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EDUCATION

2000–2004 **Utrecht University** Utrecht, Netherlands

Ph.D., Physical Oceanography

- Thesis: *Monitoring the variability of sea level and surface circulation with satellite altimetry*
- Advisors: Prof. W. de Ruijter, Dr. H.M. van Aken

1997–1999 **Saint-Petersburg State University** St.-Petersburg, Russia

M.Sc., Hydrometeorology

- Major: Physical Oceanography
- GPA 4.9/5.0, *Summa Cum Laude*

1992–1997 **Saint-Petersburg State University** St.-Petersburg, Russia

B.Sc., Hydrometeorology

- Major: Physical Oceanography
- GPA 4.9/5.0, *Summa Cum Laude*

APPOINTMENTS

2009 - present **University of California Los Angeles, Joint Institute for Regional Earth System Science and Engineering** Los Angeles, California

Assistant Researcher (Jet Propulsion Laboratory affiliate)

- Studying the variability of sea level in the Arctic and sub-Arctic seas
- Validation of sea surface height products at high latitudes
- Determination of the Antarctic Circumpolar Current fronts and the formation rate of the Antarctic Intermediate Water using a model and observations
- Studied the variability of eddy energy in the subtropical North Atlantic
- Conducted research on the mechanisms of heat transfer in the Southern Ocean
- Performing diagnostics of a high-resolution ocean data synthesis products as part of the Estimating Climate and Circulation of the Ocean (Phase 2) project

2006–2009 **NASA Jet Propulsion Laboratory, California Institute of Technology** Pasadena, California

Post-Doctoral Researcher (Advisor: Dr. L.-L. Fu)

- Conducted research on the dynamics in the Argentine Basin, the dynamics of the Azores Current, meridional overturning circulation, and the mechanisms of oceanic heat transport
- Contributed to the development of a high-resolution ocean data synthesis product as part of the Estimating Climate and Circulation of the Ocean (Phase 2) project by carrying out its diagnostics

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- 2005–2006** **Collecte Localisation Satellite,
Space Oceanography Division** Toulouse, France
- Post-Doctoral Researcher** (Advisor: Dr. P.-Y. Le Traon)
- Contributed to the implementation of a correction for aliased high-frequency barotropic signals in satellite altimetry measurements that significantly increased its accuracy in shallow waters
 - Carried out the validation of a newly corrected satellite altimetry product before its distribution and demonstrated its advantages over a previously distributed product
- 2000–2004** **Royal Netherlands Institute for Sea Research** Texel, Netherlands
- Ph.D. student** (Advisors: Dr. H.M. van Aken and Prof. W.P.M. de Ruijter)
- Studied the variability of sea level and surface circulation using satellite altimetry data and hydrographic measurements
- 1998–1999** **Arctic and Antarctic Research Institute** St.-Petersburg, Russia
- Technician/Engineer** (Advisor: Dr. I. Dmitrenko)
- Analyzed hydrometeorological data for the Russian-German project “The Laptev Sea System”
 - Carried out archiving of hydrometeorological data

PROJECTS

- Investigating the variability of sea level in the sub-Arctic and Arctic seas. Role: *Principal Investigator*. Funding agency: NASA. Proposal # 10-PO10015, Solicitation NNH10ZDA001N-PO. Period of work: 2011 – 2013.
- Determination of Antarctic Intermediate Water formation using ECCO2 model and space-borne observations. Role: *Co-PI from UCLA* (PI from Jet Propulsion Laboratory: V. Zlotnicki). Funding agency: NASA. Period of work: 2011 – 2012.

PUBLICATIONS

- Volkov D.L.**, V. Zlotnicki (2012): Antarctic Circumpolar Current fronts observed by GOCE and GRACE missions, *Ocean. Dyn.*, 62, N6, 893-905, doi:10.1007/s10236-012-0541-9.
- Volkov D.L.**, M.-I. Pujol (2012): Quality assessment of a satellite altimetry data product in the Nordic, Barents, and Kara seas, *J. Geophys. Res.*, 117, C03025, doi:10.1029/2011JC007557.
- Volkov D.L.**, L.L.Fu (2011), Interannual variability of the Azores Current strength and eddy energy in relation to atmospheric forcing, *J. Geophys. Res.*, 116, C11011, doi:10.1029/2011JC007271.
- Volkov D.L.**, L.L.Fu (2010), On the reasons for the existence and the variability of the Azores Current, *J. Phys. Oceanogr.*, 40, doi:10.1175/2010JPO4326.1, 2197-2220.
- Volkov D.L.**, L.L. Fu, T. Lee (2010), Mechanisms of the meridional heat transport in the Southern Ocean, *Ocean Dynamics*, 60, doi:10.1007/s10236-010-0288-0, 791-801.
- Volkov D.L.**, T. Lee, L.L. Fu (2008): Eddy-induced meridional heat transport in the ocean, *Geophys. Res. Lett.*, 35, LXXXXX, doi:10.1029/2008GL035490.
- Volkov D.L.**, L.L. Fu (2008): The role of vorticity fluxes in the dynamics of the Zapiola Anticyclone, *J. Geophys. Res.*, 113, C11015, doi:10.1029/2008JC004841.
- Volkov D.L.**, G. Larnicol, J. Dorandeu (2007): Improving the quality of satellite altimetry data over continental shelves, *J. Geophys. Res.*, 112, doi:10.1029/2006JC003765.
- Volkov D.L.**, H.M. van Aken (2005): Climate-related change of sea level in the extratropical North Atlantic and North Pacific in 1993-2003, *Geophys. Res. Lett.*, 32, doi:10.1020/2005GL023097.
- Volkov D.L.** (2005): The inter-annual variability of the altimetry-derived eddy field and associated surface circulation in the North Atlantic Ocean in 1993-2001, *J. Phys. Oceanogr.*, V35, 405-426.

- Volkov D.L.** (2004): Propagating features in the eddy field of the North Atlantic Current, *Geophys. Res. Lett.*, 31, doi:10.1029/2004GL021401.
- Volkov D.L.** (2004): Monitoring the sea level and surface circulation with satellite altimetry, Ph.D. thesis, ISBN: 90-393-3862-0, 152 pp..
- Volkov D.L.**, H.M. van Aken (2004): Low frequency change of sea level in the North Atlantic Ocean as observed with satellite altimetry, in *Satellite Altimetry for Geodesy, Geophysics and Oceanography Series: International association of geodesy symposia*, Vol. 126, Hwang, Cheinway; Shum, C.; Li, Jiancheng (Eds.), 280 p., Springer-Verlag.
- Volkov D.L.**, H. van Aken (2004): Climate-related change of sea level observed with satellite altimetry, NIOZ annual report.
- Volkov D.L.**, H.M. van Aken (2003): Annual and inter-annual variability of sea level in the northern North Atlantic Ocean, *J. Geophys. Res.*, 108, C6, 3204.
- Dmitrenko I.A., Gribanov V.A., **Volkov D.L.**, Berezovskaya S.L. and Kassens H. (2000): Role of river discharge in the inter-annual variability of the sea land fast ice distribution in the Russian Arctic, *Meteorolgia i Hydrologia*, 2 (in Russian).
- Dmitrenko I.A., Gribanov V.A., **Volkov D.L.**, Kassens H., and Eicken H. (1999): Impact of river discharge on the sea land fast ice extension in the Russian Arctic shelf area, POAC 99, Proceedings, vol. 1, Espoo, Finland.

CONFERENCE PRESENTATIONS

- Volkov D.L.**, T.V. Belonenko, V.R. Foux, F.W. Landerer (2012): Topographic Rossby waves in the Norwegian Sea observed with satellite altimetry, Ocean Sciences 2012 meeting, Salt Lake City, Utah, USA.
- Volkov D.L.**, F.W. Landerer (2011): The genesis of sea level variability in the Barents Sea, AGU 2011 Fall Meeting, San Francisco, California.
- Landerer, F.W, **D.L. Volkov** (2011): The anatomy of the large-scale sea level fluctuations in the Mediterranean Sea in 2010 and 2011, AGU 2011 Fall Meeting, San Francisco, California.
- Volkov D.L.**, M.-I. Pujol (2011): Quality assessment of a satellite altimetry data product in the Nordic and Kara seas, Ocean Surface Topography Science Team meeting, October 2011, San Diego California.
- Volkov D.L.**, V. Zlotnicki (2011): Antarctic Circumpolar Current fronts observed by radar altimetry with GOCE and GRACE satellite gravity missions, Sea Level Workshop, Jet Propulsion Laboratory, August 2011, Pasadena California.
- Volkov D.L.**, L.-L. Fu (2010): The formation and variability of the Azores Current as revealed from an ECCO2 data synthesis, *Ocean Sciences Meeting*, Portland OR, USA.
- Volkov D.L.**, L.-L. Fu, T. Lee (2008): Meridional heat transports in the ocean from an ECCO2 data synthesis, *AGU Fall Meeting*, San Francisco CA, USA.
- Volkov D.L.**, L.-L. Fu (2008): The role of vorticity fluxes in the dynamics of the Zapiola Anticyclone, *Ocean Sciences Meeting*, Orlando FL, USA.
- M. Schodlok, D. Menemenlis, and **D. Volkov** (2008), Assessment of the Southern Ocean solution in the ECCO2 data syntheses, *Ocean Sciences Meeting*, Orlando FL, USA.
- H. Zhang, D. Menemenlis, T. Lee, M. Schodlok, **D. Volkov**, and V. Zlotnicki (2008), Assessment of the ECCO2 high resolution global-ocean and sea-ice data synthesis using the CLIVAR/GODAE global synthesis and observations panel metrics, *Ocean Sciences Meeting*, Orlando FL, USA.
- Zhang, H., **D. Volkov**, and D. Menemenlis (2008): Variability of the Meridional Overturning Circulation (MOC) in the 1992-2007 ECCO2 Synthesis, AGU Fall Meeting, San Francisco, CA.
- Volkov D.L.**, H.M. van Aken (2004): The variability of sea level in the North Atlantic and North Pacific in 1993-2003 observed with satellite altimetry, *Joint Assembly of AGU, CGU, SEG and EEGS*, Montreal, Canada. The presentation received an **Outstanding Student Paper Award**.
- Volkov D.L.** (2004): The comparative analysis of the sea level variability in the North Atlantic and North Pacific from 1993 to 2002, *EGU General Assembly*, Nice, France.
- Volkov D.L.** (2004): Complex singular value decomposition analysis of eddy kinetic energy field in the North Atlantic Current, *EGU General Assembly*, Nice, France.
- Volkov D.L.** (2003): Eddy field and its interannual variability in the North Atlantic Ocean as observed with satellite altimetry, *EGU-AGU Joint Assembly*, Nice, France.
- Volkov D.L.**, H.M. van Aken (2002): Annual and interannual variability of sea level in the northern North Atlantic Ocean, *EGS meeting*, Nice, France.

SEA GOING EXPERIENCE

- Sep 2005 Icebreaker “*Kapitan Dranitsyn*” (Russia), International Arctic Research Center (USA), NABOS-2005 Arctic expedition. Duty: *ADCP team, analysis of velocity measurements*
- Sep – Oct 2000 R/V “*Pelagia*” (Netherlands), the North Atlantic Ocean (section AR7E). Duty: *determination of the concentrations of dissolved oxygen in seawater samples*
- Jul – Aug 1998 R/V “*Polarstern*” (Germany), the Laptev Sea. Duty: *CTD team, analysis of T-S fields*
- Jul – Aug 1997 R/V “*Dalniye Zelentcy*” (Russia), the Barents Sea. Duty: *determination of the concentrations of nutrients*
- Jul – Aug 1996 R/V “*Nikolay Matusevich*” (Russia), the Baltic Sea. Duty: *CTD team + determination of nutrients and oxygen, analysis of T-S fields*

ADDITIONAL INFORMATION

Membership: American Geophysical Union, European Geophysical Union

Reviewer: Geophysical Research Letters, Journal of Geophysical Research, Journal of Physical Oceanography, Journal of Climate, Journal of Sea Research, Advances in Space Research, Chinese Journal of Oceanology, NASA and NSF proposal review panels.

Teaching: “Physical Oceanography of the Arctic Ocean” to undergraduate students, Saint-Petersburg State University (1999)

Languages spoken: Russian (native), English (fluent), French (intermediate)