

# Curriculum vitae

## Personal information

Name: Yao Fu  
 Address: 311 Ferst Drive, 30332, Atlanta, GA, USA  
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## Education

- Ph.D. 2013.10 - 2018.01, **Physical Oceanography**  
 GEOMAR Helmholtz Centre for Ocean Research Kiel and  
 University of Kiel, Germany  
 Supervisor: Prof. Dr. Peter Brandt and Dr. Johannes Karstensen  
 Funding: DFG FOR1740 Atlantic Freshwater Cycle  
 Dissertation: Meridional Overturning Circulation in the Tropical Atlantic  
 Final grade: 1.0 (Excellent in German university grade system)
- M.S. 2010.10 - 2013.08, **Climate Physics**  
 University of Kiel, Germany  
 Supervisor: Prof. Dr. Richard Greatbatch and Prof. Dr. Peter Brandt  
 Dissertation: Equatorial Deep Jets: Observation and Modeling  
 Final grade: 1.7 (good in German university grade system)
- 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      Junior 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 Assistant  
 GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany

## Teaching Experience

- Co-Instructor 2013-2018      Advanced Climate Seminar and Physical Oceanography Seminar  
 University of Kiel  
 co-supervised graduate and undergraduate students
- Co-Instructor 2018-2021      Supervised graduate students to conduct research on Atlantic ocean  
 circulation at the South China Sea Institute of Oceanology, Chinese  
 academy of Sciences

## Scientific Cruises

2016.02.29 - 2016.03.16, Cruise M124 onboard R/V Meteor, from Cape Town, South Africa to Rio de Janeiro, Brazil. In charge of the underway-CTD and CTD operation and data processing. Chief scientist: Dr. Johannes Karstensen.

2014.11.02 - 2014.11.29, Cruise PS88 onboard R/V Polarstern, from Las Palmas to Cape Town, South Africa. In charge of the lowered ADCP operation and data processing. Chief scientist: Dr. Frank Niessen.

2012.10.24 - 2012.11.23, Cruise MSM22 onboard R/V Maria S. Merian, from Mindelo, Cape Verde to Mindelo, Cape Verde. In the CTD watch, and responsible for the moored ADCP data processing. Chief scientist: Prof. Dr. Peter Brandt.

## Peer Reviewed Publications

**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

**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.**, Lozier, S. M., coauthors (2022), Seasonality of the overturning circulation in the subpolar North Atlantic (in prep)

Yao, Y., Wang, C., **Fu, Y.** (2022), Global Marine Heatwaves and Cold Spells in Present Climate to Future Projections (submitted)

## Conference/Meeting

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

**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.,** Brandt, P., Tuchen, F. P., Lübbecke, J. F., Wang, C. (2021), Representation of the mean Atlantic Subtropical Cells in CMIP6 models [Talk] in European Geoscience Union General Assembly 2021 (virtual online meeting).

**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 (virtual online meeting).

**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., (2017), Atlantic Meridional Overturning Circulation at 14.5°N and 24.5°N [Poster] in: European Geoscience Union General Assembly 2017, Vienna, Austria.

**Fu, Y.,** Karstensen, J., Brandt, P., (2017), Atlantic Meridional Overturning Circulation at 14.5° N and 24.5°N [Invited talk] in: LTO Seminar, South China Sea Institute of Oceanology, Guangzhou, China.

**Fu, Y.,** Karstensen, J., Brandt, P., (2015), On the meridional Ekman transport in the tropical Atlantic [Poster] in: Open Science Conference on “Salinity and Freshwater Changes in the Ocean”, Hamburg, Germany.

**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/>

**Fu, Y.,** Karstensen, J., Brandt, P., (2014), Estimation of the Ekman transport at 14.5° N in the Atlantic [Talk] in: FOR1740 annual meeting, Kiel, Germany.

**Fu, Y.,** Greatbatch, R., Brandt, P. (2014), Equatorial Deep Jets in a Shallow Water Model [Poster] in: Atmosphere and Ocean dynamics: A scientific workshop to celebrate Prof. Dr. Richard Greatbatch's 60th birthday, Liverpool, UK.