

# Angelica R. Rodriguez

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CONTACT INFORMATION	9500 Gilman Drive La Jolla, CA 92093-0206	arodrigu@ucsd.edu
EDUCATION	<b>University of California San Diego</b> Ph.D., Oceanography Physical Oceanography Curricular Group	2019
	M.S., Oceanography Physical Oceanography Curricular Group	2014
	B.S., Physics with Specialization in Earth Science Minor: Environmental Systems	2013
FELLOWSHIPS, GRANTS, AND SCHOLARSHIPS	Oceanids Memorial Fellowship	2018
	Naval Research Enterprise Internship	2017
	Carl Storm Underrepresented Minority Fellowship to attend the Gordon Research Conference on Coastal Ocean Modeling	2015
	National Center for Atmospheric Research Large Allocation Recipient	2015
	Environment Blasker-Miah-Rose Grant for Climate Change Research through the San Diego Foundation with the co-applicant Sarah Giddings	2015
	National Science Foundation Fellowship	2013
	San Diego Fellowship	2013
	Woods Hole Oceanographic Institution Summer Fellowship	2012
	Scripps Undergraduate Research Fellowship	2011
	TOS/ASLO/AGU 2012 Ocean Sciences Meeting REU to Meeting Student Award	2011
	Chula Vista Women's Club Scholarship	2008
RESEARCH EXPERIENCE	<b>Postdoctoral Scholar (2019-Present)</b> , Scripps Institution of Oceanography. Project: Enhancement of wave and flood forecasting, flood risk assessment, and monitoring of San Diego Bay Advisor: Mark Merrifield	
	<b>Postdoctoral Scholar (2020-Present)</b> , Scripps Institution of Oceanography. Project: Interaction Between Plumes and Surface Waves from the Surf Zone to the Inner-Shelf Advisor: Sarah Giddings	
	<b>Graduate Student Researcher (2013-2019)</b> , Scripps Institution of Oceanography. Project: Buoyancy transport mechanisms at continental shelf, surf zone, and estuarine scales Advisor: Sarah Giddings	

**Naval Research Enterprise Intern (2017)**, Space and Naval Warfare Systems Command - Systems Center Pacific.

Project: San Diego Bay circulation experiment

Mentors: Suzanne Graham and Jessica Bredvik

**Research Assistant (2011-2013)**, Scripps Institution of Oceanography.

Project: An oceanic heat transport pathway to the Amundsen Sea Embayment

Advisor: Sarah Gille

**Undergraduate Research Fellow (2012)**, Woods Hole Oceanographic Institution.

Project: Eddy heat flux along isopycnals in the Amundsen Sea (Southern Ocean)

Advisor: Kurt Polzin

**Undergraduate Research Fellow (2011)**, Scripps Institution of Oceanography.

Project: Oceanic heat sources near Pine Island Glacier

Advisor: Sarah Gille

JOURNAL  
PUBLICATIONS

Rodriguez, A. R., Giddings, S. N., Bredvik, J. J., and Graham S. E. (2020). Lateral circulation in a low-inflow seasonally hypersaline estuary. In preparation for *Estuaries and Coasts*.

Rodriguez, A. R., Giddings, S. N., and Kumar, N. (2018). Impacts of nearshore wave-current interaction on transport and mixing of small-scale buoyant plumes. *Geophysical Research Letters*, 45, 8379–8389. <https://doi.org/10.1029/2018GL078328>.

Rodriguez, A. R., Mazloff, M. R., and Gille, S. T. (2016). An oceanic heat transport pathway to the Amundsen Sea Embayment, *Journal of Geophysical Research: Oceans*, 121, 3337–3349. doi: [10.1002/2015JC011402](https://doi.org/10.1002/2015JC011402).

HIGHER  
EDUCATION  
TEACHING

**Instructor of Record (Winter 2020)** UCSD Environmental Systems 102: The Solid and Fluid Earth.

**Instructor of Record (Fall 2019)** UCSD Climate Change Studies 102: Research Perspectives on Climate Change.

**Guest Lecturer (Spring 2018)**, UCSD Scripps Institution of Oceanography 205: Estuarine and Coastal Processes.

SELECT SERVICE,  
INFORMAL  
TEACHING, AND  
OUTREACH

**Environmental Systems Program Advisory Committee Member (2019-2020)**, Scripps Institution of Oceanography.

**Editorial and Publications Committee Member (2017-2019)**, Scripps Institution of Oceanography.

**Collaborator (2017)**, ONR sponsored grant, "Creating, Scaling and Sustaining NGSS-Aligned, ONR-Informed Research in High School Science Classrooms."

**Workshop Organizer (2012, 2015, and 2016)**, Expanding Your Horizons Conference.

**Invited speaker (2015)**, U.S. Navy's Southwest Regional Maintenance Center

Women's History Month Event.

**Invited Speaker (2014)**, SIO Summer Undergraduate Research Fellowship Research Symposium.

**SIO Student Representative (2014)**, Society for Advancement of Hispanics/Chicanos and Native Americans in Science National Conference.

**Assistant Instructor (2011-2012)**, Ocean Discovery Institute.

**Association for Women in Science Outreach Committee Member (2011-2012)**, San Diego, California Chapter.

SELECT  
CONFERENCE  
AND  
SEMINAR  
PRESENTATIONS\*

**Rodriguez, A.**, S. N. Giddings, S. Graham, J. Bredvik, 2020. Lateral circulation in a low-inflow, seasonally hypersaline estuary. Ocean Sciences Meeting, San Diego, CA. Poster.

**Rodriguez, A.**, S. N. Giddings, S. Graham, J. Bredvik, 2018. Lateral circulation in a low-inflow, seasonally hypersaline estuary. Ocean Sciences Meeting, Portland, Oregon. Talk.

**Rodriguez, A.**, S. N. Giddings, N. Kumar, 2017. Assessing the influence of surface gravity waves on small-scale, buoyant coastal outflows. Coastal and Estuarine Research Federation, Providence, Rhode Island. Talk.

**Rodriguez, A.**, S. N. Giddings, N. Kumar, 2017. Wave-current interaction impacts on small Kelvin number freshwater plumes. Gordon Research Conference on Coastal Ocean Dynamics, Biddeford, Maine. Poster.

**Rodriguez, A.**, 2017. Summertime circulation in San Diego Bay. NOAA Southwest Fisheries Science Center MMTD Science and Issues Seminar, San Diego, California. Talk.

**Rodriguez, A.**, 2017. San Diego Bay Circulation Experiment. SPAWAR NREIP Poster Session, San Diego, California. Poster.

**Rodriguez, A.**, S. N. Giddings, and N. Kumar, 2015. Assessing the impact of wave forcing<sup>[1]</sup> on small river plumes. Coastal and Estuarine Research Federation, Portland, Oregon. Poster.

**Gilroy, A.**, S. N. Giddings, and N. Kumar, 2015. Assessing the impact of wave forcing on small river plumes using the COAWST Modeling System. Gordon Research Seminar and Conference on Coastal Ocean Modeling, Maine. Poster.

**Gilroy, A.**, M. Mazloff, and S. Gille, 2014. An Oceanic Heat Transport Pathway to the Amundsen Sea Embayment. West Antarctic Ice Sheet Workshop, Julian, California. Talk.

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\* Last name changed from Gilroy to Rodriguez in 2015

SELECT  
ADDITIONAL  
EMPLOYMENT

**Chief Scientist's Team Member on the 2013 North Pacific Repeat Hydrography Cruise (May 2013), *U.S. Global Ocean Carbon and Repeat Hydrography Program.***

Operated the CTD and rosette bottle system both on deck and in the lab, drew and documented water samples, and worked on data quality control and analysis alongside the chief scientist, Sabine Mecking, and co-chief scientist, Gunnar Voet.

**Ocean Science Explorers Intern (Sept.-Dec. 2012), *Ocean Discovery Institute.***

Served as an assistant instructor and conducted a research project: "Recommendations for a New Environmental Behavior Impact Assessment Plan for the Ocean Discovery Institute's Ocean Science Explorers Program."

**Environmental Records Clerk (June-Sept. 2010), NAVFAC, *Dept. of Navy.***