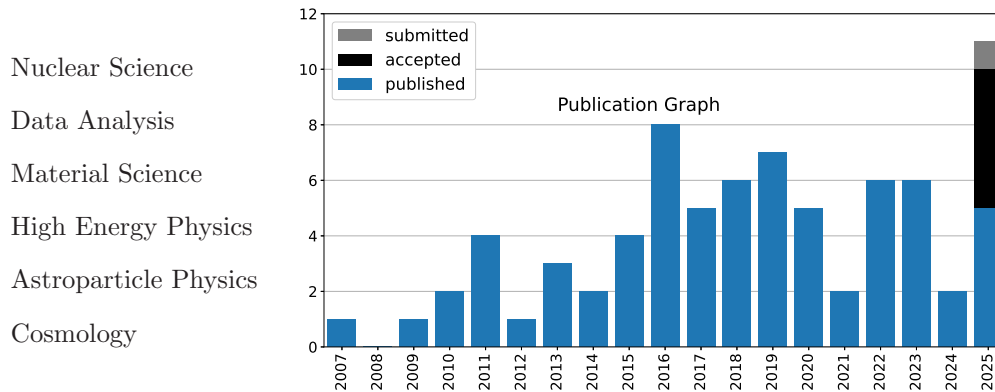


List of Publication

Dr. rer. nat. Maik Stuke

7th September 2025

69 publications (+1 submitted; +5 accepted) in the fields of:



Submitted:

1. **Multiple-scattering muography of a CASTOR V/19 spent-fuel cask: High-statistics Geant4 simulation;** J. Niedermeier, **M. Stuke**; Journal of Applied Physics, Special Topic: Muography: Discoveries, Innovations, and Applications, 2025.

Accepted:

5. **Inter-comparison Exercise on Bias and Correlated Data - Comparison of Methods,** A. Hoefer, **M. Stuke**; Report on Subgroup 11 of the Working Party on Nuclear Criticality Safety, OECD Nuclear Energy Agency, 90 pp., 2024.
4. **Introducing HEPHAESTUS: A Furnace for Dry Storage Testing of Spent Nuclear Fuel at Studsvik's Hot Cells;** F. Boldt, P. Kaufholz, T. Neikes, M. Segerberg, **M. Stuke**, P. Tejlund; Proceedings of TopFuel 2025: Nuclear Reactor Fuel Performance Conference; October 5–9 2025; Nashville, TN, USA; (Oct 2025).
3. **Analysis of Axial Hydrogen Diffusion and Hydride Precipitation in Zirconium Alloy Nuclear Fuel Claddings;** S. Niedermeyer, P. Trtik, **M. Stuke**, R. Zubler, M.A. Pouchon, L.I. Duarte, J. Bertsch; Proceedings of TopFuel 2025: Nuclear Reactor Fuel Performance Conference; October 5–9 2025; Nashville, TN, USA; (Oct 2025).
2. **Results on re-verification tests of spent fuel casks with muon tomography - MUTOMCA Project;** P. Andreetto, K. Aymanns, M. Balling, M. Benettoni, N. Bez, G. Bonomi, L. Castellani, P. Checchia, E. Conti, J. Dackner, F. Gonella, A. Jussofie, A. Lorenzon, F. Montecassiano, M. Mosconi, M. Murtezi, J. Niedermeier, I. Niemeyer, J. Pekkarinen, A. Rigoni, D. Scarpa, **M. Stuke**, M. Turcato, and G. Zumerle; Journal of Applied Physics, Special Topic: Muography: Discoveries, Innovations, and Applications, 2025, accepted.
1. **ESCP International Thermal Modeling Project: Comparison of PCT and External Surface Temperature Values with Varying Sensitivity Parameters;** H. Akkurt, **M. Stuke**; Proceedings of International High Level Radioactive Waste Management (IHLRWM 2025); November 9–12 2025; Washington, DC, USA; (Nov 2025).

Published:

69. **Computational Investigation of 2D Nuclide Concentrations at Burnups close to Peak Reactivity in the Context of the LAGER Project;** V. Hannstein, **M. Stuke**; Proceedings of Nuclear Criticality Safety Division 2025 Conference (NCSD 2025) September 14–18 2025; Austin, TX, USA; (Sep. 2025).

68. **ESCP International Thermal Modeling Benchmark Project Results**; H. Akkurt, M. Stuke; Proceedings of the 21st International Symposium on the Packaging and Transportation of Radioactive Materials; PATRAM25; July 27 - August 1 2025; San Antonio, TX, USA; (Aug 2025).
67. **The impact of cooling rate and hydrogen concentration on hydride morphology in Zircaloy-4**; P. Kauffholz, M. Stuke, T. Neikes, F. Boldt, A-M. Alvarez, M. Segerberg; Proceedings of the 21st International Symposium on the Packaging and Transportation of Radioactive Materials; PATRAM25; July 27 - August 1 2025; San Antonio, TX, USA; (Aug 2025).
66. **Threshold Analysis of Modeling and Measurement Accuracies in Muon Scattering Tomography**; J. Niedermeier, J. Bae, M. Stuke; Proceedings of 2025 ANS Annual Conference, June 15–18 2025, Chicago, IL, USA; (Jun 2025).
65. **Extending the Scientific Base for Safe Interim Storage: BGZ's Research Programme**; M. Stuke, J. Becker, B. Czwikla, R. Schneider-Eickhoff; atw, Vol. 70 (2025); pp. 20-27; (May 2025).
64. **The MUTOMCA Project - An Overview**, J. Niedermeier, M. Stuke, et al., Proceeding of KERNTECHNIK2024, June 10 - 13, Leipzig, Germany, (Jun 2024).
Republished (Best Presentation Award, J. Niedermeier) in International Journal for Nuclear Power, atw 5/2024, eISSN: 2940-6668, (Sep 2024).
63. **Impact of modeling assumptions on muon scattering images of loaded dry storage casks**, J. Niedermeier, M. Stuke; Nuclear Science and Engineering, pp. 1–13. doi: 10.1080/00295639.2024.2340142, (Apr 2024).
62. **BGZ's research programme: thinking ahead interim storage**; J. Becker, R. Schneider-Eickhoff, M. Stuke; BGZ Company for Interim Storage, [link](#), (Dec 2023).
German Version: **Forschungsprogramm der BGZ: Zwischenlagerung weitergedacht**; [link](#).
61. **Bias and correlated data, comparison of methods**, A. Hoefer, M. Stuke, H. S. Abdel-Khalik, O. Cabellos, M. Chernykh, T. Eisenstecken, F. Fernex, N. Leclaire, F. Havluj, M. Hursin, H. Lee, W. J. Marshall, D. Mennerdahl, I. Nasim, T. Nicol, M. E. Rising, B. Ruprecht, D. Schulze Grachtrup, M. Sikl, A. Shama, P. Smith, F. Sommer, S. Tittelbach, A. Vasiliev, R. Vocka; Proceedings of the International Conference on Nuclear Criticality Safety, ICNC2023, October 1st-6th 2023, Sendai, Japan, (Oct 2023).
60. **Impact of modeling assumptions on muon scattering images of loaded dry storage casks**, J. Niedermeier, M. Stuke; Proceedings of the International Conference on Mathematics and Computational Methods Applied to Nuclear Science, M&C2023, August 13th-17th 2023, Niagara Falls, Ontario, Canada, (Aug 2023).
59. **Role of Integral Experiment Covariance Data for Criticality Safety Validation – EG UACSA Benchmark Phase IV**; A. Hoefer, M. Stuke; NEA/NSC/R (2021)1, OECD-Publishing, Paris, France, (Jan 2020).
58. **Complementary material to “Role of Integral Experiment Covariance Data for Criticality Safety Validation: EG UACSA Benchmark Phase IV”** (NEA/NSC/R (2021)1); A. Hoefer, M. Stuke; OECD Publishing, Paris OECD-NEA, (Jan 2023).
57. **International Thermal Modeling Benchmark Project – Phase I Results; An Extended Storage Collaboration Program Activity**; H. Akkurt, D. Richmond, M. Stuke, Technical Report 3002023976, EPRI, California, USA 2022, (Nov 2022).
56. **The OECD NEA Working Party on Nuclear Criticality Safety - Recent outcome, work in progress and outlook**; J.-F. Martin, M. Stuke, et. al. ; Proceedings of the Nuclear Criticality Safety Division Topical Meeting (NCSD 2022), June 12–16, 2022, Anaheim, CA, USA (June 2022).
55. **Forschung im Bereich der Zwischenlagerung - Das Forschungsprogramm der BGZ**; M. Stuke; Proceedings of the Conference KERNTECHNIK 2022, June 20–23, 2022, Leipzig, Germany (June 2022).
54. **Benchmark on Thermomechanical Fuel Rod Behaviour - Phase I Report**, F. Boldt, M. Stuke, M. Péridis, Report, 127pp., GRS-671, ISBN 978-3-949088-62-9, (May 2022).

53. **Storage and Transport**; M. Stuke, M. Häring, J. Becker; book chapter in *Nuclear Waste – Management, disposal and governance*, K.J. Röhlrig (Ed.); IOP Publishing, Bristol, UK; online ISBN: 978-0-7503-3095-4; print ISBN: 978-0-7503-3093-0 (Apr 2022).
52. **Zwischenlagerung weitergedacht – Forschungsprogramm der BGZ**, J. Becker, R. Schneider-Eickhoff, M. Stuke; BGZ Gesellschaft für Zwischenlagerung mbH; <https://bgz.de/wp-content/uploads/2022/04/Das-Forschungsprogramm-der-BGZ-2.pdf>, (March 2022).
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49. **Comparison of numerical and semi-analytical analysis of temperature fields of loaded dry casks**; M. Péridis, M. Stuke; Kerntechnik, 85, No. 6, pp. 444-451, DOI:10.3139/124.200074; (Dec 2020).
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47. **Langzeitverhalten zwischengelagerter Brennelemente bei deutlich längerer Zwischenlagerung**; M. Stuke, J. Arndt, F. Boldt, V. Hannstein, P. Kaufholz, M. Péridis, J. Sievers, F. Sommer; Report; GRS-554, ISBN-978-3-947685-39-4; 150 pp.; (June 2020).
46. **Entwicklung und Bewertung von Methoden zur Validierung von Kritikalitätsberechnungen unter Beachtung von Korrelationen zwischen kritischen Experimenten**, M. Stuke, F. Sommer; Report, GRS-A-3992, 100 pp; (July 2020).
45. **Workshop on the Safety of Extended Dry Storage of Spent Nuclear Fuel – SEDS 2019**; F. Rowold, K. Hummelsheim, M. Stuke; atw 02/2020; (Feb 2020).
44. **UACSA Benchmark Phase IV: Role of Integral Experiment Covariance Data for Criticality Safety Validation, Summary of Results**; A. Hoefer, M. Stuke; Proc. International Conference on Nuclear Criticality Safety, ICNC2019, Sept. 15 -20 2019, Paris, France; (Sep 2019).
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40. **Proceedings: 3rd Workshop on Safety of Extended Dry Storage of Spent Nuclear Fuel**, M. Stuke(Ed.), SEDS 2019, June 6-8 2019, Garching, Germany, (Jun 2019).
39. **Temperature fields of loaded spent fuel cask**; M. Péridis, M. Küntzel, M. Stuke; Proceedings of 3rd Workshop on Safety of Extended Dry Storage of Spent Nuclear Fuel, SEDS 2019, June 6-8 2019, Garching, Germany, (Jun 2019).
38. **Proposal of a Benchmark Describing the Thermo-Mechanical Behaviour During Dry Storage**; F. Boldt, M. Stuke; Proceedings of 3rd Workshop on Safety of Extended Dry Storage of Spent Nuclear Fuel, SEDS 2019, June 6-8 2019, Garching, Germany, (Jun 2019).
37. **Zwischenbericht: Langzeitverhalten zwischengelagerter Brennelemente bei deutlich längerer Zwischenlagerung**; M. Stuke, F. Boldt, V. Hannstein, P. Kaufholz, M. Péridis, F. Sommer, H.-G. Sonnenburg; GRS - 534, ISBN 978-3-947685-19-6; (Dec 2018).

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32. **Weiterentwicklung moderner Verfahren zu Neutronentransport und Unsicherheitsanalysen für Kernberechnungen;** A. Aures, F. Bostelmann, J. Bousquet, R. Kilger, B. Krzykacz-Hausmann, I. Pasichnyk, Y. Périn, F. Sommer, **M. Stuke**, K. Velkov, M. Zilly, W. Zwermann; 184 pp.; GRS - 498, ISBN 978-3-946607-83-0, (Aug 2018).
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30. **Safety of long-term dry storage in Germany - Challenges and Perspectives;** F. Boldt, K. Hummelsheim, F. Rowold, **M. Stuke**; Proceeding of EUROSAFE 2017, Paris, (Nov 2017)
29. **A Comprehensive Evaluation Suite for the Uncertainty Analysis Codes XSUSA, SAMPLER, and TSUNAMI;**F. Bostelmann A. Aures, **M. Stuke**, W. Zwermann, Technical Notice, GRS, (Okt 2017).
28. **Convergence of Correlation Coefficients of Critical Experiments Derived by Monte Carlo Sampling,** F. Sommer, **M. Stuke**; Proc. NCSD Topical Meeting 2017, Carlsbad, New Mexico, USA,(Sep 2017).
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