

Curriculum Vitae

Martin Heimann

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Date and Place of Birth: March 1, 1949, Bern, Switzerland.

Citizen of Switzerland

Married, two children.

Education

1978, Masters degree in Physics, University of Bern, Switzerland.

1982, Ph. D. in Physics, University of Bern, Switzerland.

Employment

- 1976-1982: Teaching assistant at University of Bern, Switzerland
(with Prof. Hans Oeschger and Dr. Ulrich Siegenthaler).
- 1982-1985: Research assistant, Scripps Institution of Oceanography, UCSD, La
Jolla, U.S.A. (with Prof. Charles David Keeling).
- 1985-1998: Senior research scientist and workgroup leader, Max-Planck-Institut
für Meteorologie, Hamburg, Germany (with Prof. Klaus
Hasselmann).
- 1998-2003: Research group leader (C3) at Max-Planck-Institute for
Biogeochemistry, Jena, Germany.
- November 2003: Director, Department Biogeochemical Systems
Max-Planck-Institute for Biogeochemistry, Jena

Research interests

Main field:
Biogeochemistry of the global carbon cycle.

Other fields:
Tropospheric chemistry,
Three-dimensional modeling of atmospheric transport.

Current research interests:
Modeling and quantification of the interactions between the biogeochemical cycles
and the physical climate system. Development of global, continental and regional
observing systems for long-lived biogeochemical trace gases.

Committees, main projects and other scientific activities

- Member of the Task Force on Global Analysis, Integration and Modelling (GAIM) of the International Geosphere-Biosphere Programme, 1992-2000.
- Director NATO Advanced Study Institute "The Global Carbon Cycle" in Il Ciocco, Italy, September 8-20, 1992.
- Coordinator of European Study of Carbon in the Ocean, Biosphere and Atmosphere (ESCOBA), funded by the Environmental Program of the European Communities (1993-1999).
- Member of scientific advisory board of the national French climate research programme (PNEDC).
- Member of the scientific advisory board of the "Centre des faibles Radioactivités (CFR) - Laboratoire de la Modélisation du Climat et de l'Environnement" in Gif-sur-Yvette, France.
- Member of panel of coordinators on modelling biogeochemical cycles of the climate research program of the German ministry for education and science (BMBF), (1996-1998).
- Elected member of the Chemical-Physical-Technological Section (CPT) of the Max-Planck-Society (1992-1995).
- Intergovernmental Panel on Climate Change (IPCC): Lead author of carbon cycle chapter in the reports of 1994, 1995 and 2000.
- Coordinator of the Carbon Cycle Model Linkage Project (CCMLP) funded by the U.S. Electric Power Research Institute (1993-2002).
- Coordinator of "Eurosiberian Carbonflux", funded by the Environmental Program of the European Communities (1998-2000).
- Coordinator of "Terrestrial Carbon Observing System – Siberia", funded by the 5th Framework Programme of the European Commission (2002-2004).
- Member of the steering committee of the "CarboEurope" project cluster of the European commission (1999-2003).
- Co-director IGBP-GAIM-IGAC "Spring School and Workshop on Inverse Modeling of Global Biogeochemical Cycles", Heraklion, Crete, March 16-20, 1998.
- Member of Academia Europea (European Academy of Sciences).
- Member of the Board of Reviewing Editors, Science (2000-).
- Member of Scientific Advisory Board of the Institut für Meereskunde, Kiel (2000-2002).
- Member of Scientific Advisory Board of the Alfred Wegener Institute, Bremerhaven (2001-).
- Editor of Atmospheric Chemistry and Physics (ACP) of the EGS.
- Member of the design team for Terrestrial Carbon Observations (TCO) of the Integrated Global Observing Strategy partnership (IGOS).
- Member of the National Council for the Scientific Committee on Problems of the Environment (SCOPE).
- Member of the "Wissenschaftlicher Lenkungsausschuss" (Scientific Steering Committee) of the German Climate Computing Center (DKRZ) (2003-).
- Member of the scientific steering committee of the German COSOMOS project (development of a comprehensive coupled earth system model) (2003-2005).
- Member of the scientific executive committee of the CarboEurope integrated project funded by the European Commission (2004-2008).
- Scientific member of the Max-Planck-Society (since November 2003).

Teaching:

Lecture course "Modellierung des Klimasystems" an der Friedrich-Schiller-Universität Jena (1999-2001)

Lecture course "Biogeochemische Kreisläufe im globalen Klimasystem" at the Friedrich-Schiller-University, Jena (since 2002)

Supervision of Ph.D. theses

- P. Monfray: Échanges Ocean/ Atmosphère du gaz carbonique: Variabilité avec l'état de la mer.
Université de Picardie, UFR: INSSET (St. Quentin), 1987.
- S. Rehfeld: Deposition radioaktiver Tracer in einem Transportmodell der Atmosphäre.
University of Hamburg, 1994.
- R. Hein: Inverse Modellierung des atmosphärischen Methan-Kreislaufs unter Verwendung eines drei-dimensionalen Modells des Transports und der Chemie der Troposphäre.
University of Hamburg, 1994.
- G. Hoffmann: Stabile Wasserisotope im allgemeinen Zirkulationsmodell ECHAM.
University of Hamburg, 1995.
- J. Kaduk: Simulation der Kohlenstoffdynamik der globalen Landbiosphäre mit SILVAN - Modellbeschreibung und Ergebnisse. University of Hamburg, 1996.
- W. Knorr: Satellitengestützte Fernerkundung und Modellierung des globalen CO₂-Austauschs der Landvegetation: Versuch einer Synthese.
University of Hamburg, 1997.
- A. Kleidon: Wurzeln und Klima: Bestimmung ihrer Bedeutung durch Modellsimulationen. (Roots and climate: Assessing their role with model simulations).
University of Hamburg, 1998.
- B. Walter: Development of a process-based model to derive methane emissions from natural wetlands.
University of Hamburg, 1998.
- T. Kaminski: On the benefit of the adjoint technique for inversion of the atmospheric transport, employing carbon dioxide as an example of a passive tracer.
University of Hamburg, 1998.
- M. Werner: Räumliche und zeitliche Variabilität von Wasserisotopen im polaren Niederschlag (Spatial and temporal variability of water isotopes in polar precipitation).
University of Hamburg, 2000.
- U. Seibt: Processes controlling the isotopic composition of CO₂ and O₂ in canopy air: A theoretical analysis with some observations in a Sitka spruce plantation
University of Hamburg, 2003.
- M. Scholze: Model studies on the response of the terrestrial carbon cycle to climate change and variability
University of Hamburg, 2003.
- H. Fritsch: Ableitung regionaler Flusswerte von Wärme, Wasserdampf und Kohlendioxid
University of Hamburg, 2003.