

MARION S ALBERTY

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EDUCATION

University of California San Diego (UCSD) *Aug 2012 - Dec 2018*
Scripps Institution of Oceanography (SIO), La Jolla, CA
M.S. in Oceanography 2014
Ph.D. in Oceanography 2018

Cornell University, Ithaca, NY *Aug 2008 - May 2012*
B.Sc. in Civil & Environmental Engineering

APPOINTMENTS

Postdoctoral Research Associate *Feb 2019 - present*
Geophysical Fluid Dynamics Laboratory, Atmospheric and Oceanic Sciences, Princeton University, Princeton, NJ
Leave Jan.-May 2020, 50% time thereafter, leave June-Aug. 2020, 60% time Sept. 2020 to present.

Graduate Ph.D. Researcher *Aug 2012 - Jan 2019*
Sprintall Group and Multiscale Ocean Dynamics Lab, SIO, La Jolla, CA

Graduate Student Researcher *Jul-Aug 2012*
Send Lab, SIO, La Jolla, CA

Undergraduate Student Researcher *Aug 2011 - May 2012*
Cowen Lab, Cornell University, Ithaca, NY

PEER-REVIEWED PUBLICATIONS

[Link to google scholar page](#)

- [1] Marion S Alberty, Sonya Legg, and Robert Hallberg. Impact of submesoscale processes on frontal evolution in the Arctic. in preparation.
- [2] Marion S Alberty, Jennifer A MacKinnon, Janet Sprintall, Matthew H Alford, John B Mickett, and Elizabeth C Fine. Observations of submesoscale mixed layer processes in the Arctic. in preparation.
- [3] Cyril Germineaud, Sophie Cravatte, Janet Sprintall, Marion S Alberty, Mélanie Grenier, and Alexandre Ganachaud. Deep Pacific Circulation: new insights on pathways through the Solomon Sea. Manuscript submitted for publication, 2020.
- [4] Marion S Alberty, Janet Sprintall, Jennifer MacKinnon, Cyril Germineaud, Sophie Cravatte, and Alexandre Ganachaud. Moored Observations of Transport in the Solomon Sea. *Journal of Geophysical Research: Oceans*, 2019.
- [5] Marion S Alberty, Sam Billheimer, Madeline Hamann, Celia Ou, Veronica Tamsitt, Andrew J Lucas, and Matthew H Alford. A reflecting, steepening, and breaking internal tide in a submarine canyon. *Journal of Geophysical Research: Oceans*, 2017.

- [6] Marion S Albery, Janet Sprintall, Jennifer A MacKinnon, Alexandre Ganachaud, Sophie Cravatte, Gerard Eldin, Cyril Germineaud, and Angelique Melet. Spatial patterns of mixing in the Solomon Sea. *Journal of Geophysical Research: Oceans*, 2017.
- [7] Alexandre Ganachaud, Sophie Cravatte, Janet Sprintall, Cyril Germineaud, Marion Albery, Catherine Jeandel, Gerard Eldin, Nicolas Metzl, Sophie Bonnet, Mar Benavides, et al. The Solomon Sea: its circulation, chemistry, geochemistry and biology explored during two oceanographic cruises. *Elem Sci Anth*, 5, 2017.
- [8] Cyril Germineaud, Alexandre Ganachaud, Janet Sprintall, Sophie Cravatte, Gérard Eldin, Marion S Albery, and Emilien Privat. Pathways and Water Mass Properties of the Thermocline and Intermediate Waters in the Solomon Sea. *Journal of Physical Oceanography*, 46(10):3031–3049, 2016.
- [9] Jennifer A MacKinnon, Jonathan D Nash, Matthew H Alford, Andrew J Lucas, John B Mickett, Emily L Shroyer, Amy F Waterhouse, Amit Tandon, Debasis Sengupta, Amala Mahadevan, et al. A tale of two spicy seas. *Oceanography*, 29(2):50–61, 2016.

UNREFEREED PUBLICATIONS

- [1] Marion Sofia Albery. *Water mass transport and transformation in the Tropics and Arctic*. PhD thesis, UNIVERSITY OF CALIFORNIA SAN DIEGO, 2018.
- [2] Marion S Albery, Cyril Germineaud, Janet Sprintall, Alexandre Ganachaud, and Sophie Cravatte. SPICE mooring data report: Description and quality control. Technical report, UC San Diego: Scripps Institution of Oceanography, Retrieved from <https://escholarship.org/uc/item/6xd149s8>, 2017.

CONFERENCES AND MEETINGS

Albery, M., S. Legg, R. Hallberg, J. MacKinnon, J. Sprintall, M. Alford, J. Mickett, & E. Fine, April 2021: Quantifying the impact of submesoscale dynamics on the evolution of Arctic freshwater fronts, European Geosciences Union, virtual.

Albery, M., S. Legg, R. Hallberg, J. MacKinnon, J. Sprintall, M. Alford, J. Mickett, & E. Fine, February 2020: The Impact of Submesoscale Dynamics on Arctic Freshwater Fronts (poster), Ocean Sciences Meeting, San Diego, CA.

Albery, M., J. MacKinnon, & J. Sprintall, June 2018: Observations of Submesoscale Mixed Layer Processes in the Arctic (poster), Gordon Research Conference on Ocean Mixing, Andover, NH.

Albery, M., J. Sprintall, S. Cravatte, A. Ganachaud, C. Germineaud, J. MacKinnon, & G. Eldin, February 2018: Moored Observations of Equatorward Transport in the Solomon Sea, 2018 Ocean Sciences Meeting, Portland, OR.

Albery, M., J. Sprintall, J. MacKinnon, A. Ganachaud, S. Cravatte, & C. Germineaud, May 2017: [Spatial Patterns of Mixing in the Solomon Sea](#) (plenary talk), Solomon Sea Oceanography Workshop, Toulouse, France.

Albery, M., J. MacKinnon, & J. Sprintall, May 2016: Observation of submesoscale features in the Canada Basin (poster), 48th Liege Colloquium on Submesoscale Processes, Liege, Belgium.

Alberty, M., J. Sprintall, J. MacKinnon, A. Ganachaud, S. Cravatte, & C. Germaineaud, February 2016: Preliminary Observation of AAIW in the Solomon Sea (poster), Ocean Sciences Meeting, New Orleans, LA.

Alberty, M., J. Sprintall & J. MacKinnon, June 2015: Spatial and Temporal Variability of Mixing in the Solomon Sea, International Union of Geodesy and Geophysics; International Association for the Physical Science of the Ocean, Prague, Czech Republic.

Alberty, M., J. Sprintall & J. MacKinnon, April 2015: Water Mass Modification through Mixing in the Solomon Sea (poster), European Geosciences Union, Vienna, Austria.

Alberty, M., J. Sprintall & J. MacKinnon, November 2014: Spatial Patterns of Mixing in the Solomon Sea, International Meeting of Students in Physical Oceanography, Ensenada, Mexico.

Alberty, M., J. Sprintall & J. MacKinnon, June 2014: Observing Internal Waves in the Solomon Sea (poster), Nonlinear Effects in Internal Waves, Ithaca, NY.

Alberty, M., & U. Send, August 2012: Analysis of ΔpCO_2 Time Series in the Central California Ocean Margin (Poster), International Meeting of Students in Physical Oceanography, La Jolla, CA.

HONORS AND AWARDS

NSF Ocean Sciences Postdoctoral Fellowship	<i>Dec 2021 - Dec 2023</i>
Wyer Family Fellowship	<i>Sep 2017 - Dec 2018</i>
NASA Earth and Space Fellowship	<i>Sep 2016 - Dec 2018</i>
Dr. John Roads Endowed Fellowship	<i>Sep 2015 - Aug 2016</i>
STEM Chateaubriand Fellow at Laboratoire d'Etudes en Géophysique et Océanographie Spatiales (LEGOS), Toulouse, France	<i>Jan - Jul 2015</i>
UC Regents First-Year Fellowship, George Mitchell Fellowship & Arete Associates - Jacobs Fellowship	<i>Sep 2012 - Aug 2013</i>
Engineering Learning Initiatives Undergraduate Research Award	<i>Aug 2011 - May 2012</i>

TEACHING

Co-Instructor Prison Teaching Initiative MATH015 Beginning Mathematics, Garden State Youth Correctional Facility, Crosswicks, NJ, *Fall 2021*

Guest Lecturer GEO425 Introduction to Ocean Physics for Climate, Princeton University, *Fall 2019* (Lecture recording available on request)

Co-Instructor Prison Teaching Initiative MATH020 Elementary Algebra, Edna Mahan MAX, Clinton, NJ, *Fall 2019*

MENTORING

Undergraduate Students

Macy Chang, William M. Lapenta NOAA Student Internship Program at GFDL (remote), Investigating Future Change in Tropical Pacific Water Mass Pathways and Iron Transport in GFDL Ocean Models, Summer 2021

Akira Disandro, Cooperative Institute for Modeling the Earth System (CIMES) Research Internship Program at Princeton University (remote), [Validating Tropical Pacific Circulation in GFDL Ocean Models](#), Summer 2020

Graduate and Postdoctoral Advisors

Sonya Legg, Princeton University, Postdoctoral advisor
Janet Sprintall & Jennifer MacKinnon, Ph.D. advisors

SERVICE

Conference Chair

Gordon Research Seminar on Ocean Mixing, Planned June 2022, South Hadley, MA

Reviewer

Geophysical Research Letters, Progress in Oceanography

Committee Member

- *2020-2021*: GFDL Diversity, Equity, and Inclusivity
- *2016*: SIO faculty search in polar sciences, student committee

Outreach

- *2021*: Organized the remote 2021 GFDL Summer Internship Program's mini lecture series and community slack channel
- *2021*: Science Monday volunteer with PS 205, Brooklyn
- *2020*: Organized the remote 2020 CIMES Summer Internship Program's mini lecture series, Pangeo Tutorial, and community slack channel
- *2019*: Young Women's Conference in Science, Technology, Engineering & Mathematics, Princeton Plasma Physics Laboratory
- *2014-2018*: Two Scientists Walk into a Bar, Reuben H. Fleet Science Center
- *2015-2018*: Rosa Parks Tutoring Program
- *2018*: Exploring Ocean STEM Careers Night, Birch Aquarium at Scripps Institution of Oceanography
- *2016-2017*: Beach Science program with Birch Aquarium

Membership

The Oceanography Society, MPOWIR

FIELD EXPERIENCE

2016: Small boat and kayak-based work observing frontal features, eddy formation and lake dynamics, Palau

2015: *ArcticMix*, small scale process-study, *R/V Sikuliaq*; Nome to Nome. PIs: Jennifer MacKinnon, Matthew Alford, and John Mickett

2014: *La Jolla Internal Tide experiment* (student-run cruise), *R/V Sproul*; San Diego to San Diego. Chief Scientist: Madeline Hamman

2014: *MoorSPICE*, mooring recovery and replotment cruise, *R/V Thomas G. Thompson*; Noumea to Noumea. PIs: Janet Sprintall and Sophie Cravatte

2012: *California Current Ecosystem* redeployment cruise, *R/V Ocean Starr*; Port Hueneme to Port Hueneme. PI: Uwe Send

2011-2012: Small boat work on Cayuga Lake, Ithaca, NY. Water quality monitoring, deployment and recovery of mooring temperature network, ADCP transects, met station maintenance. PIs: Tod Cowan and Seth Schweitzer

SKILLS

Programming & Modeling
In-Situ Data Processing

Python, MATLAB, git, MITgcm
Shipboard and wire walker CTD, SADCPLADCP
moored T/TP/CTD/ADCP