Nicholas Siler

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Contact Information

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Education

Ph.D., Atmospheric Science, University of Washington, Seattle, WA — 2015
A.B., Physics, Harvard University, Cambridge, MA — 2005

Employment

Assistant Professor, Oregon State University — 2018 - present
Postdoctoral Scholar, Scripps Institution of Oceanography — 2015 - 2017
Graduate Research Assistant, University of Washington — 2009 - 2015
Commissioned Officer, US Air Force — 2005 - 2009

Submitted Manuscripts

[20] **Siler, N.**, 2021: How pseudo is pseudo global warming? *J. Climate*. Submitted.

[19] Fiorella, R., **N. Siler**, D. Noone, 2021: Enhancing understanding of the hydrological cycle via pairing of process-oriented and isotope ratio tracers. *Journal of Advances in Modeling Earth Systems*. Submitted.

Publications

[18] **Siler, N.**, A. Bailey, G. Roe, C. Buizert, B. Markle, and D. Noone, 2021: The large-scale, long-term coupling of temperature, hydrology, and water isotopes. *J. Climate*. https://doi.org/10.1175/JCLI-D-20-0563.1

[17] Burls, N., C. D. Bradshaw, ..., **N. Siler**, ..., 2021: Simulating Miocene warmth: insights from an opportunistic Multi-Model ensemble (MioMIP1). *Paleoceanography and Paleoclimatology*. https://doi.org/10.1029/2020PA004054

[16] **Huston, A.**, **N. Siler**, G. Roe, E. Pettit, and N. Steiger, 2021: Understanding drivers of glacier length variability over the last millennium. *The Cryosphere*. https://doi.org/10.5194/tc-15-1645-2021

[15] Inglis, G., F. Bragg, ..., **N. Siler**, ..., 2020: Global mean surface temperature and climate sensitivity of the EECO, PETM and latest Paleocene. *Climate of the Past*. https://doi.org/10.5194/cp-2019-167

[14] Payne, A., M. Demory, ..., **N. Siler**, ..., 2020: Responses and impacts of atmospheric rivers to climate change. *Nature Reviews Earth & Environment*. https://doi.org/10.1038/s43017-020-0030-5

[13] Armour, K.C., **N. Siler**, A. Donohoe and G.H. Roe, 2019: Meridional atmospheric heat transport constrained by energetics and mediated by large-scale diffusion. *J. Climate*. https://doi.org/10.1175/JCLI-D-18-0563.1

[12] **Siler, N.**, G. Roe, K. Armour, and N. Feldl, 2019: Revisiting the surface-energy-flux perspective on the sensitivity of global precipitation to climate change. *Climate Dynamics*. https://doi.org/10.1007/s00382-018-4359-0

[11] **Siler, N.**, C. Proistosescu, and S. Po-Chedley, 2019: Natural variability has slowed the decline in western-US snowpack since the 1980s. *Geophys. Res. Lett.*. https://doi.org/10.1029/2018GL081080

[10] Bonan, D. B., K. C. Armour, G. H. Roe, **N. Siler**, N. Feldl, 2018: Sources of uncertainty in the meridional pattern of climate change. *Geophys. Res. Lett.*. https://doi.org/10.1029/2018GL079429

[9] **Siler, N.**, K. Armour, and G. Roe, 2018: Insights into the zonal-mean response of the hydrologic cycle to global warming from a diffusive energy balance model. *J. Climate*. https://doi.org/10.1175/JCLI-D-18-0081.1

[8] Amaya, D., **N. Siler**, A. Miller, and S.P. Xie, 2018: The interplay of internal and forced modes of Hadley cell width variability. *Climate Dynamics*. https://doi.org/10.1007/s00382-017-3921-5

[7] **Siler, N.**, S. Po-Chedley, and C. Bretherton, 2018: Variability in modeled cloud feedback tied to differences in the climatological spatial pattern of clouds. *Climate Dynamics*. https://doi.org/10.1007/s00382-017-3673-2

[6] **Siler, N.**, Y. Kosaka, S.P. Xie, and X. Li, 2017: Tropical ocean contributions to California's surprisingly dry El Niño of 2015-16. *J. Climate*. https://doi.org/10.1175/JCLI-D-17-0177.1

[5] **Siler, N.** and D. Durran, 2016: What causes weak orographic rain shadows? Insights from case studies in the Cascades and idealized simulations. *J. Atmos. Sci.*. https://doi.org/10.1175/JAS-D-15-0371.1

[4] Christian, J., **N. Siler**, G. Roe, and M. Koutnik, 2016: Identifying dynamically induced variability in glacier mass balance records *J. Climate*. https://doi.org/10.1175/JCLI-D-16-0128.1

[3] **Siler, N.** and D. Durran, 2015: Assessing the influence of the tropopause on mountain waves and orographic precipitation using linear theory and numerical simulations. *J. Atm. Sci.*. https://doi.org/10.1175/JAS-D-14-0200.1

[2] **Siler, N.** and G. Roe, 2014: How will orographic precipitation respond to surface warming? An idealized thermodynamic perspective. *Geophys. Res. Lett.*. https://doi.org/10.1002/2013GL059095

[1] **Siler, N.**, G. Roe, and D. Durran, 2013: On the dynamical causes of variability in the rain-shadow effect: a case study of the Washington Cascades. *J. Hydrometeor.*. https://doi.org/10.1175/JHM-D-12-045.1

Selected Presentations

Oral Presentation, AGU Fall Meeting, 2020: How pseudo is pseudo global warming?

Oral Presentation, AGU Fall Meeting, 2019: Energetic and thermodynamic constraints on the meridional distribution of water isotopes.

Oral Presentation, AGU Fall Meeting, 2018: Insights into the zonal-mean response of the hydrologic cycle to global warming from a diffusive energy balance model.

Invited Lecture, ASP Summer Colloquium, National Center for Atmospheric Research, Boulder, CO, June 2017. The interaction of precipitation with orography.

Invited Seminar, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University, Corvallis, OR, April 2017.

Invited Seminar, Department of Earth and Environmental Sciences, Columbia University, New York, NY, February 2017.

Invited Seminar, Society, Water, and Climate, University of Utah, Salt Lake City, UT, December 2016.