

Curriculum Vitae

Personal Data

Title	Dr. rer. nat.
First name	Ralph
Name	Müller-Pfefferkorn
Current position	Head of Department Distributed and Data Intensive Computing
Current institution(s)/ site(s), country	Center for Interdisciplinary Digital Sciences (CIDS), Department Information Services and High Performance Computing (ZIH), Technische Universität Dresden (TUD), Germany
Identifiers/ORCID	0000-0001-8719-5741

Qualifications and Career

Stages	Periods and Details	
Degree programme	1990–1992	Physics, Technische Universität Chemnitz, Germany
	1992–1996	Physics, TUD, Germany
Doctorate	2001	Dissertation, Physics, “The calibration of the electromagnetic Csl (TI) calorimeter of the BABAR detector with Bhabha scattering events”, TUD, Germany
Stages of academic/ professional career	2009–present	Head of Department “Distributed and Data Intensive Computing”, ZIH, TUD, Germany
	2005–2008	Research Scientist, Center for Information Services and High-Performance Computing, TUD, Germany
	2002–2005	Research Scientist, Center for High Performance Computing, TUD, Germany
	1996–2002	Research Scientist, Institute of Nuclear and Particle Physics, TUD, Germany
	1996	Diploma in Physics, TUD, Germany

Engagement in the Research System

since 2020	Reviewer for DFG and Helmholtz Association
since 2019	Member of the Speakers Committee of the Saxon state initiative for research data management SaxFDM
since 2016	Trainer for research data management at the TUD Graduate Academy
since 2013	Member of the Research Data Alliance (IG Co-Chair), the Research Data Alliance Germany (RDA-DE) and the Open Grid Forum
since 2013	Program Committee Member of conferences and workshop like IEEE HPCC, CCGrid- Health, International Conference on Parallel and Distributed Systems (ICPADS)
2011–2016	Program Co-Chair of the UNICORE Summit
since 2005	Reviewer for scientific journals like “Journal of Grid Computing” and “Future Generation Computer Systems”

Supervision of Researchers in Early Career Phases

- Training for undergraduate, graduate and postgraduate students, offering lectures, practical courses and seminars on topics related to research data management. Since 2006, personal supervision of 3 PhD and 6 bachelor, diploma, and master students.

Scientific Results

Contributions: ¹Conceptualization ²Methodology, ³Implementation, ⁴Funding Acquisition, ⁵Writing/Revision

Category A (10 selected publications out of 152)

Sherpa L, **Müller-Pfefferkorn R**^{1,2,3,5}, ..., Urbas L: ProMetaS – a metadata schema for process engineering and industry. Chemie-Ingenieur-Technik, ISSN (Electronic) 2023; 1522-2640. DOI: 10.1002/cite.202200225

Fischer J, ..., **Müller-Pfefferkorn R**^{1,2,5}, Rümmler A, Wagner M, Bernard L, Seppel R: Approaches and tools for user-driven provenance and data quality information in spatial data infrastructures. Int J Digit Earth 2023; 16(1):1510-1529. DOI: 10.1080/17538947.2023.2198778

Steinke B, ..., **Müller-Pfefferkorn R**^{1,2,5}, Neumann J, Queitsch M, Strötgen R: Data Stewards an den TU9-Universitäten – Bestandsaufnahme, Handlungsfelder und Kooperationspotenzial. Baust Forschungsdatenmanagement 2022; 1:1-12. DOI: 10.17192/bfdm.2022.1.8364

Wagner M, Henzen C, **Müller-Pfefferkorn R**^{1,2,4,5}: A research data infrastructure component for the automated metadata and data quality extraction to foster the provision of FAIR data in earth system sciences. AGILE: GIScience series 2021; 2:41. DOI:10.5194/agile-giss-2-41-2021

Grunzke R, ..., **Müller-Pfefferkorn R**^{1,2,4,5}, Schrade T, Meinel G, Herres-Pawlis S, Nagel WE: The MASi repository service - comprehensive, metadata-driven and multi-community research data management. Future Gener Comput Syst 2019; 94:879-894. DOI:10.1016/j.future.2017.12.023

Grunzke R, ..., **Müller-Pfefferkorn R**^{1,2,4,5}, ..., Nagel WE: Performance evaluation of the metadata- driven MASi research data management repository service. 26th Euromicro International Conference on Parallel, Distributed, and Network-Based Processing (PDP) 2018; 334-338. DOI: 10.1109/PDP2018.2018.00059

Grunzke R, ..., **Müller-Pfefferkorn R**^{1,2,5}, Nagel WE: Challenges in creating a sustainable generic research data infrastructure. Softwaretechn Trends 2017; 37(2):74-77.

Grunzke R, ..., **Müller-Pfefferkorn R**^{1,2,4,5}, ..., Krüger J: Standards-based metadata management for molecular simulations. Concurr Comput Pract 2014; 26:1744-1759. DOI: 10.1002/cpe.3116

Daivandy M, ..., **Müller-Pfefferkorn R**^{1,2,4,5}, Schuller B: Heterogeneous resource federation with a centralized security model for information extraction. J Internet Serv Appl 2013; 4:10. DOI: 10.1186/1869-0238-4-10

Gesing S, ..., **Müller-Pfefferkorn R**^{1,2,4,5}, Schäfer R, Steinke T: A science gateway getting ready for serving the international molecular simulation community. PoS Proc Sci 2012; PoS(EGICF12- EMITC2):050. DOI: 10.22323/1.162.0050

Category B

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|------------|---|
| since 2014 | Development and operation of the TUD institutional and Saxony-wide research data repository OpARA |
| since 2017 | Service Center Research Data (counselling and support for researchers at TUD on how to deal with research data, since 2017) |
| since 2019 | Originzator and Founding Member of the Saxon state initiative on research data management SaxFDM |

Science communication

n/a

Academic Distinctions

n/a

Other Information

n/a