Curriculum Vitae

Family name, First name:	**Pfeiffer, Franz**
Title:	Prof., Dr. rer. nat.
Date of birth:	25.11.1972 (Kösching, Germany)
Nationality:	German
Web-sites:	https://scholar.google.de/citations?user=q87hwVUAAAAJ&hl=de https://www.professoren.tum.de/en/pfeiffer-franz https://www.ph.nat.tum.de/en/e17/home/ https://www.bioengineering.tum.de/ https://de.wikipedia.org/wiki/Franz_Pfeiffer_(Physiker)
Researcher unique identifier:	https://orcid.org/0000-0001-6665-4363

Current positions

2017 – now	Director Munich Institute of Biomedical Engineering, Technical University of Munich, DE
2012 – now	Affiliate Professor in the Faculty of Medicine, Technical University of Munich, DE
2009 – now	Full Professor for Biomedical Physics, Technical University of Munich, DE

Previous positions

2015 – 2019	Co-Director Centre for Advanced Laser Applications, Technical University of Munich & Ludwig-Maximilians-University of Munich, DE
2008 – 2009	Associate Professor for Physics (tenured), EPF Lausanne, CH
2007 – 2008	Assistant Professor for Physics (tenure track), EPF Lausanne, CH
2005 – 2007	Scientific group leader (tenured), Swiss Light Source, Paul Scherrer Institut, CH
2003 – 2005	Staff scientist (tenure track), Swiss Light Source, Paul Scherrer Institut, Villigen, CH
2003	Visiting scientist/ PostDoc, University of Illinois, Urbana-Champaign, US

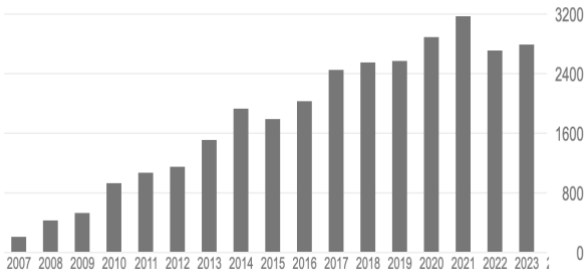
Education and key qualifications

2000 – 2002	PhD thesis in Physics, Institut Laue-Langevin, European Synchrotron Radiation Facility (Grenoble, FR) and University of Saarland (Saarbrücken, DE)
1999	Diploma thesis in Physics, Institut Laue-Langevin, Grenoble, FR
1993 – 1999	Physics student, Ludwig-Maximilians-University, Munich, DE

RESEARCH ACHIEVEMENTS

Statistics peer-reviewed publications

h-index:	**86**
Total number of citations:	**34907**
Peer-reviewed publications:	**412**
i1000-index:	**6** (> 1000 citations)
i100-index:	**77** (> 100 citations)
i10-index:	**408** (> 10 citations)



Google Citations Profile:	https://scholar.google.de/citations?user=q87hwVUAAAAJ&hl=en
Source:	Google Citations/ Scholar, 08.04.2025

Ten selected publications as first/last author in high-profile peer-reviewed scientific journals

1. **Pfeiffer,** …, David. Phase retrieval and differential phase-contrast imaging with low-brilliance X-ray sources. ***Nature Physics*** (2006). [Citations: **2326**] https://dx.doi.org/10.1038/nphys265
2. Thibault, …, **Pfeiffer.** High-resolution scanning X-ray diffraction microscopy. ***Science*** (2008). [Citations: **1498**] https://dx.doi.org/10.1126/science.1158573
3. **Pfeiffer,** …, David. Hard-X-ray dark-field imaging using a grating interferometer. ***Nature Materials*** (2008). [Citations: **1348**] https://dx.doi.org/10.1038/nmat2096
4. Dierolf, …, **Pfeiffer.** Ptychographic X-ray computed tomography at the nanoscale. ***Nature*** (2010). [Citations: **1046**] https://dx.doi.org/10.1038/nature09419
5. Thibault, …, **Pfeiffer**. Probe retrieval in ptychographic coherent diffractive imaging. ***Ultramicroscopy*** (2009). [Citations: **814**] https://dx.doi.org/10.1016/j.ultramic.2008.12.011
6. **Pfeiffer.** X-ray Ptychography. ***Nature Photonics*** (2018). [Citations: **665**] https://dx.doi.org/10.1038/s41566-017-0072-5
7. **Pfeiffer**, …, David. Hard x-ray phase tomography with low-brilliance sources. ***Physical Review Letters*** (2007). [Citations: **478**] https://dx.doi.org/10.1103/PhysRevLett.98.108105
8. Schaff, …, **Pfeiffer.** Six-dimensional real and reciprocal space small-angle X-ray scattering tomography. ***Nature*** (2015). [Citations: **203**] https://dx.doi.org/10.1038/nature16060
9. Willer, …, **Pfeiffer.** X-ray dark-field chest imaging for detection and quantification of emphysema in patients with chronic obstructive pulmonary disease: a diagnostic accuracy study. ***Lancet Digital Health*** (2021) [Citations: **132**] https://dx.doi.org/10.1016/s2589-7500(21)00146-1
10. Viermetz, ..., **Pfeiffer.** Dark-field computed tomography reaches the human scale. ***PNAS*** (2022). [Citations: **92**] https://dx.doi.org/10.1073/pnas.2118799119

Five representative granted patents

(selected from a total of 18 already granted patents)

1. Koehler, **Pfeiffer**, Noel, Hahn. 2015. Tiled detector arrangement for differential phase contrast ct. WO2016202685A1.
2. Mohr, Schulz, Reznikova, **Pfeiffer**. 2011. Gratings for x-ray imaging, consisting of at least two materials. WO2011157500A1, DE102010017426A1, EP2583285A1, EP2583285B1, US9230703, US20130148788.
3. David, Donath, Hempel, Hoheisel, Matthis, **Pfeiffer**, Popescu. 2008. X-ray optical grating and method for the production thereof, and x-ray detector embodying same. US20100246769 A1, DE102008049200A1, DE102008049200B4, US8165270.
4. David, Donath, Hempel, Hoheisel, **Pfeiffer**, Popescu. 2008. X-ray CT system for x-ray phase contrast and/or x-ray dark field imaging. US7983381B2, DE102009043067A1, EP2168488A1, EP2168488B1, US20100091936.
5. David, **Pfeiffer**. 2006. X-ray interferometer for phase contrast imaging. WO2008006470A1, CA2657600A1, CA2657600C, CN101495853A, CN101495853B, EP1879020A1, EP2038641A1, EP2038641B1, US8041004, US20090316857.

Entrepreneurial activities

- Co-Founder, shareholder and member of the board of **MITOS GmbH**, a company focusing on X-ray inspection services, reconstruction software, and X-ray technology support (2015). http://www.mitos.de/
- Co-Founder, shareholder and member of the board of **LICOS Munich GmbH**, a company focusing on laser-based novel brilliant X-ray source technologies (2024). http://www.licos-munich.de/
- Co-Founder, shareholder and member of the board of **Munich Scientific GmbH**, a company focusing on scientific consulting and education in X-ray technology and biomedical imaging (2025). http://www.muc-scientific.de/
- Active consultant for > 5 cooperates and SMEs in the medical imaging and X-ray detector technology sector.

PEER RECOGNITION

Honors and Awards (Selection)

2024 ERC Synergy Grant Award (11 Mill. Euro)
2021 Member of the German Academy of Science and Engineering (acatech)
2018 Röntgen-Plakette, German Röntgen Museum
2017 Alfred Breit Prize (25.000 Euro), German Röntgen Society
2016 ERC Advanced Grant Award (2.5 Mill. Euro)
2011 Gottfried-Wilhelm-Leibniz Award (2.5 Mill. Euro, DFG)
2011 Teaching Award "Goldene Kreide" (TUM Student Association)
2011 Heinz Maier-Leibnitz-Prize, TUM
2010 Röntgen-Prize of the University of Giessen
2009 ERC Starting Grant Award (2.0 Mill. Euro)
2008 National Latsis Award of Switzerland (100.000 CHF)
2003 Dr. Eduard-Martin-Award from the University of Saarbrücken

Invited talks at peer-reviewed, internationally established conferences

Selection from a total number of 180 invited and 105 accepted presentations to peer-reviewed, internationally established conferences

- Norwegian Conference of Medical Physics (2025)
- European Congress of Medical Physics, Munich, Germany (2024).
- Int. Workshop on Phase Imaging (XNPIG), Shenzhen, China (2023).
- American Physics Society, Online (2021)
- Int. Workshop on Phase Imaging with Neutrons and X-Rays (XNPIG), Tokyo, Japan (2019)
- International OSA Workshop on on High Brightness Sources, Strasbourg, France (2018)
- International Conference on Medical Image Computing (MICCAI), Munich, Germany (2015)
- International Symposium on Biomedical Imaging (ISBI), Bejing, China (2014)
- International Congress of the European Respiratory Society (ERS), Munich (2014)
- International Meeting of the Royal Society, London, England (2013)
- Int. Workshop on Phase Imaging with Neutrons and X-Rays (XNPIG), Tokyo, Japan (2012)
- European Congress on DentoMaxilloFacial Radiology, Leipzig, Germany (2012)
- Int. Conference and School on Synchrotron Radiation, Campinas/ Sao Paolo, Brazil (2011)
- Int. Conference on Medical Applications of Synchrotrons, Melbourne, Australia (2010)
- Int. Conference on Synchrotron, Neutron, and Ion Research (SNI), Berlin, Germany (2010)
- Int. Interdisciplinary Conference on Biomedical Mathematics, Anshun City, China (2008)
- Conference on High Resolution X-Ray Diffraction and Imaging (XTOP), Linz, Austria (2008)
- Congress of the International Union of Crystallography (IUCR), Osaka, Japan (2008)
- Int. Symposium on Optical Engineering & Applications (SPIE), San Diego, USA (2008)
- International Conference on X-ray Coherence, Monterey, USA (2007)
- Gordon Research Conference for X-ray Physics (GRC), New Haven, USA (2007)

ADDITIONAL INFORMATION

Professional Positions & Responsibilities

2024 – now Co-Founder of the Spin-off Company Munich Scientific GmbH, Munich, DE
2025 – now Speaker of the ERC Synergy Project SmartX
2024 – now Co-Founder of the Spin-off Company LICOS Munich GmbH, Munich, DE
2022 – now Board Member, Study Program Biomedical Engineering, TUM, DE
2017 – 2022 Co-Speaker of the DFG Graduate Center for Image-Guided Radiation Therapy (GRK2274), TUM & LMU, DE
2016 – 2019 Faculty Mentor for Entrepreneurship & Start-Up companies, UnternehmerTUM, DE

2015 – now Co-Founder of the Spin-off Company MITOS GmbH, Munich, DE
2014 – 2017 Associate Editor Nature Scientific Reports, Nature Group
2014 – 2016 Associate Editor & Editorial Board Member, Journal for Structural Dynamics
2010 – 2019 Executive Board Member, Graduate School for Information Science and Health, Technical University of Munich, DE
2013 – 2010 Executive Board Member, European Research and Training Initiative on Biomedical Imaging & Informatics (BERTI), Technical University of Munich, DE
2012 – 2016 Spokesman of the Radiation and Medical Physics Section, German Physical Society
2011 – 2014 Member of the Senate, Technical University of Munich, DE
2009 – 2019 Executive Board Member, Excellence Cluster Munich-Centre for Advanced Photonics, Technical University Munich & University Munich, DE

Commissions of Trust

2023 – now Scientific Reviewing Board, Danish Science Foundation (DFF), DK
2020 – now Scientific Reviewing Board, European Science Foundation (ESF), BE
2019 – 2022 Scientific Reviewing Board, Swedish Foundation for Strategic Research, SE
2016 – now Scientific Reviewing Board, Austrian Research Promotion Agency (FFG), AT
2016 – 2018 Scientific Reviewing Board, Dutch Research Council, NL
2018 – 2019 Scientific Advisory Board , Japan Society for the Promotion of Science (JSPS), JP
2016 – 2018 Scientific Advisory Board, Agence National de la Recherche France (ANR), FR
2015 – 2018 Scientific Advisory Council, Swedish Foundation for Strategic Research, SE
2014 – 2022 European Research Council, ERC StG/CoG/AdG/SyG Grants, Brussels, BE
2013 – 2016 Proposal Review Committee, LCLS, SLAC, Stanford University, US
2011 – 2014 Proposal Review Committee, ESRF, Grenoble, FR
2010 – 2013 Scientific Advisory Committee, European XFEL, Hamburg, DE
2009 – 2014 Photon Science Advisory Committee, DESY, Hamburg, DE
2009 – 2014 Scientific Advisory Committee, ESRF, Grenoble, FR
2004 – now Reviewer for international peer-reviewed journals (e.g. *Science, Nature, Nature Materials, Nature Physics, Nature Photonics, Nature Communications, Physical Review Letters, Radiology, Medical Physics, Optics Express,* …)

Supervision of Early Career Researchers

2009 – now Supervision of **41** successfully completed and **24** on-going PhD thesis projects in Medical Physics, Technical University of Munich, DE
2009 – now Supervision of **72** successfully completed and **11** on-going Master thesis projects in Medical Physics, Technical University of Munich, DE
2009 – now Supervision of **23** successfully completed and **2** on-going Bachelor thesis projects in Medical Physics, Technical University of Munich, DE

Examples of Alumni, highlighting my impact on higher-level careers in academia and research

- **Prof. Peter Noel**, worked with me as PostDoc (2012-2017), then became Associate Professor at the Faculty of Radiology at the University of Pennsylvania, US.
- **Prof. Julia Herzen**, worked with me as PostDoc (2010-2015), then became Assistant (later: tenured Associate) Professor at the Faculty of Physics of the Technical University Munich, DE.
- **Prof. Kaye Morgan**, worked with me as PostDoc (2015-2018), then became Faculty member (Lecturer) at the Monash University, Australia.
- **Prof. Martin Bech**, worked with me as PostDoc (2009-2014), then became faculty member (Lecturer) at the Faculty of Medicine of the Lund University, Sweden.
- **Prof. Pierre Thibault**, worked with me as PostDoc (2008-2013), then became faculty member (Reader) at the University College London, UK, and later became Associate Professor at the University of Southampton, UK, then became Full Professor at the University of Trieste, IT.