

Una Kim Miller

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Education

Columbia University PhD in Ocean and Climate Physics	2021
Columbia University M.A. in Ocean and Climate Physics	2018
University of Washington B.S. in Oceanography	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.**, C. J. Zappa, J. T. Farrar, D. LeBel, R. A. Weller (in prep) Scaling turbulence in the ocean boundary layer of the Southeast Pacific Ocean stratus region
- Wurl, O., K. Bird, M. Cunliffe, W.M. Landing, **U. K. Miller**, N. I. H. Mustaffa, 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., C. J. Zappa, J. T. Farrar, D. LeBel, R. A. Weller (2020), Scaling turbulence in the ocean boundary layer of the Southeast Pacific Ocean stratus region. *Ocean Sciences*. Talk. San Diego, CA.

Miller, U. K., H.P. Johnson, M.S. Salmi, E.A. Solomon (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
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Teaching Assistant, Columbia University <i>Dynamics of Climate Variability and Change</i>	Fall 2017
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Teaching Assistant, University of Washington <i>Oceanography of the Pacific Northwest</i>	Fall 2015
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Professional Service

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

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

<i>R/V Falkor</i> , Southwest Pacific Ocean, November-December, 6 weeks	2019
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<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
<i>R/V Thompson</i> , Washington and Oregon coasts, October, 2 weeks	
<i>R/V Thompson</i> , Washington and Oregon coasts, June-July, 2 weeks	
<i>R/V Atlantis</i> , Washington and Oregon coasts, August, 1 month	2013
<i>R/V Barnes</i> , Puget Sound, April, 1 day	