

Peng Wang, Ph.D.

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Education

- Ph.D. in Meteorology and Physical Oceanography 2011 – 2016
University of Miami, Miami, USA
- B.S. in Ocean Sciences 2007 – 2011
Ocean University of China, Qingdao, China

Careers

- Postdoctoral Research Associate, University of Miami, USA 2016 – Current

Publications

Peer-reviewed Articles:

- **Wang, P.**, Özgökmen, T. M., Haza, A. C., 2016. Material dispersion by oceanic internal waves. *Environmental Fluid Mechanics*, DOI: doi:10.1007/s10652-016-9491-y.
- **Wang, P.**, Özgökmen, T. M., 2016. Spiral inertial waves radiated from geophysical vortices. *Ocean Modelling*, DOI: 10.1016/j.ocemod.2016.01.001.
- **Wang, P.**, Özgökmen, T. M., 2015. How do hydrodynamic instabilities affect 3D transport in geophysical vortices? *Ocean Modelling*, DOI:10.1016/j.ocemod.2015.01.002.
- Rypina, I., Pratt, L. J., **Wang, P.**, Özgökmen, T. M., Mezić, I., 2015. Resonance phenomena in 3D time-dependent volume-preserving flows with symmetries. *Chaos*, DOI: 10.1063/1.4916086.

- Pratt, L. J., Rypina, I. I., Özgökmen, T. M., **Wang, P.**, Childs, H., Bebieva, Y., 2014. Chaotic advection in a steady, three-dimensional, Ekman-driven eddy. *Journal of Fluid Mechanics*, DOI:10.1017/jfm.2013.583.

Conference Papers:

- Zambianchi, E., Poulain, P., **Wang, P.**, Kalampokis, A., Berta, M., Borghini, M., Buonocore, B., Cianelli, D., Falco, P., Gerin, R., Iermano, I., Mantovani, C., Nicolaides, G., Özgökmen, T., Sofianos, S., Uttieri, M., Zervakis, V., 2013. Surface circulation in the Gulf of Naples during the GELaTo 2012 experiment. *40th CIESM Congress – Marseille, France, October 2013*.

Ph.D. Dissertation:

- **Wang, P.**, 2016. Material dispersion by ocean eddies and waves. *Open Access Dissertations*, Paper 1653.

Conferences and Presentations

- Nov. 2016, Miami, FL, USA. Consortium for Advanced Research on Transport of Hydrocarbon in the Environment (CARTHE-II All Hands Meeting).
--- *Oral presentation*: “Simulating Langmuir circulations without phase averaging surface gravity waves”.
- May 2016, Woods Hole, MA, USA. AmeriMech Symposium on Fluid Transport and Nonlinear Dynamics.
--- *Poster presentation*: “Spiral inertial waves emitted from geophysical vortices”.
- Feb. 2016, New Orleans, LA, USA. Ocean Sciences Meeting (AGU).
--- *Poster presentation*: “Spiral inertial waves emitted from geophysical vortices”.
- Sep. 2015, La Jolla, CA, USA. Dynamical Systems Theory and Lagrangian Data Assimilation in 3D+1 Geophysical Fluid Dynamics (MURI Ocean 3D+1).
--- *Oral presentation*: “Spiral inertial waves emitted from geophysical vortices”.
- Dec. 2014, San Francisco, CA, USA. American Geophysical Union Fall Meeting (AGU Fall Meeting).
--- *Poster presentation*: “How do hydrodynamic instabilities affect 3D transport in geophysical vortices”.
- Nov. 2014, Miami, FL, USA. Dynamical Systems Theory and Lagrangian Data Assimilation in 3D+1 Geophysical Fluid Dynamics (Ocean 3D+1).

--- *Oral presentation*: “The material transport and wave radiation in a 3D ocean eddy”.

- Apr. 2014, Hollywood, FL, USA. Consortium for Advanced Research on Transport of Hydrocarbon in the Environment (CARTHE All Hands Meeting).
--- *Oral presentation*: “3D instability in an isolated geophysical vortex”.
- Feb. 2013, Chapel Hill, NC, USA. Dynamical Systems Theory and Lagrangian Data Assimilation in 3D+1 Geophysical Fluid Dynamics (Ocean 3D+1).
--- *Oral presentation*: “Chaotic advection a periodically-perturbed, three-dimensional rotating cylinder”.
- Jun. 2012, Miami, FL, USA. Lagrangian Analysis and Prediction of Coastal and Ocean Dynamics (LAPCOD-V).

Professional Experiences

- Research Assistant at University of Miami
Advisor: Tamay Özgökmen Aug. 2011 – May 2016
- Teaching Assistant at University of Miami for
Geophysical Fluid Dynamics; Instructor: Tamay Özgökmen Fall 2015
- Teaching Assistant at University of Miami for
Computer Models of Fluid Dynamics; Instructor: Mohamed Iskandarani Fall 2013
- Teaching Assistant at University of Miami for
Introduction to Physical Oceanography; Instructor: Arthur Mariano Spring 2013
- Visiting Scholar at École Polytechnique, France, for the summer school of *Fluid Dynamics on Sustainability and the Environment* Sep. 2015
- Nearshore research cruises (twice) along Florida southeast coast Jul. and Sep. 2014

Professional Skills

Programming: Fortran; MATLAB; HTML; Linux/Unix

Visualization: VisIt; ParaView

Numerical model: Nek5000

Professional Affiliations

American Geophysical Union

Awards and Honors

- Outstanding Student at Ocean University of China 2009 – 2010

- Excellent Students Scholarship at Ocean University of China 2009 – 2010
- Excellent Academy Scholarship at Ocean University of China 2008 – 2010
- First Prize of National Undergraduate Ocean Knowledge Contest, China 2008
- Second Prize of National Undergraduate Mathematics Contest, Shandong, China 2009

Voluntary Services

- Volunteer for *National Gandhi Day of Service* Oct. 2015
- Volunteer for UM/RSMAS Student Auction Mar. 2015
- Volunteer for *Baynanza Beach Cleanup and Exotic Plant Removal* Apr. 2014
- Member of UM/RSMAS MPO Student Seminar Committee Sep. 2013 – May 2014
- Member of UM/RSMAS Garden Club Jan. 2013 – Mar. 2016