

VINCENT T. COOPER

408 Atmospheric Sciences–Geophysics (ATG) Building Box 351640, Seattle, Washington 98195-1640, USA

EDUCATION

UNIVERSITY OF WASHINGTON

Ph.D. Student, Atmospheric Sciences

M.S., Atmospheric Sciences

Seattle, WA

2020 – Present

2020 – 2022

HARVARD UNIVERSITY

B.A., Statistics, *Cum Laude* (highest non-thesis honors)

Study Abroad Program, Università Ca' Foscari di Venezia: *Nature, A History of Ethics Defined with Nature in Mind*

Cambridge, MA

2011 – 2015

ACADEMIC & PROFESSIONAL EXPERIENCE

UNIVERSITY OF WASHINGTON

Graduate Research Assistant & NDSEG Fellow, Department of Atmospheric Sciences

Seattle, WA

2020 – Present

- Advisors: Professor K.C. Armour, Professor G.J. Hakim, Professor C.M. Bitz
- PhD Thesis: Radiative Feedbacks and Climate Sensitivity in the Paleoclimate Record (est. Spring 2025)
- MS Thesis: Wind Waves in Sea Ice of the Western Arctic and a Global Coupled Wave-Ice Model (Spring 2022)
- Summer School: Advanced Course in Climate Dynamics (ACDC), Norway, 2022

AMERICAN SECURITIES

Associate, Private Equity Investment Team

New York, NY

2017 – 2019

- Selected investment experience: 2019 acquisition of BELFOR, the world's largest damage reconstruction provider, rebuilding homes and businesses after extreme weather events (hurricanes, floods, winter storms, etc.)

EVERCORE

Investment Banking Analyst, Mergers & Acquisitions

New York, NY

2015 – 2017

- Selected transaction experience: Advised Equinix, Inc. on the \$3.6 billion acquisition of 29 data centers from Verizon

GRADUATE AWARDS AND FELLOWSHIPS

- Early Career Scientist Award, CFMIP/CLIVAR Conference on Clouds, Circulation, and Climate 2024
- National Defense Science & Engineering Graduate (NDSEG) Fellowship, US Department of Defense 2020 – 2023
- Outstanding Student Presentation Award (OSPA), AGU Fall Meeting 2023
- Third Place Outstanding Student Poster Presentation Award, Polar AMS Meeting 2021
- Outstanding Student Presentation Award (OSPA), AGU Fall Meeting 2020
- Graduate Provost Fellowship, University of Washington (declined for NDSEG Fellowship) 2020
- Top Scholar Award, Department of Atmospheric Sciences, University of Washington 2020

PUBLICATIONS

Cooper, V., G. Hakim, and K. Armour. Spatial Patterns of Sea-Surface Temperature, Sea Ice, and Sea-Level Pressure from 1850–2023. *In prep.*

Cooper, V., K. Armour, G. Hakim, J. Tierney, N. Burls, C. Proistosescu, M. Dvorak, Y. Dong, T. Andrews, J. Zhu, J. King, M. Osman, W. Dong, and Y. Ming. Pliocene pattern effects indicate stronger constraints on modern-day climate sensitivity. *In prep.*

Dvorak, M., K. Armour, R. Feng, **V. Cooper**, J. Zhu, N. Burls, and C. Proistosescu. Mid-Pliocene climate forcing, sea-surface temperature patterns, and implications for modern-day climate sensitivity. *In prep.*

Tierney, J., J. King, M. Osman, J. Abell, N. Burls, E. Erfani, **V. Cooper**, and R. Feng. Pliocene warmth and patterns of climate change inferred from paleoclimate data assimilation. *In review*.

Cooper, V., K. Armour, G. Hakim, J. Tierney, M. Osman, C. Proistosescu, Y. Dong, N. Burls, T. Andrews, D. Amrhein, J. Zhu, W. Dong, Y. Ming, and P. Chmielowiec (2024). Last Glacial Maximum pattern effects reduce climate sensitivity estimates. *Science Advances*. 10, eadk9461. doi.org/10.1126/sciadv.adk9461.

- Carbon Brief article: “Ice-age analysis suggests worst-case global warming is less likely”

Cooper, V., L. Roach, J. Thomson, S. Brenner, M. Smith, M. Meylan, and C. Bitz (2022). Wind waves in sea ice of the western Arctic and a global coupled wave-ice model. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*. 380:20210258. doi.org/10.1098/rsta.2021.0258.

PRESENTATIONS

Cooper, V., K. Armour, G. Hakim, J. Tierney, N. Burls, C. Proistosescu, M. Dvorak, Y. Dong, T. Andrews, J. Zhu, D. Amrhein, J. King, M. Osman, W. Dong, and Y. Ming. Paleoclimate Pattern Effects and Revised Estimates of Modern-day Climate Sensitivity. *CFMIP/CLIVAR Conference on Clouds, Circulation, and Climate*. Talk. **Received CFMIP Early Career Scientist Award**.

Cooper, V., K. Armour, G. Hakim, J. Tierney, N. Burls, C. Proistosescu, M. Dvorak, Y. Dong, T. Andrews, J. Zhu, D. Amrhein, J. King, M. Osman, W. Dong, and Y. Ming. Paleoclimate Pattern Effects and Revised Estimates of Modern-day Climate Sensitivity. *CESM Paleoclimate Working Group Meeting 2024*. Talk.

Cooper, V., K. Armour, G. Hakim, J. Tierney, N. Burls, C. Proistosescu, M. Dvorak, Y. Dong, T. Andrews, J. Zhu, J. King, M. Osman, W. Dong, and Y. Ming. Pliocene Pattern Effects and Revised Estimates of Modern-day Climate Sensitivity. *AGU Fall Meeting 2023*. Talk.

Cooper, V., G. Hakim, and K. Armour. Variability in Sea-Surface Temperature and Sea Ice Patterns from Coupled Data Assimilation, 1850–present. *AGU Fall Meeting 2023*. Poster. **Received OSPA (Outstanding Student Presentation Award)**.

Cooper, V., K. Armour, G. Hakim, J. Tierney, M. Osman, C. Proistosescu, Y. Dong, N. Burls, T. Andrews, D. Amrhein, J. Zhu, W. Dong, Y. Ming, and P. Chmielowiec. Last Glacial Maximum pattern effects reduce climate sensitivity estimates. *ECS & Cloud Feedback Symposium (Oct. 2023)*. Invited Talk ([recording available](#)).

Cooper, V., K. Armour, C. Proistosescu, Y. Dong, G. Hakim, J. Tierney, M. Osman, N. Burls, D. Amrhein, T. Andrews, Y. Ming, W. Dong, and P. Chmielowiec. SST pattern effect in the Last Glacial Maximum reduces climate sensitivity estimates. *AGU Fall Meeting 2022*. Talk.

Cooper, V., K. Armour, C. Proistosescu, P. Chmielowiec, J. Tierney, M. Osman, Y. Dong, G. Hakim, D. Amrhein, N. Burls, and S. Knapp (2022). The Last Glacial Maximum Pattern Effect. *CFMIP 2022*. Poster.

Cooper, V., L. Roach, J. Thomson, S. Brenner, M. Smith, M. Meylan, and C. Bitz (2022). Wind waves in sea ice of the western Arctic and a global coupled wave-ice model. *National Defense Science & Engineering Graduate Fellowship Conference*. Poster.

Cooper, V., K. Armour, C. Proistosescu, P. Chmielowiec, J. Tierney, M. Osman, Y. Dong, G. Hakim, D. Amrhein, N. Burls, and S. Knapp (2022). The Last Glacial Maximum Pattern Effect. *Pattern Effect Workshop (Boulder, CO)*. Poster.

Cooper, V., L. Roach, J. Thomson, S. Brenner, M. Smith, M. Meylan, and C. Bitz (2022). Wind waves in sea ice and a global coupled wave-ice model. *Antarctic Sea Ice and Southern Ocean Seminars, hosted by The University of Texas at San Antonio*. Talk.

Cooper, V., L. Roach, J. Thomson, S. Brenner, M. Smith, and C. Bitz (2021). Waves in the Marginal Ice Zone: Insights from Observations and Modeling. *Polar Meteorology and Oceanography Conference, hosted by American Meteorological Society (Polar AMS)*. Poster. **Received Third Place OSPA (Outstanding Student Presentation Award)**.

Cooper, V., L. Roach, J. Thomson, S. Brenner, M. Smith, and C. Bitz (2021). Waves in the Marginal Ice Zone: Insights from Observations and Modeling. *Sea State Meeting, hosted by Plymouth Marine Laboratory*. Poster.

Cooper, V., L. Roach, J. Thomson, S. Brenner, M. Smith, and C. Bitz (2020). Towards Validating Wave-Ice Interactions in Climate Models Using In Situ Observations. *AGU Fall Meeting. Poster*. **Received OSPA (Outstanding Student Presentation Award).**

TEACHING & SERVICE

UNIVERSITY OF WASHINGTON, DEPARTMENT OF ATMOSPHERIC SCIENCES Seattle, WA

Teaching

- Lead Teaching Assistant (selected to lead teaching program for all Atmospheric Sciences TAs) 2022 – 2023
- Teaching Assistant, ATM S 100: Climate, Justice, and Energy Solutions (Prof. Dargan Frierson) 2022
- Invited Lecture, ATM S 220: Ice & Climate 2022
- Guest Lectures: The Atmospheric General Circulation Parts I and II 2023

Service & Outreach

- Guest Author (invited), Carbon Brief 2024
- Student Representative on Faculty Search Committee, UW Atmospheric & Climate Science 2024
- Equity, Diversity, and Inclusion (EDI) Committee, Student Representative (2 students selected) 2023 – present
- Diversity & Inclusion Group (DIG): Member of student-led group 2021 – present
- Mentor, Graduate-Undergraduate Mentor Program for Atmospheric Sciences 2021 – present
- Discussion on Climate with Governor Jay Inslee (1 of 3 invited students from Dept. of Atmos. Sciences) 2023
- Convener, Session on Climate Dynamics at UW Program on Climate Change Summer Institute 2023
- Student representative for Fleagle Endowed Lecture Committee with Invited Lecturer Myles Allen 2023
- Guest Author (invited), The Drift 2022
- Student member of Welcome Committee for New Students 2021 – 2022
- Interviewed for Undergraduate Environmental Job Fair ([link](#)) 2022
- UW Outreach Program: Lecturer on Climate Change and Impacts on the Pacific Northwest 2020 – 2021
- Peer reviewer: Geophysical Research Letters, Journal of Climate

READER'S GARDEN BOOKSTORE

Granville, OH

Treasurer and Member of Board of Directors

2018 – Present

- Volunteer board member for my hometown's bookstore in rural Ohio focused on community engagement

FAIR OPPORTUNITY PROJECT

Seattle, WA

Mentor

2019 – 2021

- Provide one-on-one mentorship to an underrepresented high-school student throughout college application process

BUCKINGHAM BROWNE & NICHOLS SCHOOL

Cambridge, MA

Math Team Head Coach

2013 – 2015

- Led competitive math program: weekly lessons, mock tests, and travel to regional competitions

BOSTON PROJECT TEACH

Cambridge, MA

Mentor, College & Career Awareness Program

2012 – 2015

- Present and discuss college options and career paths with middle school students from low-income neighborhoods