

Curriculum Vitae Michael Kahnert

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Personalia

Address: Chalmers University of Technology, Department of Earth and Space Science, 412 96 Gothenburg, Sweden

Date of birth: 21.02.1968

Citizenship: Swedish and German

Education

June 1994 **Master of Science (Diplom)** in Physics,
Department of Physics, Freie Universität Berlin, Germany

July 1998 **PhD** in Physics,
Geophysical Institute, University of Alaska Fairbanks, USA

April 2010 **Habilitation/senior lecturer expertise (docentkompetens)**
Department of Earth and Space Science, Chalmers University of
Technology, Gothenburg, Sweden

Postdoctoral positions

1998-1999 Department of Chemistry and Rochester Theory Center for Optical Science
and Engineering, University of Rochester, USA

2000-2002 Department of Physics, University of Bergen, Norway

Employment

2012-present **Adjunct Professor (20 %)**
Department of Earth and Space Science, Chalmers University of
Technology, Gothenburg, Sweden

2004-present **Research Scientist**
Research Department, Swedish Meteorological and Hydrological
Institute (SMHI), Norrköping, Sweden

2002-2003 **Research Scientist**
Norwegian Institute for Air Research (NILU), Kjeller, Norway.

Research interests

Fundamental questions and numerical methods in electromagnetic scattering theory; optical properties of aerosols, hydrometeors, and cosmic dust particles; radiative transfer in planetary atmospheres; remote sensing and inverse modelling of aerosols and clouds; data assimilation and filtering theory; atmospheric chemical transport and aerosol dynamic modelling; direct and indirect climate forcing by aerosols; coupling of atmospheric chemistry and climate models; application of group theory to differential and integral equation problems; theoretical chemistry, quantum-mechanical many-body theory.

Teaching

1993-present PhD courses and lectures in radiative transfer theory, optics, aerosol physics, and cloud microphysics; undergraduate courses in thermodynamics, differential geometry, calculus, linear algebra, complex analysis, differential equations, and physics laboratory instructions. Supervision of research projects in SIDA training courses during 2006-2010 at SMHI, Norrköping, Sweden.
Formal pedagogical training in “Supervision of research” course, Chalmers University of Technology, Gothenburg, Sweden.

Supervision of graduate students

Main supervisor for one PhD student (Chalmers University);
Co-supervisor for two PhD students (University of Bergen) and two MSc students (Chalmers and Bergen).

Examiner at PhD defence

2013 **Examiner** at PhD defence: University of Lyon
2011 **Opponent** at PhD defence: University of Helsinki

Editorship and special commissions

2013 **Guest editor** for a special issue of *Journal of Quantitative Spectroscopy and Radiative Transfer* (Elsevier) on Peter Waterman and his scientific legacy
2007-present **Associate editor** for *Journal of Quantitative Spectroscopy and Radiative Transfer* (Elsevier)
2006-2012 **Topical editor** for *Applied Optics* (Optical Society of America)
2013 **Reviewer** for the German Research Foundation (www.dfg.de)
2011, 2013 **Member of award committee**: Elsevier/van de Hulst Light-Scattering Award for landmark lifetime achievements

Publications

82 peer-reviewed publications, of which 62 articles in international journals (40 as first author, of which 13 as sole author), and 20 peer-reviewed conference proceedings (ten as first author, of which five as sole author); 1 book (Springer); h-index: 20 (ISI Web of Knowledge).

Research grants

Funding received by the Swedish Research Council (*Vetenskapsrådet*), VINNOVA, Formas, Swedish National Space Board, Swedish Environmental Protection Agency (*Naturvårdsverket*), EU, Norwegian Research Council (*Norsk forskningsråd*), and Nordic Council of Ministers. Principal investigator in five projects, work-package leader in additional five projects.

Awards and Fellowships

- 2010 **Milestone paper award**, *Journal of Quantitative Spectroscopy and Radiative Transfer*: The paper by Kahnert (2003) was chosen as one of 17 milestone papers (one out of four in the category “scattering”) published during 1960-2010 to be reprinted in the 50-year anniversary issue of the journal.
- 1990-1993 **Scholarship holder** of the *German National Academic Foundation* (www.studienstiftung.de)