

Curriculum vitae, Univ. Prof. Dr. Regina Hitzemberger (birth name: Pirich)

Current affiliation:

University of Vienna, Faculty of Physics,
Research group on Aerosol Physics and Environmental Physics
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Born: February 18, 1957, Gmunden, Upper Austria

Nationality: Austrian

Married to Dr. Christoph Hitzemberger (associate professor, Medical University of Vienna)
since 1983

Child: Johannes Hitzemberger, born 1990

Career

June 30, 1975	"Matura mit Auszeichnung" (graduation with distinction)
October 1975	University of Vienna, studies in Physics, Astronomy, Mathematics
Nov. 23, 1982	Doctorate in Physics, University of Vienna (finals with distinction)
August 84	Assistant professor, Institute for Experimental Physics, University of Vienna
1986 – 1997	Assistant to large lecture course (limited research possibility)
October 1993	Habilitation in Experimental Physics
Spring 1994	Tenure, University of Vienna
October 1997-	
December 2011	Associate Professor
October 2006 -	
December 2011	Vice Dean, Faculty of Physics
January 2012 -	Full professor, Chair for Aerosol and Cluster Physics (retired 31.12.22)
October 2015-	
December 2022	Vice Rector for Infrastructure, University of Vienna

Main directions of research

Physical and optical properties of atmospheric aerosols (modelling of optical parameters, dependence on size distribution)

Black carbon (BC) measurements, size distribution of BC, BC in cloud water;
Optical determination of brown carbon, cross-influences of brown carbon (BrC) on determination of BC and elemental carbon (EC), characterization of thermal EC/OC measurement techniques, historic measures of black carbon, structural characterization of BrC/EC

Cloud nucleating properties of atmospheric aerosols, cloud condensation nuclei (CCN), contribution of organic material to CCN concentrations, cloud condensation nuclei activation of aircraft combustor exhaust, surface tension of cloud water
Ice nucleating particles

Humidity growth of aerosol particles under subsaturated conditions

Direct and indirect radiative effects of atmospheric aerosols

Radiative Transfer through (exo)planetary atmospheres

Memberships

Gesellschaft für Aerosolforschung e.V. (GAeF), American Association for Aerosol Research AAAR, Air and Waste Management Association, American Geophysical Union, Chemisch Physikalische Gesellschaft, Österreichische Physikalische Gesellschaft

Reviewer

Research Projects

Academy of Finland, FI

National Science Foundation, USA

European Science Foundation, EU

German Science Fund DFG, Germany

National Environmental Research Council, UK

European Research Council, EU

Habilitation

University of Munich, Germany

Outside PhD Theses (Reviewer, opponent)

Leibnitz Institute for Tropospheric Research, Leipzig, Germany

TU Vienna, Austria

University of Copenhagen, DK

University of Utrecht, NL

Evaluation of applicants for professorships (international)

Hong Kong University of Technology

University of Göteborg

National Institute of Chemistry, Ljubljana

Technical University Tampere, Finland

National University of Ireland Galway

Johannes Gutenberg University, Mainz

University of Helsinki

University of California, Berkeley

University of Arizona, Tucson

Scientific journals

Atmospheric Environment, Atmospheric Chemistry and Physics, Atmospheric Research, Journal of Atmospheric Chemistry, Journal of Geophysical Research, Geophysical Research Letters, Environmental Science and Technology, Environmental Research Letters, Journal of Aerosol Science, Aerosol Science and Technology, Analytical Chemistry, Tellus, Biogeosciences, Journal of Environmental Monitoring, Acta Chimica Slovenica, Boreal Environmental Chemistry, the Science of the Total Environment, Particology, Particulate Science and Technology, etc. etc.

Conference Organisation

Co-chair, International Conference on Carbonaceous Particles in the Atmosphere, Berkeley, 2015

Chair, International Conference on Carbonaceous Particles in the Atmosphere, Vienna, 2011

Member of the Program Committee, European Aerosol Conference, Prague, 2013

Member of the Program Committee, European Aerosol Conference, Granada, 2012

Member of the Program Committee, European Aerosol Conference, Manchester, 2011

Member of International Advisory Committee, ICNAA Conference, Prague, 2009

Member of Scientific Committee, International Conference on Carbonaceous Particles, Berkeley, 2008

Chair, COST 633 international workshop, March 2008

Member of Scientific Committee, International Conference on Carbonaceous Particles, Berkeley, 2008

Member of Organizing Committee, European Aerosol Conference, Salzburg 2007

Chair, Cost 633 Conference, Vienna 2006

Member of Scientific Steering Committee, GAeF Conference, Karlsruhe 2006

Member of Scientific Steering Committee, GAeF Conference, Karlsruhe 2005

Program Chair, International Conference on Carbonaceous Particles, Vienna 2004

Co-Chair, Exhibition "Brennpunkt Naturwissenschaften" organized by the Faculty of Natural Sciences and Mathematics, University of Vienna, 2001, 2002

Co-Chair, International Conference on Carbonaceous Particles, Vienna 1997

University administration

student member of faculty administration (1980 - 1983)

member of Institutskonferenz (governing body of institute), 1998 and 1999

advocate for equal opportunities at the Institute for Experimental Physics

Mentor in university wide mentoring program for women, University of Vienna (2001 – 2003)

Auxiliary member of the Senate of the University of Vienna (2010 - 2014)

member of the governing body of the Fakultät für Naturwissenschaften und Mathematik (Fakultätskollegium 2000 – 2003)

vice-chair of the „Arbeitsgruppe Profildbildung der Fakultät für Naturwissenschaften und Mathematik“, 2001-2002

member, Fakultätskonferenz Physik 2003 – 2006

Conception and coordination of equal opportunities program for women students of the Faculty of Physics (2007 -)

Co-chair, Research Platform EXOLIFE, University of Vienna (2009-2012)

Vice Dean, Faculty of Physics (2006 – Dec. 2011)

Chair, Research Platform EXOLIFE, University of Vienna (2012 - 2016)

member, Fakultätskonferenz Physik 2014 – 2015

Vice Rector for Infrastructure, Oct 2015 – Dec 2022

Chair, working group on curricular development, Physics Bachelor and Master programs (2013 – 2014)

Member, working group on curricular development, Bachelor and Master Physics Education (2013 – 2015)

member, Studienkonferenz Physik 2003 – 2008; 2012 - 2016

member, working group for setting up a Bachelor and Master curriculum in Physics (2005/06)

member, advisory committee for PhD studies (Doktoratsbeirat), Faculty of Physics (2009 -)

member, advisory committee for PhD studies on Environmental Sciences (Doktoratsbeirat), Faculty of Earth Sciences, Geography and Astronomy (2009 -)

deputy member, working group on equal opportunities, University of Vienna (2012 -)

deputy member, Senate, University of Vienna (2010 -2011, 2013 – 2016)

member, appellate commission, Senate of the University of Vienna (2013 -)

Rectorate Level Working Groups:

Member, working group on honours conferred by the University of Vienna (2007 -)

Member, working group on planning of personnel structure of the University of Vienna (2008/09)

Member, working group on budget distribution of the University of Vienna (2009 -)

Member, steering group for the promotion of women in academia, University of Vienna (2010 - 2011)

Member, working group on communication and information, University of Vienna (2010 – 2011)

Member, working group on honors for women in connection with the 650 anniversary of the University, 2013 – 2014

International visits for research and guest professorships

1980 Washington University St. Louis, USA (CAPITA) (2 months)

1983 - 1989 University of Bologna, Italy (several times, weeks - months)

1987 Southern California Air Quality Study, Los Angeles (5 months)

1989, 1994 University of Kyoto, Institute of Atomic Energy (2 guest professorships, weeks - month)

National and international functions

Chair, European Aerosol Assembly Working Group on PM_x (2013 -)

Co-chair, European Aerosol Assembly Working Group on PM_x (2010 - 2012)

Chair, Management Committee, COST Action 633 Particulate Matter – properties related to health effects (2005 – 2008)

Vice President, Gesellschaft für Aerosolforschung (GAeF) 2002 – 2006

Board member, Gesellschaft für Aerosolforschung (GAeF) 2014 – 2016

Honorary member, Gesellschaft für Aerosolforschung e.V. (2022)

Chair, working group on equal opportunities in physics (Arbeitskreis Chancengleichheit Physik) of the Austrian Physical Society (2009 - 2013)

Member, CEN/TC 264/WG 35 "EC/OC in PM" (2010 -)

Member, working group on PM_x, Austrian Standards Institute (2010 -)

Member, Vorstand (Board of directors) of the Austrian Physical Society (2009 - 2013)

Member, Clean Air Commission (now commission on climate and air quality) Austrian Academy of Sciences, 2007 –

Member, Scientific Steering Committee, ESF project INTROP

Member of the Committee on Nucleation and Atmospheric Aerosols (International Commission on Clouds and Precipitation, IUGG 2000 - 2005)

Member, Advisory Committee Center for Geophysics, University of Evora (2010 -)

Member, Strategic advisory board, VITO (Flemish Institute of Technology) 2007

Member, Board of Assessors for Lectureship in Physics, National University of Ireland, Galway (several times)

Guest Editor, Special issue of Atmospheric Chemistry and Physics

Guest Editor, Special issue of Atmospheric Environment

Guest Editor, Special issue of Journal of Aerosol Science

Member, Editorial Board of Atmosphere, Air Quality and Health

Member, Board of Editors, Journal of Aerosol Science (2013 – 2017)

Prize

Innovations in teaching, University of Vienna, 2002

Award Medal, Faculty of Science, Eötvös Loránd University, 2019

Major international cooperations (only those resulting in publications or with publications in press; only PI s of research efforts)

H. ten Brink (ECN, Petten, the Netherlands; 1998 - 2010)

Water uptake of aerosols, carbonaceous aerosols, black smoke

U. Dusek (University of Utrecht, NL)

- C-14 in atmospheric aerosols
- B. Gorbunov (Middlesex University, London, UK; 1998)
Modeling of integrating plate absorption photometers
- J. Grgic (National Institute of Chemistry, Ljubljana, Slovenia; 2002 – 2005)
Humidity growth of and black carbon in atmospheric aerosols
- G. Iorga (University of Bucharest, 2009 -)
Characterisation of atmospheric aerosols
- S. G. Jennings (University of Galway, Ireland; 1996 - 1999)
Comparison of measurement methods for black carbon
- S. Larson (University of Illinois, Champaign-Urbana; 1996-2001)
Methods for black carbon measurement, radiative effects of tropospheric aerosol
- C. Linke, Karlsruhe Institute of Technology, (2013 -)
Carbonaceous aerosols
- K. Okada (Meteorological Research Institute, Tsukuba, Japan; 1989-2001)
Electron microscopy of composition and state of mixing of atmospheric particles
- M. Kasahara (Universität Kyoto, Japan; 1989-1990)
PIXE analysis of atmospheric aerosol
- K. Lehtinen (University of Helsinki, Finland; 2001 – 2003)
Water uptake in electrolyte solutions
- W. Maenhaut (University Gent, Belgium; 2006 -)
Elemental Carbon measurements
- G. Mocnik (University of Ljubljana, 2010 -)
Measurement techniques of brown carbon aerosols
- A. Petzold (DLR, Oberpfaffenhofen, Germany; 2000 -)
Black Carbon measurements, microphysics of aircraft exhaust)
- R. Rizzi (Universität Bologna, Italy; 1983-1993)
Size distribution inversions from extinction measurements
- I. Salma (Eötvös University, Budapest, 2010 -)
Ultrafine atmospheric aerosols
- SCAQS (Southern California Air Quality Study) 1987
University of California, Davis
- M. Schnaiter (KIT Karlsruhe, 2010 -)
Characterization of black carbon aerosols
- E. Schulz (Deutscher Wetterdienst Freiburg FRG, 1999 – 2000)
Black carbon measurements
- J. Schwarz (Czech Academy of Sciences, Prague, 2010 -)
Ultrafine atmospheric aerosols, Aerosol characterization)
- C. Sioutas (University of Southern California, Los Angeles)
Size magnification of ultrafine particles
- S. Tohno (Universität Kyoto, Japan)
1989-1990: size distribution inversions, scattering by non-spherical particles
1996: oxidation state of atmospheric sulfur aerosols
1999 – black carbon in aerosols
- J. Tursic (National Institute of Chemistry, Ljubljana, Slovenia; 2002 – 2007)
Humidity growth of and black carbon in atmospheric aerosols
- Jianzhong Sun, Xi'an Jiaotong University
Brown Carbon

Several cooperations within EU FWP 4 project PartEmis

Several cooperations within EUROTRAC II

Major international cooperations within COST 633 (only PI s in joint papers)

T. Kuhlbusch (IUTA, Duisburg, Germany)
M. Viana (University of Barcelona, Spain)
X. Querol (University of Barcelona, Spain)
J.-P. Putaud (JRC Ispra, Italy)
R. Salonen (KTL, Kuopio, Finland)
W. Kreyling (GSF, Munich, Germany)

National cooperations

H. Puxbaum, A. Kasper-Giebl, H. Bauer; TU Vienna, 1983 –
Atmospheric aerosols, clouds, elemental, black and brown carbon
W. Winiwarter (IIASA, University of Graz, 2005 –)
Aerosol research in Austria, emission inventories
H. Peterlik (Dynamics of condensed systems, Faculty of Physics, Vienna, 2007 –
Structure changes in elemental carbon at elevated temperatures
M. Firneis (Institute for Astronomy, University of Vienna, 2008 –
Research platform on habitable zones in extrasolar planetary systems
H. Grothe (TU Vienna, 2012 -)
Ice nuclei activation of carbonaceous particles

Outreach Activities

Radio programs

Radioseries “vom Leben der Natur” („life of nature“ 19.- 23. 11. 2001), repeated October 2003. ORF, Radio program Ö1

Radioseries „Wissen Aktuell“ („current knowledge“) 2004 (questions related to physics topics in everyday life)

Radioseries “Kinderuni” 2010 (Interview on Climate Change)

Outreach to secondary education institutions

Several invited talks in schools on atmospheric aerosols, global change, clouds and climate, particulate matter and health

Participation in project “Sparkling Science” (2009), “Botschafter der Physik” (2008)

Physik Matinee „Himmelblau und Abendrot“, 2013

Continuing Education Institutions

Wolken, Menschen, Klima. Fortbildungswoche für AHS Lehrer, (continuing education for physics teachers) Wien, 23. 2. 2004

Wolkenbildung. Community College (VHS) Meidling and Liesing, fall 2000

Miscellaneous

Parent's representative, Parent-Teacher Association,
Primary school Grünentorgasse, 1996 – 2000, Gymnasium Wasagasse, 2000 - 2004