SHANTONG SUN

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RESEARCH DESCRIPTION

Interests: Large-scale circulation of the ocean, especially the global ocean overturning circulation and its interaction with the atmosphere and cryosphere; Paleoclimate

Methods: Numerical simulations using general circulation models (GCMs); development of idealized conceptual models

EDUCATION

Ph.D., Physical Oceanography — 2013-2019
Scripps Institution of Oceanography, UC San Diego
Advisor: Ian Eisenman

Master of Science, Physical Oceanography — 2011-2013
Ocean University of China
Advisor: Lixin Wu

Bachelor of Science, Marine Science — 2007-2011
Ocean University of China

PUBLICATIONS

Submitted

S. Sun, I. Eisenman, L. Zanna, and A. L. Stewart. Surface constraints on the depth of the Atlantic Meridional Overturning Circulation: Southern Ocean vs North Atlantic. *submitted*

Peer-reviewed

8. S. Sun, I. Eisenman, and A. L. Stewart, 2018: Does Southern Ocean surface forcing shape the global ocean overturning circulation? *Geophys. Res. Lett.*, 45(5), 2413–2423
7. S. Sun and J. Liu, 2017: Sensitivity of the Antarctic Circumpolar Current transport to surface buoyancy conditions in the North Atlantic. *Ocean Modell.*, 118, 118–129
6. H. Yang, L. Wu, S. Sun, and Z. Chen, 2017: Role of the South China Sea in Regulating the North Pacific Double-Gyre System. *J. Phys. Oceanogr.*, 47(7), 1617–1635
5. H. Yang, L. Wu, S. Sun, and Z. Chen, 2017: Selective Response of the South China Sea Circulation to Summer Monsoon. *J. Phys. Oceanogr.*, 47(7), 1555–1568
4. S. Sun, I. Eisenman, and A. L. Stewart, 2016: The influence of Southern Ocean surface buoyancy forcing on glacial-interglacial changes in the global deep ocean stratification. *Geophys. Res. Lett.*, 43(15), 8124–8132

3. H. Yang, L. Wu, S. Sun, and C. Zhaohui, 2015: Low-frequency variability of monsoon-driven circulation with application to the south china sea. *J. Phys. Oceanogr.*, 45(6), 1632–1650

2. Z. Chen, L. Wu, B. Qiu, S. Sun, and F. Jia, 2014: Seasonal variation of the South Equatorial Current bifurcation off Madagascar. *J. Phys. Oceanogr.*, 44(2), 618–631

1. S. Sun, L. Wu, and B. Qiu, 2013: Response of the inertial recirculation to intensified stratification in a two-layer quasigeostrophic ocean circulation model. *J. Phys. Oceanogr.*, 43(7), 1254–1269

PRESENTATIONS

1. AGU Fall Meeting (2015): Influence of the Southern Ocean on the global deep ocean stratification (Talk)

2. Southern Ocean Workshop (NCAR; 2017): Does Southern Ocean surface forcing shape the global ocean overturning circulation? (Talk)

3. Ocean Science Meeting (2018): Does Southern Ocean surface forcing shape the global ocean overturning circulation? (Poster)

4. Seminar at Caltech (2018): What sets the depth of the Atlantic Meridional Overturning Circulation?

5. 22nd AOFD (2019): What sets the depth of the Atlantic Meridional Overturning Circulation? (Talk)

TEACHING EXPERIENCE

1. Fall, 2016: Teaching assistant for SIOC 210 Physical Oceanography (Instructor: Lynne Talley)

2. Fall, 2017: Guest Lecture for SIOC 209 Numerical Modelling of the Climate System (Instructor: Ian Eisenman)

OTHER ACTIVITIES

Reviewer for *Journal of Geophysical Research-Ocean and Journal of Physical Oceanography*