

Alyssa M. Stansfield

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Education

- 2022 Ph.D. in Marine and Atmospheric Sciences
Stony Brook University
- 2021 Science Training & Research to Inform Decisions Graduate Certificate
Stony Brook University
- 2017 B.S. in Meteorology and Marine Science (*Summa Cum Laude*)
Rutgers University

Professional Appointments

- 2024-Present Tenure-track Assistant Professor
Department of Atmospheric Sciences, University of Utah
- 2024-Present Wilkes Climate Science and Policy Center Fellow
University of Utah
- 2022-2024 NSF Atmospheric and Geospace Sciences Postdoctoral Research Fellow
Department of Atmospheric Science, Colorado State University
Mentor: Dr. Kristen L. Rasmussen
- 2017-2022 Graduate Research Assistant
School of Marine and Atmospheric Sciences, Stony Brook University
Advisor: Dr. Kevin Reed
- 2016 Research Intern, NOAA Geophysical Fluid Dynamics Laboratory
Mentor: Dr. Xiaosong Yang
- 2014-2017 Undergraduate Research Assistant
School of Environmental and Biological Sciences, Rutgers University
Advisor: Dr. Benjamin Lintner

Research Interests

Climate modeling, extreme weather, climate change and variability, machine learning, compound extremes, tropical meteorology, climate change impacts and adaptation, model assessment, climate science communication

Peer-Reviewed Publications

Symbols denote undergraduate(*) and graduate(†) students that I have mentored.

20. Huang, K.†, **A. M. Stansfield**, and Y. Han. A Unified Storm Tracking Framework for Investigating the Climatology of Storms over the Continental United States. Submitted to *JGR:Atmospheres*.
19. Kalashnikov, D. A., J. T. Abatzoglou, and **A. M. Stansfield**. Contribution of Tropical Cyclones to Hourly Precipitation Extremes in the Contiguous United States. Submitted to *Geophysical Research Letters*.
18. **Stansfield, A. M.** and K. L. Rasmussen. Quantifying Tropical Cyclone Vertical Mass Flux and its Relationship to Precipitation Structures under Varying Sea Surface Temperatures. *Geophysical Research Letters*, 53, e2025GL118254. doi: 10.1029/2025GL118254

17. Kukulies, J., A. F. Perin, J. Done, **A. M. Stansfield**, and R. Rios-Berrios. Precipitation Efficiency by Storm Type in Km-scale Climate Simulations and Satellite Observations. *JGR: Atmospheres*, 131, e2025JD044800. doi: 10.1029/2025JD044800
16. Wang, Z., R. Rios-Berrios, D. P. Stern, ... **A. M. Stansfield**, P. V. Ayar, and E. Wisinski (2025). On the Definition of Tropical Cyclone Seeds from a Climate Perspective. *Bulletin of the American Meteorological Society*, BAMS-D-24-0200.1. doi: 10.1175/BAMS-D-24-0200.1
15. **Stansfield, A. M.** and K. L. Rasmussen (2025). The Response of Tropical Cyclone Inner Core and Outer Rainband Precipitation to Warming in Idealized Convection-Permitting WRF. *JGR: Atmospheres*, 130, e2024JD042217. doi:10.1029/2024JD042217
14. Thonis, A., **A. M. Stansfield**, and H. Akcakaya (2024). Unraveling the role of tropical cyclones in shaping present species distributions. *Global Change Biology*, 30, e17232. doi: 10.1111/gcb.17232
13. Silvers, L. G., **A. M. Stansfield**, and K. A. Reed (2024): The impact of rotation on tropical climate, the hydrologic cycle, and climate sensitivity. *Geophysical Research Letters*, 51, e2023GL105850. doi: 10.1029/2023GL105850
12. Huprikar, A. *, **A. M. Stansfield**, and K. A. Reed (2023): A Storyline Analysis of Hurricane Irma's Precipitation Under Various Levels of Climate Warming. *Environmental Research Letters*, 19, 014004, doi:10.1088/1748-9326/ad0c89
11. Jones, A. D., D. Rastogi, P. Vahmani, **A. M. Stansfield**, K. A. Reed, T. Thurber, P. A. Ullrich, & J. Rice (2023): Continental United States Climate Projections based on Thermodynamic Modification of Historical Weather. *Sci Data*, 10, 664, doi:10.1038/s41597-023-02485-5
10. Reed, K. A., **A. M. Stansfield**, W.-C. Hsu, G. J. Kooperman, A. A. Akinsanola, W. M. Hannah, A. G. Pendergrass, and B. Medeiros (2023): Evaluating the simulation of CONUS precipitation by storm type in next-generation configurations of E3SM. *Geophysical Research Letters*, 50, e2022GL102409, doi:10.1029/2022GL102409
9. **Stansfield, A. M.** and K. A. Reed (2023): Global Tropical Cyclone Precipitation Scaling with Sea Surface Temperature. *npj Climate and Atmospheric Science*, 6(60), doi:10.1038/s41612-023-00391-6
8. Reed, A. T. *, **A. M. Stansfield**, and K. A. Reed (2022): Characterizing Long Island's Extreme Precipitation and its Relationship to Tropical Cyclones. *Atmosphere*, 13(7), doi:10.3390/atmos13071070
7. **Stansfield, A. M.** and K. A. Reed (2021): Tropical Cyclone Precipitation Response to Surface Warming in Aquaplanet Simulations with Uniform Thermal Forcing. *JGR: Atmospheres*, 126, e2021JD035197, doi:10.1029/2021JD035197
6. Reed, K.A., M. F. Wehner, **A. M. Stansfield** and C. M. Zarzycki (2021): Anthropogenic Influence on Hurricane Dorian's Extreme Rainfall. [in "Explaining Extreme Events of 2019 from a Climate Perspective"]. *Bull. Amer. Meteor. Soc.*, 102(1), S9-S16, doi:10.1175/BAMS-D-20-0160.1
5. Ullrich, P.A., C.M. Zarzycki, E.E. McClenny, M.C. Pinheiro, **A.M. Stansfield** and K.A. Reed (2021): TempestExtremes v2.0: A Community Framework for Feature Detection, Tracking and Analysis in Large Datasets. *Geophys. Model Dev.*, 14(8), 5023-5048. doi:10.5194/gmd-14-5023-2021

4. **Stansfield, A. M.**, K. A. Reed, and C. M. Zarzycki (2020): Changes in Precipitation from North Atlantic Tropical Cyclones under RCP Scenarios in the Variable-Resolution Community Atmosphere Model. *Geophysical Research Letters*, 47. doi: 10.1029/2019GL086930
3. **Stansfield, A. M.**, K. A. Reed, C. M. Zarzycki, P. A. Ullrich, and D. R. Chavas (2020): Assessing Tropical Cyclones' Contribution to Precipitation over the Eastern United States and Sensitivity to the Variable-Resolution Domain Extent. *Journal of Hydrometeorology*, 21, 1425-1445. doi: 10.1175/JHM-D-19-0240.1
2. Reed, K. A., **A. M. Stansfield**, M. F. Wehner, and C. M. Zarzycki (2020): Forecasted attribution of the human influence on Hurricane Florence. *Science Advances*, 6 (1). doi:10.1126/sciadv.aaw9253
1. Lintner, B. R., D. K. Adams, K. A. Schiro, **A. M. Stansfield**, A. A. Amorim Rocha, and J. D. Neelin (2017): Relationships among climatological vertical moisture structure, column water vapor, and precipitation over the central Amazon in observations and CMIP5 models. *Geophys. Res. Lett.*, 44, 1981–1989. doi:10.1002/2016GL071923

Published Datasets

1. Stansfield, A. M., & K. A. Reed (2021). CAM Global RCE simulations TC track, radial profiles, and filtered precipitation files [Data set]. Dryad Digital Repository. <https://doi.org/10.5061/dryad.x3ffbg7jv>

Book Chapters

1. Bacmeister, J., K. Balaguru, S. Bates, P. Chang, D. Fu, M. Morrison, K. A. Reed, M. Roberts, N. Rosenbloom, **A. M. Stansfield**, M. Wehner, & C. Zarzycki. (2025). Projecting local and regional changes in tropical cyclones and their potential impacts. In G. Villarini, G. A. Vecchi, & E. Scoccimarro (Eds.), *Tropical Cyclones and Associated Impacts* (pp. 223-253). Elsevier. <https://doi.org/10.1016/B978-0-323-95390-0.00011-X>.

Other Publications and Reports

2. Gevondyan, E., Lechtenberg-Kasten, S., Saricks, C., Lindley, R., Reed, K. A., and **Stansfield, A. M.** U.S. Department of the Interior Bureau of Ocean Energy Management (2023). Effects of Greenhouse Gas Emissions and Climate Change on U.S. Coastal and Marine Environments: A High-level Harm Summary (Report No.: OCS Study BOEM 2023-009 and ANL-22/87.) https://espis.boem.gov/final%20reports/BOEM_2023-009.pdf
1. Ullrich, P. A., Reed, K. A., Zarzycki, C. M., and **Stansfield, A. M.** U.S. Department of Energy Office of Science. (2021). FY 2021 Second Quarter Performance Metric: Improve and Validate Earth System Model Simulations of Precipitation Related to Landfalling Hurricanes in the CONUS (Report No. DOE/SC-CM-21-002). https://eesm.science.energy.gov/system/files/attachments/FY2021_2nd_Quarter_Metrics.pdf

Awarded Grants and Fellowships

5. State of Utah Department of Natural Resources
Title: *Storm Processes and Cloud-Seeding Impacts on Precipitation, Snowpack, and Runoff in the lower Ogden and Weber Basins of Utah*

Role: Co-I, PI: Dr. Jim Steenburgh
Total budget: \$1,462,485
Period: July 2025-June 2028

4. NOAA Climate Program Office Modeling, Analysis, Predictions, and Projections Program
*Stansfield was a major contributor to the conception, design, and writing of the proposal but was unable to be a co-PI due to university restrictions on postdoc participation.
Title: *Storm Mode Classification as a Process-Oriented Tool to Diagnose Precipitation Biases in Climate Models*
Role: Project Participant, PI: Dr. Kristen Rasmussen (CSU)
Obligated amount for U of U: \$0
Period: Sept. 2024-Aug. 2027
3. NSF Atmospheric and Geospace Sciences Postdoctoral Research Fellowship (Award #2204138)
Title: *Examining the Response of Tropical Cyclone Precipitation Structure to Climate Change Using Idealized and Realistic Models*
Role: PI, Mentor: Dr. Kristen Rasmussen (CSU)
Obligated amount: \$190,000
Period: Sept. 2022 - Aug. 2024
2. Stony Brook University Science Training & Research to Inform Decisions (STRIDE) Fellowship
Obligated amount: \$68,000
Period: Aug. 2019 - Aug. 2021
1. Stony Brook University Graduate Council Fellowship
Obligated amount: \$50,000
Period: Aug. 2017 - May 2022

Pending Grants

1. NASA Earth Science Research Program
Title: *Observational Studies of Shallow Marine Clouds over the Midlatitude Oceans Using A-Train and GPM with a View toward AOS*
Role: co-I
Total Budget: \$654,213
Submitted: November 2024 (selected as fundable but no funding available, still pending)
2. NSF Collaborations in Artificial Intelligence and Geosciences Program
Title: CAIG: Operator Representations of Climate–Hydrology Interactions and Dynamics in Mountain Watersheds (ORCHID)
Role: PI
Total Budget: \$1,028,722
Submitted: February 2026

Teaching

University of Utah, Department of Atmospheric Sciences
Fall 2026: The Climate System (ATMOS 5400)
Fall 2025: Introduction to Atmospheric Science (ATMOS 5000)

Fall 2025: Introduction to Earth System Science (ATMOS 1120) (co-teaching)

Spring 2025: Climate Dynamics (ATMOS 6030)

Colorado State University, Department of Atmospheric Science

Guest Lecturer in Synoptic Meteorology (ATS 640) and Tropical Meteorology (ATS 742)

Stony Brook University, School of Marine and Atmospheric Sciences

Spring 2022: Prospects for Planet Earth (ENS 101) (Head Instructor)

Fall 2017: Extreme Weather (ATM 103) (Teaching Assistant)

Spring 2018: Weather and Climate (ATM 102) (Teaching Assistant)

Guest Lecturer in Extreme Weather (ATM 103) and Global Atmospheric Change (ATM 305)

Course Developer and Head Instructor for “How to Apply to Grad School” Unofficial Course

Student Advising

MS and PhD Advisees

Zachary Atkins-Weltman, MS Student, Fall 2025-Present (co-advised with Jim Steenburgh)

Kian Huang, PhD Student, Fall 2025-Present

Greg Egger, PhD Student, Fall 2025-Present (co-advised with Thomas Reichler)

MS and PhD Committee Service

Shenghong Dong, University of Utah, PhD, 2026-Present

Casey Reynolds, University of Utah, PhD, 2025-Present

Ella Hunter, University of Utah, MS, 2024-2026

Haotong Jing, University of Utah, PhD, 2024-Present

Undergraduate Research Advisees

Madison Kelker, ATMOS 5810, Spring 2026

Marco Vazquez, ATMOS 5810, Spring 2026

Nikki Berger, ATMOS 5810, Spring 2026

Christopher Johanson, ATMOS 5810, Spring 2026

Londonrose Lee, ATMOS 5810, Spring 2026

Alissa Neil, ATMOS 5810, Spring 2026

Maggie Groene, ATMOS 5810, Spring 2026

Christopher Johanson, Undergraduate Wilkes Scholar, Spring 2025-Fall 2025

Kyle Ebner, ATMOS 5810, Spring 2025

Mentoring Programs

2023-2024 Mentor, PROMoting Geoscience, Research, Education, and Success

2023-2024 Mentor, CIRA-ATS Mentoring Program (CAMP), Colorado State University

2022-2024 Mentor, [Geosciences Education & Mentorship Support](#)

2019-2024 Research Mentor, Stony Brook University

Students: Annika Huprikar, Justin Willson, Austin Reed, Justin Bettenhauser

2017-2021 Women in Science and Engineering Program Mentor, Stony Brook University

Honors and Awards

2025 AMS 21st Conference on Mesoscale Processes Very Early Career Award

2024 AGU *Earth's Future* Outstanding Reviewer Award

- 2023 Colorado State University SoGES Sustainability Leadership Fellow
- 2022 American Meteorological Society Hurricanes & Tropical Meteorology Conference Outstanding Oral Presentation Award
- 2022 Stony Brook University Nuria Protopopescu Memorial Teaching Award
- 2022 Stony Brook University Alumni Association's Dean's Choice Award for Leadership
- 2022 Finalist in the Stony Brook University Three-Minute Thesis Competition
- 2021 American Geophysical Union Precipitation Technical Committee Student Presentation Award
- 2020 Stony Brook University Maze-Landeau Graduate Student Fund for Excellence Travel Award
- 2019 Stony Brook University Jerry R. Schubel Graduate Fellowship Award
- 2019 Workshop on Risk Analysis for Extremes in the Earth System Travel Grant
- 2019 Columbia University Correlated Extremes Workshop Travel Grant
- 2018 Stony Brook University Wu Xiangding Memorial Award for Academic Achievement
- 2017 Rutgers University Matthew Leydt Society
- 2017 Rutgers University Meteorology Student of the Year
- 2014 Rutgers University Academic Achievement Award
- 2013-2017 Rutgers University Presidential Scholarship
- 2013-2017 Rutgers University School of Environmental and Biological Sciences Honors Program

Invited Presentations

- 2024 Departmental Seminar, Department of Atmospheric Sciences, University of North Dakota
- 2023 Departmental Seminar, Department of Earth, Geographic, and Climate Sciences, University of Massachusetts Amherst
- 2023 Departmental Seminar, Department of Atmospheric and Oceanic Science, University of Maryland (virtual)
- 2023 Meteorology Seminar Series, Department of Earth, Ocean, & Atmospheric Science, Florida State University (virtual)
- 2023 Climate & Global Dynamics (CGD) Lab Weekly Seminar Series, NCAR
- 2022 Special Seminar Series, Cooperative Institute for Research in the Atmosphere (CIRA)
- 2022 AGU ECSPrecip Seminar Series (virtual)
- 2021 Ocean & Climate Physics Seminar Series, Lamont-Doherty Earth Observatory
- 2019 GRADTALKS Physics Grad Student Association Seminar Series, Stony Brook University

Conference Presentations

Talks

- 2026 AMS Annual Meeting, "Changes in Hurricane Characteristics in 40-Year Convection-Permitting Pseudo-Global Warming Simulations over the United States", Houston, Texas
- 2025 AMS 21st Conference on Mesoscale Processes, "Exploring the Relationships between Mass Flux and Tropical Cyclone Properties in Convection-Permitting Model Simulations", Boise, Idaho
- 2024 VIII Convection-Permitting Climate Modeling Workshop, "Exploring the Relationship between Vertical Mass Flux and Tropical Cyclone Characteristics in Idealized Convection-Permitting Simulations", Fort Collins, CO (virtual)

- 2024 TROPICANA Workshop, “Temporal Trends in Tropical Cyclone Inner Core and Outer Rainband Precipitation with Climate Change”, Paris, France
- 2024 36th Conference on Hurricanes and Tropical Meteorology, “High-Resolution Simulations of the Changes in Tropical Cyclone Inner Core and Outer Rainband Precipitation with Idealized Warming”, Long Beach, California
- 2024 EGU General Assembly, “Investigating Changes in Tropical Cyclone Inner Core and Outer Rainband Precipitation in Models under Warming Scenarios”, Vienna, Austria
- 2022 AGU Fall Meeting, “Exploring the Relationship between Tropical Cyclone Precipitation and Sea Surface Temperature on Different Time Scales”, Chicago, Illinois
- 2022 27th Annual CESM Workshop, “Understanding the Relationship between Tropical Cyclone Precipitation and SST Utilizing a CAM Hierarchical Framework” (virtual)
- 2022 EGU General Assembly, “Projecting Future Tropical Cyclone Precipitation Increases using a Hierarchical Modeling Framework”, Vienna, Austria
- 2022 35th Conference on Hurricanes and Tropical Meteorology, “Projecting the Response of Tropical Cyclone Precipitation to Climate Change using a Hierarchical Modeling Framework”, New Orleans, Louisiana
- 2021 AGU Fall Meeting, “Thermodynamic and Dynamic Contributions to Tropical Cyclone Precipitation Increases in Observations and Models”, New Orleans, Louisiana
- 2021 26th Annual CESM Workshop, “What can simplified CAM simulations reveal about the response of tropical cyclone rainfall to climate change?” (virtual)
- 2021 34th Conference on Hurricanes and Tropical Meteorology, “Projected Changes in North Atlantic Tropical Cyclone Characteristics under Future RCP Scenarios using Climate Model Ensembles” (virtual)
- 2020 AGU Fall Meeting, “Investigating Changes in Tropical Cyclone Rainfall in Aquaplanet Simulations Under Idealized Warming” (virtual)
- 2020 25th Annual CESM Workshop, “Tropical Cyclones in Variable-Resolution CAM: Impacts of High-Resolution Grid Extent and Climate Change Forcing” (virtual)
- 2019 AMS Annual Meeting, “Diagnosing Potential Climate Change Impacts on Recent Major Hurricanes in Variable-Resolution CAM”, Phoenix, Arizona

Posters

- 2024 AGU Annual Meeting, “Investigating the Response of Tropical Cyclone Inner Core and Outer Rainband Precipitation to Climate Change in Observations and Convection-Permitting Models”, Washington, D.C. (eLightning poster)
- 2024 36th Conference on Hurricanes and Tropical Meteorology, “Using a Convolutional Neural Network to Disentangle Environmental Differences between Developing and Non-Developing African Easterly Waves”, Long Beach, California
- 2023 AGU Annual Meeting, “Tropical Cyclone Precipitation Structure Response to Warming in High-Resolution Idealized WRF”, San Francisco, California
- 2023 ICMCS-XV, “Tropical Cyclone Precipitation Structure Response to Sea Surface Temperature Warming in Idealized WRF”, Fort Collins, Colorado
- 2019 AGU Fall Meeting, “An Exploration of Extreme Precipitation from Tropical Cyclones over the Eastern United States in Variable-Resolution CAM”, San Francisco, California
- 2019 9th Northeast Tropical Workshop, “Tropical Cyclone Contribution to Extreme Precipitation over the Eastern United States”, Dedham, Massachusetts
- 2018 33rd Conference on Hurricanes and Tropical Meteorology, “Verifying hindcast simulations of recent major hurricanes in variable-resolution CAM”, Ponte Vedra, Florida

2017 16th Annual AMS Student Conference, “Comparison of Observed and Model-simulated Atmospheric Moisture Vertical Profiles in the Amazon Rainforest”, Seattle, Washington

Students’ Presentations

- 2026 Kian Huang, “The Seasonal and Interannual Variability of Mesoscale Convective Systems over the U.S. in CONUS404 and Observations” Poster, 2026 AMS Annual Meeting, Houston, Texas
- 2026 Christopher Johanson, “Are Satellites Skewing Tropical Cyclone Rainfall Trends?” Poster, 2026 AMS Annual Meeting Student Conference, Houston, Texas
- 2025 Christopher Johanson, “Illusion in the Eye: Are Satellites Skewing Tropical Cyclone (TC) Rainfall Trends?” Poster, 2025 Wilkes Climate Summit, University of Utah, Salt Lake City, Utah

Service

University of Utah

- 2025 Undergraduate Research Opportunity Program (UROP) Reviewer (5 proposals)
- 2025 GCSC/Peak Water Field Research Seed Grant Program Reviewer (9 proposals)

Department of Atmospheric Sciences

- 2026 Worked with Mail and Print Services to redesign department’s brochures
- 2026 Served as chair of 1 Committee on Doctoral Advancement (CODA)
- Spring 2026 Weekly Departmental Seminar Organizer
- 2024-Present UCAR Member Representative
Department of Atmospheric Sciences, University of Utah
- 2024-Present Graduate Student Affairs Committee
Department of Atmospheric Sciences, University of Utah

Reviewing

- 2026 DOE Advanced Scientific Computing Research (ASCR) Leadership Computing Challenge (ALCC) (2 proposals)
- 2025 NSF GEO Climate and Large Dynamics Program Reviewer (1 proposal)
- 2025 NOAA CPO MAPP Program Proposal Review Panel (2 days)
- 2025 NASA MAP Program Proposal Review Panel (2.5 days)

Journal Reviewer: *Geophysical Research Letters*, *Nature Communications*, *Journal of Geophysical Research: Atmospheres*, *Quarterly Journal of the Royal Meteorological Society*, *Journal of Hydrometeorology*, *Journal of Applied Meteorology and Climatology*, *Journal of Advances in Modeling Earth Systems*, *Journal of Climate*, *Science Advances*, *Bulletin of the American Meteorological Society*, *npj Climate and Atmospheric Science*, *Climate Services*, *Earth’s Future*, *Scientific Reports*, *Environmental Research Letters*, *Nature Geosciences*

Professional Societies

- 2026-2029 AMS Board for Early Career Professionals Member
- 2024 AGU Atmospheric Science Section Executive Board Early Career Representative
- 2023-2024 AMS 36th Conference on Hurricanes and Tropical Meteorology Student Awards Committee Co-Chair

Conference session co-convening and chairing:

- 2026 AMS Annual Meeting (*Tropical Cyclone Structure and Dynamics*)

- 2025 AGU Annual Meeting (*Bridging the Gap Between Climate and Extreme Events*)
- 2024 AGU Annual Meeting (*Bridging the Gap Between Climate and Extreme Events, A Discussion with Program Managers for Early-Career Scientists Town Hall, AS Holten and Ascent Award Winners Session*)
- 2024 AMS 36th Conference on Hurricanes and Tropical Meteorology (*Climate Variability and Change in the Tropics*)
- 2024 EGU General Assembly (*Tropical Meteorology and Tropical Cyclones*)
- 2023 AGU Fall Meeting (*Bridging the Gap Between Climate and Extreme Events, A Discussion with Program Managers for Early-Career Scientists Town Hall*)
- 2023 Natural Hazards Researchers Meeting
- 2023 EGU General Assembly (*Tropical Meteorology and Tropical Cyclones*)
- 2022 AGU Fall Meeting (*Advancing Understanding of the Hydrological Cycle and its Extremes Through Objective Tracking of Weather Phenomena, Successful Proposal Writing for Early-Career Scientists in Atmospheric Sciences Town Hall*)
- 2021 AGU Fall Meeting (*Atmospheric Sciences OSPA Highlights I eLightning*)

- 2021-2024 AGU Atmospheric Science Section Early Career Committee
2021-2023: Chair of Professional Development Subcommittee
2024: Full Committee Chair

Previous Universities

- 2023 Presenter and Panelist, Professional Development Events for Grad Students on Networking and Postdoc Positions
Department of Atmospheric Science, Colorado State University

- 2021-2022 Graduate Student Representative, Strategic Planning Committee
School of Marine and Atmospheric Sciences, Stony Brook University

- 2018-2022 Board Member, Graduate Student Club
School of Marine and Atmospheric Sciences, Stony Brook University

Mentoring Programs

- 2023-2024 Mentor, PROMoting Geoscience, Research, Education, and Success
- 2023-2024 Mentor, CIRA-ATS Mentoring Program (CAMP), Colorado State University
- 2022-2024 Mentor, [Geosciences Education & Mentorship Support](#)
- 2019-2024 Research Mentor, Stony Brook University
Students: Annika Huprikar, Justin Willson, Austin Reed, Justin Bettenhauser
- 2017-2021 Women in Science and Engineering Program Mentor, Stony Brook University

Community Outreach

- 2026 Invited Speaker, Bonneville Exchange Club Meeting
- 2025-2026 Writer and Mentor, Letters to a Pre-Scientist Program
- 2025 Speaker, The Weather & Climate Livestream
- 2025 [Podcast guest, Everything Weather podcast with Kyle David](#)
- 2023 Guest Writer, CSU School of Global Environmental Sustainability Human Nature Blog

- 2023-2024 Writer and Mentor, Letters to a Pre-Scientist Program
- 2020-2021 Contributing Writer, American Geophysical Union GeoBites
- 2020 Guest Scientist, BioBus Live Student Town Hall on Climate Science (*virtual*)
- 2020 Meet with an Oceanographer Program, Long Island Aquarium, Riverhead, NY

Media Coverage

- Ellis, R. (2025, Sept.). Did climate change cause that natural disaster? *Neighbors of Park City*.
- Koren, M. (2024, Oct. 12). The Truth About Hurricane Geoengineering. *The Atlantic*.
- Pulver, D. V. (2022, Oct. 13). Is climate change fueling massive hurricanes in the Atlantic? Here's what science says. *USA TODAY*.
- Dunaief, D. (2020, June 28). Stony Brook University storm model predicts wetter, less frequent hurricanes. *TBR News Media*.
- Snider, L. (2018, Sept. 18). Attributing the Impact of Climate Change on Florence in Near Real Time. *NCAR & UCAR News*.
- Ludescher, S. (2016, Dec. 8). Alyssa Stansfield (SEBS '17): Exemplifying Leadership In Meteorology. *Rutgers Newsroom*.

Workshops and Training

- 2025 American Meteorological Society Early Career Leadership Academy
- 2025 University of Utah Essential Faculty Resource Spotlight: Best Practices for Working with Graduate Students and Postdocs
- 2024 University of Utah Snowbird Faculty Retreat
- 2024-2025 University of Utah S.T.A.R. Program Participant
- 2024-2025 University of Utah NSF Cohort Program Participant
- 2024 University of Utah's Center for Teaching Excellence Annual Teaching Symposium
- 2024 Tropical Cyclones in Anthropocene: Physics, Simulations, & Attribution (TROPICANA) Workshop, Paris, France
- 2023 Alan Alda Center 2-day Science Communication Workshop, Colorado State University
- 2023 Best Practices in Teaching at Colorado State University: Critical Thinking
- 2023 Best Practices in Teaching at Colorado State University: First Four Weeks
- 2021 ADVANCEGeo Implicit Bias and Active Bystander Training Workshop
- 2021 Women in Science and Engineering Leadership Workshop Series, SBU
- 2020 GRD 510 - Career Planning for Graduate Students, SBU
- 2019 JRN 501 - Communicating Science: Distilling Your Message, SBU
- 2019 JRN 503 - Communicating Science: Improvisation for Scientists, SBU
- 2019 Workshop on Risk Analysis for Extremes in the Earth System, LBNL
- 2016 Undergraduate Leadership Workshop, National Center for Atmospheric Research

Field Campaigns

- 2026 Seeded and Natural Orographic Winter Storms and Catchment Processes Evaluation (SNOWSCAPE) Project
Location: Ogden and Huntsville, Utah
Roles: co-PI, Radiosonde Team Organizer, IOP Chief Scientist
- 2024 Testing INCUS Methods Experiment – Suborbital preLaunch Investigations of Convective Evolution (TIME-SLICE)
Location: Northeast Colorado
Roles: Forecaster and Radiosonde Team

Professional Affiliations

- 2022-Present European Geophysical Union
- 2018-Present American Geophysical Union
- 2015-Present American Meteorological Society