

Una Kim Miller

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Education

Columbia University PhD in Ocean and Climate Physics	2018-present
Columbia University M.A. in Ocean and Climate Physics	2016-2018
University of Washington B.S. in Oceanography	2011-2015

Research Interests

Air-sea interaction, boundary layer turbulence, Antarctic polynya dynamics, Southern Ocean water mass modification

Research Experience

Graduate research fellow, Columbia University <i>Advised by Dr. Christopher J. Zappa</i>	2016-present
Staff researcher, University of Washington <i>Advised by Dr. H. Paul Johnson</i>	2015-2016
Undergraduate researcher, University of Washington <i>Advised by Dr. H. Paul Johnson</i>	2012-2015

Awards

Future Investigators in NASA Earth and Space Science and Technology (FINESST) grant recipient	2019
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Publications

Miller, U., Zappa, C., Farrar, T., (in prep) Scaling turbulence in the ocean boundary layer of the Southeast Pacific Ocean stratus region

Wurl, O., Bird, K., Cunliffe, M., Landing, W. M., **Miller, U. K.**, Mustaffa, N. I. H., et al. (2018). Warming and inhibition of salinization at the ocean's surface by cyanobacteria. *Geophysical Research Letters*, 45, 4230–4237. <https://doi.org/10.1029/2018GL077946>

Johnson, H. P., **U. K. Miller**, M. S. Salmi, and E. A. Solomon (2015), Analysis of bubble plume distributions to evaluate methane hydrate decomposition on the continental slope, *Geochem. Geophys. Geosyst.*, 16, 3825–3839, doi:[10.1002/2015GC005955](https://doi.org/10.1002/2015GC005955).

Hautala, S. L., E. A. Solomon, H. P. Johnson, R. N. Harris, and **U. K. Miller** (2014), Dissociation of

Cascadia margin gas hydrates in response to contemporary ocean warming, *Geophys. Res. Lett.*, 41, 8486–8494, doi:[10.1002/2014GL061606](https://doi.org/10.1002/2014GL061606).

Presentations

Miller, U. K. (2015), Analysis of Bubble Plume Distributions to Evaluate Methane Hydrate Decomposition on the Continental Slope. *American Geophysical Union Fall Meeting*. Poster. San Francisco, CA.

Teaching Experience

Teaching Assistant, Columbia University <i>Introduction to Physical Oceanography</i>	Fall 2018
Teaching Assistant, Columbia University <i>Dynamics of Climate Variability and Change</i>	Fall 2017
Teaching Assistant, University of Washington <i>Oceanography of the Pacific Northwest</i>	Fall 2015

Professional Service

Lamont-Doherty Earth Observatory Executive Committee, Graduate Student Representative	2019-2020
Ocean and Climate Physics Seminar Coordinator	2019-2020
Lamont-Doherty Earth Observatory Colloquium Committee, Ocean and Climate Physics Coordinator	2018-2020
Chair of Incoming Student Activities, Graduate Student Committee	2018-2019

Volunteer Service

Girls Who Code at Columbia University (weekly)	2016-2019
Girls' Science Day at Columbia University (annually)	2016, -17, -18
Lamont-Doherty Earth Observatory Open House (annually)	2016, -17, -18

Research Cruise Experience

<i>R/V Falkor</i> , Southwest Pacific Ocean, November-December, 6 weeks	2019
<i>R/V Araon</i> , Ross Sea, Antarctica, February-March, 6 weeks	2018
<i>R/V Thompson</i> , Nootka Sound, British Columbia, December, 10 days	2014

R/V Thompson, Washington and Oregon coasts, October, 2 weeks
R/V Thompson, Washington and Oregon coasts, June-July, 2 weeks

R/V Atlantis, Washington and Oregon coasts, August, 1 month
R/V Barnes, Puget Sound, April, 1 day

2013