



COLORADO STATE UNIVERSITY

Lantao Sun

Research Scientist III

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Research Interest

|| *Arctic* || *Climate dynamics* || *Solar climate intervention* || *High-resolution models* ||
My expertise lies in climate dynamics and Earth system modeling. My work focuses on understanding physical and dynamical processes in the polar regions and their connections to lower-latitude climate. I also study solar climate intervention, assessing how stratospheric aerosol injection may influence U.S. severe-storm environments and storm characteristics. A core theme of my current research is leveraging high-resolution models to uncover new insights into climate and weather processes.

Education

- Ph.D., Atmospheric dynamics 2010
University of Illinois at Urbana-Champaign, Urbana, IL
- M.S., B.S., Atmospheric Science 2005, 2002
Peking University, Beijing, China

Professional Experience

- Research Scientist III, Colorado State University, Fort Collins, CO 2019-present
- Research Scientist I, II, CIRES¹, CU-Boulder and NOAA PSL² 2015-2019
- Postdoctoral Associate, NCAR, Boulder, CO 2013-2015
- Postdoctoral Associate, Cornell University, Ithaca, NY 2010-2013

Editorial and Review Service

- Executive editor: *Climate Dynamics* 2024-present
- Associate editor: *Journal of Climate* 2019-present

¹ CIRES: Cooperative Institute for Research in Environmental Sciences

² PSL: NOAA Physical Science Laboratory

- Reviewer for U.S. federal and international funding agencies (National Science Foundation, Knut and Alice Wallenberg Foundation, ETH Grant Funding Programme)
- Reviewer for over 20 peer-reviewed journals, including *Nature*, *Nat. Clim. Change*, *Nat. Geosci.*, *Nat. Commun.*, *npj Clim. Atmos. Sci.*, *Sci. Adv.*, *PNAS*, *J. Climate*, *J. Geophys. Res.*, *Geophys. Res. Lett.*, *Clim. Dyn.*, *Q. J. R. Meteorol. Soc.*, *Geosci. Model Dev.*, and *Atmos. Chem. Phys.*

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Professional Activity

- Co-chair of the Polar Amplification MIP (PAMIP) phase 2 2025-present
- Primary Convener/Convener: AGU session on polar amplification 2021-2025
- Member: Organizing committee of PAMIP webinars. 2021-2025
- Member: Organizing committee of PAMIP workshops. 2021, 2024
- Member: Steering committee: SNAP³ 2017-2020
- Member: NOAA subseasonal to seasonal prediction task force 2016-2019
- Member: Organizing committee of SPARC⁴ Region Workshop 2015
- Member: American Geophysical Union (AGU) 2007-present
- Member: American Meteorological Society (AMS) 2007-present

Research Proposals

1. "Understanding the influence of the western boundary currents on climate variability", *PI* David W. J. Thompson, *Co-PI* James W. Hurrell, Lantao Sun, under review at **NSF Climate & Large-scale Dynamics Program**, \$1,095K under review.
2. "Collaborative Research: Understanding the impact of Arctic sea ice loss on summertime climate change", *PI* Tiffany Shaw, *Co-PI* Lantao Sun, **NSF Climate & Large-scale Dynamics Program**, 754K, 2023-2026.
3. "Assessing the impact of climate change and solar climate intervention on hazardous convective weather in the continental United States", *PI* Lantao Sun, *Co-PI* James W. Hurrell, Kristen L. Rasmussen, **NOAA Climate Program Office Earth Radiation Budget program**, 710K, 2022-2025.
4. "Projecting human health impacts from temperature extremes under scenarios of solar climate intervention", *PI* Brook Anderson, *Co-PI* James W. Hurrell, *Co-I*: David Rojas Rueda, Lantao Sun, Colorado State University **Climate Change and One**

³ SNAP: Stratospheric Network for the Assessment of Predictability

⁴ SPARC: Stratosphere-troposphere Processes And their Role in Climate

Health Pilot Funding, \$75K, 09/2021-08/2023.

5. “Role of stratospheric processes in predicting ENSO-NAO connections on subseasonal time scale”, *PI* Judith Perlwitz, *Co-PI* Jadwiga H. Richter, *Co-I* Lantao Sun, Julio Bacmeister, **NOAA Climate Program Office**. \$350K, 2016-2019.

Computational Resource Awards

1. *Co-PI*, “Exploring the impact of Arctic sea ice loss on summertime climate change using the Community Earth System Model”, **University Large allocation**, 14M core hours from NCAR Derecho Supercomputer, 2023-2026.
2. *PI*, “Assessing the impact of climate change and solar climate intervention on hazardous convective weather in the contiguous United States”, 247K credit from **Amazon Web Services (AWS)**, 2023-2025.
3. *Co-PI*, “Assessing the impact of climate change and solar climate intervention on hazardous convective weather in South America”, **NCAR Accelerated Scientific Discovery (ASD) proposal**, 40M core-hours from Derecho Supercomputer, 2021.

Manuscripts in Preparation

1. Summers, B., K. Rasmussen, J. W. Hurrell, L. Sun, and H. Yu, 2025: Future Projections of the 2011 Super Tornado Outbreak Under Global Warming and Stratospheric Aerosol Injection, In preparation for ***Earth’s Future***.
2. Nguyen, T.Q., B. Kravitz, J. W. Hurrell, K. L. Rasmussen, T. A. O’Brien, D. L. Ficklin, D. Visioni, L. Sun and T. Li, 2025: Dynamical downscaling for Solar geoengineering: U.S. Midwest extreme precipitation signals and implications for future simulations, In preparation for ***Geophys. Res. Lett.***
3. Glade, I., J. W. Hurrell, K. Rasmussen and L. Sun: The Role of the Pacific Decadal Oscillation in Modulating Hazardous Convective Weather, In preparation for ***Nature Geoscience***.

Manuscripts in Process

1. Sun, L., R. Wills, C. Deser, A. Herrington, I. Simpson, M. Gervais, 2025: Increased Model Resolution Amplifies Arctic Precipitation and Atmospheric Circulation Response to Sea-Ice Loss, ***J. Climate***, in review.
2. Sun, L., J. Hurrell, K. Rasmussen, B. Kravitz, B. Summers, 2025: Assessing the Impact of Solar Climate Intervention on Future U.S. Weather Using a Convection-Permitting Model. ***Geosci. Model Dev.***, in review.

3. Sigmond, M. and L. Sun, Atmospheric jet stream response to future Arctic sea ice loss not underestimated by climate models, ***NPJ Clim. Atmos. Sci.***, Accepted.
4. Kang, J., T. Shaw and L. Sun, Using energetic frameworks to assess artificial heating in coupled model sea ice loss experiments, ***J. Climate***, in revision.
5. Screen, J., and co-authors (including L. Sun), 2025: Causes and consequences of polar amplification elucidated by coordinated multimodel experiments, ***Commun. Earth Environ.***, Accepted.
6. Kaye, A. R., L. Sun, W. S. Hart, J.W. Hurrell, M. J. Tildesley, R. N. Thompson, 2025: The effect of natural climate variability on future suitability for vector-borne disease: a mathematical modelling study, ***Proceedings of the Royal Society B: Biological Sciences***, in review.
7. Chakraborty, A, J. W. Hurrell, K. Rasmussen and L. Sun, 2025: Evaluating Changes in Convective Environments Over Subtropical South America Under Forced and Natural Climate Variability, ***Geophys. Res. Lett.***, in revision.

Peer-reviewed Publications *(in reverse chronological order)*

60 papers (33 since 2020); total 4384 citations according to google scholar, h-index 32

60. Wu, Y., L. Sun and O. Terry, Can Arctic Sea Ice Melting Lead to More Summertime Heat Extremes? ***Geophys. Res. Lett.***, 52, e2025GL116668. <https://doi.org/10.1029/2025GL116668>.
59. Ding, X., G. Chen, Y. Wang and L. Sun, 2025: Demystifying the drivers of the spring warming asymmetry between Eurasia and North America. ***Sci. Adv.*** 11, eadu2364(2025). DOI:10.1126/sciadv.adu2364.
58. Sun, L., C. Patrizio, D. Thompson and J. Hurrell, 2025: Influence of Extratropical Ocean Heat Transport on Atmospheric Circulation in a High-Resolution Slab-Ocean Coupled Model, ***Geophys. Res. Lett.***, <https://doi.org/10.1029/2024GL111770>.
57. Kang J., T. Shaw and L. Sun, 2024: Anthropogenic aerosols have significantly weakened the regional summertime circulation in the Northern Hemisphere during the satellite era, ***AGU Adv.***, 5, e2024AV001318. <https://doi.org/10.1029/2024AV001318>.
56. Kaye, AR, U. Obolski, L. Sun, J. W. Hurrell, M. J. Tildesley, R. N. Thompson, 2024: The impact of climate change and natural climate variability on the global

- distribution of *Aedes aegypti*, ***Lancet Planet. Health***, Volume 8, Issue 12, e1079 - e1087, DOI: 10.1016/S2542-5196(24)00238-9.
55. Franke, M, J, Hurrell, K. Rasmussen and L. Sun, 2024: Impact of forced and internal climate variability on changes in convective environments over the eastern United States, ***Front. Clim.***, doi: 10.3389/fclim.2024.1385527.
54. Rea, D., D. Elsbury, A. Butler, L. Sun, Y. Peings and G. Magnusdottir, 2024: Interannual influence of Antarctic sea ice on Southern Hemisphere stratosphere-troposphere coupling, ***Geophys. Res. Lett.***, doi:10.1029/2023GL107478.
53. Sigmond, M. and L. Sun, 2024: The role of the basic state in the climate response to future sea ice loss, ***Environ. Res. Climate*** 3 031002, doi:10.1088/2752-5295/ad44ca.
52. Gervais, M., L. Sun, C. Deser, 2024: Impacts of Projected Arctic Sea Ice Loss on Daily Weather Patterns over North America, ***J. Climate***, doi:10.1175/JCLI-D-23-0389.1.
51. Glade I., J. Hurrell, L. Sun and K. Rasmussen, 2023: Assessing the impact of stratospheric aerosol injection on U.S. convective weather environments, ***Earth's Future***, doi: 10.1029/2023EF004041.
50. Liang, Y-C, Y. Kwon, C. Frankignoul, G. Gastineau, K. L. Smith, L. M. Polvani, L. Sun, Y. Peings, C. Deser, R. Zhang and J. Screen, 2023: The Weakening of the Stratospheric Polar Vortex and the Subsequent Surface Impacts as Consequences to Arctic Sea-ice Loss, ***J. Climate***, doi:10.1175/JCLI-D-23-0128.1.
49. Kang, J., T. Shaw and L. Sun, 2023: Arctic Sea Ice Loss Weakens Northern Hemisphere Summertime Storminess but Not Until the Late 21st Century, ***Geophys. Res. Lett.***, e2022GL102301. <https://doi.org/10.1029/2022GL102301>.
48. Hueholt, D., E. A. Barnes, J. W. Hurrell, J. H. Richter and L. Sun, 2023: Assessing Outcomes in Stratospheric Aerosol Injection Scenarios Shortly After Deployment, ***Earth's Future***. <https://doi.org/10.1029/2023EF003488>.
47. Barnes, E., J. Hurrell, L. Sun, 2022: Detecting changes in global extremes under the GLENS-SAI climate intervention strategy, ***Geophys. Res. Lett.***, <https://doi.org/10.1029/2022GL100198>.

46. Sun, L., M. Hoerling, J. H. Richter, A. Hoell, A. Kumar and J. Hurrell, 2022: Attribution of North American Subseasonal Precipitation Prediction Skill, *Wea. Forecasting*, <https://doi.org/10.1175/WAF-D-22-0076.1>.
45. Ding, X., G. Chen, L. Sun and P. Zhang, 2022: Distinct surface temperature signatures following the zonally symmetric and asymmetric modes of stratospheric variability in the northern hemisphere winter, *Geophys. Res. Lett.*, <https://doi.org/10.1029/2021GL096076>.
44. Richter, J. et al. (including L. Sun), 2022: Subseasonal Earth system prediction with CESM2, *Wea. Forecasting*, <https://doi.org/10.1175/WAF-D-21-0163.1>.
43. Hay, S., P. J. Kushner, R. Blackport, Ke. E. McCusker, T. Oudar, L. Sun, M. England, C. 1. Deser, J.A. Screen and L. M. Polvani, 2022: Separating the influences of low-latitude warming and sea-ice loss on Northern Hemisphere climate change, *J. Climate*, doi: <https://doi.org/10.1175/JCLI-D-21-0180.1>.
42. Smith, D., et al. (including L. Sun) 2022: Robust but weak multi-model atmospheric response to future Arctic sea ice loss, *Nat. Commun.*, doi: 10.1038/s41467-022-28283-y.
41. Sun, L., C. Deser, I. Simpson and M. Sigmond: 2022: Uncertainty in the winter atmospheric response to Arctic Sea ice loss: the role of stratospheric polar vortex internal variability, *J. Climate*, doi: <https://doi.org/10.1175/JCLI-D-21-0543.1>.
40. Yook, S., D. W. J. Thompson, L. Sun and C. Patrizio, 2022: The simulated atmospheric response to western North Pacific sea-surface temperature anomalies, *J. Climate*, doi: <https://doi.org/10.1175/JCLI-D-21-0371.1>.
39. Oehrlein, J., L. Polvani, L. Sun, C. Deser, 2021: How well do we know the surface impact of sudden stratospheric warmings? *Geophys. Res. Lett.*, <https://doi.org/10.1029/2021GL095493>.
38. Samarasinghe, S., E. A. Barnes, C. Connolly, I. Ebert-Uphoff and L. Sun, 2021: Strengthened causal connections between the MJO and the North Atlantic with climate warming. *Geophys. Res. Lett.*, 48, e2020GL091168. <https://doi.org/10.1029/2020GL091168>.
37. Meehl, G. A. Richter, J.H., Teng, H. et al. (including L. Sun), 2021: Initialized subseasonal to decadal Earth system prediction, *Nat. Rev. Earth Environ.*, 2, 340–357 (2021). <https://doi.org/10.1038/s43017-021-00155-x>.

36. Audette, A., R. Fajber, P. J. Kushner, Y. Wu, Y. Peings and G. Magnusdottir, M. Sigmond and L. Sun, 2021: Opposite responses of the dry and moist heat transport in the experiments of the polar amplification modeling intercomparison project (PAMIP), *Geophys. Res. Lett.*, <https://doi.org/10.1029/2020GL089990>.
35. Sun, L., J. Perwitz, J. Richter, M. Hoerling, J. W. Hurrell, 2020: NAO predictive skill beyond two weeks in boreal winter. *Geophys. Res. Lett.*, <https://doi.org/10.1029/2020GL090451>.
34. Banerjee, A., A. H. Butler, L. M. Polvani, A. Robock, I. R. Simpson and L. Sun, 2020: Robust winter warming over Eurasia under stratospheric sulfate geoengineering – the role of stratospheric dynamics, *Atmos. Chem. Phys. Discuss.* <https://doi.org/10.5194/acp-2020-965>.
33. Sun, L., C. Deser, R. Tomas and M. Alexander, 2020: Global coupled climate response to polar sea ice loss: Evaluating the effectiveness of different ice-constraining approaches, *Geophys. Res. Lett.*, 47, e2019GL085788. Doi:10.1029/2019GL085788.
32. Richter, J. H., K. Pegion, L. Sun, H. Kim, J. Caron, A. Glanville, E. LaJoie, S. Yeager, W. Kim, A. Tawfik and D. Collins, 2020: Subseasonal prediction with and without a well-represented stratosphere in CESM1, *Wea. Forecasting*, doi: 10.1175/WAF-D-20-0029.1.
31. Thompson R. N., M. J. Thompson, J. W. Hurrell, L. Sun and U. Obolski, 2020, Assessing the threat of major outbreaks of vector-borne diseases under a changing climate, M. J. P. F. G. Monteiro et al. (eds.), *Dynamics of the Sun and Stars, Astrophysics and Space Science Proceedings* 57, https://doi.org/10.1007/978-3-030-55336-4_5.
30. England, M., L. Polvani and L. Sun, 2020: Robust Arctic warming caused by projected Antarctic sea ice loss, *Environ. Res. Lett.*, in press, doi: 10.1088/1748-9326/abaada.
29. England, M, L. Polvani, L. Sun and C. Deser, 2020: Tropical climate responses to projected Arctic and Antarctic sea ice loss. *Nat. Geosci.*, 13, pages 275–281.
28. Zhang, X., C. Deser and L. Sun, 2020: Is there a tropical response to recent observed Southern Ocean cooling? *Geophys. Res. Lett.*, <https://doi.org/10.1029/2020GL091235>.
27. Sun, L., M. Alexander, and C. Deser, 2018: Evolution of the global coupled climate

- response to Arctic sea ice loss during 1990-2090 and its contribution to climate change, *J. Climate*, 31, 7823-7843, doi: 10.1175/JCLI-D-18-0134.1.
26. Wang, K., C. Deser, L. Sun and R. Tomas, 2018: Fast response of the tropics to an abrupt loss of Arctic sea ice via ocean dynamics, *Geophys. Res. Lett.*, 45, doi: 10.1029/2018GL077325.
 25. England, M., L. Polvani and L. Sun, 2018: Contrasting the Antarctic and Arctic atmospheric responses to projected sea ice loss in the late 21st Century, *J. Climate*, 31, 6353-6370, doi: 10.1175/JCLI-D-17-0666.1.
 24. Screen, J., C. Deser, D. M. Smith, X. Zhang, R. Blackport, P. J. Kushner, T. Oudar, K. E. McCusker and L. Sun, 2018: Consistency and discrepancy in the atmospheric response to Arctic sea-ice loss across climate models, *Nat. Geosci.*, doi:10.1038/s41561-018-0059-y.
 23. Sun, L., D. Allured, M. Hoerling, L. Smith, J. Perlwitz, and D. Murray, 2018: Drivers of 2016 record Arctic warmth assessed using climate simulations subjected to factual and counterfactual forcing, *Weather Clim. Extrem.*, **19**, 1-9, doi: 10.1016/j.wace.2017.11.001.
 22. Xue, D., J. Lu, L. Sun, G. Chen and Y. Zhang, 2017: Local increase of anti-cyclonic wave activity over Northern Eurasia under amplified Arctic warming, *Geophys. Res. Lett.*, 44, doi:10.1002/2017GL072649.
 21. Polvani, L., L. Sun, A. H. Butler, J. H. Richter and C. Deser, 2017: Distinguishing stratospheric sudden warmings from ENSO as key drivers of wintertime climate variability over the North Atlantic and Eurasia, *J. Climate*, 30, 1959-1969. doi:10.1175/JCLI-D-16-0277.1.
 20. Burrows, D. A., G. Chen and L. Sun, 2017: Barotropic and Baroclinic Eddy Feedbacks in the Midlatitude Jet Variability and Responses to Climate Change-Like Thermal Forcings, *J. Atmos. Sci.* 74, 111-132. doi:10.1175/JAS-D-16-0047.1.
 19. Sun, L., J. Perlwitz and M. Hoerling, 2016: What caused the recent "Warm Arctic, Cold Continents" trend pattern in winter temperatures? *Geophys. Res. Lett.*, doi: 10.1002/2016GL069024.
 18. Deser, C., L. Sun, R. A. Tomas and J. Screen, 2016: Does ocean-coupling matter for the northern extra-tropical response to projected Arctic sea ice loss? *Geophys. Res. Lett.*, doi:10.1002/2016GL067792.

17. Tomas, R. A., C. Deser and L. Sun, 2016: The role of ocean heat transport in the global climate response to projected Arctic sea ice loss, *J. Climate*. doi: 10.1175/JCLI-D-15-0651.1.
16. Sun, L., C. Deser and R. A. Tomas, 2015: Mechanisms of stratospheric and tropospheric circulation response to projected Arctic sea ice loss. *J. Climate*, **28**, 7824–7845. doi: <http://dx.doi.org/10.1175/JCLI-D-15-0169.1>
15. Yang, H., L. Sun and G. Chen, 2015: Separating transient responses to stratospheric ozone depletion-like springtime cooling in an idealized atmospheric model, *J. Atmos. Sci.*, **72**, 763–773. doi: 10.1175/JAS-D-13-0353.1.
14. Richter, J. H., C. Deser and L. Sun, 2015: Effects of stratospheric variability on El Niño teleconnections, *Environ. Res. Lett.*, doi:10.1088/1748-9326/10/12/124021.
13. Deser, C., R. A. Tomas and L. Sun, 2015: The role of ocean-atmosphere coupling in the zonal-mean atmospheric response to Arctic sea ice loss. *J. Climate*, **28**, 2168–2186. doi: <http://dx.doi.org/10.1175/JCLI-D-14-00325.1>.
12. Screen, J. A., C. Deser and L. Sun, 2015: Projected changes in regional climate extremes arising from Arctic sea ice loss. *Environ. Res. Lett.*, **10**, 084006 doi: 10.1088/1748-9326/10/8/084006.
11. Screen, J. A., C. Deser and L. Sun, 2015: Reduced risk of North American cold extremes due to continued sea ice loss. *Bull. Amer. Met. Soc.*, **96**, 1489–1503. doi: <http://dx.doi.org/10.1175/BAMS-D-14-00185.1>.
10. Sun, L., C. Deser, L. Polvani and R. A. Tomas, 2014: Influence of projected Arctic sea ice loss on polar stratospheric ozone and circulation in spring, *Environ. Res. Lett.*, **9** 084016, doi:10.1088/1748 9326/9/8/084016.
9. Sun, L., G. Chen and W. A. Robinson, 2014: The role of stratospheric polar vortex breakdown in Southern Hemisphere climate trends, *J. Atmos. Sci.*, **71**, 2335–2353. doi:10.1175/JAS-D-13-0290.1.
8. Lu, J., L. Sun, Y. Wu and G. Chen, 2014: The role of irreversible PV mixing in the zonal mean circulation response to global warming-like thermal forcing, *J. Climate*, **27**, 2297–2316, doi:10.1175/JCLI-D-13-00372.1.
7. Sun, L., G. Chen and J. Lu, 2013: Sensitivities and mechanisms of the zonal mean atmospheric circulation responses to tropical warming, *J. Atmos. Sci.*, **70**, 2487–2504, doi:10.1175/JAS-D-12-0298.1.

6. Domeisen, D., L. Sun and G. Chen, 2013: The role of synoptic eddies in the tropospheric response to stratospheric variability. *Geophys. Res. Lett.*, **40**, 4933-4937, doi:10.1002/grl.50943.
5. Chen, G., J. Lu, L. Sun, 2013: Delineating the Eddy-Zonal Flow Interaction in the Atmospheric Circulation Response to Climate Forcing: Uniform SST Warming in an Idealized Aqua-planet Model. *J. Atmos. Sci.*, **70**, 2214-2233, doi:10.1175/JAS-D-12-0248.1.
4. Sun, L., W. A. Robinson and G. Chen, 2012: The predictability of stratospheric warming events: more from the troposphere or the stratosphere? *J. Atmos. Sci.*, **69**, 768-783, doi:10.1175/JAS-D-11-0144.1.
3. Chen, G. and L. Sun, 2011: Mechanisms of the tropical upwelling branch of the Brewer-Dobson Circulation: the role of extratropical waves. *J. Atmos. Sci.*, **68**, 2878-2892, doi:10.1175/JAS-D-11-044.1.
2. Sun, L., W. A. Robinson and G. Chen, 2011: The role of planetary waves in the downward influence of stratospheric final warming events. *J. Atmos. Sci.*, **68**, 2826-2843, doi:10.1175/JAS-D-11-014.1.
1. Sun, L. and W. A. Robinson, 2009: Downward influence of stratospheric final warming events in an idealized model, *Geophys. Res. Lett.*, **36**, L03819, doi:10.1029/2008GL036624.

Mentoring Service

- Mentoring support to graduate students and postdocs within the Hurrell group (Megan Franke, Lee Brent, Ivy Glade, James Larson, Daniel Hueholt, Bali Summers, Sabrina Cohen, Emma Bennedict, Mayumi de Andrade Miyazato, Meghan Helmberger, Ariel Morrison, Cameron Dong, Margot Clyne), as well as to graduate student Chloe Boehm in the Thompson group, and graduate student Joonsuk Kang in Tiffany Shaw's group at the University of Chicago.
- Mentor for graduate student Elizabeth Collingwood, University of Southampton, Southampton, UK — spring 2025 (co-mentored with Clara Deser).
- Primary mentor for undergraduate student Anna Trujillo, University of Colorado-Boulder, Research Experiences for Undergraduates (REU) program — summer 2024 (co-mentored with James W. Hurrell and Daniel Hueholt)
- Primary mentor for undergraduate student James Mizejeski, University of North Colorado, REU program — summer 2023 (co-mentored with James W. Hurrell and

Megan Frank)

- Mentor for undergraduate student Iggy Glassman, Colorado State University, Scott Undergraduate Research Experience (SURE) program — spring 2023 (co-mentored with James W. Hurrell and Ivy Glade)

Seminars and Invited or Plenary Talks

- Oct 2024 – *Plenary talk*, PAMIP Phase 2 Workshop (virtual)
- Oct 2024 – CSU Atmospheric Science Department Jamboree
- May 2022 – U.S. IARP⁵ Meeting (virtual)
- Nov 2020 – NCAR Climate and Global Dynamics Seminar (virtual)
- Aug 2020 – U.S. CLIVAR⁶ PSMI⁷ Panel Meeting (virtual)
- Apr 2018 – NOAA Physical Sciences Division Flash Seminar, Boulder, CO
- Jul 2016 – U.S. CLIVAR Webinar
- Mar 2016 – NOAA Physical Sciences Division Flash Seminar, Boulder, CO
- Sep 2015 – Geophysical Fluid Dynamics Laboratory (GFDL), Princeton, NJ
- Feb 2015 – Cornell University, Ithaca, NY
- Oct 2014 – NCAR Climate and Global Dynamics Seminar, Boulder, CO
- Sep 2014 – NOAA Physical Sciences Division Seminar, Boulder, CO
- May 2014 – Colorado State University, Fort Collins, CO
- Apr 2014 – Outreach activity, Ball Aerospace, Boulder, CO
- Nov 2012 – Massachusetts Institute of Technology (MIT), Cambridge, MA
- Sep 2012 – Stony Brook University, Stony Brook, NY
- Feb 2010 – University of Illinois at Urbana-Champaign, Urbana, IL

Conference and Workshop Participation

- June 2025 – CESM Workshop, Boulder, CO
- May 2025 – AMS Conference on Polar Meteorology and Oceanography, Denver, CO
- Oct 2024 – PAMIP Phase 2 Workshop (virtual)
- Sep 2024 – 8th Convection-Permitting Climate Modeling Workshop, Fort Collins, CO
- Apr 2024 – Earth System Predictability Across Timescales Workshop, Boulder, CO
- Feb 2024 – US CLIVAR Polar Amplification Workshop (virtual)
- Nov 2023 – NOAA Earth Radiation Budget (ERB) Science Meeting, Boulder, CO
- June 2023 – CESM Workshop (virtual)

⁵ IARP: Interagency Arctic Research Policy Committee

⁶ CLIVAR: Climate Variability and Predictability Program

⁷ PSMI: The Process Study and Model Improvement Panel

- May 2023 – CESM Storm-Resolving Configurations Workshop, Fort Collins, CO
- Jan 2023 – AMS Annual Meeting
- Dec 2022 – AGU Fall Meeting
- Dec 2021 – AGU Fall Meeting (virtual)
- Mar 2021 – Polar Amplification MIP (PAMIP) Workshop (virtual)
- Dec 2020 – AGU Fall Meeting (virtual)
- Mar 2020 – CESM Climate Variability & Change WG Meeting (virtual)
- Dec 2019 – AGU Fall Meeting, San Francisco, CA
- June 2019 – PAMIP Workshop, Dartington Hall, UK
- May 2019 – AMS Polar Meteorology and Oceanography Conf., Boulder, CO
- Jan 2019 – AMS Annual Meeting, Phoenix, AZ
- Nov 2018 – NOAA PSD Workshop on S2S Forecasts of Extremes, Boulder, CO
- Sep 2018 – International Conference on S2D Prediction, Boulder, CO
- June 2017 – AGCI Workshop on Polar Amplification, Aspen, CO
- Mar 2017 – CESM Climate Variability & Change WG Meeting, Boulder, CO
- Dec 2016 – AGU Fall Meeting, San Francisco, CA
- Apr 2016 – IASOA⁸ Teleconference
- Feb 2016 – CESM Climate Variability & Change WG Meeting, Boulder, CO
- Nov 2015 – SPARC Regional Workshop, Boulder, CO
- Oct 2015 – NOAA Climate Diagnostics and Prediction Workshop, Denver, CO
- June 2015 – CESM Workshop, Breckenridge, CO
- Jan 2015 – AMS Annual Meeting, Phoenix, AZ
- Dec 2014 – Intl. Workshop on Polar-Lower Latitude Linkages, Barcelona, Spain
- June 2014 – CESM Workshop, Breckenridge, CO
- Mar 2014 – CESM Climate Variability & Change WG Meeting, Boulder, CO
- Dec 2013 – AGU Fall Meeting, San Francisco, CA
- Sep 2013 – NCAR Climate and Global Dynamics Research Report
- Dec 2012 – AGU Fall Meeting, San Francisco, CA
- Oct 2012 – WCRP Open Science Conference, Denver, CO
- Jan 2011 – AMS Annual Meeting, Seattle, WA
- June 2009 – AMS Conference on the Middle Atmosphere, Stowe, VT
- Sep 2007 – AGU Chapman Conf. on the Middle Atmosphere, Santorini, Greece

⁸ IASOA: International Arctic Systems for Observing the Atmosphere