



CV: Manfred Wendisch

Personal Data

- Born 10 April 1963 in Dornreichenbach (Saxony, East Germany)
- Nationality German
- Family Status Married, two daughters (born in 1988 and 1990)
- Address Leipzig Institute for Meteorology (LIM), University of Leipzig, Stephanstr. 3, 04103 Leipzig, Germany

Education and Professional Affiliations

- 1969 – 1977 Elementary and Grammar School
- 1977 – 1981 High School, Graduation with Abitur
- 1981 – 1982 Professional School of Weather Service of the former GDR in Potsdam, Graduation as “Technical Assistant of Meteorology”
- 1982 – 1987 Study of Meteorology at the Humboldt-University of Berlin
- 1987 Diploma degree (comparable to MSc) in Meteorology
Title of diploma thesis: „Sensitivity Tests of Numerical Models in Meteorology”
- 1988 Synoptic forecaster in practical weather service (Weather Service, Leipzig).
- 1988 – 1992 Scientific Assistant at the University of Leipzig, Institute for Meteorology
Focus of Work: Optics of the atmosphere and atmospheric aerosol particles
- 1992 Graduation as PhD (Dr. rer. nat.)
Title of Dissertation: "Determinability of optically-equivalent refractive index of atmospheric aerosol particles from ground-based extinction and scattering measurements of solar radiation”
- 1992 – 2006 Project Scientist (with tenure) at the Leibniz Institute for Tropospheric Research (IfT) in Leipzig.
Focus of Work: Airborne Measurements of aerosol and cloud physical properties of warm, boundary layer clouds
- 2003 Habilitation at the University of Leipzig (Dr. rer. nat. habil.)
Title of Habilitation Thesis: „Absorption of Solar Radiation in the Cloudless and Cloudy Atmosphere“
- 2003 Venia Legendi (Associate Professor) for Meteorology at the University of Leipzig
- 2003 – 2004 Fellowship of National Research Council (NRC) at the NASA Ames Research Center, Moffett Field, California, USA.
Focus of Work: Scattering of solar radiation at non-spherical ice crystals, subtropical cirrus
- August 2004 Return to IfT in Leipzig
Focus of Work: Solar and thermal infrared radiative properties of cirrus, climate impact of aerosol particles, satellite retrievals

- 1 October 2006 – 31 March 2009 Associate-Professor for „Experimental Meteorology“ (W2) at the Johannes Gutenberg-University of Mainz, Germany
- February – March, 2008, and 2010 Invited Guest-Professor, Texas A&M University, College Station, Texas, USA
- Since July 2008 Guest-Professor (permanent), Chinese Academy of Sciences (CAS), Institute for Remote Sensing Applications, Beijing, China
- Since April 2009 Full University Professor (W3) for „Mesoscale Processes and Numerical Weather Prediction“ at the Leipzig Institute for Meteorology (LIM), University of Leipzig
- Since July 2009 Director of LIM
- March – April 2011: Invited Master-Course (18 hours of lectures) on "Atmospheric Radiation And Its Application in Remote Sensing of Aerosols and Clouds", given at The Chinese Academy of Sciences (CAS), Institute for Remote Sensing Applications, Beijing, China.
- March – May 2013: Faculty Member of the Department of Atmospheric Physics at Texas A&M University, College Station, Texas, USA, Invited Master Course on "Cloud Physics"
- April – May, 2018 Invited Guest-Professor, National Oceanic and Atmospheric Administration (NOAA), Earth System Research Laboratory, Physical Science Division, Polar Observations and Processes Team, Boulder, Colorado, USA

Awards

- 1987 Heinrich-Gustav-Magnus-Price of the Humboldt-University of Berlin
- 1994 Young Scientist Price of the German Meteorological Society
- 1998 Price of the German Röntgen-Society, Society of Medical Radiology
- 2005 Group Achievement Award. To the Intercontinental Chemical Transport Experiment North America Science Team. Awarded by the National Aeronautics and Space Administration (NASA)

Editorships

- Starting 2008 Associate Editor of the Journal on Atmospheric Measurement Techniques (Permanent)
- 2011-2020 Editor "Meteorologische Zeitschrift"
- Starting 2019 Member of the Editorial Board of the *Bulletin of the American Meteorological Society (BAMS)* (Subject Matter Editor for Aerosol and Cloud Physics)

Boards

- 2008 – 2018 Coordinator of the Expert Working Groups (EWGs) within EUFAR (European Facility for Airborne Research)
- 2009 – 2017 Member of the Scientific Advisory Board of the Leibniz Institute for Tropospheric Research Leipzig, since 2012 Deputy Chairman
- Starting 2010 Speaker of the DFG-SPP (Priority Program) 1294 to HALO (High Altitude and Long Range Research Aircraft)
- Starting 2011 Elected Member of the Academy of Sciences of Saxony
- Starting 2012 Vice-Speaker of the „Leibniz-Graduate School on Clouds, Aerosols, and Radiation (LGS-CAR)“
- Starting 2013 Elected Member of IRC (International Radiation Commission) within IAMAS
- 2014 – 2017 Member of the Reviewer Panel for Atmospheric Sciences of the Academy of Sciences of Finland

- Starting 2015 Member of the Scientific Advisory Board of the German Weather Service (Deutscher Wetterdienst, DWD)
- Starting 2015 Member of the Program Board of the „Hans-Ertel-Center for Weather Research (HErZ)“ of the German Weather Service (DWD)
- Starting 2016 Member of the of the Executive Committee of the Academy of Sciences of Saxony
- Starting 2016 Deputy Chairman of the Scientific Steering Committee (Wissenschaftlicher Lenkungsausschuss, WLA) of HALO (High Altitude and Long Range Research Aircraft)
- Starting 2016 Speaker of the Transregional Collaborative Research Center TR 172: “Arctic Amplification: Climate Relevant Atmospheric and Surface Processes, and Feedback Mechanisms (AC)³”
- Starting 2016 Coordinator of the YOPP (Year of Polar Prediction) Task Team on Airborne Platforms
- Starting 2017 Member of the Project Board of MOSAiC (Multidisciplinary drifting Observatory for the Study of Arctic Climate), Team Coordinator for Aircraft Operation
- Starting 2017 Member of the DFG Senat Commission on Earth System Research
- Starting 2019 Member of the International Commission on Atmospheric Chemistry and Global Pollution, ICACGP, of the International Association of Meteorology and Atmospheric Science IAMAS.
- Starting 2020 Member of the German national committee SCAR/IASC (Scientific Committee on Arctic Research / International Arctic Science Committee)
- Starting 2020 Member of the Board of Trustees of the Alfred-Wegener-Institute, Helmholtz-Centre for Polar and Marine Research (AWI)
- Starting 2020 Member of DFG Fachkollegium 313 « Atmospheric and Climate Research » for the subject 313-01 « Physics and Chemistry of the Atmosphere », Deputy Spokesperson
- Starting 2020 Chairman of the Scientific Advisory Board of the German Weather Service (DWD)
- Starting 2021 Vice-President of the IRC (International Radiation Commission) within IAMAS

Member of Scientific Societies

- German Meteorological Society (Deutsche Meteorologische Gesellschaft, DMG)
- European Geosciences Union (EGU)
- American Geophysical Union (AGU)
- American Meteorological Society (AMS)

Selected Publications, see complete list at:

<https://publons.com/researcher/1357253/manfred-wendisch/>

- Wendisch, M., P. Pilewskie, E. Jäkel, S. Schmidt, J. Pommier, S. Howard, H. H. Jonsson, H. Guan, M. Schröder, and B. Mayer, 2004: Airborne measurements of areal spectral surface albedo over different sea and land surfaces. *J. Geophys. Res.*, 109, D08203, doi:10.1029/2003JD004392.
- Wendisch, M., P. Yang, and P. Pilewskie, 2007: Effects of ice crystal habit on thermal infrared radiative properties and forcing of cirrus. *J. Geophys. Res.*, 112, D08201, doi:10.1029/2006JD007899.
- Wendisch, M., et al., 2016: The ACRIDICON-CHUVA campaign: Studying tropical deep convective clouds and precipitation over Amazonia using the new German research aircraft HALO. *Bull. Am. Meteorol. Soc.*, **97**, 10, 1885-1908, <http://dx.doi.org/10.1175/BAMS-D-14-00255.1>

- Wendisch, M., et al., 2019: The Arctic Cloud Puzzle: Using ACLOUD/PASCAL Multi-Platform Observations to Unravel the Role of Clouds and Aerosol Particles in Arctic Amplification. *Bull. Amer. Meteor. Soc.*, **100** (5), 841-871, doi: 10.1175/BAMS-D-18-0072.1. <https://journals.ametsoc.org/doi/pdf/10.1175/BAMS-D-18-0072.1>
- Pithan, F., G. Svensson, R. Caballero, D. Chechin, T. W. Cronin, A. M. L. Ekman, R. Neggers, M. D. Shupe, A. Solomon, M. Tjernström, and M. Wendisch, 2018: Role of air-mass transformations in exchange between the Arctic and mid-latitudes. *Nature Geosciences*, **11**, 805-812. <https://doi.org/10.1038/s41561-018-0234-1>
- J. Cohen, X. Zhang, J. Francis, T. Jung, R. Kwok, J. Overland, T. Ballinger, U.S. Bhatt, H. W. Chen, D. Coumou, S. Feldstein, D. Handorf, G. Henderson, M. Ionita, M. Kretschmer, F. Laliberte, S. Lee, H. W. Linderholm, W. Maslowski, Y. Peings, K. Pfeiffer, I. Rigor, T. Semmler, J. Stroeve, P.C. Taylor, S. Vavrus, T. Vihma, S. Wang, M. Wendisch, Y. Wu, J. Yoon, 2020: Divergent consensuses on Arctic amplification influence on midlatitude severe winter weather. *Nat. Clim. Chang.* **10**, 20–29, doi:10.1038/s41558-019-0662-y. <https://www.nature.com/articles/s41558-019-0662-y>
- Wendisch, M., and P. Yang, 2012: Theory of Atmospheric Radiative Transfer – A Comprehensive Introduction. *Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany*. ISBN: 978-3-527-40836-8. 321 pp. Chinese translation published in 2014 by Higher Academic Press (academic.hep.com.cn), Peking, ISBN: 978-7-04-039527-3
- Wendisch, M., and J.-L. Brenguier (Eds.), 2013: Airborne Measurements for Environmental Research: Methods and Instruments. *Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany*. ISBN: 978-3-527-40996-9. 655 pp., doi:10.1002/9783527653218