Prof. Dr.-Ing. habil. Jürgen Müller

Personal Data

Title	Prof. Dr.-Ing. habil.
First name	Jürgen
Name	Müller
Current position	Head of the Institute of Geodesy, Professor
Current institution(s)/site(s), country	Institute of Geodesy, Leibniz University Hannover (LUH), Germany
Identifiers/ORCID	ORCID-ID: 0000-0003-1247-9525

Qualifications and Career

Stages	**Periods and Details**	
TU Munich	1983-1988	Study of Geodesy (Vermessungswesen), Degree Dipl.-Ing.
	1988-1994	Scientific assistant at the Research Facility for Space Geodesy
Doctorate	1991	supervisor Prof. Manfred Schneider, TU Munich, Thesis on *Analysis of Lunar Laser Ranging Data*
Habilitation	2001	supervisor Prof. Reiner Rummel, TU Munich, Thesis on *Gradiometry Mission GOCE*
Stages of academic/professional career	Since 2001	Professor (W3) at Leibniz Universität Hannover
	1996-2001	Scientific assistant at the Institute of Astronomical and Physical Geodesy at TU Munich
	1994 and 1995	Research Fellowship of the *Deutsche Forschungsgemeinschaft* (DFG, German Research Council) at the Research Facility for Space Geodesy, TU Munich

Activities in the Research System

Teaching Activities

Since 2001 **Bachelor** Fundamentals of Geodesy, Physical Geodesy, Space Geodetic Techniques, LUH

Since 2003 **Master** Relativistic Modeling in Geodesy, Recent Satellite Gravimetry Missions, Satellite Orbit Calculation, LUH

Organisation of Scientific Meetings

2023 Chair of Scientific Programme Committee (SPC) of IUGG General Assembly, Berlin, 2023

2017-2019 co-organizing workshop series on Relativistic Geodesy at International Space Science Institute (ISSI), Berne, Switzerland, 25 participants

2009-2012 co-organizing workshop series on Lunar Laser Ranging at ISSI, Berne, 25 participants

2012, 2014 sessions at ILRS Laser Ranging Workshops in Fujiyoshida, Japan; Annapolis, USA

2003/2008/2012/2020 responsible organizer of German Geodetic Week in Hamburg, Bremen and Hannover, 70 participants, Germany

Since 2001 organizer or co-organizer of symposia and sessions at EGU (Vienna, latest 2025), COSPAR (Sydney, Athens, Busan, latest 2024), AGU (San Francisco, latest 2019) and IUGG/IAG meetings (Montreal, Peking, Berlin, Rimini, latest 2025)

Institutional Responsibilities

Since 2021 Speaker of DFG CRC 1464 TerraQ *Relativistic and quantum-based geodesy*, LUH

Since 2019	Member of the Steering Committee of the centre of excellence EXC 2123 Quantum-Frontiers, LUH
Since 2017	Member of the Steering Board of research center on geosciences FZ:GEO, LUH
2015-2017	Member of the Faculty Committee, LUH (also 2025-2027)
Since 2015	Chair of exams' board for all study programs in Geodesy and Geoinformatics, LUH
2014-2019	Member of the Steering Committee of the DFG CRC 1128 geo-Q *Relativistic geodesy and gravimetry with quantum sensors* at LUH (2017-2019, speaker of geo-Q)
Since 2014	Member of the Steering Committee of the Leibniz research school QUEST (Quantum Engineering and Space-Time Research) and of the research building HITec
2007-2017	Member of the Steering Committee of the centre of excellence QUEST *Quantum Engineering and Space-Time Research*, LUH
2006-2018	Lunar Laser Ranging representative in the Governing Board of the International Laser Ranging Service (ILRS)
2006-2016	ILRS representative in the Directing Board of the International Earth Rotation and Reference Systems Service (IERS)
2006-2014	Speaker of DFG FOR 584 Earth rotation and global dynamic processes
2003-2013	Dean of study affairs, LUH, Germany
Since 2001	Member of various Appointment Committees ("Berufungskommission") at LUH

Commissions of Trust

2011-2016	Member of Scientific Advisory Board of GFZ Potsdam, Germany
2012	Chair of review panel for future ESA Earth science missions (EE8 call), ESTEC, NL
2010/2015/ 2022	Evaluation of the research program of the German Research Group on Satellite Geodesy (FGS), Wettzell, Munich, Germany (2015, 2022 as chair of the review panel)
2009-2013	Member of ESA Earth Science Advisory Committee (ESAC), Frascati, Italy and ESAC, representative to Space Science Advisory Committee (SSAC), Paris, France
Since 2003	Editorship of the German Geodetic Journal zfv, Germany
Since 2001	Reviewer for various scientific journals like Journal of Geodesy, Journal of Geodetic Science, Classical and Quantum Gravity, Advances in Space Research, etc.
Since 2001	Reviewer of various research proposals of national funding agencies in Switzerland, Austria, Czech Republic, Sweden, Germany, USA
Since 2001	External (confidential) reviewer in appointment procedures of professors at various German and European universities

Elected Member of Scientific Societies

Since 2019	Fellow of the International Association of Geodesy (IAG)
Since 2019	Ordinary Member of the Leibniz Society of Sciences to Berlin e.V.
Since 2019	Chair of the IAG initiative *Novel Sensors and Quantum Technology for Geodesy*
Since 2011	Member of the Steering Committee of DVW (German Society of Geodesy, Geoinformation and Land Management), Germany
2010-2019	Member of GGOS Standing Committee on Satellite Missions (since 2015 chair)
Since 2008	Ordinary member of *Braunschweigische Wissenschaftliche Gesellschaft* (BWG), 2012-2017 Chair of BWG class for engineering sciences
Since 2004	German Representative in IAG (International Association of Geodesy) and IAG Representative for Geodesy in the National Committee of Geodesy and Geophysics (NKGG), Since 2011 chairman of NKGG
Since 2002	Member of German Geodetic Commission (DGK), **2015-2022** section chair Geodesy

Major Collaborations

Since 2002	Member of the European GRACE Science Team
Since 1999	Member of the ILRS Analysis Working Group and Lunar analysis center. In addition, member of IAG study groups, DFG priority programs and research units, BMBF and EU programs on satellite gravimetry, etc.

Supervision of Researchers in Early Career Phases

Since 2001 11 postdoctoral researchers, 32 doctoral researchers (27 finished), 5–10 Bachelor/Master students per year at Institute of Geodesy, Leibniz Universität Hannover, Germany

Scientific Results

Category A

1. Biskupek L., Singh V.V., **Müller J.** (2022): *Estimation of Earth Rotation Parameter UT1 from Lunar Laser Ranging Observations.* Geodesy for a Sustainable Earth: 2021 Scientific Assembly of the IAG, Springer Berlin Heidelberg, DOI: 10.1007/1345_2022_178.
2. Delva P; Z Altamimi; A Blazquez; M Blossfeld; J Böhm; P Bonnefond; J Boy; Sean Bruinsma; G Bury; M Chatzinikos; A Couhert; C Courde; W Enderle; P Exertier; R Dach; V Dehant; S Dell'Agnello; G Elgered; S Glaser; R Haas; W Huang; U Hugentobler; A Jäggi; O Karatekin; F Lemoine; C Le Poncin-Lafitte; S Lunz; B Männel; F Mercier; L Métivier; B Meyssignac; **J Müller**; A Nothnagel; F Perosanz; R Rietbroek; M Rothacher; H Schuh; H Sert; K Sosnica; P Testani; J Ventura-Traveset; G Wautelet; R Zajdel (2023): GENESIS: *Co-location of Geodetic Techniques in Space.* Earth, Planets, Space Vol. 75, No. 5, DOI: 10.1186/s40623-022-01752-w.
3. Hofmann, F., **Müller, J.** (2018). *Relativistic Tests with Lunar Laser Ranging.* Classical and Quantum Gravity Vol. 35, No. 035015, DOI: 10.1088/1361-6382/aa8f7a.
4. Klemme, A., Warneke T., Bovensmann, H., Weigelt, M., **Müller, J.** , Rixen, T., Notholt, J. Lämmerzahl, C. (2024). Sediment transport in Indian rivers high enough to impact satellite gravimetry. Hydrology and Earth System Sciences Vol. 28, p. 1527–1538, DOI: 10.5194/hess-28-1527-2024
5. **Müller J.**, Dirkx D., Kopeikin S., Lion G., Panet I., Petit G., Visser P. (2018). *High Performance Clocks and Gravity Field Determination.* In: Space Science Rev. Vol. 214, No. 1, p. 5. DOI: 10.1007/s11214-017-0431-z.
6. **Müller J.**, Murphy T. W., Schreiber U., Shelus P., Torre J., Williams J., Boggs D., Bouquillon S. Bourgoin, Hofmann F. (2019). *Lunar Laser Ranging: a tool for general relativity, lunar geophysics and Earth science.* In: Journal of Geodesy Vol. 93, No. 11, pp. 2195–2210. DOI: 10.1007/s00190-019-01296-0.
7. **Müller J.**, Soffel M., and Klioner S. A. (2008). *Geodesy and Relativity.* In: Journal of Geodesy Vol. 82, No. 3, pp. 133–145. DOI: 10.1007/s00190-007-0168-7.
8. **Müller, J.**, Wu, H. (2020). *Using quantum optical sensors for determining the Earth's gravity field from space.* Journal of Geodesy Vol. 94, Nr. 71 doi: 10.1007/s00190-020-01401-8.
9. Torge W., **Müller J.**, and Pail, R. (2023). *Geodesy.* 5th ed., de Gruyter Oldenbourg. DOI: 10.1515/9783110723304.
10. Vincent, A., **Müller, J.** (2023): *Detection of time variable gravity signals using terrestrial clock networks.* Advances in Space Research, online. DOI: 10.1016/j.asr.2023.07.058.

Category B

1. T. Lévèque, C. Fallet, J. Lefebve, A. Piquereau, A. Gauguet, B. Battelier, P. Bouyer, N. Gaaloul, M. Lachmann, B. Piest, E. Rasel, **J. Müller**, C. Schubert, Q. Beaufils, F. Pereira Dos Santos (2022): *CARIOQA: Definition of a Quantum Pathfinder Mission.* Proceedings of International Conference on Space Optics (ICSO) 2022; 3-7 October 2022; Dubrovnik; Croatia, DOI: 10.48550/arXiv.2211.01215.
2. HosseiniArani, A., M. Schilling, B. Tennstedt, A. Kupriyanov, Q. Beaufils, A. Knabe, A. C. Sreekantaiah, F. Pereira dos Santos, S. Schön, **J. Müller** (2025): Combined Classical and Quantum Accelerometers for the Next Generation of Satellite Gravity Missions. Classical and Quantum Gravity, in review, 10.48550/arXiv.2405.11259
3. Leipner, A., A. Kupriyanov, A. Reis, A. Knabe, M. Schilling, V. Müller, M. Weigelt, **J. Müller**, M. List (20025): Evaluation of Deployable Solar Panels on GRACE-like Satellites by Closed-Loop Simulations, in review, 10.48550/arXiv.2503.21651

4. Meister, J., Bremer, S., HosseiniArani, A., Leipner, A., List, M., **Müller, J.**, Schilling, M. (2022): Reference Mirror Misalignment of Cold Atom Interferometers on Satellite-Based Gravimetry Missions. 73rd International Astronautical Congress (IAC), Proceedings, IAC-22, B1, IP, 7, x68955 (2023). dlr.de/188580
5. **Müller, J.** (2023): Novel sensors and Quantum Technology for Geodesy (QuGe). Invited talk, IUGG 2023 Berlin, DOI:10.57757/IUGG23-0869
6. **Müller, J.** , Pail, R, and DGK Division Geodesy (2022): Geodesy 2030. zfv, online only, DOI: 10.12902/zfv-0392-2022
7. **Müller, J.**, Schilling, M. (2021): Neue Messmethoden für die gravimetrische Erdbeobachtung. zfv 4/2021, S. 280-289, DOI: 10.12902/zfv-0368-2021
8. Van Camp, M., Pereira dos Santos, F., Murböck, J., Petit, G., **Müller, J.** (2021): *Lasers and Ultracold Atoms for a Changing Earth.* EOS, 102, DOI: 10.1029/2021EO210673.

Academic Distinctions

2023	Vening Meinesz Medal of the European Geosciences Union (EGU), Geodesy Division
2020	Northern German Science award together with University Bremen for cooperation project geodesy and climate research
2019	Fellow of the International Association of Geodesy
2009	Professorship in Astron. & Phys. Geodesy at Techn. Univ. Munich denied
1993	Award of *Bund der Freunde der TU München* for the best PhD. thesis in the faculty of civil and geodetic engineering between 1991 and 1993
1988	Harbert award of the German Society of Surveying (DVW)

Data protection and consent to the processing of optional data

If you provide voluntary information (marked as optional) in this CV, your consent is required. Please confirm your consent by checking the box below.

[X] **I expressly consent to the processing of the voluntary (optional) information, including "special categories of personal data**[1] **in connection with the DFG's review and decision-making process regarding my proposal.** This also includes forwarding my data to the external reviewers, committee members and, where applicable, foreign partner organisations who are involved in the decision-making process. To the extent that these recipients are located in a third country (outside the European Economic Area), I additionally consent to them being granted access to my data for the above-mentioned purposes, even though a level of data protection comparable to EU law may not be guaranteed. For this reason, compliance with the data protection principles of EU law is not guaranteed in such cases. In this respect, there may be a violation of my fundamental rights and freedoms and resulting damages. This may make it more difficult for me to assert my rights under the General Data Protection Regulation (e.g. information, rectification, erasure, compensation) and, if necessary, to enforce these rights with the help of authorities or in court.

I may revoke my consent in whole or in part at any time – with effect for the future, freely and without giving reasons – vis-à-vis the DFG (postmaster@dfg.de). The lawfulness of the processing carried out up to that point remains unaffected. Insofar as I transmit "special categories of personal data" relating to third parties, I confirm that the necessary legitimation under data protection law exists (e.g. based on consent).

I have taken note of the DFG's Data Protection Notice relating to research funding, which I can access at www.dfg.de/privacy_policy and I will forward it to such persons whose data the DFG processes as a result of being mentioned in this CV.

[1] Special categories of personal data are those "revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and (...) genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation" (Article 9(1) GDPR).