CURRICULUM VITAE

Donglai Gong

Postdoctoral Scholar Woods Hole Oceanographic Institution 266 Woods Hole Rd, MS #21 Woods Hole, MA 02543 mobile: (609) 878-0288, office: (508) 289-3972 email: donglai@whoi.edu

EDUCATION

- Ph.D. **Rutgers University**, Oceanography, 2010, Dissertation Advisor: Dr. Scott M. Glenn Doctoral Dissertation: *Mesoscale Variability on the mid/outer NJ Shelf: Effects of Environmental Forcing on Circulation, Hydrography and Transport.*
- S.M. **Massachusetts Institute of Technology**, Physics, 2004, Thesis Advisors: Dr. Scott Burles and Dr. Claude Canizares Master Thesis: *Quasar spectroscopy in UV and X-ray- probing the intergalactic medium using helium and oxygen*.
- B.S./B.A. **Rutgers University**, Physics and Mathematics, 2001 with Highest Honor, Undergraduate Thesis Advisor: Dr. Michael Gershenson Senior Thesis: *Electron-Phonon Interaction in Thin Films of Hf at Ultra-Low Temperatures*.

EMPLOYMENT

2010-2012 Postdoctoral Scholar, Woods Hole Oceanographic Institution 2005-2010 Research Assistant, Marine and Coastal Sciences, Rutgers University 2004-2005 Research Engineer, Coastal Ocean Observations Lab, Rutgers University 2001-2004 Research Assistant, Center for Space Research, Department of Physics, Massachusetts Institute of Technology 2001 Undergraduate Research Assistant, Department of Physics, Rutgers University 2000 NSF Vertical Integration of Research and Education Intern, Department of Mathematics, Rutgers University 1999 NSF Research Experience for Undergraduate Intern, High Altitude Observatory at National Center for Atmosphere Research, Boulder, CO 1998 Undergraduate Research Assistant, Los Alamos National Laboratory 1998 Undergraduate Research Assistant, Department of Physics, Rutgers University 1997 NSF REU Intern, Department of Physics, University of Michigan

TEACHING

2011 Jun.	Guest Assistant Scientist, Sea Education Association, WHOI/MIT JP cruise, C235A	
2009 Jul.	Outreach Educator, 4-H Science, Engineering and Technology Summer Camp	
2009 Spr.	Lecturer, Topics in Oceanography: Carbon Cycle, Renewable Energy and Humans,	
Marine and Coastal Sciences, Rutgers University		
2008 Spr.	Instructor, Matlab training course, Marine and Coastal Sciences, Rutgers University	
2007 Fall	Guest Lecturer, Humans and the Carbon Cycle, Human Ecology, Rutgers University	
2007 Spr.	Education and Outreach Assistant, Communicating Ocean Sciences to Informal	
	Audiences (COSIA) in collaboration with Liberty Science Center	
2006 Fall	Teaching Assistant, Physical Oceanography, Rutgers University	
2000 Spr.	Teaching Assistant, Department of Physics, Rutgers University	

AWARDS and FELLOWSHIPS

- 2010 Woods Hole Oceanographic Institution Postdoctoral Scholar
- 2002 NSF Graduate Fellowship Honorable Mention
- 2001 Graduating with Highest Honor, Rutgers University
- 2001 Phi Beta Kappa Honors Society
- 2000 Richard T. Weidner Prize (Outstanding Achievement as a Physics Major)
- 1999 Henry Rutgers Scholar (Undergraduate thesis)
- 1999 Mary Wheeler Wigner Memorial Scholarship (Physics)
- 1998 Rutgers College Merit Scholarship
- 1998 Golden Key National Honors Society

PEER-REVIEWED PUBLICATIONS

Gong, D., Kohut, J. T., and Glenn, S. M., Seasonal climatology of wind-driven circulation on the New Jersey Shelf, J. Geophys. Res. (2010), 115, C04006, doi:10.1029/2009JC005520

Xu, Yi, Chant, R., **Gong, D.**, Castelao, R., Glenn, S., Schofield, O., Seasonal variability of chlorophyll a in the Mid-Atlantic Bight, Continental Shelf Research (2011), doi:10.1016/j.csr. 2011.05.019 (in press.)

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., The Decadal View of the Mid-Atlantic Bight from the COOLroom: Is Our Coastal System Changing?", (2008), *Progress in Oceanography*, 23(4), 108-117.

Glenn, S. M., Schofield, O., Chant, R., Kohut, J., Roarty, H., Bosch, J., Bowers, L., **Gong, D.** and Kerfoot, J., (2007), Wind-Driven Response of the Hudson River Plume and its Effect on Dissolved Oxygen Concentration, *Environmental Research, Engineering and Management*, No.

1(39)

Gershenson, M. E., **Gong**, **D.**, and Sato, T. (2001), Millisecond electron-phonon relaxation in ultrathin disordered metal films at millikelvin temperatures, *Appl. Phys. Lett.*, 79, 2049

Gershenson, M. E., **Gong**, **D.**, Sato, T., Karasik, B. S., McGrath, W. R., and Sergeev, A. V. (2000), *Proc. of 11th Int. Symp. on Space Terahertz Technology*, Ann Arbor, MI, pp. 514-523

Fan, Y. and **Gong, D.** (2000), On the Twist of Emerging Flux Loops in the Solar Convection Zone, *Solar Phys.*, 192, 141

PUBLICATIONS submitted or in prep.

Gong, D. and Pickart, R. S., Transformation and Transport of Pacific water masses on the eastern Chukchi Sea, *in prep*.

Gong, D. and Glenn, S. M., Variability of the summertime shelf-slope front and the associated secondary circulation on the Mid-Atlantic Bight, *submitted*.

Gong, D., Castelao, R., Kohut, J. T., Schofield, O., Glenn, S. M., Intra-seasonal variability of summer time shelf-slope exchange processes on the New Jersey Shelf, *in prep*.

Rona, P., Guida, V., Scranton, M., **Gong, D.**, Asper, V., Diercks, A., Marcelloni, L., Hudson Submarine Canyon Head Offshore New York and New Jersey: Active circular depressions, fans, ravines, methane discharge and watermasses., *in prep*.

He, R., Chen, K., Glenn, S., **Gong**, **D.**, Schofield, O., Glider Observations and Model Simulations of Salty Intrusions over the Middle Atlantic Bight Shelf, *Geophys. Res. Lett.*, *submitted*

NON-REFEREED PUBLICATIONS

"Mesoscale Variability on the New Jersey Shelf: Effects of Topography, Seasons, Winds, and Offshore Forcing on Circulation, Hydrography, and Transport" **D. Gong**, Rutgers University Library, 2010 (Ph.D. Dissertation)

"Quasar spectroscopy in UV and X-ray- probing the intergalactic medium using helium and oxygen" **D. Gong**, MIT Archive, S.M. Thesis, 2004 (S.M. Thesis)

"Electron-Phonon Interaction in Thin Films of Hf at Ultra-Low Temperatures" **D. Gong**, Rutgers University Library, Thesis Special Collection, 2000 (B.S. Senior Thesis)

PRESENTATIONS AND POSTERS

Transformation of Pacific water masses north of Bering Strait. **Gong, D.** and Pickart, R. S., 11th Conference on Polar Meteorology and Oceanography, 2011, Boston, MA (talk)

Summertime evolution of the shelf-slope front and the associated secondary circulation. **Gong, D.**, and Glenn, S. M., Woods Hole Oceanographic Institution, Physical Oceanography Seminar, March 08, 2011

Seasonal transport on the Mid-Atlantic Bight: A combined observational and modeling study. **Gong**, **D.**, Kohut, J. T., Wilkin, J., Glenn, S., Ocean Sciences 2010, Portland, OR (IT54C-07, talk)

Freshwater flow along the Hudson Shelf Valley: Do fish in the Mid-Atlantic Bight really care? Kohut, J. T., Manderson, J., Oliver, M., Palamara, L., **Gong, D.**, Ocean Sciences 2010, Portland OR (PO45K-08, poster)

Seasonal transport and cross-shelf exchange processes on the New Jersey Shelf. Gong, D. Woods Hole Oceanographic Institution, Applied Ocean Physics & Engineering Seminar, January 27, 2010

Hudson Submarine Canyon Head Offshore New York and New Jersey: Active circular depressions, fans, ravines, methane discharge and watermasses. P. Rona, V. Guida, M. Scranton, **Gong, D.**, Haag, S., Marcelloni, L., Simonetti, A., Diercks, A., Asper, V., AGU Fall Meeting, San Francisco, 2009 (poster)

Mesoscale Physical Oceanography during SW06/NLIWI. **Gong, D.** and Glenn, S., Office of Naval Research Physical Oceanography Reviews, Chicago, IL, 2009 (talk)

Seasonal Climatology of Wind-Driven Circulation on the New Jersey Shelf. **Gong, D.**, Kohut, J. T., and Glenn, S., Mid-Atlantic Bight Physical Oceanography Meeting, Woods Hole, MA, 2008 (talk)

Wind-driven Circulation and Shelf-Slope Exchange on the NJ Shelf. **Gong, D.**, Castelao, R., Kohut, J., Schofield, O., and Glenn, S., AGU/ASLO Ocean Sciences Meeting, Orlando, FL, 2008 (talk)

Characterizing Summertime Shelf-slope Exchange Processes on the NJ Shelf. **Gong, D.**, Mid-Atlantic Bight Physical Oceanography Meeting, New Brunswick, NJ, 2007 (talk)

COOL Observations on the Biogeochemistry of the Mid-Atlantic Bight. Schofield, O., Cahill, B.,

Castelao, R., Kohut, J. T., Chant, R., Gong, D., Glenn, S., Yi, X., Eos Trans. AGU, 88(23), 2007

NJ Turnpike - Transport Pathways on the NY Bight. **Gong, D.**, Glenn, S. M., Chant, R., Wilkin, J., Kohut, J. T., AGU/ASLO Ocean Sciences Meeting, Honolulu, Hawaii, 2006 (talk)

Coastal Plume & Shelf Circulation - LaTTE 2005 Remote Sensing Results. **Gong, D.**, Bosch, J., Chant, R., Kohut, J. T., Roarty, H., Gordon Research Conference on Coastal Ocean Circulation, New London, NH, 2005 (poster)

The time varying structure of a river plume: Observations with an autonomous glider. Chant, R. J., Glenn, S. M., **Gong, D.**, American Geophysical Union, Fall Meeting, San Francisco, 2004

Statistical Analysis of Surface Currents Off the Coast of NJ/NY – Initial Study. **Gong, D.**, Glenn, S., Chant, R., Kohut, J., Roarty, H., Bosch, J., AGU Fall Meeting, San Francisco, 2004 (poster)

PROFESSIONAL AFFILIATIONS

2011--Pres. American Meteorological Society

2005--Pres. American Geophysical Union

1996--2004 American Physical Society

1997--2001 Society of Physics Students

1997--1998 American Institute of Astronautics and Aeronautics

RESEARCH CRUISES & FIELD STUDIES

Project: Sea Education Association WHOI/MIT Joint Program cruise C235A SSV Corwith Cramer, New England shelfbreak, June 2011 Chief Scientist: Dr. Jeff Schell

Project: NOAA Hudson Submarine Canyon Mapping NOAA RV Henry B. Bigelow, Hudson Canyon, Aug. 2008, 2009 and 2011 Chief Scientists: Dr. Vince Guida and Dr. Peter Rona

Project: Mesoscale Processes and Microbial Activity in the Mona Passage Glider Recovery/Repair/Deployment, Puerto Rico, Sep. 2007 Chief Scientist: Dr. Lee Kerkhof & Dr. Oscar Schofield

Project: EDdies Dynamics, MIxing, Export, and Species composition (EDDIES) R/V Oceanus, Sargasso Sea, Jun. & Aug. 2005 (2 cruises) Chief Scientist: Dr. Dennis McGillicuddy

Project: Bistatic CODAR Buoy Recovery

R/V Connecticut, New York Bight, Sep. 2004 Chief Scientist: Dr. Josh Kohut

RESEARCH GRANTS

Glenn, S. M., and **D. Gong**, 2007-2010. Characterizing Mesoscale Physical Oceanography On the New Jersey Shelf: Non-Linear Internal Wave Initiative, Office of Naval Research, \$213,265

RESEARCH COLLABORATORS

Dr. Robert S. Pickart (WHOI) - Arctic shelf circulation (Postdoctoral mentor)
Dr. Glen Gawarkiewicz (WHOI) - Shelf-slope interactions (Postdoctoral mentor)
Dr. Scott M. Glenn (Rutgers) - Shelf transport, shelf-slope exchange (Ph.D. Advisor)
Dr. Robert Chant (Rutgers) - Hudson River outflow, shelf transport
Dr. Josh Kohut (Rutgers) - Shelf transport, shelf-slope interactions, gliders, HF Radar
Dr. John Manderson (NOAA) - fish migration, essential fish habitat
Dr. Peter Rona (Rutgers) - Hudson Canyon hydrography/circulation
Dr. Mary Scranton (Stony Brook) - Hudson Canyon methane study
Dr. Oscar Schofield & Xu Yi (Rutgers) - Physical forcing and shelf primary productivity
Dr. John Wilkin (Rutgers) - Numerical modeling, shelf transport processes
Dr. Gordon Zhang (WHOI) - Numerical modeling, shelf transport processes

PROFESSIONAL SERVICES & WORKSHOPS

2009 Fall	Preparing for the Professoriate Workshop Series, Rutgers University
20082009	Departmental Seminar Organizer, Marine and Coastal Sciences, Rutgers University
20072008	President, Oceanography Graduate Student Association, Rutgers University
2007 Fall	National Ocean Science Bowl, Physical Oceanography Technical Advisory Panel,
	Consortium for Oceanographic Research and Education, Washington, D.C.
19981999	President, Society of Physics Student, Rutgers University
19971998	Vice President, American Institute of Astronautics and Aeronautics, Student

Chapter, Rutgers University