

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
- R³B (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 ${}^3\text{He}(\alpha, \gamma){}^7\text{Be}$
 - the α -rich freeze out, as ${}^{44}\text{Ti}$ production and destruction
- Nuclear reactions in processes powering type I X-ray bursts, as reactions in
 - the α p-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 $^{40}\text{Ca}(\alpha, \gamma)^{44}\text{Ti}$ 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 $^{40}\text{Ca}(\alpha, \gamma)^{44}\text{Ti}$ 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 **Lecturer**
Weekly lecture series on *Nuclear Astrophysics* (jointly with Prof. Dr. D. Bemmerer)
TU Dresden, Germany

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 2023 – July 2023 **Lecturer**
Weekly lecture series on *Nuclear Astrophysics* (jointly with Prof. Dr. K. Zuber)
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 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 $^{27}\text{Al}(p,\gamma)^{28}\text{Si}$ 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 $^{13}\text{C}(p,\gamma)^{14}\text{N}$ 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 $^3\text{He}(\alpha,\gamma)^7\text{Be}$ 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 $^3\text{He}(\alpha,\gamma)^7\text{Be}$ 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 $^3\text{He}(\alpha,\gamma)^7\text{Be}$ reaction at Felsenkeller. *Primary supervisors*: Prof. Dr. K. Zuber, PD Dr. D. Bemmerer
- 2020 [7] Till Lossin, TU Dresden, Germany. *Bachelor thesis*: Commissioning and ^4He 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. <i>PhD thesis (working title)</i> : Measurement of the ${}^3\text{He}(\alpha, \gamma){}^7\text{Be}$ reaction for Big Bang nucleosynthesis. <i>Primary supervisors</i> : Prof. Dr. K. Zuber, PD Dr. D. Bemmerer
2015 – 2018	[4]	Justin Browne, Michigan State University, USA. <i>PhD thesis</i> : Measurement of ${}^{34}\text{Ar}(\alpha, p){}^{37}\text{K}$ using the JENSA gas jet target. <i>Primary supervisor</i> : Prof. Dr. H. Schatz
2012 – 2013	[3]	Louis Wagner, TU Dresden, Germany. <i>Diplom thesis</i> : ${}^{14}\text{N}(p, \gamma){}^{15}\text{O}$ reaction at HZDR Tandemtron. <i>Primary supervisors</i> : Prof. Dr. K. Zuber, PD Dr. D. Bemmerer
2012	[2]	Mirco Dietz, TU Dresden, Germany. <i>Bachelor thesis</i> : Preparation of a ${}^{44}\text{Ti}$ sample to study α -induced nucleosynthesis in supernovae. <i>Primary supervisors</i> : Prof. Dr. K. Zuber, Dr. D. Bemmerer
2011 – 2012	[1]	Marie-Luise Menzel, TU Dresden, Germany. <i>Diplom thesis</i> : ${}^{22}\text{Ne}(p, \gamma){}^{23}\text{Na}$ reaction at LUNA. <i>Primary supervisors</i> : Prof. Dr. K. Zuber, Dr. D. Bemmerer

PUBLICATIONS

Publications in peer-reviewed journals

Metrics	1 in Nature	5 in PRL	2 in ApP	17 in PRC	7 in EPJA
[54]	W.-J. Ong, H. Schatz, K. Kravvaris, S. Ahn, K. Childers, B. P. Crider, A. C. Dombos, C. Langer, R. Lewis, S. N. Liddick, S. Lyons, Z. Meisel, F. Montes, J. Pereira, D. Richman, K. Schmidt , and A. Spyrou. β -delayed neutron emission of ${}^{64}\text{Mn}$, ${}^{62}\text{Cr}$, and ${}^{65}\text{Fe}$. <i>Physical Review C</i> 110 , 024321 (Aug 2024).				
[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 ${}^{64}\text{Mn}$. <i>Physical Review C</i> 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. Pellegrì, 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 ${}^{24}\text{Mg}$. <i>European Physical Journal A</i> 59 , 198 (Sep 2023).				
[51]	J. Skowronski, E. Masha, D. Piatti, M. Aliotta, H. Babu, D. Bemmerer, A. Boeltzig, R. Depalo, A. Cacioli, 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 ${}^{12}\text{C}(p, \gamma){}^{13}\text{N}$ reaction at $E = 320\text{--}620$ keV and the 422 keV resonance. <i>Physical Review C</i> 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 ${}^{34}\text{Ar}(\alpha, p){}^{37}\text{K}$ reaction cross section for mixed hydrogen and helium burning in accreting neutron stars. <i>Physical Review Letters</i> 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. <i>Astroparticle Physics</i> 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. Nacher, T. Nilsson, J. Park, S. Paschalis, L. Pellegrini, 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. Volkmandt, V. Wagner, F. Wamers, L. Zanetti, M. Aliotta, G. Alkharov, T. Almusidi, H. Alvarez-Pol, P. André, M. Assié, L. Atar, L. Atkins, L. Audouin, T. Aumann, G. Authalet, 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. Kelić-Heil, A. Khanzadeev, O. Kiselev, P. KlENZE, A. Knyazev, K. Koch, M. Kogimtzis, K. Kokubun, G. Korolev, D. Körper, A. Korshennikov, 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. Maillert, 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. Volkmandt, 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 R³B 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).
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- [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 ⁷⁶Ge. *Physical Review C* **105**, 024303 (Feb 2022).

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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 $^{40}\text{Ca}(\alpha, \gamma)^{44}\text{Ti}$ 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 ap-
plications
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- γ ELBE**
Helmholtz-Zentrum Dresden-Rossendorf Scientific Selection Panel 2021/1
Search for low-spin states in ^{76}Ge at $pc = 8.5\text{ MeV}$ (21102259)
Proposer: Ronald Schwengner, Co-proposer: **Konrad Schmidt**, Kai Zuber

- 2020 [5] **HZDR-ELBE- γ ELBE**
Helmholtz-Zentrum Dresden-Rossendorf Scientific Selection Panel 2020/2
Search for low-spin states in ^{76}Ge at $pc = 11.0\text{ MeV}$ (20202043)
Proposer: **Konrad Schmidt**, Co-proposer: Ronald Schwengner, Kai Zuber
- 2018 [4] **NSCL**
National Superconducting Cyclotron Laboratory, Program Advisory Committee 42
Measurement of the $^{56}\text{Ni}(\alpha, p)^{59}\text{Cu}$ 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 $^{34}\text{Ar}(\alpha, p)^{37}\text{K}$ 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 Fais-
ceaux d'Ions en Région Aquitaine
Activation measurement of the strength of the $E_\alpha = 2.758\text{ MeV}$ resonance in the
 $^{40}\text{Ca}(\alpha, \gamma)^{44}\text{Ti}$ 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