

Jinbo Wang

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Education

MIT/WHOI Joint Program, Massachusetts, Ph.D. in Physical Oceanography	June, 2011
MIT/WHOI Joint Program, Massachusetts, M.S. in Physical Oceanography	March, 2008
Peking University, China, M.S. in Atmospheric Sciences	June, 2005
Lanzhou University, China, B.S. in Meteorology	June, 2002

Research Interests

- Satellite Oceanography, Geophysical fluid dynamics, geostrophic turbulence, meso- and submeso-scale dynamics

Research Experience

Scientist, Jet Propulsion Laboratory	November, 2015 - present
Postdoc scholar, Scripps Institution of Oceanography	January, 2013 - November, 2015
Postdoc investigator, Woods Hole Oceanographic Institution	June, 2011 - December, 2012
Research Assistant, MIT/WHOI Joint Program	September, 2005 - June, 2011
Research Assistant, Peking University	September, 2002 - June, 2005

Referred Journal Articles

- Wang, J., M. R. Mazloff, S. T. Gille, Cross-frontal exchange near the Drake Passage. (in revision)
- Wang, J., M. R. Mazloff, S. T. Gille, The effect of the Kerguelen Plateau on the ocean circulation. (in revision)
- Wang, J., A. Mahadevan (2014), Spatial correlation between sea surface temperature and sea surface height. In revision)
- LaCasce, and Wang, 2015: Estimating Subsurface Velocities from Surface Fields with Idealized Stratification. *J Phys Oceanogr*, 45, 2424-2435, doi:10.1175/JPO-D-14-0206.1.
- Wang, T., Y. Du, W. Zhuang, J. Wang (2014), Connection of Sea Level Variability between Tropical Western Pacific and Southern Indian Ocean during Recent Two Decades. *Science China-D*.
- Liu, L., Peng, S., Wang, J., & Huang, R. X. (2014). Retrieving density and velocity fields of the ocean's interior from surface data. *Journal of Geophysical Research: Oceans*, 119, 8512-8529. doi:10.1002/2014JC010221
- Wang, J., M. R. Mazloff, S. T. Gille (2014), Pathways of Agulhas Waters poleward of 29S, *Journal of Geophysical Research - Oceans*, doi:10.1002/2014JC010049
- Wang, J., G. Flierl, J. LaCasce, J. McClean, A. Mahadevan (2013), Reconstructing the ocean's interior from surface data, *J. Phys. Oceanogr.*, 43, 1611-1626, doi:10.1175/JPO-D-12-0204.1
- Wang, J., M. Spall, G. Flierl, P. Malanotte-Rizzoli (2013), Nonlinear radiating instabilities of an eastern boundary current, *J. Phys. Oceanogr.*, 43(7), 1439-1452, doi:10.1175/JPO-D-12-0174.1.
- Wang, J., M. Spall, G. Flierl, P. Malanotte-Rizzoli (2012), A new mechanism for the generation of quasi-zonal jets in the ocean, *Geophysical Research Letters*, 39, L10601, doi:10.1029/2012GL051861
- Wang, J., W.H. Qian, and X. Zhang (2007), Relationship between the tropical cyclone genesis over the

Northwest Pacific and sea surface temperature anomalies. *Progress in Natural Sciences*, 17(11): 69-73.

- Wang, J., and W.H. Qian (2005), Statistical analysis of tropical cyclone impact on the China mainland during the last half century. *Chinese Journal of Geophysics*, 48(5): 1069-1077.

Thesis and book chapters

- Wang, J., M. Spall, J. Pedlosky, I. Kamenkovich (2014). On the generation of zonal jets by radiating instability and small-scale stochastic wind forcing, in *zonal jets* (edited by B. Galperin et al.), (book chapter).
- Wang, J., Instabilities of an Eastern Boundary Current with and without Large-scale Flow Influence, Ph.D. thesis, MIT/WHOI Joint Program in Physical Oceanography, 2011.
- Wang, J., On the warm bias along the South-West African Coast in coupled models: An oceanic perspective, M.S. thesis, MIT/WHOI Joint Program in Physical Oceanography, 2008.

Professional Services

Reviewer for *Journal of Physical Oceanography*, *Journal of Geophysical Research – Oceans*, *Ocean Dynamics*, *Marine Ecology Progress Series*, *Frontiers*, *Ocean Modeling*, *Scientific Reports*, *Acta Physica Sinica*

Field/Teaching Experience

- Line-W cruise with chief scientist John Toole; did CTD watch, oxygen and salt sampling, mooring recovery and deployment, August, 2012
- Teaching assistant for the class "Environment and Development of Western China", 2003
- Participated the summer project "Weather and Climate of Southern Gansu Province" along the boarder of Gansu Province and Tibet Plateau, 2001

Honors and Awards

- Outstanding Student Paper Award, AGU Fall Meeting, San Francisco, CA, 2010
- Wusi scholarship, Peking University, 2003-2004
- Award for Social Contribution, Peking University, 2003-2004
- Guanghua Fellowship, Peking University, 2002-2003

Workshop/Meeting Participation

- Simulating tracer spreading using particles - the development of an offline Lagrangian model (Octopus), Future Lagrangian Ocean Modelling workshop, Imperial College, London, September, 2015
- On the formation of the quasi-zonal striations in the ocean by radiating instabilities of an eastern boundary current, International Space Science Institute, Bern Switzerland, April 2013.
- Two lectures about the vertical partition of the horizontal kinetic energy in the ocean, Workshop on the wind-driven circulation in the world ocean, Guangzhou, China, October 2012. (invited)
- Wang, J., Reconstructing the ocean's interior from surface data, WHOI, September 2012; UMASS-Dartmouth (invited), Oct. 2012; JPL, Mar. 2014.

- Wang, J., Radiating instabilities of an eastern boundary current and the formation of the zonal striations in the ocean, University of Rhode Island, April, 2012.
- Wang, J., Nonlinear radiating instabilities of an idealized eastern boundary current with and without large-scale flow influence, Princeton AOS/GFDL seminar, March, 2012. (invited)
- Wang, J., A. Mahadevan, Vertical velocities in an upper ocean front from a Lagrangian perspective, Poster Presentation at the Workshop in Montreal: "Balance, Boundaries and Mixing in the Climate System" September 28-30, 2011
- Wang, J., P. Malanotte-Rizzoli, M. Spall, Influence of a large scale circulation on an eastern boundary current, Poster Presentation at AGU Annual Fall Meeting, San Francisco, CA, December 12-17, 2010.
- Wang, J., P. Malanotte-Rizzoli, M. Spall, The influence of a large scale circulation on an eastern boundary current, Oral Presentation at International Meeting of Students in Physical Oceanography (IMSP0), University of Washington, Seattle, WA, September 22-24, 2010.
- Participant of the Workshop on Ocean Mesoscale Eddies, Met Office, Exeter, UK, 27-29 April 2009
- Participant of the 13th Annual CCSM Workshop, Breckenridge, CO, 17-19 June 2008.
- Wang, J., M. Jochum, and P. Malanotte-Rizzoli, An oceanic perspective on the coastal SST bias in climate models, Oral presentation at CGD, NCAR, June 16, 2008
- Wang, J., M. Jochum, and P. Malanotte-Rizzoli, An oceanic perspective on the coastal SST bias in climate models, Poster presentation at the AGU Ocean Sciences Meeting, Orlando, FL, 2-7 March, 2008.
- Wang, J., WH Qian, Comparison of different thermocline definitions over the tropical Pacific, Oral presentation at the conference "The effects of ocean-atmosphere-land interaction in Asian monsoon region on China climate" Jinan, Shandong, China, Aug 2004.

Computer Skills

- Fortran (13 years experience)
 - Wrote a Quasi-geostrophic model using Fortran 90 with FFTW3 and Netcdf libraries
 - Developed an **Offline Particle Simulation model** for MITgcm simulations using Fortran 90.
 - Experienced ocean modeler: MITgcm, ROMS, Process Study Ocean Model (PSOM)
- Python (8 years experience in scientific Python)
- Linux, Matlab, Ferret, Latex, Linux shell