Lily C. Hahn

lchahn@uw.edu | https://atmos.uw.edu/~lchahn/
(207) 651-1994

EDUCATION

University of Washington, Seattle, WA — 2018-present
Ph.D. student, Atmospheric Sciences

Yale University, New Haven, CT — 2013-2017
B.S. Geology & Geophysics: Atmosphere, Ocean and Climate with Distinction in the Major, *summa cum laude*, Phi Beta Kappa

AWARDS AND HONORS

National Science Foundation (NSF) Graduate Research Fellowship	2018-2021
Achievement Rewards for College Scientists (ARCS) Fellowship	2018-2021
Belknap Prize in Geology & Geophysics	2017
Summer Student Fellowship, Woods Hole Oceanographic Institution	2016
Von Damm Research Fellowship in Geology & Geophysics	2016
J. Edward Meeker Freshman English Prize	2014

PEER-REVIEWED PUBLICATIONS

Hahn, L. C., K. C. Armour, M. D. Zelinka, C. M. Bitz, and A. Donohoe (2021). Contributions to Polar Amplification in CMIP5 and CMIP6 Models. *Frontiers in Earth Science*, **9**, 710036. https://doi.org/10.3389/feart.2021.710036

Sagoo, N., T. Storelvmo, **L. C. Hahn**, I. Tan, and A. J. Broccoli (2021), Observationally Constrained Cloud Phase Unmasks Orbitally Driven Climate Feedbacks. *Geophysical Research Letters*, **48**, e2020GL091873. https://doi.org/10.1029/2020GL091873

Hahn, L. C., K. C. Armour, D. S. Battisti, A. Donohoe, A. G. Pauling, and C. M. Bitz (2020), Antarctic elevation drives hemispheric asymmetry in polar lapse-rate climatology and feedback. *Geophysical Research Letters,* **47***,* e2020GL088965. https://doi.org/10.1029/2020GL088965

Hahn, L. C., T. Storelvmo, S. Hofer, R. Parfitt, and C. C. Ummenhofer (2020), Importance of orography for Greenland cloud and melt response to atmospheric blocking. *J. Climate,* **33**, 4187–4206. https://doi.org/10.1175/JCLI-D-19-0527.1

Donohoe, A., K. C. Armour, G. H. Roe, D. S. Battisti, and **L. C. Hahn** (2020), The partitioning of meridional heat transport from the Last Glacial Maximum to CO_2 quadrupling in coupled climate models. *J. Climate,* **33***, 4141-4165.* https://doi.org/10.1175/JCLI-D-19-0797.1

Hahn, L. C., C. C. Ummenhofer, and Y.-O. Kwon (2018), North Atlantic natural variability modulates emergence of widespread Greenland melt in a warming climate. *Geophysical Research Letters*, **45**, 9171-9178. https://doi.org/10.1029/2018GL079682

SUBMITTED PUBLICATIONS

Hahn, L. C., K. C. Armour, D. S. Battisti, I. Eisenman, and C. M. Bitz, Seasonality in Arctic Warming Driven By Sea Ice Effective Heat Capacity, submitted to *J. Climate*.

PRESENTATIONS

Hahn, L. C. and T. Cox (2021). ACORN: Actionable Community-Oriented Research eNgagement, Seminar in Race, Climate Change, and Environmental Justice, Department of Earth and Environmental Sciences, Columbia University, *invited talk*.

Hahn, L. C., T. Storelvmo, S. Hofer, R. Parfitt, and C. C. Ummenhofer (2020), Importance of Orography for Greenland Cloud and Melt Response to Atmospheric Blocking, AGU Fall Meeting, *eLightning talk*.

Hahn, L. C., K. C. Armour, D. S. Battisti, A. Donohoe, A. G. Pauling, C. M. Bitz, I. Eisenman (2020), What Drives Hemispheric and Seasonal Asymmetry in Polar Warming?, Polar Friday, Applied Physics Laboratory, University of Washington, *talk*.

Hahn, L. C., K. C. Armour, D. S. Battisti, C. M. Bitz, I. Eisenman (2020), What Drives Seasonal Asymmetry in Arctic Warming?, Graduate Climate Conference, *poster*.

Hahn, L. C., K. C. Armour, D. S. Battisti, A. G. Pauling, A. Donohoe, C. M. Bitz (2020), What Drives Hemispheric Asymmetry in Polar Warming?, European Polar Science Week, *invited talk*.

Hahn, L. C., K. C. Armour, D. S. Battisti, A. G. Pauling, A. Donohoe, C. M. Bitz (2020), Antarctic Elevation Drives Hemispheric Asymmetry in Polar Lapse Rate Climatology and Feedback, Master's Defense, Department of Atmospheric Sciences, University of Washington, *talk*.

Hahn, L. C., K. C. Armour, D. S. Battisti, A. G. Pauling, A. Donohoe, C. M. Bitz (2019), Understanding Asymmetries in Arctic and Antarctic Lapse Rate Feedbacks and Polar Amplification, AGU Fall Meeting, *talk*.

Hahn, L. C., T. Storelvmo, S. Hofer, R. Parfitt, C. C. Ummenhofer (2019), Importance of Orography for Greenland Cloud and Melt Response to Atmospheric Blocking, Graduate Climate Conference, *talk*.

Hahn, L. C., C. C. Ummenhofer, and Y.-O. Kwon (2018), North Atlantic Natural Variability Modulates Emergence of Widespread Greenland Melt in a Warming Climate, AGU Fall Meeting, *talk*.

Hahn, L. C., C. C. Ummenhofer, and Y.-O. Kwon (2018), Impact of Natural Variability in the North Atlantic Ocean-Atmosphere System on the Emergence of Widespread Greenland Melt in the 21st Century, EGU General Assembly, *talk*.

Hahn, L. C., C. C. Ummenhofer, R. Parfitt, and T. Storelvmo (2018), Evaluating Cloud Cover as a Link Between High Pressure Systems and Greenland Melt, EGU General Assembly, *poster*.

Hahn, L. C., C. C. Ummenhofer, and F. Straneo (2017), Increasing Greenland Melt and Blocking in Recent Decades Modulated by Large-Scale and Regional Circulation Changes, AMS Annual Meeting, *poster*.

Hahn, L. C. and T. Storelvmo (2016), Climate Engineering Review: Modelled Impacts of Stratospheric Sulfate, Marine Cloud Brightening, and Cirrus Cloud Seeding, Geoengineering Model Intercomparison Project (GeoMIP) Meeting, *poster*.

RESEARCH EXPERIENCE

University of Washington, Atmospheric Sciences Department 2018-present
Advisors: David Battisti and Kyle Armour
Mechanisms of polar amplification

University of Oslo Department of Geoscience Spring 2018
Advisor: Trude Storelvmo
Importance of topography for Greenland cloud response to high pressure systems

Woods Hole Oceanographic Institute Summer 2016, Summer-Fall 2017
Advisor: Caroline Ummenhofer
Linking extreme Greenland Ice Sheet melt and atmospheric circulation variability

Yale Atmosphere, Oceans, and Climate Dynamics Group 2015-2017
Advisor: Trude Storelvmo
Orbital forcing with observationally constrained cloud phase
Impacts of climate geoengineering strategies

TEACHING EXPERIENCE

University of Washington Department of Atmospheric Sciences
Instructor, Exploring the Atmospheric Sciences Summer 2021

Teaching assistant, Climate and Climate Change Fall 2019
Professor: Kat Huybers

ADDITIONAL EXPERIENCE

Odegaard Writing and Research Center Fall 2019-Spring 2020
Writing Tutor

Yale Science and Quantitative Reasoning Tutoring Program 2014-2016
Tutor, *chemistry and calculus*

Star Island Corporation Summer 2015
Sustainability and Environmental Education Intern

Yale University Press Spring 2015
Editorial Intern

COMMUNITY ENGAGEMENT

UW Program on Climate Change (PCC) ACORN Program 2020-present
Co-Founder and Co-Lead, Actionable Community-Oriented Research eNgagement connecting graduate students with community leaders to address community climate and energy priorities

Volunteer Scientist, ACORN Project Fall 2020-present
Emissions Impacts of Demand Response Implementation in Washington State

AGU Thriving Earth Exchange Spring 2019-Spring 2020
Volunteer Scientist, Environmental Benefits Chapter
Feasibility Study for Community Choice Aggregation of Renewable Energy Options

Project Bright 2013-2017
West Campus Installation and Outreach Co-Lead, Treasurer
Received New England Grassroots Environmental Fund Grow Grant and Yale Landscape Lab Seedling Award for solar installation design and environmental outreach programs at Yale's West Campus Farm

UNIVERSITY SERVICE

UW Graduate-Undergraduate Mentor Program
Program Co-Lead Fall 2019-present
Mentor Fall 2018-present

UW PCC Graduate Steering Committee Fall 2019-Summer 2021
Launched the PCC Undergraduate Research Cohort
Facilitated Spring Symposium, Climate Science on Tap: The Schooner Series

Department Committees
UW Atmospheric Sciences Part-Time Lecturer Search Committee 2021

PROFESSIONAL SERVICE

Conference Activities
Co-Convener, Innovative Initiatives in Conducting Community-Based Science and Training the Next Generation of Practitioners, AGU Fall Meeting 2021
Executive Committee Co-Chair, Graduate Climate Conference 2021
Executive Committee Member, Graduate Climate Conference 2020

Contributing Author
Intergovernmental Panel For Climate Change, Assessment Report 6, Working Group 1 (IPCC AR6 WG1), Chapter 7: The Earth's energy budget, climate feedbacks, and climate sensitivity.

Journal Reviewer
Communications Earth & Environment (1), Geophysical Research Letters (2), Journal of Climate (2)