Peng Wang, Ph.D.

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Address: Dept. of Ocean Sciences, RSMAS, University of Miami, Miami, FL 33149, USA

Education

- Ph.D. in Meteorology and Physical Oceanography 2016
  University of Miami, Miami, Florida, USA

- B.S. in Ocean Sciences 2011
  Ocean University of China, Qingdao, Shandong, China

Careers

- Postdoctoral Research Associate, University of Miami, USA 2016 - Present

Professional Experiences

- Research Assistant in Physical Oceanography at UM/RSMAS 2011 - 2016
- Teaching Assistant for undergrad course of *Introduction to Physical Oceanography* 2013
- Teaching Assistant for grad course of *Computer Models of Fluid Dynamics* 2013
- Teaching Assistant for grad course of *Geophysical Fluid Dynamics* 2014 - 2016
- Drifter deployments for measuring surface circulation in Florida Biscayne Bay 2016
- Hydrological data collection in coastal ocean of South Florida 2014
- Near real-time forecaster for drifter deployments in Gulf of Naples, Italy 2012
- Visiting student at École Polytechnique Université Paris-Saclay, France 2015

Professional Skills

Fortran; MATLAB; Linux/Unix; Nek5000; VisIt; ParaView; Visual Basic; Excel; R; HTML; GitHub

Awards and Honors

- Scholarship for Doctoral Student at University of Miami, USA 2011 - 2016

- Honor of Outstanding Student at Ocean University of China 2009 - 2010
- Fellowship for Excellent Student at Ocean University of China 2009 - 2010
- Fellowship of Excellent Academy at Ocean University of China 2008 - 2010
- First Prize of Marine Knowledges Contest for National Undergraduate, China 2008
- Second Prize of Mathematics Contest for National Undergraduate, Shandong, China 2009

Social Services

- Volunteer for National Gandhi Day of Service 2015
- Volunteer for organizing UM/RSMAS fundraising auctions 2015
- Volunteer for Miami Baynanza Beach Cleanup and Exotic Plant Removal 2014
- Co-founder of UM/RSMAS Garden Club 2013
- Committee member of UM/RSMAS MPO graduate student seminars 2013 - 2014

Professional Affiliations

American Geophysical Union

Publications

Submitted Manuscripts:

- **Wang, P.**, Özgökmen, T. M., 2017. Langmuir circulation with explicit surface waves from moving-mesh modelling. *Geophysical Research Letters*.

Peer-reviewed Journals:

- **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

- International Forum of Ocean Sciences for Outstanding Overseas Young Scholars
  --- Shanghai, China; June 2017
  Oral presentation: "Material transport within unstable eddies and Langmuir circulation"

- Consortium for Advanced Research on Transport of Hydrocarbon in the Environment
  --- Miami, FL, USA; November 2016
  Oral presentation: "Simulating Langmuir circulations without phase averaging surface gravity waves"

- AmeriMech Symposium on Fluid Transport and Nonlinear Dynamics
  --- Woods Hole, MA, USA; May 2016
  Poster presentation: "Spiral inertial waves emitted from geophysical vortices"

- AGU Ocean Sciences Meeting
  --- New Orleans, LA, USA; February 2016
  Poster presentation: "Spiral inertial waves emitted from geophysical vortices"

- Dynamical Systems Theory and Lagrangian Data Assimilation in 3D+1 Geophysical Fluid Dynamics
  --- La Jolla, CA, USA; September 2015
  Oral presentation: "Spiral inertial waves emitted from geophysical vortices"

- American Geophysical Union Fall Meeting
  --- San Francisco, CA, USA; December 2014

Poster presentation: “How do hydrodynamic instabilities affect 3D transport in geophysical vortices”

- Dynamical Systems Theory and Lagrangian Data Assimilation in 3D+1 Geophysical Fluid Dynamics
  --- Miami, FL, USA; November 2014
  Oral presentation: “The material transport and wave radiation in a 3D ocean eddy”

- Consortium for Advanced Research on Transport of Hydrocarbon in the Environment
  --- Hollywood, FL, USA; April 2014
  Oral presentation: “3D instability in an isolated geophysical vortex”

- Dynamical Systems Theory and Lagrangian Data Assimilation in 3D+1 Geophysical Fluid Dynamics
  --- Chapel Hill, NC, USA; February 2013
  Oral presentation: “Chaotic advection a periodically-perturbed, three-dimensional rotating cylinder”

- Lagrangian Analysis and Prediction of Coastal and Ocean Dynamics
  --- Miami, FL, USA; June 2012