

Jason C. Furtado

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EDUCATION

- 2010** Ph.D. - Earth and Atmospheric Sciences
Graduate Certificate in Public (Environmental) Policy
Georgia Institute of Technology
Dissertation - On the Uncertainties and Dynamics of Pacific Interannual and Decadal Climate Variability and Climate Change
Advisor - Emanuele Di Lorenzo
- 2005** M.S. - Atmospheric Science
Colorado State University
Thesis - On the Balanced Response of the Troposphere to Variability in the Extratropical Stratosphere
Advisor - David W. J. Thompson
- 2002** B.S. - Meteorology & B.S. - Mathematics
Lyndon State College (Now: Northern Vermont University at Lyndon)

PROFESSIONAL APPOINTMENTS

- 2015 –** **University of Oklahoma**
Associate Professor, School of Meteorology (2021 -)
Fellow, Cooperative Institute for Mesoscale Meteorological Studies (2021 -)
Affiliate Faculty, School of Psychology (2016 -)
Affiliate Faculty, South Central Climate Adaptation and Science Center (2015 -)
Assistant Professor, School of Meteorology (2015 – 2021)
- 2014 – 2015** **Boston University**
Lecturer, Department of Earth and Environment
- 2011 – 2015** **Atmospheric and Environmental Research**
Staff Scientist, Climate Analysis Branch

REFEREED PUBLICATIONS

* - Student Author

IN PREPARATION

- Cohen, J., L. Agel, M. Barlow, **J. C. Furtado**, M. Kretschmer, and V. Matthias, 2021: The “Polar Vortex” Winter of 2013/14. *J. Geophys. Res. Atmos.*, in prep.
- Di Lorenzo, E., B. T. Anderson, A. Capotondi, **J. C. Furtado**, E. Guderian, Y. Joh, G. Liguori, A. J. Miller, G. Navarra, M. Newman, N. Schneider, S. Stevenson, D. Vimont, T. Xu, and Z. Zhao, 2021: Mechanisms and modes of Pacific decadal-scale variability. *Ann. Rev. Marine Sci.*, in prep.
- Flanagan, P. X., J. B. Basara, R. Mahmood, E. Martin, and **J. C. Furtado**, 2021: Primary atmospheric drivers of CMIP6 past and future dry and wet periods over the US Great Plains. *J. Climate*, in prep.
- **Furtado, J. C.**, B. T. Anderson, and M. H. Rogers*, 2021: Influence of the Pacific Decadal Precession on North American climate extremes. *J. Geophys. Res. Atmos.*, in prep.
- Millin, O. T.*, **J. C. Furtado**, and J. B. Basara, 2021: Characteristics, evolution, and formation of cold air outbreaks in the Great Plains of the United States. *J. Climate*, in prep.
- Zekavat, S., F. Afghah, R. Askari, J. Delabrouille, N. French, **J. C. Furtado**, S. Hanany, and V. Lubecke, 2021: Electromagnetic spectrum contribution in astronomy, health, atmospheric, geology, and environment applications. *Intl. J. Wire. Info.*, in prep.

UNDER REVIEW

- Christian, J. I.*, J. B. Basara, E. D. Hunt, J. A. Otkin, **J. C. Furtado**, R. Randall, V. Mishra, M. D. Svoboda, and N. Klingaman, 2021: Global distribution and trends of flash drought occurrence. *Nature Comm.*, conditionally accepted pending major revisions.
- Lee, S. H.*, A. J. Charlton-Perez, **J. C. Furtado**, and S. J. Woolnough, 2021: How does the stratosphere influence North American winter weather regimes? *J. Climate*, under review.
- Rogers, M. H.*, **J. C. Furtado**, and B. T. Anderson, 2021: Representation of the Pacific Decadal Precession in the CMIP6 models. *Climate Dyn.*, conditionally accepted pending major revisions.

PUBLISHED**2021**

40. Wakefield, R. A., J. B. Basara, J. M. Shepherd, N. Brauer, J. A. Santanello, Jr., and **J. C. Furtado**, 2021: The inland maintenance and re-intensification of Tropical Storm Bill (2015) Part 1: Contributions of the Brown Ocean Effect. *J. Hydrometeor.*, accepted.

39. Dickinson, T. A.*, M. B. Richman, and **J. C. Furtado**, 2021: Subseasonal to seasonal extreme precipitation events in the contiguous United States: Generation of a database and climatology. *J. Climate*, accepted.
38. **Furtado, J. C.**, J. Cohen, E. Becker, and D. Collins, 2021: Evaluating the relationship between sudden stratospheric warmings and tropospheric weather regimes in the NMME Phase-2 models. *Climate Dyn.*, <https://doi.org/10.1007/s00382-020-05591-x>.

2020

37. Lee, S. H.*, A. J. Charlton-Perez, **J. C. Furtado**, and S. J. Woolnough, 2020: Representation of the Scandinavia-Greenland dipole and its relationship with the polar vortex in S2S forecast models. *Quart. J. Roy. Meteor. Soc.*, **146**, 4083–4098, <https://doi.org/10.1002/qj.3892>.
36. Flournoy, M. D.*, M. C. Coniglio, E. N. Rasmussen, and **J. C. Furtado**, 2020: Modes of storm-scale variability and tornado potential in VORTEX2 near- and far-inflow tornadic environments. *Mon. Wea. Rev.*, **148**, 4185–4207, <https://doi.org/10.1175/MWR-D-20-0147.1>.
35. Jennrich, G. C.*, **J. C. Furtado**, J. Basara, and E. R. Martin, 2020: Synoptic characteristics of 14-day extreme precipitation events across the United States. *J. Climate*, **33**, 6423–6440, <https://doi.org/10.1175/JCLI-D-19-0563.1>.
34. Pegion, K., C. M. Selman, S. Larson, **J. C. Furtado**, and E. J. Becker, 2020: The impact of the extratropics on ENSO diversity and predictability. *Climate Dyn.*, **54**, 4469–4484, <https://doi.org/10.1007/s00382-020-05232-3>.
33. Domeisen, D. I., A. H. Butler, A. J. Charlton-Perez, B. Ayarzagüena, M. P. Baldwin, E. Dunn-Sigouin, **J. C. Furtado**, C. I. Garfinkel, P. Hitchcock, A. Y. Karpechko, J. Knight, A. Lang, E.-P. Lim, Y. Lim, A. Marshall, C. Schwartz, I. R. Simpson, S.-W. Son, K. Song, and M. Taguchi, 2020: The role of stratosphere - troposphere coupling in sub-seasonal to seasonal prediction: 2. Predictability arising from stratosphere - troposphere coupling. *J. Geophys. Res. Atmos.*, **125**, e2019JD030923, <https://doi.org/10.1029/2019JD030923>.
32. Domeisen, D. I., A. H. Butler, A. J. Charlton-Perez, B. Ayarzagüena, M. P. Baldwin, E. Dunn-Sigouin, **J. C. Furtado**, C. I. Garfinkel, P. Hitchcock, A. Y. Karpechko, J. Knight, A. Lang, E.-P. Lim, Y. Lim, A. Marshall, C. Schwartz, I. R. Simpson, S.-W. Son, K. Song, and M. Taguchi, 2020: The role of stratosphere - troposphere coupling in sub-seasonal to seasonal prediction: 1. Predictability in the stratosphere. *J. Geophys. Res. Atmos.*, **125**, e2019JD030920, <https://doi.org/10.1029/2019JD030920>.

2019

31. Lee, S. H.*, **J. C. Furtado**, and A. J. Charlton-Perez, 2019: Wintertime North American weather regimes and the Arctic stratospheric polar vortex. *Geophys. Res. Lett.*, **46**, 14892–14900, <https://doi.org/10.1029/2019GL085592>.
30. Green, M. R.*, and **J. C. Furtado**, 2019: Evaluating the joint influence of the Madden-Julian Oscillation and the stratospheric polar vortex on weather patterns across the Northern Hemisphere. *J. Geophys. Res. Atmos.*, **124**, 11693–11709, <https://doi.org/10.1029/2019JD030771>.

29. You, Y.* and **J. C. Furtado**, 2019: The relationship between South Pacific atmospheric internal variability and ENSO in the NMME Phase-II Models. *Geophys. Res. Lett.*, **46**, 12398–12407, <https://doi.org/10.1029/2019GL084637>.
28. Barnes, E. A., S. Samarasinghe*, I. Ebert-Uphoff, and **J. C. Furtado**, 2019: Tropospheric and stratospheric causal pathways between the MJO and NAO. *J. Geophys. Res. Atmos.*, **124**, 9356–9371, <https://doi.org/10.1029/2019JD0310254>.
27. Flanagan, P. X.*, J. B. Basara, **J. C. Furtado**, E. R. Martin, and X. Xiao, 2019: Role of Pacific sea surface temperatures in forcing circulation anomalies driving United States Great Plains pluvial years. *J. Climate*, **32**, 7081–7100, <https://doi.org/10.1175/JCLI-D-18-0726.1>.
26. Lee, S. H.*, A. J. Charlton-Perez, **J. C. Furtado**, and S. J. Woolnough, 2019: Abrupt stratospheric vortex weakening associated with North Atlantic anticyclonic wave breaking. *J. Geophys. Res. Atmos.*, **124**, 8563–8575, <https://doi.org/10.1029/2019JD030940>.
25. Kuster, C. M., J. C. Snyder, T. J. Schuur, T. Lindley, P. L. Heinselman, **J. C. Furtado**, J. W. Brogden, and R. Toomey, 2019: Rapid-update radar observations of ZDR column depth and its use in the warning decision process. *Wea. Forecasting*, **34**, 1173–1188, <https://doi.org/10.1175/WAF-D-19-0024.1>.
24. Wakefield, R. A.*, J. B. Basara, **J. C. Furtado**, B. G. Illston, C. R. Ferguson, and P. Klein, 2019: Spatial-temporal dynamics of land-atmosphere coupling over the Oklahoma Mesonet: Interannual Analysis. *J. Meteor. Appl. Climatol.*, **58**, 1465–1483, <https://doi.org/10.1175/JAMC-D-18-0230.1>.

2018

23. You, Y.*, and **J. C. Furtado**, 2018: The South Pacific Meridional Mode and its role in tropical Pacific climate variability. *J. Climate*, **31**, 10141–10163, <https://doi.org/10.1175/JCLI-D-17-0860.1>.
22. Henderson, G. R., Y. Peings, **J. C. Furtado**, and P. Kushner, 2018: Snow-atmosphere coupling in the Northern Hemisphere. *Nature Climate Change*, **8**, 954–963, <https://doi.org/10.1038/s41558-018-0295-6>.
21. Flanagan, P. X.*, J. B. Basara, **J. C. Furtado**, and X. Xiao, 2018: Primary atmospheric drivers of pluvial years in the United States Great Plains. *J. Hydrometeor.*, **19**, 643–658, <https://doi.org/10.1175/JHM-D-17-0148.1>.

2017

20. You, Y.*, and **J. C. Furtado**, 2017: The role of South Pacific atmospheric variability in the development of different types of ENSO. *Geophys. Res. Lett.*, **44**, 7438–7446, doi:10.1002/2017GL073475.
19. Anderson, B. T., **J. C. Furtado**, D. J. S. Gianotti*, and E. Di Lorenzo, 2017: Tracking the Pacific Decadal Precession. *J. Geophys. Res. Atmos.*, **122**, 3214–3227, doi:10.1002/2016JD02596.

2016

18. Anderson, B. T., D. J. S. Gianotti*, G. Salvucci, and **J. C. Furtado**, 2016: Dominant timescales of potentially predictable precipitation variations across the continental United States. *J. Climate*, **29**, 8881–8897, doi:10.1175/JCLI-D-15-0635.1.

17. **Furtado, J. C.**, J. Cohen, and E. Tziperman, 2016: The combined influences of autumnal snow and sea ice on Northern Hemisphere winters. *Geophys. Res. Lett.*, **43**, doi:10.1002/2016GL068108.
16. Anderson, B. T., D. J. S. Gianotti*, **J. C. Furtado**, and E. Di Lorenzo, 2016: A decadal precession of atmospheric pressures over the North Pacific. *Geophys. Res. Lett.*, **43**, 3921–3927, doi:10.1002/2016GL068206.

2015

15. Di Lorenzo, E., G. Liguori*, N. Schneider, **J. C. Furtado**, B. T. Anderson, and M. A. Alexander, 2015: ENSO and meridional modes: A null hypothesis for Pacific climate variability. *Geophys. Res. Lett.*, **42**, 9440 – 9448, doi:10.1002/2015GL066281.
14. **Furtado, J. C.**, J. L. Cohen, A. H. Butler, E. E. Riddle, and A. Kumar, 2015: Eurasian snow cover variability and links to winter climate in the CMIP5 models. *Climate Dyn.*, **45**, 2591– 2605, <https://doi.org/10.1007/s00382-015-2494-4>.

2014

13. Cohen, J., J. A. Screen, **J. C. Furtado**, M. Barlow, D. Whittleston*, D. Coumou, J. Francis, K. Dethloff, D. Entekhabi, J. Overland, and J. E. Jones, 2014: The relationship between recent Arctic Amplification and extreme mid-latitude weather. *Nature Geoscience*, **7**, 627–637, <https://doi.org/10.1038/ngeo2234>.
12. Cohen, J., **J. C. Furtado**, J. Jones, M. Barlow, D. Whittleston*, and D. Entekhabi, 2014: Linking Siberian snow cover to precursors of stratospheric variability. *J. Climate*, **27**, 5422 – 5432, <https://doi.org/10.1175/JCLI-D-13-00779.1>.

2013

11. Di Lorenzo, E., V. Combes, J. E. Keister, T. P. Strub, A. C. Thomas, P. J. S. Franks, M. D. Ohman, **J. C. Furtado**, A. Bracco, S. J. Bograd, W. T. Peterson, F. B. Schwing, S. Chiba, B. Taguchi, S. Hormazabal, and C. Parada, 2013: Synthesis of Pacific Ocean climate & ecosystems dynamics. *Oceanography*, **26**, 68–81, <http://dx.doi.org/10.5670/oceanog.2013.76>.
10. Cohen, J. L., J. Jones, **J. C. Furtado**, and E. Tziperman, 2013: Warm Arctic, cold continents: A common pattern related to Arctic sea ice melt, snow advance, and extreme winter weather. *Oceanography*, **26**, 150–160, <http://dx.doi.org/10.5670/oceanog.2013.70>.
9. Anderson, B. T., **J. C. Furtado**, K. M. Cobb and E. Di Lorenzo, 2013: Extratropical forcing of El Niño/Southern Oscillation asymmetry. *Geophys. Res. Lett.*, **40**, 4916–4921, doi:10.1002/grl.50951.
8. Riddle, E. E., A. H. Butler, **J. C. Furtado**, J. L. Cohen, and A. Kumar, 2013: CFSv2 ensemble prediction of the wintertime Arctic Oscillation. *Climate Dyn.*, **41**, 1099–1116, <https://doi.org/10.1007/s00382-013-1850-5>.

2012

7. **Furtado, J. C.**, E. Di Lorenzo, B. T. Anderson, and N. Schneider, 2012: Linkages between the North Pacific Oscillation and central tropical Pacific SSTs at low frequencies. *Climate Dyn.*, **39**, 2833–2846, <https://doi.org/10.1007/s00382-011-1245-4>.

6. Cohen, J., **J. C. Furtado**, M. A. Barlow, V. A. Alexeev, and J. C. Cherry, 2012: Asymmetric seasonal temperature trends. *Geophys. Res. Lett.*, **39**, L04705, doi: 10.1029/2011GL050582.
5. Cohen, J., **J. C. Furtado**, M. A. Barlow, V. A. Alexeev, and J. C. Cherry, 2012: Arctic warming, increasing snow cover, and widespread boreal winter cooling. *Env. Res. Lett.*, **7**, 014007, doi: 10.1088/1748-9326/7/1/014007.

2011

4. **Furtado, J. C.**, E. Di Lorenzo, N. Schneider, and N. Bond 2011: North Pacific decadal variability and climate change in the IPCC AR4 models. *J. Climate*, **24**, 3049–3067, <https://doi.org/10.1175/2010JCLI3584.1>.

2010

3. Di Lorenzo, E., K. M. Cobb, **J. C. Furtado**, N. Schneider, B. Anderson, A. Bracco, M. A. Alexander, and D. Vimont, 2010: Central Pacific El Niño and decadal climate change in the North Pacific. *Nature Geoscience*, **3**, 762–765, <https://doi.org/10.1038/ngeo984>

2009

2. **Furtado, J. C.**, E. Di Lorenzo, K. M. Cobb, and A. Bracco, 2009: Paleoclimate reconstructions of tropical sea surface temperatures from precipitation proxies: Methods, uncertainties and non-stationarity. *J. Climate*, **22**, 1104–1123, <https://doi.org/10.1175/2008JCLI2415.1>.

2006

1. Thompson, D. W. J., **J. C. Furtado**, and T. G. Shepherd, 2006: On the tropospheric response to anomalous stratospheric wave drag and radiative heating. *J. Atmos. Sci.*, **63**, 2616–2629, <https://doi.org/10.1175/JAS3771.1>.

NON-REFEREED PUBLICATIONS

2019

4. **Furtado, J. C.**, 2019: Links between autumn snow cover and sea ice extent and Northern Hemisphere wintertime climate variability. *U.S. CLIVAR Variations*, Spring 2019 Edition, 12–19, <https://indd.adobe.com/view/b0e5a374-5321-4058-a31d-4b2130ac765e>.

2018

3. **Furtado, J. C.**, 2018: Look south, ENSO forecasters! NOAA ENSO Blog. <https://www.climate.gov/news-features/blogs/enso/look-south-enso-forecasters>.

2015

2. Cohen, J. and **J. C. Furtado**, 2015: How climate change may be producing more blockbuster snowstorms. Guest article. Capital Weather Gang / The Washington Post. <https://www.washingtonpost.com/news/capital-weather-gang/wp/2015/03/09/how-climate-change-may-be-producing-more-blockbuster-snowstorms/>.

2011

1. **Furtado, J. C.**, and E. Di Lorenzo, 2011: Pacific climate variability in IPCC coupled climate models. In PICES Scientific Report No. 40: Report of Working Group 20 on Evaluations of Climate Change Projections, 165 pp.

INVITED TALKS

2021

13. [**5 August 2021**] “A Warming Arctic: How Climate Change May Impact Future Winter Weather” 26th Annual Inter-Tribal Environmental Council Conference. Webinar.
12. [**9 March 2021**] “Bundle Up! Extreme Winter Weather in a Warming World” Texas Tech Climate Science Center. Webinar.
11. [**29 January 2021**] “A Warming Arctic: How Climate Change May Impact Future Winter Weather.” South Central Climate Adaptation Science Center. Webinar.

2019

10. [**22 November 2019**] “Looking to the South Pacific to Improve ENSO Predictability.” University of Reading, Department of Meteorology, Reading, UK.
9. [**19 June 2019**] “The Role of the South Pacific in Tropical Pacific Climate Variability.” University of New South Wales, Climate Change Research Centre, Sydney, NSW Australia.
8. [**11 April 2019**] “Links Between Autumn Snow Cover and Sea Ice Extent and Northern Hemisphere Wintertime Climate Variability.” U.S. CLIVAR. Webinar.

2018

7. [**12 July 2018**] “Polar Vortex Variability in the NMME Phase-2 Models.” NOAA CPC / NMME Task Force. Webinar.
6. [**17 May 2018**] “The Role of the South Pacific in Tropical Pacific Climate Variability.” NOAA Climate Prediction Center, College Park, MD, USA.

2017

5. [**14 Nov 2017**] “The Role of the South Pacific in Tropical Pacific Climate Variability.” University of Oklahoma, School of Meteorology Colloquium Series, Norman, OK, USA.

2016

4. [**11 Nov 2016**] “Tropical - North Pacific Climate Interactions on Multiple Timescales.” University of Virginia, Department of Environmental Sciences, Charlottesville, VA, USA
3. [**10 Nov 2016**] “From Siberia With Love: How Autumnal Arctic Climate Variability May Influence NH Winter Weather.” University of Virginia, Department of Environmental Sciences, Charlottesville, VA, USA.

2012

2. [7 Feb 2012] “Central Pacific Warming and the North Pacific Oscillation: A New Look at Pacific Decadal Climate Variability.” NOAA Climate Prediction Centers, Camp Springs, MD, USA.

2005

1. [14 March 2005] “On the Balanced Response of the Troposphere to the Stratosphere.” NASA GISS, New York, NY, USA.

PRESENTATIONS

* - Student Author. First author is presenter.

2021

75. McAfee, D.* , E. R. Martin, and **J. C. Furtado**, 2021: “Regional and Seasonal Analysis of S2S Reforecast Ensemble Extreme Precipitation Event Performance With a Subseasonal-to-Seasonal Forecast Range Emphasis.” American Meteorological Society 101st Annual Meeting. Virtual. Poster Presentation.
74. Flanagan, P. X., J. B. Basara, E. R. Martin, R. Mahmood, and **J. C. Furtado**, 2021: “Impact of Anthropogenic Climate Change on Future U.S. Great Plains Wet and Dry Years.” American Meteorological Society 101st Annual Meeting. Virtual. Oral Presentation.
73. Lee, S. H.* , **J. C. Furtado**, and A. J. Charlton-Perez, 2021: “Wintertime North American Weather Regimes and the Stratospheric Polar Vortex.” American Meteorological Society 101st Annual Meeting. Virtual. Oral Presentation.
72. Wakefield, R. A.* , J. B. Basara, J. M. Shepherd, N. Brauer, **J. C. Furtado**, J. Santanello, and R. Edwards, 2021: “Reintensification of Tropical Storm Bill (2015): Contributions of the Brown Ocean Effect.” American Meteorological Society 101st Annual Meeting. Virtual. Oral Presentation.

2020

71. Lee, S. H.* , A. J. Charlton-Perez, **J. C. Furtado**, and S. J. Woolnough, 2020: “Representation of the Scandinavia-Greenland Pattern and its Relationship with the Polar Vortex in S2S Forecast Models.” American Geophysical Union 2020 Fall Meeting. Virtual. Poster Presentation.
70. Ćwik, P.* , R. McPherson, and **J. C. Furtado**, 2020: “Relationships between WXMAXSHEAR Parameter and Atmospheric Patterns Associated with Tornado Outbreaks in the USA.” American Geophysical Union 2020 Fall Meeting. Virtual. Oral Presentation.
69. **Furtado, J. C.**, 2020: “Winter 2020/21 Seasonal Forecast Discussion.” NSF PRES2iP Project. Virtual. Oral Presentation.
68. **Furtado, J. C.**, B. T. Anderson, and M. H. Rogers*, 2020: “Links between the Pacific Decadal Precession and North American Winter Climate Extremes.” NOAA’s 45th Climate Diagnostics and Prediction Workshop. Virtual. Oral Presentation.
67. Lee, S. H.* , A. J. Charlton-Perez, **J. C. Furtado**, and S. J. Woolnough, 2020: “Representation of the Scandinavia-Greenland Pattern and its Relationship with the Polar Vortex in S2S Forecast Models.” 6th United Kingdom Climate Dynamics Workshop. Virtual. Oral Presentation.

66. Ćwik, P*, E. Martin, R. McPherson, H. Lazrus, **J. C. Furtado**, E. Mullens, C. M. Kuster, and M. J. Wagner, 2020: "User's Perspective and Decision-Making Process Based on S2S Extreme Precipitation Forecast Products? What We Learned during the PRES²iP Workshop." American Meteorological Society 100th Annual Meeting. Boston, MA, USA. Oral Presentation.
65. Dickinson, T. A.*, M. B. Richman, and **J. C. Furtado**, 2020: "Developing a Subseasonal-to-Seasonal Extreme Precipitation Events Database for the Contiguous United States." American Meteorological Society 100th Annual Meeting. Boston, MA, USA. Poster Presentation.
64. Flanagan, P. X., J. B. Basara, E. R. Martin, R. Mahmood, and **J. C. Furtado**, 2020: "Primary Atmospheric Drivers of Dry and Wet Periods over the U.S. Great Plains within CMIP5 Models." American Meteorological Society 100th Annual Meeting, Boston, MA, USA. Poster Presentation.
63. **Furtado, J. C.** and B. A. Jarrett*, 2020: "Characterizing Regimes of Northern Hemisphere Stratospheric Polar Vortex Variability." American Meteorological Society 100th Annual Meeting, Boston, MA, USA. Poster Presentation.
62. Ohnstad, J. D. R.*, and **J. C. Furtado**, 2020: "Subseasonal Winter Weather Predictability Associated with Single versus Multiple Wave Pulse Events and Their Impacts on the Arctic Stratospheric Polar Vortex." American Meteorological Society 100th Annual Meeting. Boston, MA, USA. Oral Presentation.
61. Rogers, M. H.*, and **J. C. Furtado**, 2020: "The Pacific Decadal Precession and Its Relationship to Tropical and Extratropical North Pacific Decadal Variability in the CMIP6 Models." American Meteorological Society 100th Annual Meeting. Boston, MA, USA. Poster Presentation.

2019

60. Lee, S. H.*, A. J. Charlton-Perez, **J. C. Furtado**, and S. J. Woolnough, 2019: "Abrupt stratospheric vortex weakening associated with North Atlantic anticyclonic wave breaking." ECMWF Workshop: Stratospheric predictability and impact on the troposphere. Reading, UK. Poster Presentation.
59. **Furtado, J. C.** and M. R. Green*, 2019: "The Combined Influence of the MJO and the Stratospheric Polar Vortex on Northern Hemisphere Winter Weather Patterns." ECMWF Workshop: Stratospheric predictability and impact on the troposphere. Reading, UK. Poster Presentation.
58. Lee, S. H.*, A. J. Charlton-Perez, **J. C. Furtado**, and S. J. Woolnough, 2019: "Abrupt stratospheric vortex weakening associated with North Atlantic anticyclonic wave breaking." Atmospheric Circulation in a Changing Climate Workshop. Madrid, Spain. Poster Presentation.
57. **Furtado, J. C.** and Y. You*, 2019: "Using South Pacific Climate Variability to Improve ENSO Forecast Skill." 2nd Meridional Mode Workshop. Columbus, OH, USA. Oral Presentation.
56. **Furtado, J. C.**, G. C. Jennrich*, J. B. Basara, and E. R. Martin, 2019: "Characteristics of and Precursors to Extreme Precipitation Events in the United States." NOAA's 44th Climate Diagnostics and Prediction Workshop. Raleigh, NC, USA. Oral Presentation.
55. **Furtado, J. C.** and Y. You*, 2019: "Using South Pacific Climate Variability to Improve Seasonal ENSO Forecast Skill." 2019 Australian Meteorological and Oceanographic Society / International Conference on Tropical Meteorology and Oceanography (AMOS-ICTMO) Meeting. Darwin, NT, Australia. Oral Presentation.

54. Flanagan, P. X., J. B. Basara, **J. C. Furtado**, E. R. Martin, and X. Xiao, 2019: "Role of Pacific Sea Surface Temperatures in the U.S. Great Plains Pluvial Years." American Meteorological Society 99th Annual Meeting, Phoenix, AZ, USA. Oral Presentation.
53. Jennrich, G. C.*, and **J. C. Furtado**, 2019: "Synoptic Precursors to Subseasonal to Seasonal Extreme Precipitation Events Across the United States." American Meteorological Society 99th Annual Meeting, Phoenix, AZ, USA. Oral Presentation.

2018

52. Ćwik, P*, E. Martin, J. Basara, H. Brooks, C. Homeyer, **J. C. Furtado**, G. C. Jennrich*, H. Lazrus, R. McPherson, E. Mullens, M. Richman, A. Robinson-Cook, and D. Rosendahl, 2018: "PRES²iP: Prediction of Rainfall Extremes at Subseasonal-to-Seasonal Periods - Year #1." American Geophysical Union 2018 Fall Meeting, Washington, DC, USA. Poster Presentation.
51. **Furtado, J. C.**, G. C. Jennrich*, and J. B. Basara, 2018: "Synoptic Precursors to Subseasonal to Seasonal Extreme Precipitation Events Across the United States." American Geophysical Union 2018 Fall Meeting, Washington, DC, USA. Oral Presentation.
50. **Furtado, J. C.**, and Y. You*, 2018: "The South Pacific Meridional Mode and its Role in Tropical Pacific Climate Variability." International Conferences on Subseasonal to Decadal Prediction, Boulder, CO, USA. Poster Presentation.
49. **Furtado, J. C.**, M. R. Green*, E. A. Barnes, M. L'Heureux, L. M. Ciasto, K. Harnos, and A. Allgood, 2018: "The Combined Influence of the MJO and the Stratospheric Polar Vortex on NH Winter Weather Patterns." International Conferences on Subseasonal to Decadal Prediction, Boulder, CO, USA. Poster Presentation.
48. **Furtado, J. C.**, P. Ćwik*, E. Martin, J. Basara, H. Brooks, C. Homeyer, G. C. Jennrich*, H. Lazrus, R. McPherson, E. Mullens, M. Richman, A. Robinson-Cook, and D. Rosendahl, 2018: "PRES²iP: Prediction of Rainfall Extremes at Subseasonal-to-Seasonal Periods - Year #1." International Conferences on Subseasonal to Decadal Prediction, Boulder, CO, USA. Poster Presentation.
47. Anderson, B. T., **J. C. Furtado**, E. Di Lorenzo, and A. Capotondi, 2018: "The Pacific Decadal Precession: Our Current Understanding of its Dynamics, Regional Climate Effects, and Predictability." International Conferences on Subseasonal to Decadal Prediction, Boulder, CO, USA. Oral Presentation.
46. Domeison, D. I., A. H. Butler, A. J. Charlton-Perez, B. Ayarzagüena, M. P. Baldwin, E. Dunn-Sigouin, **J. C. Furtado**, C. I. Garfinkel, P. Hitchcock, A. Y. Karpechko, J. Knight, A. Lang, E.-P. Lim, Y. Lim, A. Marshall, C. Schwartz, I. R. Simpson, S.-W. Son, K. Song, and M. Taguchi, 2018: "The Role of Stratosphere - Troposphere Coupling in Sub-seasonal to Seasonal Prediction using the S2S Database." International Conferences on Subseasonal to Decadal Prediction, Boulder, CO, USA. Oral Presentation.
45. **Furtado, J. C.**, and C. Narotsky*, 2018: "Trends in the Northern Hemisphere Stratospheric Polar Vortex During the 20th and 21st Centuries." AOGS 15th Annual Meeting, Honolulu, HI, USA. Oral Presentation.
44. **Furtado, J. C.**, and Y. You*, 2018: "The South Pacific Meridional Mode and its Role in ENSO Variability." AOGS 15th Annual Meeting, Honolulu, HI, USA. Oral Presentation.

43. **Furtado, J. C.**, and Y. You*, 2018: “The South Pacific Oscillation and Its Potential Role in ENSO Development.” AGU / ASLO / TOS 2018 Ocean Sciences Meeting, Portland, OR, USA. Oral Presentation.
42. You, Y.*, and **J. C. Furtado**, 2018: “The South Pacific Meridional Mode and Its Role in the Tropical Pacific Interannual-to-Decadal Variability: Observations and Models.” AGU / ASLO / TOS 2018 Ocean Sciences Meeting, Portland, OR, USA. Oral Presentation.
41. Green, M. R.*, **J. C. Furtado**, E. A. Barnes, M. L’Heureux, L. M. Ciasto, and K. Harnos, 2018: “Joint Influences of the MJO and the Stratospheric Polar Vortex on the Northern Hemisphere Extratropical Circulation.” American Meteorological Society 98th Annual Meeting. Austin, TX, USA. Oral Presentation.
40. Flanagan, P. X.*, J. Basara, **J. C. Furtado**, and X. Xiao, 2018: “Primary Atmospheric Drivers of Pluvial Years in the United States Great Plains.” American Meteorological Society 98th Annual Meeting. Austin, TX, USA. Oral Presentation.
39. Narotsky, C.* and **J. C. Furtado**, 2018: “Quantifying Stratospheric Polar Vortex Trends during the 20th and 21st Centuries.” American Meteorological Society 98th Annual Meeting. Austin, TX, USA. Poster Presentation.
38. Balderas, N.*, G. Jennrich*, N. Myers*, and **J. C. Furtado**, 2018: “Recent and Future Trends of Cold Season Extratropical Cyclones over the Eastern United States.” American Meteorological Society 98th Annual Meeting, Austin, TX, USA. Poster Presentation.
37. **Furtado, J. C.**, and Y. You*, 2018: “The Role of the South Pacific Oscillation in ENSO Predictions.” 98th American Meteorological Society Annual Meeting, Austin, Poster Presentation.
36. You, Y.*, and **J. C. Furtado**, 2018: “The South Pacific Meridional Mode and Its Role in the Tropical Pacific Interannual-to-Decadal Variability: Observations and Models.” American Meteorological Society 98th Annual Meeting, Austin, TX, USA. Oral Presentation.

2017

35. Rosendahl, D. H., P. Cwik*, E. R. Martin, J. Basara, H. Brooks, **J. C. Furtado**, C. Homeyer, H. Lazrus, R. McPherson, E. Mullens, M. Richman, and A. Robinson-Cook, 2017: “Developing a Framework for Seamless Prediction of Sub-Seasonal to Seasonal Extreme Precipitation Events in the United States.” American Geophysical Union 2017 Fall Meeting. New Orleans, LA, USA. Poster Presentation.
34. Lampert, D., **J. C. Furtado**, K. Karleskint, M. Moursy*, and C. Dyson*, 2017: “Analysis of Future Flood Risks associated with Climate change on Oklahoma City Infrastructure.” AWRA Annual Water Resources Conference, Portland, OR, USA. Oral Presentation.
33. Lampert, D., **J. C. Furtado**, K. Karleskint, M. Moursy*, and C. Dyson*, 2017: “Analysis of Future Flood Risks associated with Climate change on Oklahoma City Infrastructure.” Oklahoma Governor’s Water Conference, Oklahoma City, OK, USA. Oral Presentation.
32. Green, M. R.*, **J. C. Furtado**, E. A. Barnes, M. L’Heureux, L. M. Ciasto, and K. Harnos, 2017: “Evaluating the Joint Influence of the MJO and the Stratospheric Polar Vortex on Northern Hemisphere Winter Weather Patterns.” 42nd Annual NOAA Climate Diagnostics and Prediction Workshop, Norman, OK, USA. Oral Presentation.

31. Flanagan, P. X.*, J. Basara, **J. C. Furtado**, and X. Xiao, 2017: "Primary Atmospheric Drivers of United States Great Plains Pluvial Years." 42nd Annual NOAA Climate Diagnostics and Prediction Workshop, Norman, OK, USA. Oral Presentation.
30. **Furtado, J. C.**, J. Cohen, E. Becker, and D. Collins, 2017: "Predictability of Sudden Stratospheric Warmings in Operational Subseasonal-to-Seasonal Forecasting Models." 42nd Annual NOAA Climate Diagnostics and Prediction Workshop, Norman, OK, USA. Oral Presentation.
29. Rosendahl, D. H., P. Cwi*k, E. R. Martin, J. B. Basara, H. Brooks, **J. C. Furtado**, C. Homeyer, H. Lazrus, R. McPherson, E. Mullens, M. Richman, and A. Robinson-Cook, 2017: "Developing a Framework for Seamless Prediction of Sub-Seasonal to Seasonal Extreme Precipitation Events in the United States." 42nd Annual NOAA Climate Diagnostics and Prediction Workshop, Norman, OK, USA. Poster Presentation.
28. **Furtado, J. C.**, M. R. Green*, E. A. Barnes, M. L'Heureux, L. M. Ciasto, and K. Harnos, 2017: "Modulation of Wintertime MJO Teleconnections by the Northern Hemisphere Stratospheric Polar Vortex." 18th Cyclone Workshop. Saint-Adele, Quebec, Canada. Oral Presentation.
27. **Furtado, J. C.**, J. Cohen, E. Becker, and D. Collins, 2017: "Predictability of the Tropospheric NAM and SSWs in the NMME Phase-2 Models." NOAA OAR/CPO NMME Webinar Series. Oral Presentation.
26. **Furtado, J. C.**, J. Cohen, E. Becker, and D. Collins, 2017: "Predictability of the Tropospheric NAM and SSWs in the NMME Phase-2 Models." American Meteorological Society 97th Annual Meeting, Seattle, WA, USA. Oral Presentation.
25. Newman, B.*, B. Elmer*, M. Angst*, and **J. C. Furtado**, 2017: "The Association Between El Niño Intensity and North American Winter Weather." American Meteorological Society 97th Annual Meeting, Seattle, WA, USA. Poster Presentation.
24. Barlow, M., J. Cohen, **J. C. Furtado**, and L. Agel, 2017: "Three-Dimensional Structure and Daily Evolution of Vertically-Coherent Troposphere-Stratosphere Wave Activity Pulses." American Meteorological Society 97th Annual Meeting, Seattle, WA, USA. Oral Presentation.

2016

23. Anderson, B. T., **J. C. Furtado**, E. DiLorenzo, and D. J. S. Gianotti*, 2016: "The Pacific Decadal Precession and Climate Disturbances in the Northwest." 7th Annual Northwest Climate Conference, Skamania, WA, USA. Poster Presentation.
22. **Furtado, J. C.**, E. DiLorenzo, B. T. Anderson, D. J. S. Gianotti*, N. Schneider, and M. A. Alexander, 2016: "Tropical - North Pacific Climate Interactions on Multiple Timescales." SCENARIO Workshop, Reading, UK. Oral Presentation.
21. Barlow, M., J. Cohen, and **J. C. Furtado**, 2016: "Three-Dimensional Structure and Daily Evolution of Vertically-Coherent Troposphere-Stratosphere Wave Activity Pulses." EGU General Assembly, Vienna, Austria. Oral Presentation.

2015

20. **Furtado, J. C.**, B. T. Anderson, D. J. S. Gianotti*, and E. DiLorenzo, 2015: "The Pacific Decadal Precession and Its Links to US Climate." South Central Climate Science Center 4th Annual Research Workshop, Fort Worth, TX, USA. Poster Presentation.

2014

19. Cohen, J., **J. C. Furtado**, M. Barlow, D. Whittleston*, and D. Entekhabi, 2014: "Linking Siberian Snow Cover to Precursors of Stratospheric Variability and Intraseasonal Predictability." American Geophysical Union 2014 Fall Meeting. San Francisco, CA, USA. Poster Presentation.
18. Cohen, J., J. A. Screen, **J. C. Furtado**, M. Barlow, D. Whittleston*, D. Coumou, J. Francis, K. Dethloff, D. Entekhabi, and J. Overland, 2014: "The Relationship Between Recent Arctic Amplification and Extreme Mid-Latitude Weather." American Geophysical Union 2014 Fall Meeting. San Francisco, CA, USA. Oral Presentation.

2013

17. **J. C. Furtado**, J. Cohen, J. E. Jones, M. Barlow, D. Whittleston*, and D. Entekhabi, 2013: "Linking Siberian Snow Cover to Precursors of Stratospheric Variability." American Geophysical Union 2013 Fall Meeting. San Francisco, CA, USA. Poster Presentation.

2012

16. Cohen, J., **J. C. Furtado**, M. Barlow, J. E. Cherry, and V. A. Alexeev, 2012: "Has Anthropogenic Global Warming in the Arctic Contributed to Colder Winter Weather in the Northern Hemisphere Mid-Latitudes?" American Geophysical Union 2012 Fall Meeting. San Francisco, CA, USA. Oral Presentation.
15. **Furtado, J. C.**, J. Cohen, A. Butler, E. Riddle, and A. Kumar, 2012: "Eurasian Snow Cover, Stratosphere-Troposphere Coupling, and NH Wintertime Climate Variability in CMIP5." 37th Annual NOAA Climate Diagnostics and Prediction Workshop. Fort Collins, CO, USA. Oral Presentation.
14. **Furtado, J. C.**, and E. DiLorenzo, 2012: "The Meridional Mode and Tropical Pacific Decadal Variability in the CMIP5 Models." American Geophysical Union 2012 Fall Meeting. San Francisco, CA, USA. Poster Presentation.

2011

13. Cohen, J., **J. C. Furtado**, M. Barlow, V. Alexeev, and J. Cherry, 2011: "Are the Two Recent Harsh Northern Hemisphere Winters Manifestation of Anthropogenic Global Warming in the Arctic?" WCRP Open Science Conference: Climate Research in Service to Society. Denver, CO, USA. Poster Presentation.
12. **Furtado, J. C.**, J. Cohen, A. Butler, E. Riddle, and A. Kumar, 2011: "Eurasian Snow Cover Variability and Wintertime Stratosphere / Troposphere Coupling in the CMIP5 Models." WCRP Open Science Conference: Climate Research in Service to Society. Denver, CO, USA. Poster Presentation.
11. **Furtado, J. C.**, E. DiLorenzo, B. T. Anderson, and N. Schneider, 2011: "Dynamics of the North Pacific Oscillation and Connections to Tropical Pacific Variability." 36th Annual Northeastern Storm Conference, Taunton, MA, USA. Oral Presentation.

2010

10. **Furtado, J. C.**, E. Di Lorenzo, B. T. Anderson, and N. Schneider, 2010: "Dynamics of the North Pacific Oscillation and Connections to Tropical Pacific Variability." American Geophysical Union 2010 Fall Meeting. San Francisco, CA, USA. Poster Presentation.
9. Di Lorenzo, E., K. M. Cobb, **J. C. Furtado**, N. Schneider, B. T. Anderson, M. Alexander, and D. Vimont, 2010: "ENSO, Pacific Decadal Oscillation and North Pacific Gyre Oscillation: Towards an Integrated View of Pacific Climate." American Geophysical Union 2010 Western Pacific Geophysics Meeting. Taipei, Taiwan. Oral Presentation.
8. Di Lorenzo, E., K. M. Cobb, **J. C. Furtado**, N. Schneider, B. T. Anderson, M. Alexander, and D. Vimont, 2010: "Central Pacific El Niño and North Pacific Decadal Climate Change." 2010 Western Pacific Geophysics Meeting. Taipei, Taiwan. Oral Presentation.
7. Di Lorenzo, E., K. M. Cobb, **J. C. Furtado**, N. Schneider, B. T. Anderson, M. Alexander, and D. Vimont, 2010: "ENSO and the North Pacific Gyre Oscillation: An Integrated View of Pacific Decadal Dynamics." 2010 Ocean Sciences Meeting. Portland, OR, USA. Oral Presentation.
6. **Furtado, J. C.**, and E. Di Lorenzo, 2010: "North Pacific Decadal Variability and Climate Change in the IPCC AR4 Models." American Meteorological Society 90th Annual Meeting. Atlanta, GA, USA. Oral Presentation.

2008

5. Di Lorenzo, E., **J. C. Furtado**, N. Schneider, A. Bracco, 2008: "ENSO and the North Pacific Gyre Oscillation: A Dynamical Framework to Understand Present and Future Climate." American Geophysical Union 2008 Fall Meeting. San Francisco, CA, USA. Oral Presentation.
4. **Furtado, J. C.**, and E. Di Lorenzo, 2008: "Decadal Climate Variability of the North Pacific: Past and Future." Eastern Pacific Ocean Conference 2008. Fallen Leaf Lake, CA, USA. Oral Presentation.

2007

3. **Furtado, J. C.**, E. Di Lorenzo, and K. M. Cobb, 2007: "Reconstructing Tropical Sea Surface Temperatures Using Precipitation Proxy Records: Methods and Uncertainties." IUGG General Assembly 2007. Perugia, Italy. Oral Presentation.
2. Di Lorenzo, E., **J. C. Furtado**, and K. M. Cobb, 2007: "Reconstructing Tropical Sea Surface Temperatures Using Precipitation Proxy Records: Methods and Uncertainties." American Geophysical Union 2007 Joint Assembly Meeting. Acapulco, Guerrero, Mexico. Poster Presentation.

2005

1. **Furtado, J. C.**, D. W. J. Thompson, and T. G. Shepherd, 2005: "On the Balanced Response of the Troposphere to the Stratosphere." 30th Annual Northeastern Storm Conference. Burlington, VT, USA. Oral Presentation.

OTHER WORKSHOPS AND CONFERENCES

2018

- American Meteorological Society Early Career Leadership Academy. Washington, DC, USA. **Selected for Participation.**

2016

- National Science Foundation Effectively Communicating Science Workshop – Expert Witness Training Program. St. Paul, MN, USA. **Selected for Participation.**

2006

- National Center for Atmospheric Science Advanced Study Program. “The Art of Climate Modeling.” Boulder, CO, USA Washington, DC, USA. **Selected for Participation.**

FUNDED RESEARCH GRANTS

CURRENT

3. **Co-PI** - RII Track-1: Socially Sustainable Solutions for Water, Carbon, and Infrastructure Resilience in Oklahoma. NSF Award #OIA-1946093. 07/01/2020 - 06/30/25. \$2,353,654.
2. **Co-PI** - PREEVENTS Track 2: Collaborative Research: Developing a Framework for Seamless Prediction of Sub-Seasonal to Seasonal Extreme Precipitation Events in the United States. NSF Award #ICER 1663840. 07/01/17 – 06/30/22. \$1,842,562.
1. **PI** - Collaborative Research: Structure and Influence of Coherent Vertical Pulses of Wave Activity Flux in Observations and Models, from Daily to Seasonal Timescales. NSF Award #AGS-1657905. 08/15/17– 08/14/20. \$231,521. **No-cost extension to 08/14/21.**

PAST

5. **PI** - Investigating the Underlying Mechanisms and Predictability of the MJO - NAM Linkage in the NMME Phase-2 Models. NOAA. 07/01/16 – 06/30/19, \$185,543.
4. **PI** - Analysis of Transportation Infrastructure Risks to Climate Change. Southern Plains Transportation Center. 07/01/16 – 06/30/17. \$12,600.
3. **PI** - Evaluating Sudden Stratospheric Warmings and NAM Predictability in the NMME Phase-2 System. NOAA. 08/01/15 – 07/31/16. \$59,118.
2. **Co-I** - Implementation and Validation of Solar Variability in Radiation Code RRTMG_SW. NASA. 08/01/13 – 07/31/16. \$215,926.
1. **Co-PI** - Identifying Mechanisms of AMOC Variability in ECCO State Estimates and CMIP5 Models. NOAA. 08/01/13 – 07/31/16. \$310,659.

AWARDS AND HONORS

- 2021** **Annual Award for Excellence in Research Grants**, University of Oklahoma
- 2019** **AGU Editor's Citation for Excellence for Refereeing**, *Geophysical Research Letters*
- 2018** **Top Faculty/Staff Forecaster**, Flagstaff, AZ, WxChallenge
Top Faculty/Staff Forecaster, Portland, OR, WxChallenge
- 2017** **Dean's Excellence in Teaching Award**, College of Atmospheric and Geographic Sciences,
University of Oklahoma
Top Faculty/Staff Forecaster, Jackson, MS, WxChallenge
- 2015** **AGU Editor's Citation for Excellence for Refereeing**, *Geophysical Research Letters*
- 2014** **Employee of the Year**, Atmospheric and Environmental Research
Team of the Year, Verisk Climate
- 2010** **Georgia Tech Earth & Atmospheric Sciences Chair Service Award**
- 2008** **Top Graduate Student Forecaster**, Tucson, AZ, WxChallenge
- 2006** **Top National Forecaster**, Salt Lake City, UT, NCWFC
Top Graduate Student Forecaster, Pensacola, FL, NCWFC
- 2005–2009** **Georgia Tech Presidential Fellowship**
- 2006** **Top Graduate Student Forecaster**, Hoquiam, WA, NCWFC
- 2002–2005** **AMS/NASA Earth Science Enterprise Fellowship**
Colorado State University 3F Fellowship
- 2001** **AMS Howard T. Orville Scholarship in Meteorology**
- 1998–2002** **Lyndon State College Presidential Scholar**
Martin Luther King Jr. Foundation Scholar
Portuguese-American Scholar

TEACHING EXPERIENCE

- 2015–** **University of Oklahoma**
Courses Taught
METR 1014 – Introduction to Weather and Climate
METR 3980 – Honors Research
METR 4233/4803 – Physical Meteorology III: Radiation and Climate
METR 5433 – Advanced Statistical Meteorology
METR 6970 – Weather and Climate Seminar

Guest Lectures

METR 3523 – Managing for a Changing Climate (Online Course)
METR 4443/5443 – Introduction to Tropical Meteorology (Spring 2019)
METR 4922 – Senior Capstone II (Spring 2015, Spring 2016, Spring 2018)
METR 4543/5543 – Global Climate Change (Spring 2017)
METR 4491/5491 – Weather Briefing (Spring 2016, Spring 2017)
METR 4233 – Physical Meteorology III: Radiation and Climate (Fall 2015)

2014–2015

Boston University

Courses Taught

GE310 – Climate and the Environment
GE507 – Dynamical Oceanography

April 2012

University of Massachusetts Lowell

Guest Lecture

ATMO 5080 – The Climate System

2007–2010

Georgia Institute of Technology

Graduate Teaching Assistant

EAS 1600HP – Introduction to Environmental Science (Honors)
EAS 8803 – Advanced Environmental Data Analysis

Guest Lecture

EAS 3113 – Energy, Environment, and the Energy Cycle (Fall 2008)

2006 – 2012

Private Academic Tutor

2005 – 2006

Georgia Institute of Technology Athletic Association

Student-Athlete Tutor

2004

Colorado State University

Graduate Teaching Assistant

AT605 – General Circulation of the Atmosphere

1999 – 2002

Lyndon State College

Math Lab Tutor

GRADUATE STUDENTS ADVISED

CURRENT

2020 –

Oliver Millin (Ph.D.)

2018 –

Ty Dickinson (Ph.D.) (Co-Advised w/ M. Richman at U. Oklahoma)

2018 –

Simon Lee (Ph.D.) (Co-Advised w/ A. Charlton-Perez & S. Woolnough at U. Reading)

PAST

- 2018 – 2020** Jacob Ohnstad (M.S.)
Thesis: Subseasonal Winter Weather Predictability Associated with Single vs. Multiple Wave Pulse Events and Their Impact on the Arctic Stratospheric Polar Vortex
- 2018 – 2020** Matthew Rogers (M.S.)
Thesis: The Pacific Decadal Precession and its Relationship to Tropical Pacific Decadal Variability in CMIP6 Models
- 2017 – 2019** Gregory Jennrich (M.S.)
Thesis: Synoptic Characteristics and Precursors to Subseasonal to Seasonal Extreme Precipitation Events Across the United States
- 2016 – 2018** Matthew Green (M.S.)
Thesis: Evaluation of the Madden-Julian Oscillation and the Stratospheric Polar Vortex and Their Joint Influence on the Northern Hemisphere Extratropical Circulation
- 2016 – 2018** Yujia You (M.S.)
Thesis: South Pacific Atmospheric Internal Variability and Its Role in the El Niño -Southern Oscillation

MASTERS AND DOCTORAL COMMITTEE MEMBERSHIP

CURRENT

M.S.: Stephen Foskey (2021 –) • Steven Jester (2021 –) • Sadiksha Rai (2021 –) • Hrag Najarian (2020 –)

Ph.D.: Sean Ernst (2021 –) • Paulina Cwík (2021 –) • Stuart Edris (2021 –) • Madeline Clark (2020 –) • David Harrison (2019 –) • Samuel Lillo (2017 –)

PAST

M.S.: Taylor Grace (2020 – 2021) • Bryony Puxley (2020 – 2021) • Melanie Schroers (2020 – 2020) • Andy Wilkins (2020 – 2020) • Andrew Berrington (2019 – 2020) • Jordan Laser (2019 – 2020) • Ian Gesell (2019 – 2020) • Amanda Burke (2019 – 2019) • Madeline Clark (2018– 2019) • Qingyu Wang (2018 – 2018) • Ryann Wakefield (2017 – 2018) • Allison Brannon (2016 – 2017) • Erik Loken (2016 – 2017) • James Danco (2015 – 2016)

Ph.D.: Ryann Wakefield (2019 – 2021) • Jordan Christian (2017 – 2020) • Makenzie Krocak (2017 – 2020) • Ryan Lagerquist (2017 – 2020) • Paul Flanagan (2016 – 2018)

UNDERGRADUATE STUDENTS MENTORED

CURRENT

PAST

Daniel Groeneveld (2021 – 2021) • Jacob Genuise (2020 – 2021) • Kelsey Westerman (2020 – 2021) • Bailey Jarrett (2018 – 2020) • Sydney Butler (2019 – 2020) • Madisyn Ferris (2019 – 2020) • Walter Wilson (2019 – 2020) • Katherine Davis (2018 – 2020) • Maci Gibson (2018 – 2020) • Andria Myers (2018 – 2019) • Levi Schmitmeyer (2018 – 2019) • Benjamin Savill (2018 – 2019) • Carly Narotsky (Summer 2017) • Clarice Dyson (2016 – 2017) • Gregory Jennrich (2016 – 2017) • Nicholas Balderas (2016 – 2017) • Noah Myers (2016 – 2017) • Erin Burns (2016 – 2017) • Sarah Rodriguez (2016 – 2017) • Max Angst (2015 – 2016) • Brittany Newman (2016 – 2017) • Blake Elmer (2016 – 2017)

SERVICE AND LEADERSHIP

2020 –	Volunteer , Letters to a Pre-Scientist Program
2018 –	Mentor , AGU Mentor Program
2017 –	Volunteer , Skype-A-Scientist Program
2015 –	Local Manager , OU WxChallenge Team
2014 –	Proposal Reviewer , National Science Foundation
2003 –	Peer Reviewer , <i>J. Climate</i> , <i>J. Geophys. Res.</i> , <i>Nature Communications</i> , <i>Nature Climate Change</i> , <i>Deep Sea Res.</i> , <i>Climate Dyn.</i> , <i>Q. J. Roy. Meteor. Soc.</i> , <i>Atmos. Sci. Lett.</i> , <i>Intl. J. Climatology</i> , <i>Geophys. Res. Lett.</i> , <i>J. Meteor. Soc. Japan</i>
2020 – 2021	Proposal Panel Reviewer , NASA
2019 – 2021	Member , OU School of Meteorology Strategic Planning Committee
2016 – 2020	Member , NOAA MAPP Subseasonal-to-Seasonal (S2S) Task Force
2016 – 2020	Faculty Panelist , OU School of Meteorology High School Visitation Days
2015 – 2020	Member , NOAA NMME Task Force
2015 – 2019	Member , Graduate Admissions Committee, OU School of Meteorology
2014 – 2019	Member , AMS Weather Analysis and Forecasting Committee
2017 – 2018	Member , Inaugural Class of AMS Early Career Leadership Academy Member , Search Committee, Director, OU School of Meteorology
2016 – 2018	Member , OU School of Meteorology Undergraduate Curriculum Committee
2015 – 2018	Member , weather.ou.edu Development Committee

October 2017 **Host and Co-Organizer**, 42nd Annual NOAA Climate Diagnostics and Prediction Workshop

May – July 2017 **Mentor**, OU REU Program

August 2016 **Participant**, NSF Effectively Communicating Science Workshop – Expert Witness Training Program

2015 – 2017 **Chairman**, OU School of Meteorology Reanalysis Data Bank Committee

2013 – 2015 **Debate Judge**, Boston Debate League

September 2014 **Panelist**, Belmont High School Career Night

December 2013 **Co-Convener**, Natural and Societal Impacts of Decadal Climate Variability, AGU 2013 Fall Meeting

November 2013 **Speaker**, First Lego League Competition

2011 **Contributing Member**, PICES Working Group 20

2009 – 2010 **Secretary**, Metro Atlanta Chapter of the AMS
Member, Prospective Graduate Student Committee, Georgia Tech School of Earth & Atmospheric Sciences
Member, Social Committee, Georgia Tech School of Earth & Atmospheric Sciences
Member, Undergraduate Curriculum Committee, Georgia Tech School of Earth & Atmospheric Sciences

2008 – 2010 **Speaker**, Public outreach program for elementary students about science/weather

2006 – 2010 **Local Manager**, Georgia Tech NCWFC / WxChallenge Forecast Team

2003 – 2005 **Radio DJ**, KCSU 90.5 FM

2002 – 2005 **Local Manager**, Colorado State University NCWFC Forecast Team

2002 **Radio DJ**, WWLR 91.5 FM

2001 – 2002 **President**, Lyndon State College Chapter of the AMS/NWA
Vice President, Sigma Zeta Honorary Society

1999 – 2000 **Treasurer**, Lyndon State College Chapter of the AMS/NWA

MEDIA INTERVIEWS

2021

55. [16 Aug 2021] “Texas regulators want to prepare the state’s electricity grid for extreme weather. But that’s a moving target in a warming world.” – *Texas Tribune*
54. [6 Mar 2021] “La Niña could supercharge this year’s tornado season, just like it did to deadly effect in 2011” – *CNN*
53. [15 Feb 2021] “14 states face rolling blackouts; millions in Texas without power” – *Associated Press*
52. [14 Jan 2021] “Hot again: 2020 sets yet another global temperature record” – *Associated Press*
51. [7 Jan 2021] “The polar vortex may be on its way” – *CNN*

2020

50. [30 Dec 2020] “A Nurse Got Coronavirus After Being Vaccinated – Why Reactions Are Familiar To Meteorologists” – *Forbes.com*
49. [23 Jun 2020] “Does Air Conditioning Relief For Summer Heat Make Coronavirus Worse?” – *Forbes.com*
48. [3 Mar 2020] “What the heck is a haboob?” – *Popular Science*
47. [26 Feb 2020] “What is a snow squall?” – *Popular Science*

2019

46. [30 Dec 2019] “20 Experts Predict The Most Significant Weather And Climate Advances Of The Next Decade” – *Forbes.com*
45. [7 Sep 2019] “Agency reverses course on Trump’s Alabama hurricane claim” – *Associated Press*
44. [30 Aug 2019] “As Hurricane Dorian Approaches, ‘Nobody’s Off the Hook’ on Florida’s East Coast” – *Earther.com*
43. [26 Jul 2019] “The European heatwave bears the fingerprint of climate change” – *Capital Weather Gang / The Washington Post*
42. [25 Jul 2019] Discussion of Climate Change w/ Mitch Carr – *KRLD NewsRadio 1080/ Texas State Network*
41. [12 Mar 2019] “The Central U.S. is About to Get Hit with a Bomb Cyclone” – *Earther.com*
40. [3 Mar 2019] “Winter storm blasts much of the U.S. and delays spring” – *The Washington Post*
39. [29 January 2019] “Here are the facts: Despite winter storms, global warming is real” – *USA Today*
38. [20 Jan 2019] “Dear Mr. President, that’s not how global warming works” – *Capital Weather Gang / The Washington Post*

37. [18 Jan 2019] “February Deep Freeze On Track: A Late-Winter Outlook That Just Might Pan Out” – *Weather Underground*
36. [16 Jan 2019] “The Polar Vortex Has Fallen Apart, Which is Likely to Unleash a Much Colder End to January” – *The Weather Channel*

2018

35. [17 Dec 2018] “Polar vortex could unleash winter wallop by January” – *The Weather Channel*
34. [30 Nov 2018] “AP FACT CHECK: 11 Trump climate goofs and 1 correct claim”- *Associated Press*
33. [24 Oct 2018] “Report: Efforts to suck carbon from air must be ramped up” – *Associated Press*
32. [23 Apr 2018] “Climate change could leave Californians with “weather whiplash” – *CNN*
31. [12 Mar 2018] “Third nor’easter in 2 weeks to slam New England: What’s going on here?” – *Mashable*
30. [5 Jan 2018] “‘Bomb cyclone’ is the new ‘polar vortex.’ Here’s where this year’s weather word comes from” – *Associated Press*
29. [4 Jan 2018] “The ‘Bomb Cyclone’” – *Discovery Canada*. (TV Interview)
28. [3 Jan 2018] “Science Says: Why there’s a big chill in a warmer world” – *Associated Press*
27. [2 Jan 2018] “It’s Somehow Going to Get Even Colder in the Eastern US” – *Associated Press*

2017

26. [26 Dec 2017] “Unforgiving cold snap will engulf eastern two-thirds of the nation through New Year’s Day” – *Capital Weather Gang / The Washington Post*
25. [27 Oct 2017] “Science Says: Jack Frost nipping at your nose ever later” – *Associated Press*
24. [5 Oct 2017] “OU Gets \$1.5 Million to Study Rain” – *The Journal Record*
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PROFESSIONAL MEMBERSHIPS

- American Geophysical Union
- American Meteorological Society
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