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

APPOITMENTS

09/2019-present: Postdoctoral scholar, California Institute of Technology

09/2013-08/2019: Graduate Student Research Assistant, Scripps Institution of Oceanography, UC San Diego

PUBLICATIONS

Submitted

S. Sun, A. F. Thompson, and I. Eisenman: Transient overturning compensation between Atlantic and Indo-Pacific basins. *submitted*

Peer-reviewed

9. S. Sun, I. Eisenman, L. Zanna, and A. L. Stewart, 2020: Surface constraints on the depth of the Atlantic Meridional Overturning Circulation: Southern Ocean vs North Atlantic. *J. Clim.*, 33(8), 3125–3149

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

CONFERENCES

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. 22nd AOFD (2019): What sets the depth of the Atlantic Meridional Overturning Circulation? (Talk)
5. Ocean Science Meeting (2020): The role of the Indo-Pacific Ocean in mediating the transient response 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*

NASA Summer School on Satellite Observations and Climate Models, organized by the JPL Center for Climate Sciences and the Keck Institute for Space Studies (2019)