Publication list Academic credentials

Dr. Fred WOBUS

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www.researchgate.net/profile/Fred-Wobus

RESEARCH INTERESTS

Geospatial data analysis · Climate projections using environmental data · Operational ocean & weather forecasting · Numerical modelling · Physical oceanography · Mesoscale ocean circulation in the Indian Ocean and Arabian Gulf · Shelf–deep sea exchanges in the Black Sea · Dense water cascading (downslope gravity currents of dense shelf water) in the Arctic Ocean, the Black Sea and the Arabian Gulf

Publications

See also www.fredwobus.com/research for complete list and PDF downloads

Bruciaferri D., G.I. Shapiro, S. Stanichny, A. Zatsepin, T. Ezer, **F. Wobus**, X. Francis, D. Hilton (2020) The development of a 3D computational mesh to improve the representation of dynamic processes: The Black Sea test case, *Ocean Modelling* (146), 101534. DOI: 10.1016/j.ocemod.2019.101534

Bruciaferri D., G.I. Shapiro, **F. Wobus** (2018) A multi-envelope vertical coordinate system for numerical ocean modelling, *Ocean Dynamics* (68), 1239–1258. DOI: 10.1007/s10236-018-1189-x

Mikaelyan A.S., G.I. Shapiro, V.K. Chasovnikov, **F. Wobus**, M. Zanacchi (2017) Drivers of the autumn phytoplankton development in the open Black Sea, *Journal of Marine Systems* (174) 1–11.

Zhou F., G.I. Shapiro, **F. Wobus** (2014) Cross-shelf exchange in the northwestern Black Sea, *Journal of Geophysical Research* (119)(4) 2143–2164.

Wobus F., G.I. Shapiro, J.M. Huthnance, M.A.M. Maqueda, Y. Aksenov (2013) Tidally-induced lateral dispersion of the Storfjorden overflow plume, *Ocean Science* (9) 885–899.

Wobus F., G.I. Shapiro, J.M. Huthnance, M.A.M. Maqueda (2013) The piercing of the Atlantic Layer by an Arctic shelf water cascade in an idealised study inspired by the Storfjorden overflow in Svalbard, *Ocean Modelling Ocean Modelling* (71), 54–65.

Wobus F., G.I. Shapiro, M.A.M. Maqueda, J.M. Huthnance (2011) Numerical simulations of dense water cascading on a steep slope, *Journal of Marine Research* (69) 391–415.

Shapiro G.I., **F. Wobus**, D.L. Aleynik (2011) Seasonal and inter-annual temperature variability in the bottom waters over the Black Sea shelf, *Ocean Science* (7) 585–596.

International Human Genome Sequencing Consortium, Lander E.S. *et al.* (2001) Initial sequencing and analysis of the human genome, *Nature* **409** (6822) 860–921 (see list of supplementary authors).

SELECTED CONFERENCE PRESENTATIONS

Shapiro G.I., **F. Wobus** (2017) *et al.* Cascading of high salinity bottom waters from the Arabian Gulf to the northern Arabian Sea, *Geophysical Research Abstracts* (19) EGU2017-7366, EGU General Assembly, Vienna, Austria, 23 - 28 April 2017 (Oral presentation).

Wobus F., G.I. Shapiro, D. Yuan and Zh. Wang (2014) Inter-annual variability of exchange processes at the outer Black Sea shelf, 16th Biennial Challenger Conference for Marine Science, Plymouth, 8-11 September 2014, Book of Abstracts, p.61 (Oral presentation).

Zhou F., G.I. Shapiro, **Wobus F.** (2014) Exchanges between the open Black Sea and its northwest shelf, *Geophysical Research Abstracts* (16) EGU2014-1064, EGU General Assembly, Vienna, Austria, 27 April - 02 May 2014 (Oral presentation).

Wobus F., G.I. Shapiro, J.M. Huthnance, M.A.M. Maqueda, Y. Aksenov (2013) Tidally-induced dispersion of the Storfjorden overflow plume onto the West Svalbard Shelf, *Geophysical Research Abstracts* (15) EGU2013-4912, EGU General Assembly, Vienna, Austria, 07-12 April 2013 (Oral presentation).

Wobus F., G.I. Shapiro, J.M. Huthnance, M.A.M. Maqueda (2012) An Idealised Modelling Study of an Arctic Dense Water Cascade Piercing the Atlantic Layer, 15th Biennial Challenger Conference for Marine Science, Norwich, 3-6 September 2012, Book of Abstracts, p.61 (Oral presentation).

Wobus F., G.I. Shapiro, M.A.M. Maqueda, J.M. Huthnance (2012) The piercing of the Atlantic Layer by a dense water cascade in an idealised modelling study inspired by the Storfjorden overflow, *Geophysical Research Abstracts* (14) EGU2012-2816, EGU General Assembly, Vienna, Austria, 22-27 April 2012 (Poster presentation).

Wobus F., G.I. Shapiro, M.A.M. Maqueda, J.M. Huthnance (2011) Modelling of shelf water cascades on the continental slope, *Geophysical Research Abstracts* (13) EGU2011-3027, EGU General Assembly, Vienna, Austria, 3-8 April 2011 (Oral presentation).

Wobus F., G.I. Shapiro, M.A.M. Maqueda, J.M. Huthnance (2010) Simulating laboratory experiments of dense water cascades: a sensitivity study, 14th Biennial Challenger Conference for Marine Science, Southampton, 6-9 September 2010, Book of Abstracts, p.69 (Oral presentation).

INVITED TALKS

Oct 2012	APECS Svalbard Workshop Online webinar entitled 'The Storfjorden over the Arctic Ocean'.	UNIS, Svalbard, Norway flow – Dense water cascading in
May 2012	National Oceanography Centre Seminar entitled 'Dense water cascading in the	Liverpool, UK ne Arctic Ocean'.
Aug 2011	British Antarctic Survey Seminar entitled 'Dense water cascading off t	Cambridge, UK he continental shelf'.

Grants & Sponsorships

2009 – 2013	Natural Environment Research Council NERC PhD studentship.	
2009 – 2013	Plymouth University PhD maintenance grant.	
2010	ISAC/CNRS/NSF Grant to attend the Alpine Summer School, Course XVIII 'Buoyancy Driven Flows', Aosta, Italy.	
2008 – 2009	Plymouth University MSc studentship (NERC funding).	

Awards & Prizes

2009 Plymouth Marine Laboratory Annual Prize for the best research project the-

sis on the MSc Applied Marine Science course.

University of Hull Ford Prize for outstanding professional achievement in

the Software Engineering Team Project II in the academic year 1996/1997.

TEACHING EXPERIENCE

May–Jun 2017 Trainer Plymouth University Ent. Ltd., UK

Delivered on-the-job training for UAE MetOc Centre staff in Abu Dhabi, UAE.

Mar–Apr 2015 Trainer Plymouth University Ent. Ltd., UK

Provided software training and bespoke courses for UAE MetOc Centre staff

in Plymouth, UK.

Jan–Feb 2013 Associate Lecturer Plymouth University, UK

Delivered lectures for module 'The Global Ocean' to 2nd year undergraduate

students on the BSc Ocean Science degree course.

Feb 2013 Demonstrator Plymouth University, UK

Field work instructor on R/V 'Falcon Spirit' for $\mathfrak{1}^{frst}$ year undergraduate students on teaching cruises in Plymouth Sound (1 week). Incl. Coursework

marking.

2011–2013 Exam Invigilator Plymouth University, UK

Invigilation of one-to-one exams with modified assessment procedures for

students with a wide range of disabilities or learning difficulties (3 weeks).

2009 – 2011 **Demonstrator** Plymouth University, UK

Teaching of computer workshops and marking of coursework 'Geostrophic currents in the open sea' for 2nd year undergraduate students (5 weeks in

3 years). Incl. preparation of teaching materials.

Nov 2010 **Demonstrator** Plymouth University, UK

Field work instructor on R/V 'Falcon Spirit' for 2ndyear undergraduate stu-

dents on teaching cruises in the Tamar estuary (1 week).

2009, 2010 GTA and LTHE course Plymouth University, UK

6 week GTA (General Teaching Association) course followed by LTHE300 (Learning and Teaching in Higher Education) accredited module. (Tutor: Joan

Gavin, Plymouth University)

LINKED ATTACHMENT

• Curriculum vitae: www.fredwobus.com/about/fred_wobus_cv.pdf

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