

Anthony Weaver

Academic Qualifications

- 2013 Habilitation à Diriger des Recherches,
Institut National Polytechnique de Toulouse, France.
Manuscript Title: *Aspects of Covariance Modelling in Variational Ocean Data Assimilation*.
- 1994 D.Phil. in Physical Oceanography.
Department of Atmospheric, Oceanic and Planetary Physics,
University of Oxford, United Kingdom.
Thesis Title: *Variational Data Assimilation in Numerical Models of the Ocean*.
- 1990 M.Sc. in Physical Oceanography and Applied Mathematics.
Department of Oceanography and Institute of Applied Mathematics,
University of British Columbia, Canada.
- 1987 B.Sc. (First Class Honours) in Physics.
University of Victoria, Canada.

Permanent Positions

- 2014 – present Senior Researcher, Parallel Algorithms Team, CERFACS.
- 2002 – 2014 Senior Researcher, Global Change and Climate Modelling Team, CERFACS.
- 2001 – 2002 Young Senior Researcher, Global Change and Climate Modelling Team, CERFACS.
- 1999 – 2000 Young Senior Researcher, Mercator (Operational Oceanography) Team, CERFACS.

Postdoctoral and Consultancy Positions

- 1998 – 1999 Consultant, Seasonal Forecasting group, ECMWF, Reading, U.K.
- 1997 – 1999 Postdoctoral researcher, Mercator project, CERFACS.
Position held at Laboratoire d’Océanographie Dynamique et de Climatologie (LODYC), Université Pierre et Marie Curie (UPMC), Paris (Oct. 1997 - Aug. 1998) and at ECMWF, Reading, U.K. (Sept. 1998 – Sept. 1999).
- 1996 – 1997 Postdoctoral researcher, LODYC, UPMC, Paris.
- 1995 – 1996 Postdoctoral research fellow, EC Human and Capital Mobility, LODYC, UPMC.

Research Interests

- Numerical modelling; data assimilation (DA); variational DA; ensemble-variational (hybrid) DA; adjoint methods; covariance modelling and estimation; global ocean DA and reanalysis.
- A principal developer of the NEMOVAR ocean data assimilation system, used operationally at ECMWF and UK Met Office.

Teaching and Training

- Principal lecturer for the annual CERFACS Data Assimilation Training Course. (5-6 hours of lectures since 2012).
- Scientific and technical support for NEMOVAR ocean DA system users and developers, since 1997.

Editorial Boards

- Associate Editor for the AMS journal Monthly Weather Review, 2006–2009.
- Guest Editor for a Special Issue of the Quarterly Journal of the Royal Meteorological Society in 2006.
- Referee for 14 scientific journals.

Membership on national and international scientific committees and panels

- ECMWF Scientific Advisory Council, 2017–present.
- Data Assimilation Task Team of the GODAE OceanView project (renamed OceanPredict since 2019), 2015–present.
- Scientific organizing committees for international workshops and conferences: ECMWF/OceanPredict joint workshop on ocean DA (2021); ECMWF/EUMETSAT joint workshop on the treatment of errors in satellite DA (2020); OceanPredict workshop on ocean DA (2020); WMO international workshop on coupled DA (2016); WMO international symposia on DA: 4th (2006 in Prague); 5th (2009 in Melbourne) and 6th (2013 in Washington).
- Observing System Experiment Task Team of the GODAE OceanView project, 2010–2014.
- WCRP CLIVAR Global Synthesis and Ocean observations Panel, 2004–2009.
- WCRP CLIVAR Ocean Observations Panel from 2000–2003.

Publications, supervision, examination committees, projects and conferences

- 32 scientific publications in the following peer-reviewed journals: Bulletin of the American Meteorological Society, Climate Dynamics, Dynamics of Atmosphere and Oceans, Frontiers in Marine Science, Geophysical Research Letters, Journal of Geophysical Research, Journal of Climate, Journal of Operational Oceanography, Journal of Physical Oceanography, Monthly Weather Review, Oceanography Magazine, Quarterly Journal of the Royal Meteorological Society, Tellus.
- Supervision of 4 PhD students, 9 postdoctoral scientists, 4 research engineers, 7 trainees.
- Rapporteur or examiner for 13 PhD students and 3 HDR.
- CERFACS principal investigator in 6 European projects (FP5-7, C3S) and 11 national projects (ANR, CNRS-LEFE, RTRA, TOSCA).
- Regular participation at national and international conferences and workshops, including 25 as an invited speaker.