VINCENT T. COOPER

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EDUCATION

UNIVERSITY OF WASHINGTON — **Seattle, WA**
Ph.D. Student in Atmospheric Sciences — 2019 – Present
M.S. in Atmospheric Sciences, GPA: 4.0/4.0 — 2019 – 2022
Advisors: Kyle Armour, Cecilia Bitz, Gregory Hakim

HARVARD UNIVERSITY — **Cambridge, MA**
B.A. in Statistics, *Cum Laude*, GPA: 3.9/4.0, GRE: 338/340 (168 Verbal, 170 Quantitative) — 2011 – 2015
Study Abroad (Università Ca' Foscari di Venezia): Nature, A History of Western Ethics Defined with Nature in Mind

GRANVILLE HIGH SCHOOL — **Granville, OH**

GRADUATE AWARDS AND FELLOWSHIPS

- National Defense Science & Engineering Graduate (NDSEG) Fellowship, US Department of Defense — 2020 – 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

GRADUATE RESEARCH EXPERIENCE

UNIVERSITY OF WASHINGTON — **Seattle, WA**
Graduate Research Assistant, Department of Atmospheric Sciences — 2019 – Present

- **Climate Dynamics Group (Prof. Kyle Armour):** SST pattern effects on radiative feedbacks and climate sensitivity, focusing on Last Glacial Maximum and Pliocene (also with Prof. Greg Hakim)
- **Ice & Climate Group (Prof. Cecilia Bitz):** Coupled interactions between sea ice and ocean surface waves, conducting experiments in a global coupled wave-ice model and analyzing in situ observations from the western Arctic
- **Data Assimilation & Predictability Group (Prof. Gregory Hakim):** Reconstructing SST patterns, climate variability, and hydroclimate from 1850-present with data assimilation and linear inverse models (also with Prof. Kyle Armour)
- Experience with custom model experiments in the Community Earth System Model (CESM), including CAM4/5/6 (atmosphere component), CICE5 (sea ice component), and WAVEWATCH III (ocean surface wave component)
- Experience with in situ data (wave buoys and moorings; SST data assimilation) and satellite observations (sea ice)
- **Advanced Course in Climate Dynamics (ACDC)** Summer School Participant (2022)
- **Fieldwork:** 30-day research cruise in ice-covered Beaufort Sea aboard R/V Sikuliaq (Arctic Mobile Observing System with UW Applied Physics Lab and MIT/WHOI, funded by US Office of Naval Research, Oct. 2 – Nov. 3, 2021)

PUBLICATIONS AND PRESENTATIONS

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., 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

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.*

Thomson, J., S. Wahlgren, **V. Cooper,** S. Brenner, M. Smith, S. Swart, L. Biddle, and C. Bitz. Waves observed far (>100 km) within sea ice. *Waves in Shallow Water Environment (WISE) Meeting. 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.*

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.*

PROFESSIONAL EXPERIENCE

AMERICAN SECURITIES — **New York, NY**
Associate, Private Equity Investment Team — 2017 – 2019

- Member of 29-person investment team with $23 billion of assets (acquired businesses valued at $0.5-1.5 billion)
- Modelled and executed investments, analyzing company operations, economic uncertainty, and financial engineering
- *Selected transaction experience (2019)*: Acquisition of BELFOR, the world's largest damage reconstruction provider, rebuilding homes, businesses, and cities after extreme weather events (hurricanes, floods, winter storms, tornados, etc.)

EVERCORE — **New York, NY**
Investment Banking Analyst, Mergers & Acquisitions (Tech & Telecommunications Group) — 2015 – 2017

- Created quantitative financial models of mergers, acquisitions, and strategic initiatives for technology companies
- *Selected transaction experience (2017)*: Advised Equinix, Inc. on $3.6B acquisition of the Verizon data centers

THE BLACKSTONE GROUP — **New York, NY**
Summer Analyst, Hedge Fund Solutions — 2014

- Developed quantitative investment models based on time series analysis of risk premia factors

TEACHING EXPERIENCE AND COMMUNITY SERVICE

UNIVERSITY OF WASHINGTON, DEPARTMENT OF ATMOSPHERIC SCIENCES — **Seattle, WA**
Lead Teaching Assistant — 2022 – 2023
Welcome Committee for New Students — 2021 – 2022
Teaching Assistant, ATM S 100: Climate, Justice, and Energy Solutions (Prof. Dargan Frierson) — 2022

- Taught four weekly sections, each consisting of 20-30 students
- Developed new teaching materials for course first offered in 2021 with emphasis on diversity, equity, and inclusion
- ATM S 220 Guest Lecture: Ice & Climate, Summer 2022
- ATM S 101 Guest Lectures: The Atmospheric General Circulation Parts I and II, Winter 2023

READER'S GARDEN BOOKSTORE — **Granville, OH**
Treasurer and Member of Board of Directors — 2018 – Present

- Volunteer treasurer and board member of an independent bookstore located in rural Ohio

- Contribute financial expertise and business consulting to support a small business focused on community engagement

FAIR OPPORTUNITY PROJECT **Seattle, WA**
Mentor 2019 – 2021
- Provide guidance to high school students from underrepresented demographics throughout college application process

BUCKINGHAM BROWNE & NICHOLS SCHOOL **Cambridge, MA**
Math Team Coach 2013 – 2015
- Led 20+ students in competitive math program, taught weekly lessons including practice problems and mock tests
- Finished 2014 season as division champions, earning placement in the highest division limited to top 5 Boston schools

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 families

GYPSY MOTH ACTION TEAM **Granville, OH**
Co-founder and Researcher 2009 – 2011
- Led research to assess infestation of local invasive species; results presented to Village Council and Township Trustees