

# Una Kim Miller

Columbia University · Lamont-Doherty Earth Observatory · [umiller@ldeo.columbia.edu](mailto:umiller@ldeo.columbia.edu) · <https://unamiller.github.io/>

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## Education

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

## Research Interests

Boundary layer turbulence, air-sea interaction, Antarctic polynya dynamics, Southern Ocean water mass modification

## Research Experience

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

## Awards

Future Investigators in NASA Earth and Space Science and Technology (FINESST) grant recipient	<b>2019</b>
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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>	<b>Fall 2018</b>
Teaching Assistant, Columbia University <i>Dynamics of Climate Variability and Change</i>	<b>Fall 2017</b>
Teaching Assistant, University of Washington <i>Oceanography of the Pacific Northwest</i>	<b>Fall 2015</b>

## **Professional Service**

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

## **Volunteer Service**

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

## **Research Cruise Experience**

<i>R/V Falkor</i> , Southwest Pacific Ocean, November-December, 6 weeks	<b>2019</b>
<i>R/V Araon</i> , Ross Sea, Antarctica, February-March, 6 weeks	<b>2018</b>

<i>R/V Thompson</i> , Nootka Sound, British Columbia, December, 10 days	<b>2014</b>
<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	<b>2013</b>
<i>R/V Barnes</i> , Puget Sound, April, 1 day	