, D. Gonzalez Caamaño, A. Grein, A.-L. Hartig, H. Heggen, M. Heine, A. Heinz, M. Holl, I. Homm, A. Horvat, H. T. Johansson, B. Jonson, N. Kalantar-Nayestanaki, A. Kamenyero, A. Khodaparast, O. Kiselev, P. Klenze, M. Knösel, K. Koch, D. Körper, T. Kröll, D. Kurtulgil, N. Kurz, B. Löher, C. Langer, C. Lehr, Y. Litvinov, H. Liu, S. Murillo Morales, E. Nácher, T. Nilsson, J. Park, S. Paschalis, L. Pellegri, A. Perea, M. Petri, T. Pohl, L. Ponnath, R. Popočovski, R. Reifarth, H.-B. Rhee, J. L. Rodriguez Sanchez, D. Rossi, C. Sürder, A. M. Sánchez-Benítez, D. Savran, H. Scheit, H. Simon, Z. Slavkovská, S. Storck-Dutine, Y. Sun, H. T. Törnqvist, J. Tanaka, O. Tengblad, B. Thomas, L. Varga, M. Volknandt, V. Wagner, F. Wamers, L. Zanetti, M. Aliotta, G. Alkhazov, T. Almusidi, H. Alvarez-Pol, P. André, M. Assié, L. Atar, L. Atkins, L. Audouin, T. Aumann, G. Authelet, Y. Ayyad, M. Bajzek, A. Barriere, S. Beceiro-Novo, S. Belogurov, D. Bemmerer, J. Benlliure, C. Bertulani, A. Bezbakh, G. Blanchon, C. G. Boos, K. Boretzky, M. J. Borge, I. Borzov, L. Bott, B. Brückner, P. Cabanelas Eiras, C. Caesar, S. Calinescu, E. Casarejos, W. Catford, J. Cederkall, A. Chatillon, M. I. Cherciu, M. M. R. Chishti, L. Chulkov, A. Cirstian, A. Corsi, D. Cortina-Gil, E. Cravo, R. Crespo, A. Danilov, G. de Angelis, E. De Filippo, A. Diaz-Torres, T. Dickel, A. Dobrovolsky, P. Doornenbal, M. Duer, P. Egelhof, Z. Elekes, J. Enders, P. Erbacher, S. Escribano Rodriguez, C. Fahlander, A. Falduto, M. Feijoo, D. Fernandez Ruiz, A. Fomichev, Z. Fulop, D. Galaviz Redondo, E. Galiana, G. García, V. García Távora, I. Gasparic, Z. Ge, H. Geissel, E. Geraci, J. Gerl, R. Gernhäuser, A. Gillibert, J. Glorius, B. Gnoffo, K. Göbel, M. Golovkov, V. Golovtsov, P. Golubev, D. González Caamaño, A. Gorshkov, A. Graña González, A. Gridnev, N. Gruzinskii, V. Guimaraes, M. N. Harakeh, A.-L. Hartig, T. Heftrich, H. Heggen, M. Heil, A. Heinz, O. Hen, C. Henrich, A. Henriques, T. Hensel, M. Holl, I. Homm, A. Horvat, Á. Horváth, J.-P. Hucka, A. Inglessi, A. Jedele, D. Jelavic Malenica, T. Jenegger, L. Ji, H. Johansson, B. Jonson, B. Jurado, J. Kahlbow, N. Kalantar-Nayestanaki, A. Kamenyero, E. Kazantseva, A. Kelic-Heil, A. Khanzadeev, O. Kiselev, P. Klenze, A. Knyazev, K. Koch, M. Kogimtzis, K. Kokubun, G. Korolev, D. Körper, A. Korsheninnikov, W. Korten, N. Kozlenko, S. Krasilovskaja, D. Kresan, A. Krivshich, T. Kröll, S. Krupko, E. Kudaibergenova, D. Kunne Sohler, D. Kurtulgil, N. Kurz, E. Kuzmin, V. Kuznetsov, M. Labiche, A. Lagni, C. Langer, Z. Lányi, I. Lazarus, A. Le Fèvre, Y. Leifels, A. Lepine-Szily, M. Lewitowicz, I. Lihtar, B. Linh, Y. Litvinov, H. Liu, B. Löher, B. Lommel, E. Lorenz, J. Lukasik, A. Macchiavelli, E. Maev, C. Maillertet, D. Maisuzenko, A. Maj, N. S. Martorana, B. Mauss, C. Mayri, L. Milhomens da Fonseca, P. Morfouace, N. Mozumdar,

D. Mücher, S. Murillo Morales, E. Nacher, E. Nikolskii, T. Nilsson, C. Nociforo, F. Nolden, G. Nyman, A. Obertelli, E. V. Pagano, V. Panin, J. Park, S. Paschalis, J. Pei, A. Perea, M. Petri, E. Piasetzky, S. Pietri, S. Pirrone, G. Politi, E. Pollacco, L. Ponnath, P.-M. Potlog, R. Prajapat, R. Pritula, H. Qi, C. Rappold, R. Reifarth, A. Revel, H.-B. Rhee, F. Risitano, J. L. Rodriguez Sanchez, L. Rose, D. Rossi, M. Rudigier, P. Russotto, Á.-M. Sánchez-Benítez, S. Sanjari, C. Santamaria, V. Sarantsev, D. Savran, C. Scheidenberger, H. Scheit, **K. Schmidt**, H. Simon, J. Simon, Z. Slavkovská, R. Slepnev, O. Sorlin, T. Sousa, A. Spiridon, E. Stan, M. Stanoiu, A. Stefanescu, I. Stefanescu, S. Storck-Dutine, A. Stott, B. Sun, Y. Sun, C. Sürder, J. Taieb, J. Tanaka, I. Tanihata, R. Taniuchi, O. Tengblad, P. Terekhin, P. Teubig, H. Törnqvist, L. Trache, W. Trautmann, M. Trimarchi, S. Typel, T. Uesaka, C. Unsworth, L. Uvarov, M. Vandebrouck, L. Varga, S. Velardita, P. Velho, M. Vencelj, M. Volknandt, S. Volkov, M. von Tresckow, A. Wagner, F. Wamers, Y. Wang, M. Whitehead, F. Wienholtz, K. Wimmer, M. Winkler, M. Xarepe, Y. Ye, S. Zacarias, J.-C. Zamora Cardona, W. Zhang, A. Zhdanov, M. Zhukov, A. Zilges, and K. Zuber. A new Time-of-flight detector for the R^{3}B setup. The European Physical Journal A **58**, 248 (Dec 2022).

[47] S. Waniganeththi, D. E. M. Hoff, A. M. Rogers, C. J. Lister, P. C. Bender, K. Brandenburg, K. Childers, J. A. Clark, A. C. Dombos, E. R. Doucet, S. Jin, R. Lewis, S. N. Liddick, Z. Meisel , C. Morse, H. Schatz, **K. Schmidt**, D. Soltesz, and S. K. Subedi. Establishing the ground-state spin of 71Kr. Physical Review C **106**, 044317 (Oct 2022).

[46] S. Burcher, K. A. Chipps, R. O. Hughes, C. Reingold, A. Sasstamoinen, J. T. Harke, N. Cooper, S. Ahn, J. M. Allmond, H. Clark, J. A. Cizewski, M. R. Hall, J. Hooker, H. Jayatissa, K. L. Jones, S. Ota, S. D. Pain, **K. Schmidt**, A. Simon, and S. Upadhyayula. Developing the ^{32}S$(p,d)^{31}$S$^{\star}(p)$ reaction to probe the ^{30}P$(p,\gamma)^{31}$S reaction rate in classical novae. Physical Review C **105**, 045805 (Apr 2022).

[45] R. Schwengner, R. Massarczyk, **K. Schmidt**, K. Zuber, R. Beyer, D. Bemmerer, S. Hammer, A. Hartmann, T. Hensel, H. F. Hoffmann, A. R. Junghans ,T. Kögler, S. E. Müller, M. Pichotta, S. Turkat, J. A. B. Turko, S. Urlaß, and A. Wagner. Photoexcitation of ^{76}Ge. Physical Review C **105**, 024303 (Feb 2022).

[44] S. Hallam, G. Lotay, A. Gade, D. T. Doherty, J. Belarge, P. C. Bender, B. A. Brown, J. Browne, W. N. Catford, B. Elman, A. Estradé, M. R. Hall, B. Longfellow, E. Lunderberg, F. Montes, M. Moukaddam, P. O'Malley, W.-J. Ong, H. Schatz, D. Seweryniak, **K. Schmidt**, N. K. Timofeyuk, D. Weisshaar, and R. G. T. Zegers. Exploiting isospin symmetry to study the role of isomers in stellar environments. Physical Review Letters **126**, 042701 (Jan 2021).

[43] W.-J. Ong, E. F. Brown, J. Browne, S. Ahn, K. Childers, B. P. Crider, A. C. Dombos, S. S. Gupta, G. W. Hitt, C. Langer, R. Lewis, S. N. Liddick, S. Lyons, Z. Meisel, P. Möller, F. Montes, F. Naqvi, J. Pereira, C. Prokop, D. Richman, H. Schatz, **K. Schmidt**, and A. Spyrou. β-Decay of ^{61}V and its Role in Cooling Accreted Neutron Star Crusts. Physical Review Letters **125**, 262701 (Dec 2020).

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INVITED TALKS

April 2023 [22] "Chemical Elements as Tracers of the Evolution of the Cosmos – Infrastructures for Nuclear Astrophysics (ChETEC-INFRA) – Transnational Access"
Second Webinar of RICH Europe on Transnational and Virtual Access Opportunities (TA/VA) – Reasearch Infrastructures Consortium of National Contact Points (NCPs) in Horizon Europe
Online

March 2023 [21] "Update from NuPECC LRP 2024 TWG4 Nuclear Astrophysics"
2nd TWG-6 meeting – Thematical Working Group (TWG) 6: Research infrastructures and networking – Long Range Plan (LPR) 2024 – Nuclear Physics European Collaboration Committee (NuPECC)
Online

March 2023 [20] "Chemical Elements as Tracers of the Evolution of the Cosmos – Infrastructures for Nuclear Astrophysics (ChETEC-INFRA)"
2nd TWG-6 meeting – Thematical Working Group (TWG) 6: Research infrastructures and networking – Long Range Plan (LPR) 2024 – Nuclear Physics European Collaboration Committee (NuPECC)
Online

March 2023	[19]	“Recent progress and new developments in nuclear astrophysics” Laser particle accelerators, their applications, and possibilities of experiments in the ELI infrastructure Vilnius, Lithuania
May 2021	[18]	“TA Provision within ChETEC-INFRA” ChETEC-INFRA Midterm Review Brussels, Belgium
May 2022	[17]	“WP 7 Highlights – "Nuclear Astrophysics Scientific Schools” ChETEC-INFRA 2nd General Assembly Padua, Italy
November 2021	[16]	“Physics of the Sun” MML-Workshop 2021 Helmholtz research program "From Matter to Materials and Life" Online
May 2021	[15]	“SNAQs Schools on Nuclear Astrophysics Questions” ChETEC-INFRA Kick-off Meeting Online
May 2021	[14]	“Task 7.3 Nuclear, Astronomy, and Astrophysics Conference Outreach” ChETEC-INFRA Kick-off Meeting Online
May 2021	[13]	“Task 7.2 Nuclear Astrophysics Scientific Schools” ChETEC-INFRA Kick-off Meeting Online
May 2021	[12]	“TNA HZDR Felsenkeller underground ion beam, Germany” ChETEC-INFRA Kick-off Meeting Online
May 2021	[11]	“ChETEC-INFRA Transnational Access scheme: Overview” ChETEC-INFRA Kick-off Meeting Online
September 2020	[10]	“Working-Group-4 Knowledge Hubs on ChETEC website” ChETEC Period 4 Main Event Online
March 2019	[9]	“Nuclear astrophysics with gas targets” Spring Meeting of the German Physical Society Technische Universität München, Germany
March 2019	[8]	“X-ray bursts in the laboratory” 16th Russbach School on Nuclear Astrophysics Russbach, Austria
January 2019	[7]	“The JENSA windowless gas-jet target” Workshop on Gas-filled Detectors and Systems (GDS): Rare-gas target handling and recycling systems Institut de Physique Nucléaire (IPN), Orsay, France
October 2018	[6]	“X-ray bursts and the JENSA gas-jet target” IKTP Institute seminar Institute of Nuclear and Particle Physics, TU Dresden, Germany
September 2018	[5]	“X-ray burst reaction studies with the JENSA gas-jet target” Nuclear physics in stellar explosions Workshop ’18 MTA Atomki, Debrecen, Hungary
May 2018	[4]	“Gas-jet targets for nuclear astrophysics” 5th International Solar Neutrino Conference TU Dresden, Germany
March 2018	[3]	“X-ray bursts in the laboratory” 15th Russbach School on Nuclear Astrophysics Russbach, Austria
February 2014	[2]	“Nuclear (Astro-) Physics at the Dresden Felsenkeller” XLV. Nuclear physics workshop in Schleching Schleching, Upper Bavaria, Germany
November 2013	[1]	“Study of the supernova reaction ^{40}Ca$(\alpha,\gamma)^{44}$Ti by activation at PTB and γ-counting in Felsenkeller Dresden” Physikalisch-Technische Bundesanstalt, Braunschweig, Germany

CONTRIBUTED TALKS

July 2019	[13]	27th International Nuclear Physics Conference (INPC 2019) Glasgow, United Kingdom
March 2018	[12]	Nuclear Astrophysics at Rings and Recoil Separators Workshop GSI Darmstadt, Germany
September 2017	[11]	9th European Summer School on Experimental Nuclear Astrophysics (Santa Tecla School 2017) Santa Tecla, Italy
June 2017	[10]	Workshop on Nuclear Astrophysics at the Dresden Felsenkeller Dresden, Germany
June 2017	[9]	8th Nuclear Physics in Astrophysics International conference (NPA8) Catania, Italy
October 2016	[8]	Fall Meeting of the APS Division of Nuclear Physics (DNP2016) Vancouver, BC, Canada
June 2013	[7]	25th International Nuclear Physics Conference (INPC 2013) Florence, Italy
April 2013	[6]	Workshop on "Open problems and future directions in heavy element nucleosynthesis" ATOMKI, Debrecen, Hungary
September 2012	[5]	VIII Tours Symposium on nuclear physics and astrophysics Lenzkirch-Saig, Black Forest, Germany
March 2012	[4]	Spring Meeting of the German Physical Society Johannes Gutenberg-Universität Mainz, Germany
February 2012	[3]	496. Wilhelm and Else Heraeus seminar: Astrophysics with modern small-scale accelerators Conference center “Physikzentrum Bad Honnef”, Germany
August 2011	[2]	2nd workshop on Exotic Radionuclides from Accelerator Waste for Science and Technology (ERAWAST II) Paul Scherrer Institute, Villigen, Switzerland
March 2011	[1]	Spring Meeting of the German Physical Society Westfälische Wilhelms-Universität, Münster, Germany

FURTHER SCIENTIFIC CONFERENCES AND SCHOOLS

March 2023	[22]	18th Russbach School on Nuclear Astrophysics 2023 Rußbach am Pass Gschütt, Austria Director; Talk: Closing Remarks
July 2019	[21]	Spring Meeting of the German Physical Society Technische Universität Dresden, Germany accepted contributed talk, hold by D. Bemmerer due to a schedule conflict
November 2022	[20]	CELLAR Community Meeting 2022 Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany Co-Organizer; Talk: Closing Remarks
August 2022	[19]	Nuclear Physics in Astrophysics X School 2022 CERN, Geneva, Switzerland Co-Organizer; Talk: Nuclear Astrophysics Schools
March 2022	[18]	17th Russbach School on Nuclear Astrophysics 2022 Rußbach am Pass Gschütt, Austria Director; Talk: Nuclear Astrophysics Schools; Talk: Closing Remarks
September 2020	[17]	ChETEC Final Action Meeting Hybrid: Online and Hotel Sana Malhoa, Lisbon, Portugal Discussion chair on knowledge hub and expertise database sustainability
August 2020	[16]	2020 Low Energy Community Meeting Online
November 2019	[15]	Lithium in the Universe: To Be or not to Be? Observatory of Rome, Italy Poster
November 2019	[14]	Workshop on ChETEC starting community for nuclear astrophysics Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany Co-organizer

September 2019	[13]	Nuclear Physics in Astrophysics IX Castle Waldthausen, Mainz/Frankfurt, Germany Poster
February 2019	[12]	Second scientific workshop of the program “From Matter to Materials and Life” (MML) in the Helmholtz Research Field “Matter” Dresden, Germany
August 2017	[11]	2017 Low Energy Community Meeting Argonne National Laboratory, United States
February 2017	[10]	JINA-CEE Frontiers in Nuclear Astrophysics Meeting 2017 Lansing, MI, United States Co-organizer
December 2016	[9]	Joint CNA/JINA-CEE Winter School on Nuclear Astrophysics Shanghai, China
June 2016	[8]	14th International Symposium on Nuclei in the Cosmos 2014 (NIC-XIV) Niigata, Japan Poster
March 2016	[7]	JINA-CEE Frontiers in Nuclear Astrophysics Meeting 2016 South Bend, IN, United States Poster
August 2015	[6]	2015 Low Energy Community Meeting East Lansing, MI, United States
August 2014	[5]	Fifteenth International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics (CGS15) Dresden, Germany Poster
July 2014	[4]	13th International Symposium on Nuclei in the Cosmos 2014 (NIC-XIII) Debrecen, Hungary Poster (awarded for the best poster)
April 2011	[3]	Astrophysical Nuclear Reaction Network School Abbey of Frauenwörth, Lake Chiemsee, Bavaria, Germany Awarded for the best working group
October 2010	[2]	10th Meeting Collaboration of European Low-level Underground Laboratories (CELLAR) TU Dresden, Dresden, Germany
April 2010	[1]	Felsenkeller workshop on underground nuclear-reaction experiments for astrophysics and applications Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany

APPROVED USER FACILITY PROPOSALS

2022 [8]

HZDR-ELBE-nELBE

Helmholtz-Zentrum Dresden-Rossendorf Scientific Selection Panel 2022/1
Measurement of the differential elastic neutron scattering on ^{14}N (22102835)

Proposer: Arnd Junghans, Co-proposer: Roland Beyer, Richard deBoer, René Reifarth, **Konrad Schmidt**, Michael Wiescher

2021 [7]

HZDR-ELBE-nELBE

Helmholtz-Zentrum Dresden-Rossendorf Scientific Selection Panel 2021/2
Measurement of the neutron total cross section on ^{14}N (21202637)

Proposer: Richard deBoer, Co-proposer: Roland Beyer, Arnd Junghans, René Reifarth, **Konrad Schmidt**

2021 [6]

HZDR-ELBE-γELBE

Helmholtz-Zentrum Dresden-Rossendorf Scientific Selection Panel 2021/1
Search for low-spin states in ^{76}Ge at $pc = 8.5$ MeV (21102259)

Proposer: Ronald Schwengner, Co-proposer: **Konrad Schmidt**, Kai Zuber

2020 [5] **HZDR-ELBE-γELBE**

Helmholtz-Zentrum Dresden-Rossendorf Scientific Selection Panel 2020/2
Search for low-spin states in ^{76}Ge at $pc = 11.0$ MeV (20202043)

Proposer: **Konrad Schmidt**, Co-proposer: Ronald Schwengner, Kai Zuber

2018 [4] **NSCL**

National Superconducting Cyclotron Laboratory, Program Advisory Committee 42
Measurement of the ^{56}Ni$(\alpha, p)^{59}$Cu reaction cross section (E18039)

Spokesperson: **Konrad Schmidt**, Backup Spokesperson: Kelly Chipps

2015 [3] **NSCL**

National Superconducting Cyclotron Laboratory, Program Advisory Committee 39
Measurement of the ^{34}Ar$(\alpha, p)^{37}$K reaction cross section (E15232)

Spokesperson: Kelly Chipps, Backup Spokesperson: **Konrad Schmidt**

2015 [2] **NSCL**

National Superconducting Cyclotron Laboratory
ReA3 stable beam time for JENSA (E13703)

Spokesperson: **Konrad Schmidt**, Backup Spokesperson: Kelly Chipps

2014 [1] **CENBG - Platform AIFIRA**

Centre Etudes Nucléaires de Bordeaux Gradignan - Applications Interdisciplinaires des Faisceaux d'Ions en Région Aquitaine
Activation measurement of the strength of the $E_\alpha = 2.758$ MeV resonance in the ^{40}Ca$(\alpha, \gamma)^{44}$Ti reaction

Spokesperson: Daniel Bemmerer, Backup Spokesperson: **Konrad Schmidt**

PROFESSIONAL SERVICE

May 2022 [22] Director (jointly with Sara Palmerini and Olivier Sorlin)
18th Russbach School on Nuclear Astrophysics 2023
Padua, Italy

February 2023 – Present [21] NuPECC LRP2024 TWG 6 Member
Nuclear Physics European Collaboration Committee (NuPECC) Long Range Plan (LRP) 2024
Infrastructures Thematic Working Group (TWG)

February 2023 – Present [20] NuPECC LRP2024 TWG 4 Member
Nuclear Physics European Collaboration Committee (NuPECC) Long Range Plan (LRP) 2024
Nuclear Astrophysics Thematic Working Group (TWG)

November 2022 [19] Co-organizer
CELLAR Community Meeting 2022
Dresden, Germany

May 2022 [18] International Scientific Committee Member
ChETEC-INFRA 2nd General Assembly
Padua, Italy

May 2022 [17] Director (jointly with Sara Palmerini and Olivier Sorlin)
17th Russbach School on Nuclear Astrophysics 2022
Padua, Italy

January 2022 – Present [16] Referee
The European Physical Journal A (EPJA)

May 2021 [15] Co-organizer
ChETEC-INFRA Kick-off Meeting
Online

May 2021 – Present [14] Coordinator
ChETEC-INFRA Trans-national Access (TA)

January 2021 – Present [13] Chair
ChETEC-INFRA Schools on Nuclear Astrophysics Questions (SNAQs)
online

November 2019	[12]	Co-organizer Workshop on ChETEC starting community for nuclear astrophysics Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany
April 2019 – March 2020	[11]	Alternate member of the Senate Commission for Teaching Academic Senate, TU Dresden
March 2019 - Present	[10]	Director Russbach School on Nuclear Astrophysics jointly with Olivier Sorlin, Shawn Bishop (until 2019) and Sara Palmerini (from 2021) Rußbach am Paß Gschütt, Austria
Jan. 2019 – Oct. 2021	[9]	Team leader ChETEC COST Action CA16117 Inter-sectoral team for bi-directional knowledge transfer
Jan. 2019 – Oct. 2021	[8]	Deputy working group leader ChETEC COST Action CA16117 Working group 4 (Tools, techniques, knowledge exchange and innovation)
Dec. 2018 – Mar. 2020	[7]	Member of university's school committee School of Science, TU Dresden
Dec. 2018 – Mar. 2020	[6]	Alternate member of the university's faculty council Faculty of Physics, TU Dresden
September 2018 – Present	[5]	Referee Italian Ministry of Education, Universities and Research (MIUR)
August 2018 – Present	[4]	Referee European Cooperation in Science and Technology (COST)
September 2016 – Present	[3]	Referee European Physical Journal, Web of Conferences
February 2017	[2]	Co-organizer JINA-CEE Frontiers in Nuclear Astrophysics Meeting 2017 East Lansing, MI, United States
April 2016	[1]	Voluntary judge Michigan Science Olympiad Michigan State University, East Lansing, MI, United States