

## Naomi Goldenson

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### CURRENT POSITION

Ph.D. Candidate, Department of Atmospheric Sciences, University of Washington 2015--  
Dissertation: Quantifying the Influence of Large-scale Dynamics on Climate  
Variability of Western North America  
Advisors: Cecilia Bitz (UW) and Ruby Leung (Pacific Northwest National Lab)

### RESEARCH INTERESTS

Multi-scale global climate simulations. Regional climate variability. Midlatitude climate dynamics.  
Climate of Western North America. Uncertainty quantification. Educational simulations.

### EDUCATION

Ph.D., Atmospheric Sciences, University of Washington, Seattle, WA Expected Fall, 2017  
M.S., Atmospheric Sciences, University of Washington, Seattle, WA 2012  
M.S., Geological Sciences, Arizona State University, Tempe, AZ 2007  
B.A., Physics with Honors, Certificate in International Relations, Wesleyan University, Middletown, CT 2005

### PUBLICATIONS

#### Refereed Journal Articles

Goldenson, N., Doherty, S.J., Bitz, C.M., Holland, M.M., Light, B., Conley, A.J. (2012) *Arctic Climate Response to Forcing from Light-Absorbing Particles in Snow and Sea Ice in CESM*, Atmospheric Chemistry and Physics, 12, 7903-7920.

Goldenson, N., Desch, S., Christensen, P.R. (2008) Non-equilibrium between dust and gas temperatures in the Mars atmosphere, *Geophysical Research Letters*, 35, L08813.

Rubin, D., Goldenson, N., Voth, G. (2006) Failure and strengthening of granular slopes under external vibration, *Physical Review E*, 74, 051307.

Luhman, K. L., McLeod, K. K., & Goldenson, N. (2005). A Hubble Space Telescope search for substellar companions in the young cluster IC 348. *The Astrophysical Journal*, 623(2), 1141.

#### Manuscripts in Preparation

Goldenson, N., and A. Rhines. (2017) *Clustering of Sea Surface Temperature Variability Across the Community Earth System Model Large Ensemble*.

Goldenson, N., Mauger, G., Bitz, C.M., and Leung, L.R. (2017) *Small Ensembles of Climate Models Characterize Regional Variance as Well as a Large Ensemble of One Model*.

Goldenson, N., Leung, L.R., Bitz, C.M., and Blanchard, E. (2017) *Climatological Influence of Atmospheric River Events on Mountain Snow of Western North America*.

## PROFESSIONAL MEETING ABSTRACTS

- Goldenson, N., Leung, R.L., Bitz, C. (2017) *Multi-scale Historical Simulations of Regional Precipitation Extremes*, 29th Conference on Climate Variability and Change, American Meteorological Society 97th Annual Meeting, 22-26 January, 2017, Seattle, WA., Abs. 4A.3.
- Goldenson, N., Leung, R.L., Bitz, C. (2016) *Characterizing Regional Climate Model Uncertainty*, 7th Annual Northwest Climate Conference, Stevenson, WA.
- Goldenson, N., Leung, R.L., Bitz, C. (2016) *Historical Variability Across Scales: Circulation and Snowpack*, Graduate Climate Conference, Pack Forest, WA.
- Goldenson, N., Rhines, A. (2016) *Clustering of Sea Surface Temperature Variability Across the Large Ensemble*, 21st Annual Community Earth System Model Workshop, Breckenridge, CO.
- Goldenson, N., Mauger, G., Leung, R.L., Bitz, C. (2016) *Inter-model Variance in Northwest CMIP5 Model Precipitation due to Jet Variability*, Pacific Northwest Weather Workshop, Seattle WA.
- Goldenson, N., Leung, R.L., Zhao, C., Bitz, C. (2015) *Model for Prediction Across Scales (MPAS) Applied to Regional Climate of the Northwestern U.S.*, EOS. Trans. AGU, Fall Meeting Abstracts. A23E-0360.
- Goldenson, N., Mauger, G., Leung, R.L., Bitz, C. (2015) *Scenarios, Variability, and Climate Models: Constraining the Range of Possibilities for Future Northwest Climate*. 6th Annual Northwest Climate Conference, Coeur d'Alene, Idaho.
- Goldenson, N. (2014) *Real-Time Climate Simulations in the Interactive 3D Game Universe Sandbox <sup>2</sup>*, EOS. Trans. AGU, Fall Meeting Abstracts. ED52A-01.
- Goldenson, N., Holland, M., Bitz, C., Doherty, S., Light, B. (2010) *Arctic Climate Response to Aerosols on Sea Ice and Snow in CESM*, 23rd Conference on Climate Variability and Change, American Meteorological Society 91st Annual Meeting, 23-27 January 2011 in Seattle, WA., Abs. 12B.3.
- Goldenson, N., Desch, S., Christensen, P.R. (2006) *Constraints on Atmospheric Dust Properties in Radiative Transfer Models for Mars*, EOS. Trans. AGU, 87(52) Fall Meet. Suppl., Abs. A13B-0910.

## ACADEMIC RESEARCH POSITIONS

- Graduate Researcher** - Atmospheric Sciences, University of Washington 2009-2012  
Thesis Title: Arctic Climate Response to Light-Absorbing Particles in  
Snow and Sea Ice in the Community Earth System Model  
Advisor: Cecilia Bitz
- Fulbright Fellow** - Instituto de Astrofísica de Andalucía, Granada, Spain 2007-2008  
Project title: The Effects of Atmospheric Dust on Martian Climate  
Host: Miguel A. Lopez Valverde
- Graduate Researcher** - School of Earth and Space Exploration, Arizona State University 2005-2007  
Thesis Title: Dust-Gas Temperature Disequilibrium at High Altitudes  
in the Mars Atmosphere  
Advisor: Phil Christensen
- Senior Honors Thesis** - Physics, Wesleyan University 2004-2005  
Thesis Title: Slope Stability for Granular Materials Under External  
Vibration  
Advisor: Greg Voth

## TEACHING

“Glaciers and Global Change” - Graduate Teaching Assistant Earth and Space Sciences, University of Washington, Seattle, WA	Winter 2017
“Physics Across Oceanography” - Graduate Teaching Assistant School of Oceanography, University of Washington, Seattle, WA	Fall 2016
“Climate and Climate Change” - Graduate Teaching Assistant Atmospheric Sciences, University of Washington, Seattle, WA	Winter 2011
“Introductory Geology” - Adjunct Instructor Physical Science, Mesa Community College, Mesa, AZ	Fall 2008 – Spring 2009
“Introductory Geology Lab” - Graduate Teaching Assistant School of Earth and Space Exploration, Arizona State University, Tempe, AZ	Fall 2005 – Spring 2006
“The Planets” - Course Assistant Astronomy, Earth and Environmental Sciences, Wesleyan University, Middletown, CT	Fall 2004

## ADDITIONAL EXPERIENCE

Martin Luther King County Labor Council Climate Caucus  
Science Communication Fellow, volunteer at Pacific Science Center  
College of the Environment Diversity Committee at University of Washington