

RUOYING HE

Department of Marine, Earth and Atmospheric Sciences
North Carolina State University
2800 Faucette Dr.
Raleigh, NC 27695, U.S.A

Phone: 919-513-0249
Fax: 919-515-7802
Email: rhe@ncsu.edu
web: omgrhe.meas.ncsu.edu/Group

INTRODUCTION:

Dr. Ruoying He is a Distinguished Professor in the Department of Marine, Earth, and Atmospheric Sciences at North Carolina State University. His research expertise spans from coastal circulation dynamics, air-sea interaction, to biophysical interactions. As the head of the Ocean Observing and Modeling Group, he conducts coastal ocean observations, remote sensing data analyses, and also leads the development of prediction models of ocean circulation, air-sea-wave interactions, physical-biogeochemical couplings, as well as data assimilation. He has authored and co-authored >70 peer reviewed publications and scientific reports, and has served as the Principle Investigator (PI) or CoPI of >30 research projects funded by federal and state agencies. Dr. He served as an Associated Editor for *Journal of Geophysical Research-Oceans*, and as a guest editor for *Ocean Dynamics*. He also serves on the editorial boards of several other scientific journals and on the organizing committees of several major international science meetings. He is the vice-chair (chair) of Gordon Research Conference on Coastal Ocean Modeling in 2015 (2019). He is presently also a member of UNOLS Ocean Observing Science Committee, a member of Integrated Ocean Observing System- National Modeling Steering Team, and a science team member of International GODAE OceanView project.

PROFESSIONAL PREPARATION:

Ph.D.	2002	Physical Oceanography, University of South Florida
B.S.	1996	Physical Oceanography, Ocean University of China

PROFESSIONAL EXPERIENCE:

Distinguished Professor	North Carolina State University	2014-present
Professor	North Carolina State University	2012-2014
Adjunct Scientist	Woods Hole Oceanographic Institution	2008-present
Associate Professor	North Carolina State University	2007-2012
Assistant Scientist	Woods Hole Oceanographic Institution	2004-2007
Postdoctoral Scholar	Woods Hole Oceanographic Institution	2003-2004
Postdoctoral Associate	University of South Florida	2002-2003

SELECTED PUBLICATIONS

- He, R.**, R. H. Weisberg (2002), Tides on the West Florida Shelf. *Journal of Physical Oceanography*, 32, 12, 3455-3473.
- He, R.**, R. H. Weisberg (2003), A Case Study of the Loop Current Intrusion on the West Florida Shelf. *Journal of Physical Oceanography*, 33, 2, 465-477.
- He, R.**, R. H. Weisberg, H. Zhang, F. E. Muller-Karger, and R.W. Helber (2003), A Cloud Free Satellite-derived, Sea Surface Temperature Analysis for the West Florida Shelf. *Geophysical Research Letters*, 30, 15, 1811, doi: 10.1029/2003GL017673.
- He, R.**, and R. H. Weisberg (2003), West Florida Shelf Circulation and Temperature Budget for 1998 Fall Transition. *Continental Shelf Research*, 23, 8, 777-800.
- He, R.**, D. J. McGillicuddy, K. W. Smith, D. R. Lynch, C. A. Stock, and J. P. Manning (2005), Data Assimilative Hindcast of the Gulf of Maine Coastal Circulation. *Journal of Geophysical Research*, 110, C10, C10011, doi:10.1029/2004JC002807.

- He, R.**, J. L. Wilkin (2006), Tides on the Southeast New England Shelf: A View from a Hybrid Data Assimilative Modeling Approach, *Journal of Geophysical Research*, 111, C08002, doi: 10.1029/2005JC003254.
- He, R.**, D. McGillicuddy (2008), Gulf of Maine Harmful Algal Bloom in Summer 2005: Part 1. In-situ observations of coastal hydrography and circulation, *Journal of Geophysical Research*, 113, C07039, doi:10.1029/2007JC004691.
- He, R.**, D. McGillicuddy, B. Keafer, D. Anderson (2008), Gulf of Maine Harmful Algal Bloom in Summer 2005: Part 2. Coupled biophysical modeling, *Journal of Geophysical Research*, 113, C07040, doi:10.1029/2007JC004602.
- He, R.**, and K. Chen, T. Moore, M. Li (2010) Mesoscale Variations of Sea Surface Temperature and Ocean Color Patterns at the Mid-Atlantic Bight Shelfbreak, *Geophysical Research Letters*, doi: 10.1029/2010GL043067.
- He, R.**, Chen, K., K. Fennel, G. Gawarkiewicz, D. McGillicuddy (2011), Seasonal and Interannual Variability of Physical and Biological Dynamics at the Shelfbreak Front of the Middle Atlantic Bight: Nutrient Supply Mechanisms. *Biogeosciences*, 8, 2935-2946, doi: 10.5194/bgd-8-1555-2011.

SELECTED SYNERGISTIC ACTIVITIES

Member, UNOLS Ocean Observing Science Committee, 2011 – present; Member, International GODAE-Ocean View Coastal and Shelf Seas Task Team, 2010 – present; Associate Editor, *Journal of Geophysical Research – Oceans*, 2007 – 2013; Elected Vice-Chair (Chair) of Gordon Research Conference on Coastal Ocean Modeling in 2015 (2019); Dr. He has also served as panelists for NSF, NOAA and NOPP research programs, and as invited manuscript reviewer for *Continental Shelf Research*, *Geophysical Research Letter*, *Journal of Physical Oceanography*, *Journal of Geophysical Research*, *Journal of Atmospheric and Oceanic Technology*, *Journal of Marine Research*, *Journal of Marine System*, *Ocean Modeling*, *Nature-geosciences*.

COLLABORATORS AND OTHER AFFILIATIONS

(i) Collaborators with the past 48 months (research collaborators, co-authors, co-PIs):

D. Anderson (WHOI), J. Bane (UNC), R. Beardsley (WHOI), W. Cai (UDEL), Y. Chao (UCLA), J. Churchill (WHOI), C. V. Dover (Duke), K. Fennel (Dalhousie), G. Gawarkiewicz (WHOI), W. Geyer (WHOI), S. Glenn (Rutgers), R. Hetland (TAMU), J. Ledwell (WHOI), S. Lentz (WHOI), S. Lohrenz (UMass Dartmouth), D. Lynch (Dartmouth College), J. Manning (NMFS), D. McGillicuddy (WHOI), M. Moline (Cal Poly), C. Mooers (Portland S), E. North (U. Maryland), O. Schofield (Rutgers), H. Seim (UNC), C. Sherwood (USGS), R. Signell (USGS), H. Sosik (WHOI), , H. Tian (Auburn), J. Trowbridge (WHOI), J. Walsh (USF), J. Warner (USGS), R. Weisberg (USF), J. Wilkin (Rutgers), C. Young (U. Oregon)

(ii) Graduate and Postdoctoral Advisees

Past: Ph.D. (6): Y. Wang, K. Chen, Z. Yao, Y. Li, H. Qian, Y. Yin
 M.S.(7): T. Miles, Y. Li, J. Zambon, J. Nelson, Y. Gong, Y. Zhao, X. Feng
 Postdoc (7): Dr. M. Li, Dr. K. Hyun, Dr. W. Woods, Dr. K. Chen, Dr. X. Zuo, Dr. Z. Yao, Dr. Y. Li

Current: Ph.D. Candidate (3): Y. Gong, X. Zeng, C. Du
 Postdoc (4): Dr. J. Zambon, Dr. A. Todd, Dr. Z. Wang, Dr. P. Zhai