

CURRICULUM VITAE¹

Bjorn B. Stevens

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Personal History

Born 19 April, 1966, Augsburg Germany

Family Married (Andrea Brose); two children, Saskia (born 1997), Anouk (born 1999)

Education

Ph.D. Atmospheric Science, 1992-1996, Colorado State University, Ft. Collins, CO, USA

Dissertation: “On the Dynamics of Precipitating Stratocumulus”

Adviser: William R. Cotton

M.Sc. Electrical Engineering, 1988-1990, Iowa State University, Ames, IA, USA

Thesis: “Astrophysical Jets and Implications of Low Frequency Observations”

Adviser: John Basart

B.Sc. Electrical Engineering, 1984-1987, Iowa State University, Ames, IA, USA

Professional Experience

Max Planck Institute for Meteorology, Hamburg, 1998-1999, 2008-

MANAGING DIRECTOR, 2011-

DIRECTOR AT MPI-M AND SCIENTIFIC MEMBER OF MAX PLANCK SOCIETY, 2008-

HEAD, International Max Planck Research School for Earth System Modeling, 2009-2011

VISITING SCIENTIST: Research related to the representation and effect of geophysical boundary layers in climate models, 1998-1999.

University of Hamburg, 2009-

PRINCIPAL INVESTIGATOR AND STEERING COMMITTEE MEMBER: Cluster of Excellence “Integrated Climate System Analysis and Prediction”, 2010-

PROFESSOR (§ 17), 2009-

Freie Universität & Konrad-Zuse-Zentrum für Informationstechnik, Berlin, 2007

SABBATICAL VISITOR: Guest of Prof. R. Klein, presented lectures on “Cloud Math” in the math department during summer semester.

¹Updated February 25, 2014

Dep't of Atmospheric and Oceanic Sciences, University of California, Los Angeles, 1999-2011

PROFESSOR (TENURED): Continuing appointment, July 1, 2007.

ASSOCIATE PROFESSOR (TENURED): Continuing appointment, July 1, 2003.

ASSISTANT PROFESSOR: In the area of dynamic meteorology, appointment July 1, 1999.

National Center for Atmospheric Research, Boulder, CO, 2000-2009

AFFILIATE SCIENTIST: Working jointly with the Climate and Global Dynamics and Mesoscale and Microscale Meteorology Divisions to understand and quantify the role of small-scale processes in large-scale circulations.

Advanced Study Program, NCAR, Boulder CO, USA, 1996-1998

POST-DOCTORAL FELLOW: Research related to entrainment, sub-grid scale closures in large-eddy simulation, and physical processes in cloud-topped boundary layers. Visiting member of the Geophysical Turbulence Program, Advanced Study Program seminar, and Thompson Lectures Coordinator. Participant in 1997 Project LEARN.

Synopsis of Research Interests

Professor Stevens' research blends modeling, theory and field work to help articulate the role of clouds and atmospheric convection on the climate system. He has made pioneering contributions to our understanding of mixing and microphysical processes on the structure and organization of marine boundary layer clouds, whose statistics regulate the flow of energy through the Earth system. Small changes in such clouds can greatly amplify, or dampen, perturbations to the Earth system.

Selected Professional Activities

- LEAD PRINCIPAL INVESTIGATOR: HD(CP)², High Definition Clouds and Precipitation for Climate Prediction, a national project supported by the Germany Ministry of Education and Research (2013-).
- LEAD AUTHOR: IPCC Fifth Assessment Report; World Climate Research Programme; Co-lead of "Grand Challenge on Clouds, Circulation and Climate Sensitivity" (2012-); Working Group on Coupled Models, WGCM, Scientific Steering Committee Member and the CMIP panel of WGCM (2012-); Global Atmospheric System Studies, GASS, Scientific Steering Committee Member (2009-2012).
- SCIENTIFIC ADVISORY COMMITTEE MEMBER: Department of Physics, Leipzig University (2013-); NCAR Earth System Laboratory (2010-2012); ETH Center for Climate System Modeling (2010-); HALO / BMBF Gulfstream G 550 (2009-); Aerosol, Clouds, Precipitation and Climate Initiative (2009-2011) (Co-Chair 2010); European Facility for Airborne Research (Chair) (2008-2011).
- EDITOR: Bulletin of the American Meteorological Society (2012-); Atmospheric Chemistry and Physics (2010-2013); Journal of the Atmospheric Sciences (2002-2007).
- JURY MEMBER: BBVA Frontiers of knowledge (2009-), Chair (2012-); AXA Outlook Awards, Chair, (2013-).

Selected Honors

- Henry Houghton Lecturer, MIT (2014)
- Simons Lecture, Simons Foundation (2013)
- Bavarian State Opera Lecture (2012)
- Tzvi Gal-Chen Lecturer, University of Oklahoma (2011)
- Thompson Lecturer, NCAR (2010)
- Colorado State University, College of Engineering, Distinguished Alumni Award (2004)
- The Clarence Leroy Meisinger Award of the American Meteorological Society (2002)
- NASA New Investigator Award (2002)
- Editors Award, Journal of Atmospheric Sciences (2001)
- NSF CAREER Award (1999)
- Alexander von Humboldt Foundation, Fellowship (1998 -1999)
- NCAR - ASP Post-doctoral Fellowship (1996 -1998)
- NASA/EOS Graduate Fellowship on Global Change (1994)

Publications

Prof. Stevens has contributed over 120 refereed publications to the scientific literature, including three book chapters and one edited book. He has an h-index of 34, and his research has been cited nearly 4000 times, more than 600 times annually. Prof. Stevens was a lead-author of Chapter 7, ‘Cloud and Aerosols’ for the fifth assessment report of the IPCC. A full list of his publications is maintained [here](#)² and a sampling of publications more appropriate for a general readership audience is provided below.

1. Stevens, B., S. Bony, 2013: What are climate models missing. *Science*, **340(6136)**, 1053-1054. [doi:10.1126/science.1237554](https://doi.org/10.1126/science.1237554).
2. Stevens, B., S. Bony, 2013: Water in the atmosphere. *Physics Today*, **66(6)**, 29-34. [doi: 10.1063/PT.3.2009](https://doi.org/10.1063/PT.3.2009).
3. Stevens, B., S.E. Schwartz, 2012: Observing and modeling earth’s energy flows. *Surveys in Geophysics*, **33**, 779-816. [doi: 10.1007/s10712-012-9184-0](https://doi.org/10.1007/s10712-012-9184-0).
4. Stevens, B., G. Feingold, 2009: Untangling aerosol effects on clouds and precipitation in a buffered system. *Nature*, **461**, 607-613. [doi: 10.1038/nature08281](https://doi.org/10.1038/nature08281).
5. Stevens, B., G. Vali, K. Comstock, M. C. van Zanten, P. H. Austin, C. S. Bretherton, D. H. Lenschow, 2005: Pockets of Open Cells (POCs) and Drizzle in Marine Stratocumulus. *Bull. Amer. Meteorol. Soc.*, **86**, 51-57. [doi: 10.1175/BAMS-86-1-51](https://doi.org/10.1175/BAMS-86-1-51)
6. Stevens, B., 2005: Atmospheric moist convection. *Annual Review of Earth and Planetary Sciences*, **33**, 605-643. [doi:10.1146/annurev.earth.33.092203.122658](https://doi.org/10.1146/annurev.earth.33.092203.122658).

²<http://www.mpimet.mpg.de/en/staff/bjorn-stevens/publications-2.html>