Curriculum vitae

Personal information

Name:	Yao Fu
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Education

Ph.D.	2013.10 - 2018.01,	Physical Oceanography GEOMAR Helmholtz Centre for Ocean Research Kiel and Kiel University, Germany
M.S.	2010.10 - 2013.08,	Climate Physics Kiel University, Germany
B.S.	2006.09 - 2010.07,	Ocean Technology Dalian Ocean University, Dalian, China

Professional and research experience

2021.05 - present	Research scientist II Georgia Institute of Technology, Atlanta, USA
2018.02 - 2021.04	Assistant research scientist South China Sea Institute of Oceanology, Chinese academy of Sciences, Guangzhou, China
2013.10 - 2018.01	Scientific employee GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany
2011.01 - 2013.06	Student research assistant GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany

Teaching and mentoring experience

Lecturer	Spring 2023	EAS-6490 graduate-level course “Advanced Environmental Data Analysis”, School of Earth and Atmospheric Sciences, Georgia Tech
Mentor	Summer 2022	NSF-funded REU student research: Bikram Singh (Rice University)
Mentor	2022-2023	Undergraduate student research: Luke Dorrian (Georgia Tech)
Mentor	2013-2018	Mentored undergraduate and graduate students’ presentations at Physical Oceanography Seminar, Kiel University

Outreach

2023-2024	Volunteer with Science Atlanta as part of the STEM Professional School Partnership Program

Scientific cruises

2016.02.29 - 2016.03.16, Cruise M124 onboard **R/V Meteor**, from Cape Town to Rio de Janeiro, in charge of the underway-CTD and CTD operation and data processing.

2014.11.02 - 2014.11.29, Cruise PS88 onboard **R/V Polarstern**, from Las Palmas to Cape Town, in charge of the lowered ADCP operation and data processing.

2012.10.24 - 2012.11.23, Cruise MSM22 onboard **R/V Maria S. Merian**, from Mindelo to Mindelo, Cape Verde, responsible for the moored ADCP data processing.

Peer reviewed publications

Koman, G., Bower, A. S., Holliday, N. P., Furey, H. H., **Fu, Y.**, Bilo, T. C. (2024). Observed decrease in Deep Western Boundary Current transport in subpolar North Atlantic. *Nature Geoscience*, 10.1038/s41561-024-01555-6

Li, F., **Fu, Y.**, Lozier, M. S., Le Bras, I. A., de Jong, M. F., Wang, Y., and Sanchez-Franks, A. (2024). Deep circulation variability through the eastern subpolar North Atlantic. *Journal of Climate*, https://doi.org/10.1175/JCLI-D-23-0487.1

Sanchez-Franks, A., Holliday, N. P., Evans, D. G., Fried, N., Tooth, O., Chafik, L., **Fu, Y.**, Li, F., de Jong, M. F., Johnson, H. L. (2024). The Irminger Gyre as a key driver of the Subpolar North Atlantic overturning. *Geophysical Research Letters*, 51, e2024GL108457.

Fu, Y., Lozier, M. S., coauthors (2023), Seasonality of the Meridional Overturning Circulation in the Subpolar North Atlantic, *Communications Earth & Environment*, 4, 181.

Yao, Y., Wang, C., **Fu, Y.** (2022), Global Marine Heatwaves and Cold Spells in Present Climate to Future Projections, *Earth's Future*, 10, e2022EF002787.

Fu, Y., Brandt, P., Tuchen, F. P., Lübbecke, J. F., Wang, C. (2022), Representation of the mean Atlantic Subtropical Cells in CMIP6 models, *Journal of Geophysical Research: Oceans,* 127, e2021JC018191.

Volkov et al. (2022), Meridional overturning circulation and heat transport in the Atlantic Ocean, [in "State of the Climate in 2021"], Bulletin of the American Meteorological Society, 103(8), S157-S179.

Fu, Y., Li, F., Karstensen, J., Wang, C. (2020), A stable Atlantic Meridional Overturning Circulation in a changing North Atlantic since the 1990s, *Science Advances*, 6, eabc7836.

Feng, E., Sawall, Y., Wall, M., Lebrato, M., **Fu, Y.** (2020), Mitigating coral bleaching with artificial upwelling: a modeling investigation, *Frontiers in Marine Science*, 7:556192.

Tuchen, F. P., Lübbecke, J. F., Brandt, P., **Fu, Y.** (2020), Observed transport variability of the Atlantic Subtropical Cells and their connection to tropical sea surface temperature variability, *Journal of Geophysical Research: Oceans*, 125, 1-20.

Fu, Y., Wang, C., Brandt, P., Greatbatch, R. J. (2019). Interannual Variability of Antarctic Intermediate Water in the Tropical North Atlantic. *Journal of Geophysical Research: Oceans*, 124, 4044-4057.

Fu, Y., Karstensen, J., Brandt, P. (2018), Atlantic meridional overturning circulation at 14.5°N in 1989 and 2013 and 24.5°N in 1992 and 2015: volume, heat, and freshwater transports, *Ocean Science*, 14(4), 589-616.

Fu, Y., Karstensen, J., Brandt, P. (2017), On the meridional ageostrophic transport in the tropical Atlantic, *Ocean Science*, 13(4), 531-549, doi:10.5194/os-13-531-2017.

Greatbatch, R. J., Brandt, P., Claus, M., Didwischus, S. H. and **Fu, Y.** (2012), On the width of the equatorial deep jets, *Journal of Physical Oceanography*, 42. pp. 1729-1740.

Work in progress

Fu, Y., and coauthors (2023). Interannual Variability of the Subpolar Overturning (in prep.)

Conference/Meeting

Session chair
Co-convenor for session "Variability and Controls of Ocean Climate Revealed by Long-Term Multidisciplinary Eulerian Observatories" in AGU Fall Meeting 2022, Chicago, IL, USA

Invited talks/seminars

Fu, Y., Lozier, M. S., and the OSNAP Team (2024), Overturning in the Subpolar North Atlantic [Talk] in Earth's Pulse: SMART Cables in the Northern Hemisphere.

Fu, Y. (2023), The Atlantic Meridional Overturning Circulation and its stability, University of South Florida, USA

Fu, Y., Li, F., Johns, W. E., Lozier, M. S. (2023), Workshop on OSNAP calculation methods, SNAP Seminar, University of Oxford, UK

Fu, Y., Brandt, P., Tuchen, F. P., Lübbecke, J. F., Wang, C. (2022), Representation of the mean Atlantic Subtropical Cells in CMIP6 models, EAS Seminar, Georgia Institute of Technology, USA

Fu, Y., Brandt, P., Tuchen, F. P., Lübbecke, J. F., Wang, C. (2022), Representation of the mean Atlantic Subtropical Cells in CMIP6 models, OCCD Seminar, GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany

Fu, Y., Li, F., Karstensen, J., Wang, C. (2021), A stable Atlantic Meridional Overturning Circulation in a changing North Atlantic Ocean since the 1990s, CGD Seminar, National Center for Atmospheric Research, USA

Selected conference/workshop presentations

Fu, Y., Lozier, M. S., Majumder, S. and Petit, T. (2024), Water Mass transformation and its relationship to the subpolar overturning [Talk] in Ocean Sciences Meeting, New Orleans, Louisiana, USA.

Fu, Y., Lozier, M. S., coauthors (2023), Interannual variability of the subpolar overturning and OSNAP array reduction experiment [Talk] in Workshop on Meeting AMOC Observation Needs in a Changing Climate, Hamburg, Germany

Fu, Y., Lozier, M. S., coauthors (2023), Interannual variability of the subpolar overturning [Talk] in EGU General Assembly 2023, Vienna, Austria

Fu, Y., Lozier, M. S., coauthors (2022), Seasonality of the meridional overturning circulation in the subpolar North Atlantic [Talk] in AGU Fall Meeting 2022, Chicago, IL, USA

Fu, Y., Lozier, M. S., coauthors (2022), Seasonality of the meridional overturning circulation in the subpolar North Atlantic [Poster] in US AMOC Science Team Meeting 2022, Woods Hole, MA, USA

Fu, Y., Lozier, M. S., coauthors (2022), Seasonal cycle of the Atlantic meridional overturning circulation in the subpolar North Atlantic [Talk] in EGU General Assembly 2022, Vienna, Austria

Fu, Y., Lozier, M. S., coauthors (2022), Seasonal cycle of the Atlantic meridional overturning circulation in the subpolar North Atlantic [Talk] in Ocean Sciences Meeting 2022

Fu, Y., Li, F., Karstensen, J., Wang, C. (2021), A stable Atlantic Meridional Overturning Circulation in a changing North Atlantic Ocean since the 1990s [Talk] in AGU Fall Meeting 2021, New Orleans, Louisiana, USA.

Fu, Y., Li, F., Karstensen, J., Wang, C. (2020), A stable Atlantic Meridional Overturning Circulation in a changing North Atlantic Ocean [Talk] in European Geoscience Union General Assembly 2020

Fu, Y., Wang, C., Brandt, P., Greatbatch, R. (2019), Interannual variability of Antarctic intermediate Water in the Tropical North Atlantic [Talk] in European Geoscience Union General Assembly 2019, Vienna, Austria.

Fu, Y., Karstensen, J., Brandt, P., (2015), Estimation of the Meridional Ekman transport at 14.5° N in the Atlantic [Poster] in: European Geoscience Union General Assembly 2015, Vienna, Austria. This poster won the **Outstanding Student Poster Award**. http://www.egu.eu/awards-medals/ospp-award/2015/