

Curriculum Vitae, Prof. Dr. Martin Heimann

1. Full name and date

- Heimann, Martin
- male
- March 16, 2018

2. Date and place of birth, nationality, current residence

- March, 1, 1949, Bern
- Switzerland
- Scheidlerstr. 9, 07745 Jena, Germany and
- Pohjoisranta 14A35, 00170, Helsinki, Finland
- Phone: +49 151 120 35946
- Email: martin.heimann@bgc-jena.mpg.de, martin.heimann@helsinki.fi

3. Education and degrees awarded

- PhD in physics, University of Bern, Switzerland, 1982
- Diploma degree in physics, University of Bern, Switzerland, 1978

4. Other education and training, qualifications and skills

5. Linguistic skills

- German
- English, French
- Basic Russian, Italian

6. Current position

- Director emeritus, Max-Planck-Institute for Biogeochemistry, Jena, Germany (since March 2017).
- Research Director, Institute for Atmospheric and Earth System Research (INAR) / Physics, University of Helsinki, Finland (since March 2017).

7. Previous work experience

- 1982-1985: Research Assistant, Scripps Institution of Oceanography, UCSD, La Jolla, U.S.A.
- 1985-1998: Senior Research Scientist and Workgroup Leader, Max-Planck-Institute for Meteorology, Hamburg, Germany
- 1998-2003: Research Group Leader (C3) at Max-Planck-Institute for Biogeochemistry, Jena, Germany
- 2003-2017: Director, Max-Planck-Institute for Biogeochemistry, Jena, Germany
- Visiting professor, University of Helsinki, 2013-2017
- Honorary professor, Friedrich-Schiller-University of Jena, 2005-2017

8. Research funding as well as leadership and supervision

- 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).
- 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).
- Co-director IGBP-GAIM-IGAC "Spring School and Workshop on Inverse Modeling of Global Biogeochemical Cycles", Heraklion, Crete, March 16-20, 1998.
- Member of the steering committee of the "CarboEurope" project cluster of the European commission (1999-2003).
- Coordinator of "Terrestrial Carbon Observing System – Siberia", funded by the 5th Framework Programme of the European Commission (2002-2005).
- Member of the scientific executive committee of the CarboEurope integrated project funded by the 6th Framework Programme of European Commission (2004-2008).
- Conference Chair, 8th International Carbon Dioxide Conference, September 14-18, 2009.
- National Focal Point Germany Integrated Carbon Observation System (ICOS, 2010-2012).
- Co-Chair of working group "Biogeochemical Data Assimilation" of the International Space Science Institute (Bern, Switzerland), 2013-2015, and of the Autumn School on Biogeochemical Data Assimilation, Trieste, Italy, 2014.

9. Merits in teaching and pedagogical competence

- Supervision of more than 30 PhD, and diploma theses.
- Lecture course "Klimatologie" at the Friedrich-Schiller-University of Jena, Germany (https://www.bgc-jena.mpg.de/bgc-systems/lectures/MH_CG).
- Lecture course "ATM328 - Global biogeochemical cycles in the Earth System" at the University of Helsinki, Finland (<https://moodle.helsinki.fi/course/view.php?id=17182>).
- Lecture course "Global Biogeochemical Cycles in the Earth System – an Overview" at the International Max-Planck-Research school for Global Biogeochemical Cycles" (<http://www.imprs-gbgc.de/index.php/Courses/OverviewCourse2018>).

10. Awards, prizes and honours

- Member of the Academia Europaea (1998)
- Scientific member of the Max-Planck-Society and director of the Max-Planck-Institute for Biogeochemistry, Jena, 2003
- Heinrich-Greinacher-Preis, Heinrich-Greinacher-Stiftung, University of Bern, Switzerland (2006)
- Contribution to the Nobel Peace Prize for IPCC (2007)
- Member the International Eurasian Academy of Sciences (2016)
- Medal of the A.M. Obukhov Institute of Atmospheric Physics of the Russian Academy of Sciences

11. Other academic merits

- Member of international peer evaluation committees of funding applications; currently active in:
 - Research Council of Norway, Norway
 - Belgian Science Policy Office (BELSPO), Belgium

- German Research Foundation (DFG), Germany
- Russian Science Foundation, Russia
- Jury member of the BBVA Foundation for the Frontiers of Knowledge Awards (2015-).
- Review Editor of “Science” (2000-)
- Editor of “Atmospheric Chemistry and Physics (ACP)” of the European Geosciences Union.
- Associate editor “Global Biogeochemical Cycles” (2003-2006)
- Editor of “Carbon Balance and Management” (2005-)
- Editor of “Earth System Dynamics (ESD)” of the European Geosciences Union.
- Referee for journals (a.o. Nature, Science, Tellus, Global Biogeochemical Cycles, Earth System Science Data, Bulletin of the American Meteorological Society).
- Member of the CO2 Monitoring Task Force of the Copernicus Programme of the European Union (2016-)
- Member of the Task Force on Global Analysis, Integration and Modelling (GAIM) of the International Geosphere-Biosphere Programme, 1992-2000.
- 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 in the reports of 1994, 1995, 2000, 2007, and 2013.
- Member of the Scientific Advisory Group for Greenhouse Gas Measurements of the Global Atmosphere Watch Program of the World Meteorological Organization (1999-2008).
- Member of Scientific Advisory Board of the Institut für Meereskunde, Kiel (2000-2002).
- Member of Scientific Advisory Board of the Alfred Wegener Institute, Bremerhaven (2001-2009).
- Member of the design team for Terrestrial Carbon Observations (TCO) of the Integrated Global Observing Strategy partnership (IGOS).
- Member of the German 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-), Chair: 2007-2008.
- Member of the scientific steering committee of the German COSMOS project (development of a comprehensive coupled earth system model) (2003-2011).
- Member of the scientific advisory panel of the Centro Euro-Mediterraneo per i Cambiamenti Climatici, Lecce, Italy (2007-2011).
- Member of the scientific advisory panel of the Center for Studies of Carbon Cycle and Climate Interactions at the Lund University, Lund, Sweden (2009-).
- Member of the Scientific Advisory Board of the Otto-Schmidt Laboratory, Saint-Petersburg, Russia (2016-).

12. Scientific and societal impact of research

- More than 250 publications in refereed journals (Web of Science, July 11, 2017), 15'643 citations, H-Index: 70.
- ResearcherID: <http://www.researcherid.com/rid/H-7807-2016>

- ORCID: <http://orcid.org/0000-0001-6296-5113>

10 relevant publications:

- Rödenbeck, C., Houweling, S., Gloor, M., and Heimann, M., 2003. CO₂ flux history 1982-2001 inferred from atmospheric data using a global inversion of atmospheric transport. **Atmospheric Chemistry and Physics** 3, 1919-1964.
- Heimann, M. and Reichstein, M., 2008. Terrestrial ecosystem carbon dynamics and climate feedbacks. **Nature** 451, 289-292.
- Heimann, M., Rodenbeck, C., and Churkina, G., 2008. Multiple constraint estimates of the European carbon balance. **Ecological Studies**, 203, 361-375.
- Rodenbeck, C., Gerbig, C., Trusilova, K., and Heimann, M., 2009. A two-step scheme for high-resolution regional atmospheric trace gas inversions based on independent models. **Atmospheric Chemistry and Physics** 9, 5331-5342.
- Schulze, E. D., Luysaert, S., Ciais, P., Freibauer, A., Janssens, I. A., Soussana, J. F., Smith, P., Grace, J., Levin, I., Thiruchittampalam, B., Heimann, M., Dolman, A. J., Valentini, R., Bousquet, P., Peylin, P., Peters, W., Rodenbeck, C., Etiope, G., Vuichard, N., Wattenbach, M., Nabuurs, G. J., Poussi, Z., Nieschulze, J., Gash, J. H., and CarboEurope, T., 2009. Importance of methane and nitrous oxide for Europe's terrestrial greenhouse-gas balance. **Nature Geoscience** 2, 842-850.
- Pillai, D., Gerbig, C., Kretschmer, R., Beck, V., Karstens, U., Neininger, B., Heimann, M., 2012. Comparing Lagrangian and Eulerian models for CO₂ transport - a step towards Bayesian inverse modeling using WRF/STILT-VPRM. **Atmospheric Chemistry and Physics** 12, 8979-8991.
- Heimann, M., Schulze, E., Winderlich, J., Andreae, M. O., Chi, X., Gerbig, C., Kolle, O., Kübler, K., Lavric, J., Mikhailov, E., Panov, A., Park, S., Rödenbeck, C., and Skorochood, A. 2014. The Zotino Tall Tower Observatory (ZOTTO): Quantifying large scale biogeochemical changes in central Siberia, **Nova Acta Leopoldina NF**, 117(399), 51-64.
- Forkel, M., N. Carvalhais, C. Rodenbeck, R. Keeling, M. Heimann, K. Thonicke, S. Zaehle, and M. Reichstein. 2016. Enhanced Seasonal CO₂ Exchange Caused by Amplified Plant Productivity in Northern Ecosystems. **Science**, 351/6274, 696-699.
- Rödenbeck, C., Zaehle, S., Keeling, R., and Heimann, M. 2018. How does the terrestrial carbon exchange respond to interannual climatic variations? A quantification based on atmospheric CO₂ data, **Biogeosciences Discussions**, 1-22, doi:10.5194/bg-2018-34.
- Park, S.-B., Knohl, A., Lucas-Moffat, A. M., Migliavacca, M., Gerbig, C., Vesala, T., Peltola, O., Mammarella, I., Kolle, O., Lavrič, J. V., Prokushkin, A., and Heimann, M. 2018. Strong radiative effect induced by clouds and smoke on forest net ecosystem productivity in central Siberia, **Agricultural and Forest Meteorology**, doi:10.1016/j.agrformet.2017.09.009.