

BIOGRAPHICAL SKETCH

Donglai Gong

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PROFESSIONAL PREPARATION

Rutgers University, New Jersey, Physics and Mathematics, B.S. and B.A. 2001
Massachusetts Institute of Technology, Massachusetts, Physics, S.M. 2004
Rutgers University, New Jersey, Oceanography, Ph.D. 2010

APPOINTMENTS

- 2019-Pres. Associate Professor, Department of Physical Sciences, Virginia Institute of Marine Science - William & Mary
- 2015-Pres. Guest Investigator, Department of Physical Oceanography, Woods Hole Oceanographic Institution
- 2012-2019. Assistant Professor, Department of Physical Sciences, Virginia Institute of Marine Science - William & Mary
- 2012-2012 Postdoctoral Investigator, Department of Physical Oceanography, Woods Hole Oceanographic Institution
- 2010-2012 Postdoctoral Scholar, Ocean and Climate Change Institute, Woods Hole Oceanographic Institution
- 2005-2010 Research Assistant, Coastal Ocean Observation Lab, Rutgers University
- 2004-2005 Research Engineer, Coastal Ocean Observation Lab, Rutgers University
- 2001-2004 Research Assistant, Center for Space Research, Department of Physics, MIT

FIVE PRODUCTS MOST RELEVANT TO PROPOSED RESEARCH

Wallace, E. J., Looney, L. B., & **Gong, D.** (2018). Multi-Decadal Trends and Variability in Temperature and Salinity in the Mid-Atlantic Bight, Georges Bank, and Gulf of Maine. *Journal of Marine Research*, 76(5), 163-215. <https://doi.org/10.1357/002224018826473281>

Wiese, Francis K., Harvey, H. Roger, McMahon, R., Neubert, P., **Gong, D.**, Wang, H., Hudson, J., Ross, E., Charlette, M., Fabijan, M., and Gryba, R. (2018). Marine Arctic Ecosystem Study– Biophysical and Chemical Observations From Glider and Benthic Surveys in 2016, BOEM OCS Study 2018-024

Sipler, R., **Gong, D.**, Baer, S. E., Sanderson, M. P., Roberts, Q. N., Mulholland, M. R., & Bronk, D. (2017). Preliminary estimates of the contribution of Arctic nitrogen fixation to the global nitrogen budget. *Limnology and Oceanography Letters*, 2(5), 159-166. <https://dx.doi.org/10.1002/lol2.10046>

Gong, D., & Pickart, R. S. (2016). Early summer water mass transformation in the eastern Chukchi Sea. *Deep Sea Research Part II: Topical Studies in Oceanography*, 130, 43-55. <http://dx.doi.org/10.1016/j.dsr2.2016.04.015>

Gong, D., & Pickart, R. S. (2015). Summertime circulation in the eastern Chukchi Sea. *Deep Sea Research Part II: Topical Studies in Oceanography*, 118, 18-31. <http://dx.doi.org/10.1016/j.dsr2.2015.02.006>

OTHER SIGIFICANT PRODUCTS

Rona, P., Guida, V., Scranton, M., **Gong, D.**, Macelloni, L., Pierdomenico, M., Diercks, A., Asper, V. & Haag, S. (2015). Hudson submarine canyon head offshore New York and New Jersey: A physical and geochemical investigation. *Deep Sea Research Part II: Topical Studies in Oceanography*, 121, 213-232. <http://dx.doi.org/10.1016/j.dsr2.2015.07.019>

Xu, Y., Chant, R., **Gong, D.**, Castelao, R., Glenn, S., & Schofield, O. (2011). Seasonal variability of chlorophyll a in the Mid-Atlantic Bight. *Continental Shelf Research*, 31(16), 1640-1650. <https://doi.org/10.1016/j.csr.2011.05.019>

Gong, D., Kohut, J. T., & Glenn, S. M. (2010). Seasonal climatology of wind-driven circulation on the New Jersey Shelf. *Journal of Geophysical Research: Oceans*, 115(C4). <http://dx.doi.org/10.1029/2009JC005520>

Roarty, H., Glenn, S., Kohut, J., **Gong, D.**, Handel, E., Rivera, E., Gartner, T., Atkinson, L., Brown, W., Jakubiak, C., & Muglia, M. (2010). Operation and application of a regional high-frequency radar network in the Mid-Atlantic Bight. *Marine Technology Society Journal*, 44(6), 133-145.

Schofield, O., Chant, R., Cahill, B., Castelao, R., **Gong, D.**, Kahl, A., Kohut, J., Montes-Hugo, M., Ramadurai, R., Ramey, P., Xu, Y., Glenn, S. (2008). The Decadal View of the Mid-Atlantic Bight from the COOLroom: Is Our Coastal System Changing? *Oceanography*, 21(4), 108-117.

SYNERGISTIC ACTIVITIES

Donglai Gong is a member of American Geophysical Union (AGU) and Marine Technology Society (MTS). He participates in the Interagency Arctic Research Policy Committee (IARPC) collaborations. Gong is a grantee of Microsoft's AI for Earth program applying AI/ML technologies to marine science research. His synergistic activities include:

1. Gong leads the Laboratory for Ocean Sensing at VIMS. Gong has led numerous oceanographic expeditions at locations including the U.S. East Coast, the Caribbean Sea, and the Arctic Ocean. Gong's lab utilizes unmanned aerial and underwater robotics systems for research in the Chesapeake Bay and beyond.
2. Gong teaches the graduate course entitled Fundamentals of Physical Oceanography and the undergraduate course Introduction to Marine Science course to students at VIMS-W&M. Gong also teaches the Applications of Unmanned Systems in Marine Science at the graduate level. Gong is currently developing a new course on the application of Machine Learning tools for marine science.
3. Gong has served as a faculty advisor to 5 NSF REU interns (Lauren Kelly, Elizabeth Wallace, James Brown, Lev Looney, and Marta Faulkner), 5 W&M honors scholar and undergraduate research interns (Paige Stuhlmuller, Dylan Drake, Hunter Winecoff, Brody Marino, Danya AbdelHameid) who worked on various research projects with him. The student research topics include polar oceanography, regional climate change, estuarine circulation, and marine robotics.
4. Gong actively participates in various VIMS/W&M outreach programs including *Science Under Sail*, *Discovery Lab*, *After Hours Lectures*, and *Eastern Shore Lab Public Seminar*, that introduce exciting new research and ocean observing technologies to K-12 students and the public.
5. Gong participated as a scientist/educator for the Northwest Passage Project. Working with undergraduate and graduate students, Gong utilized aerial drones and remotely operated vehicle to conduct oceanographic and sea ice studies in the Canadian Arctic.