

Resume

AGATHA M. DE BOER

Professor

in Physical Oceanography and Paleoclimate Modelling

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My research is focused around the controls of the strength and structure of the large scale ocean circulation, from the past to the future, which I investigate through theory, climate modelling, and collaboration with observationalists and paleoceanographers.

Higher education degrees

- ◆ 2003, Ph.D. in Physical Oceanography, Florida State University, FL, United States
- ◆ 1994, B.Sc. Honors, Physics, University of Pretoria, South Africa
- ◆ 1993, B.Sc. (*cum laude*), Physics, Mathematics, University of the Orange Free State, South Africa

Professional employment

- ◆ 2023-present, Professor, Dept of Geological Sciences (IGV) and the Bolin Centre for Climate Research (BCCR), Stockholm University (SU).
- ◆ 2013-2023, Docent and Associate Professor, IGV and BCCR, SU.
- ◆ 2011-2013, Associate Professor in Paleo-ocean modelling, IGV and BCCR, SU.
- ◆ 2006-2011, Senior Research Associate and RCUK fellow, University of East Anglia (UEA), UK
- ◆ 2003-2006, Postdoctoral fellow, Princeton University, USA.
- ◆ 1998-2003, Graduate Research Assistant and PhD student, Florida State University, USA.
- ◆ 1994-1997, Senior Physicist, Eskom (South African electricity public utility), South Africa. Responsible for nuclear reactor physics and radiation protection studies.

Publications and statistics:

- ◆ Google Scholar: <https://scholar.google.com/citations?user=gfqxxP8AAAAJ&hl=en>
- ◆ Sep 2024: 50 peer reviewed articles and monographs: 13 as first author, 11 as PI or supervisor.
- ◆ Sep 2024: H-Index=25, i-index=38, Total citations=2845.

Supervision

- ◆ 2008-present, Main supervisor of 3 PhD students (Trusha Naik-present, Robert Graham (graduated 2014, *Received award for best Ph.D. thesis in the Faculty of Science*), and Matthew Thomas (graduated 2012).
- ◆ 2016-present: Main supervisor of 5 postdoctoral researchers (Martin Renoult, Marie Sicard, Srinath Krisnan, David Hutchinson, Catherine Bradshaw (part time) and co-supervisor of one (Flor Vermassen).

Key national and international leadership roles

- ◆ 2019-2027, Vice President of the International Association of the Physical Sciences of the Ocean (IAPSO). For more information, see: <https://iapso-ocean.org/>
- ◆ 2022, Member of International Union of Geophysics and Geodesy (IUGG) fellow selection committee.
- ◆ 2021&2023&2025, Chair and member of award committee for Prince Albert I Medal (for significant work in the physical and chemical sciences of the oceans).
- ◆ 2016-2022, Member of the Swedish National Committee for Geophysics (SNG). For more information, please see: <http://www.geofysiska.se/index.html>
- ◆ 2015-2019, Member of executive committee of the IAPSO.
- ◆ 2013-2019, Co-leader of Bolin Centre for Climate Research, Research Area 1 "Atmosphere and Ocean Dynamics and Climate".
- ◆ 2007-2013, Member of the leadership board of the international Earth Science Women's Network (ESWN). Leader of the European branch of ESWN.

Key university leadership and service

- ◆ 2024-present, Deputy Head of Department, Department of Geological Sciences, SU.
- ◆ 2021-present, Member of the board of the Department of Geological Sciences
- ◆ 2013-2021, A Founder and manager of the Bolin Centre Mentoring Program.
- ◆ 2018-2023, Director of Studies of Master's Program in Climate Sciences
- ◆ 2010-2011, Member of Ph.D. Studentship election panel for Department of Environmental Science, UEA.

Research grants over 2 500 ksek

- ◆ 2024-2028: **Co-P.I.** *Arctic Ocean borealization during past warm climates*. Swedish Research Council, 4 000 ksek. Principal applicant Helen Coxall.
- ◆ 2023-2027: **P.I.** *Contract research to produce several climate modelling time slices during the last 300 million years*. Getech Group Plc., 4 620 ksek.
- ◆ 2022-2024: **Co-P.I.** *The fate of the Gulf Stream in a changing climate (FutureGS)*. Formas Research Council, 2 994 ksek. Principal applicant Torben Königk.
- ◆ 2021-2025: **P.I.** *The Arctic cryosphere at the Last Interglacial; an analogue for the future?* Swedish Research Council, 3 380 ksek.
- ◆ 2020-2024: **Co-P.I.** *Subpolar plankton invasions in the Arctic Ocean during past interglacials: a fingerprint for GIS collapse?* Swedish Research Council, 3 620 ksek. Principal applicant Helen Coxall.
- ◆ 2017-2021: **P.I.** *North Atlantic Deep Water formation initiated by the closure of the Barents Sea Seaway – a potential trigger for Antarctic glaciation*. Swedish Research Council, 3 200 ksek.

Significant external evaluation/referee assignments

- ◆ 2011-present: Opponent or examiner at 11 Ph.D. defences in Sweden, Norway, France, Spain and RSA.
- ◆ 2019-present: External evaluation for three tenure track and professor position in Sweden and Germany.
- ◆ 2019-2023: Referee for IAPSO Best Practice Group proposals.
- ◆ 2015-present: Reviewer of Scientific Committee on Oceanic Research (SCOR) working group proposals.
- ◆ 2020: Reviewer of UN Decade of Ocean Science for Sustainable Development.
- ◆ 2017-2019: Eugene LaFond medal (for scientist from a developing country) award committee.
- ◆ 2003-present: Reviewing assignments for 13 different scientific journals and books.

Main scientific meeting planning

- ◆ As member and vice president of the IAPSO executive committee, co-organized several of their assemblies including program development and convening sessions. These included the assemblies in Busan (2025, ongoing), Berlin (2023), Busan-online (2021), Montreal (2019), Cape Town (2017).
- ◆ 2014-2024, Organized or co-organized 5 international workshops at Stockholm University, each time with at least 30 participants. Topics included the Eocene-Oligocene Transition, the Miocene, the Last Interglacial, and the Southern Ocean physics and biochemistry.

Teaching

- ◆ 2020-present, Ocean-climate interaction through geologic time, Master's level, course director, SU
- ◆ 2024-present, Oceanography for Geoscientist, 2nd year level, course director, SU
- ◆ 2018-2023, Masters in Climate Science, director of studies, SU
- ◆ 2018-2022, Quantitative Methods in Geoscience 1st year level, course director, SU
- ◆ 2014-present, Paleoclimatology and the Ocean System distance course, co-teacher, SU
- ◆ 2012-2023, Paleooceanography and Paleoclimatology I (formerly called Marine Geology II), 2nd or 3rd year level, co-teacher, SU
- ◆ 2018-present, The Ocean, introductory evening course, co-teacher, SU
- ◆ 2014, Paleo-oceans and the Paleoclimate System, Masters level, co-teacher, SU
- ◆ 2013, Climate change throughout Earth's history, Stockholm Summer School, teacher, SU
- ◆ 2010-2011, Atmosphere and Oceans, 1st year level, course director and sole teacher, UEA
- ◆ 2009-2010, Oceanography 2nd and 3rd year Field Course in Oban Scotland, teacher, UEA
- ◆ 2010, First year environmental science student field course in Slapton, UK, teacher, UEA
- ◆ 2008, Introductory Computing for Environmental Scientists, course director, UEA
- ◆ 2007, Basic Environmental Physics, 1st year level, teacher, UEA