

JOSEPH C. GRADONE

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EDUCATION

2020—Present	Ph.D. Candidate in Oceanography, Rutgers University Advisor: Dr. Travis Miles
2016—2018	M.S. in Oceanography, University of Delaware Thesis: <i>“Sea Surface Kinetic Energy as a Proxy for Phytoplankton Light Limitation in the Summer Pelagic Southern Ocean”</i> Advisor: Dr. Matthew Oliver
2012—2018	B.S. in Geology, Dual Minor in Atmospheric and Oceanic Studies and Geography, University of Colorado Honors: Magna Cum Laude Senior Thesis: <i>“Surface Chlorophyll Variability in the Drake Passage Region of the Southern Ocean”</i> Advisor: Dr. Nicole Lovenduski

RESEARCH AND PROFESSIONAL EXPERIENCE

2022—Present	National Defense Science and Engineering Graduate Fellow, Rutgers University
2022—Present	Field Applications Engineer, Teledyne Webb Research (Part-time)
2020—2021	Graduate Research Assistant, Rutgers University
2018—2020	Customer Support Applications Engineer, Teledyne Webb Research, Slocum Glider
2016—2018	Graduate Research Assistant, University of Delaware
2015—2016	Undergraduate Research Assistant, University of Colorado
2015	Research Experiences for Undergraduates National Science Foundation Fellow, Rutgers University
2013—2016	Data Assistant, National Oceanic and Atmospheric Administration, National Center for Environ. Info. (Boulder, CO)
2013—2014	Research Intern, Stony Brook Millstone Watershed Association

PUBLICATIONS

- Engdahl, J., **Gradone, J.C.**, Silva, Z., Aragon, D., Shivakumar, N., and Miles, T. (2023). Implementation of Near Real-Time Onboard Processing Software for a Slocum Glider Acoustic Doppler Current Profiler. *OCEANS 2023 - MTS/IEEE U.S. Gulf Coast*, Biloxi, MS, USA, 2023, pp. 1-5, doi: 10.23919/OCEANS52994.2023.10337179.
- Gradone, J. C.**, Wilson, W. D., Glenn, S. M., & Miles, T. N. (2023). Upper ocean transport in the Anegada Passage from multi-year glider surveys. *Journal of Geophysical Research: Oceans*, 128, e2022JC019608. <https://doi.org/10.1029/2022JC019608>
- Gradone, J.** & Miles, T. (2022). JGradone/Slocum-AD2CP: v1.0.0 (Version v1.0.0). Zenodo. <https://doi.org/10.5281/zenodo.7416126>
- Gradone, J.C.**, Hunter, E. J., Mullison, J., & Miles, T.N. (2021) Development of Onboard Processing Capabilities for a Slocum Glider Acoustic Doppler Current Profiler. *OCEANS 2021: San Diego – Porto* pp. 1-5, doi: 10.23919/OCEANS44145.2021.9705895
- Gradone, J. C.**, Oliver, M. J., Davies, A.R., Moffat, C., & Irwin, A. (2020). Sea Surface Kinetic Energy as a Proxy for Phytoplankton Light Limitation in the Summer Pelagic Southern Ocean. *Journal of Geophysical Research: Oceans*, 125. doi: 10.1029/2019JC015646
- Eichhorn, M., Shardt, Y.A.W., **Gradone, J.C.**, Allsup, B. (2020). Sensitivity Analysis of Bias in Satellite Sea Surface Temperature Measurements. *IFAC-Papers OnLine* 53, 764–771. doi:10.1016/j.ifacol.2020.12.828
- Gradone, J.C.**, Roarty, H.J., Evans, C., Glenn, S., Handel, E., Baskin, C., Dusek, G., & Paternostro, C. (2015) Assessing HF Radar Data in New York Harbor: Comparisons with Wind, Stream Gauge and Ocean Model Data Sources. *OCEANS 2015, MTS/IEEE Washington*, Washington, DC. pp. 1-8. doi: 10.23919/OCEANS.2015.7401972

Citation Records:

Google Scholar: https://scholar.google.com/citations?hl=en&user=0b_NVc0AAAAJ

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TEACHING

2023	Teaching Assistant, Integrated Ocean Observing I
2023	Instructor, Field Lab Methods I
2023	Teaching Assistant, Ocean Methods and Data Analysis

AWARDS & SCHOLARSHIPS

2022—Present	National Defense Science and Engineering Graduate Fellowship
2018	National Science Foundation SCAR-POLAR Conference Travel Grant
2018	Graduate and Professional Education Professional Development Grant, University of Delaware
2017—2018	Charles and Patricia Robertson Fellowship, University of Delaware
2016—2017	Marian R. Okie Fellowship, University of Delaware
2017	3 rd Place, University of Delaware, Pitch-90 Competition, University of Delaware
2016	Undergraduate Research Opportunities Program Grant, University of Colorado
2012-2016	Chancellor's Achievement Scholarship, University of Colorado

PROFESSIONAL MEETINGS AND ABSTRACTS

* Indicates mentored undergraduate student

Oliver, M., **Gradone, J.**, Davies, A.R., Moffat, C., & Irwin, A. Sea Surface Kinetic Energy as a Proxy for Phytoplankton Light Limitation in the Summer Pelagic Southern Ocean. Southern Ocean Observing System (SOOS) Symposium, 2023. (Poster Presentation)

Gradone, J., Miles, T., Glenn, S., & Wilson, D. Upper Ocean Transport in the Anegada Passage from Multi-Year Glider Surveys. CLIVAR Workshop on Meeting AMOC Observation Needs in a Changing Climate, 2023. (Poster Presentation)

Benz, F., Moffat, C., **Gradone, J.**, Reiss, C., & Wang, X. Physical Properties of the Southern Bransfield Front. Gordon Research Conference: Coastal Ocean Dynamics, 2023. (Poster Presentation)

Gradone, J., Miles, T., Glenn, S., & Wilson, D. Searching for Pathways of Cross-Equatorial Water Mass Transport in the Eastern Caribbean. ASLO Ocean Sciences Meeting, 2023. (Poster Presentation)

*Sivakumar, N, Miles, T., & **Gradone, J.** It's Alive!: Automated Glider ADCP Data Processing. ASLO Ocean Sciences Meeting, 2023. (Poster Presentation)

*Haque, T, Kohut, J., Veatch, J., & **Gradone, J.** Palmer Deep: Moor than Meets the Eye. ASLO Ocean Sciences Meeting, 2023. (Poster Presentation)

Gradone, J.C., Miles, T., Glenn, S., & Wilson, D. Slocum Glider ADP Based Observations of Caribbean Through-Flow and Their Implications for Global Climate. Underwater Glider User Group (UG2) Meeting, 2022. (Invited Oral Presentation)

Gradone, J.C., Miles, T., Glenn, S., & Wilson, D. Observing Essential Ocean Features in the Eastern Caribbean for a Safe and Predicted Ocean. ASLO Ocean Sciences Meeting, 2022. (Oral Presentation)

Kluge, J., Soloviev, A., Morrison, G., Thompson, T., Allsup, B., **Gradone, J.**, Devine, P., Wood, J., & Thurnherr, A. LADCP Analysis of Data from Slocum G3 Glider in a Western Boundary Current. ASLO Ocean Sciences Meeting, 2022. (Oral Presentation)

Gradone, J.C., Hunter, E.J., Mullison, J, & Miles, T.N. Development of Onboard Processing Capabilities for a Slocum Glider Acoustic Doppler Current Profiler. OCEANS 2021: San Diego – Porto, 2021. (Oral Presentation)

Smith, H., Oliver, M. J., Breece, M. W., Haulsee, D. E., **Gradone, J.C.**, Goodrich, C., & Hudson, K. Comparing Satellite and AUV: Observations of chlorophyll and sea surface temperature. Delaware Environmental Institute Research Symposium, 2019 (Poster Presentation)

Gradone, J.C., Oliver, M.J., & Davies, A.R. Low Mesoscale Kinetic Energy as a Precondition for Phytoplankton Blooms in the Southern Ocean. Scientific Committee on Antarctic Research POLAR 2018. Davos, Switzerland, June 21, 2018 (Poster Presentation)

Gradone, J.C., Oliver, M.J., & Davies, A.R. Low Mesoscale Kinetic Energy as a Precondition for Phytoplankton Blooms in the Southern Ocean. NASA Biodiversity and Ecological Forecasting Meeting, 2018 (Poster Presentation)

*Smith, H., Oliver, M. J., Breece, M. W., Haulsee, D. E., **Gradone, J.C.**, & Goodrich, C., Hudson, K. Comparing Satellite and AUV: Observations of chlorophyll and sea surface temperature. University of Delaware REU Presentation, 2017. (Poster Presentation)

Gradone, J.C., & Lovenduski, N. Surface Chlorophyll Variability in the Drake Passage Region of the Southern Ocean. Earth System and Space Science Conference, University of Colorado, 2015. (Poster Presentation)

Gradone, J.C. & Roarty, H.J. Assessing HF Radar Data in the New York Harbor: Comparisons with Oceanographic Models and Data Sources. Rutgers University REU Presentation, 2015. (Poster Presentation)

FIELD EXPERIENCE

2021	National Science Foundation, Palmer Long-Term Ecological Research Cruise, Antarctica (6 weeks)
2020—Present	Rutgers University, Slocum glider deployments, recoveries, and piloting
2018—2020	Teledyne Webb Research, 150+ days, small boat operations, Slocum glider deployments, recoveries, and piloting
2016—2018	University of Delaware, 20+ days Slocum glider deployments, recoveries, and piloting
2015	Rutgers University, HF Radar installation and maintenance

PROFESSIONAL ACTIVITIES & PUBLIC OUTREACH

Professional Affiliations:

2021—Present	Member, The Oceanography Society
2020—Present	Member, Underwater Glider User Group
2017—Present	Member, Marine Technology Society

Academic and Professional Service:

2023—Present	Steering Committee, U.S. Underwater Glider User Group (UG2)
2023	Organizer, Marine Technology Society New Jersey Student Section Research Symposium
2022—Present	Reviewer, International Council for the Exploration of the Sea (ICES) Journal of Marine Science
2022—Present	Chair, Marine Technology Society, New Jersey Student Section
2022—Present	Treasurer, Oceanography Graduate Student Association, Rutgers University
2021—Present	Intern Coordinator, National Science Foundation, Research Experiences for Undergraduates, Rutgers University
2021—Present	Co-organizer, Rutgers University Summer Internship Marine Science Career Panel
2022	Science Judge, Freshman Research Exposition, Marine Academy of Technology and Environmental Science
2021—Present	Shore Bowl, Regional Bowl for High School National Ocean Science Bowl
2018	Science Judge, Sussex County Science Fair
2017—2018	President, Graduate Student Association, University of Delaware, College of Earth, Ocean and Environment
2017—2018	Chesapeake Bay Bowl, Regional Bowl for High School National Ocean Science Bowl

Select Academic Outreach:

2022—Present	Rutgers University Department of Marine and Coastal Sciences Undergraduate Mentor
2022—Present	Rutgers' Day
2022	4-H STEM Challenge, Explorers of the Deep (https://4-h.org/parents/4-h-stem-challenge/)
2022	New Jersey State Library Oceans' of Possibilities Reading Program (Franklin, New Brunswick, East Brunswick)
2020—Present	Skype with a Scientist
2020	Ocean County Community College
2016—2018	University of Delaware Coast Day
2017	Boy Scouts of America Oceanography Merit Badge
2017	United State Naval Academy
2016	Sussex County Leaders in STEM Education

Workshops:

2021	National Center for Atmospheric Research, Community Earth System Model Tutorial (Selected)
2021	National Center for Atmospheric Research, Weather Research and Forecasting Tutorial (Selected)
2019	Teledyne Gavia Training Course
2017	Rutgers University Glider Training Course

MEDIA

4/21/23 – Marine Technology Society ["New Jersey Hosts Their First Annual Marine Technology Society Student Section Research Symposium"](#)

10/5/22 – Agoa Marine Mammal Sanctuary ["A scientific machine surveys the Caribbean waters"](#)

4/21/21 – Business Wire ["Atlantic Shores Offshore Wind Launches Buoys to Collect Essential Atmospheric, Cold Pool, Animal Migration Data"](#)

4/5/21 – Teledyne Marine ["Slocum Glider "Silbo" Circumnavigates the Atlantic Ocean – Part 3"](#)

1/24/18 – Delaware EPSCoR ["3rd Place, University of Delaware, 2017 Pitch-90 Competition, University of Delaware"](#)