

**Jason C. Furtado**  
Website: <http://ifurtado.org>

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## ADDRESS AND CONTACT INFO

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School of Meteorology  
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Norman, OK 73072

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E-mail: [jfurtado@ou.edu](mailto:jfurtado@ou.edu)

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## EDUCATION

- 2010 **GEORGIA INSTITUTE OF TECHNOLOGY**  
**Ph.D. – Earth and Atmospheric Sciences**  
**Graduate Certificate in Public (Environmental) Policy**  
Dissertation: On the Uncertainties and Dynamics of Pacific Interannual and Decadal Climate Variability and Climate Change  
Advisor: Dr. Emanuele Di Lorenzo
- 2005 **COLORADO STATE UNIVERSITY**  
**M.S. – Atmospheric Science**  
Thesis: On the Balanced Response of the Troposphere to Variability in the Extratropical Stratosphere  
Advisor: Dr. David W. J. Thompson
- 2002 **LYNDON STATE COLLEGE**  
**B.S. – Meteorology / B.S. – Mathematics**

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## PROFESSIONAL APPOINTMENTS

- 2015 – **UNIVERSITY OF OKLAHOMA**  
**Assistant Professor**, School of Meteorology (2015 – )  
**Affiliate Faculty**, South Central Climate Science Center (2016 – )  
**Affiliate Faculty**, Department of Psychology (2017 – )
- 2014 – 2015 **BOSTON UNIVERSITY**  
**Lecturer**, Department of Earth and Environment
- 2011 – 2015 **ATMOSPHERIC AND ENVIRONMENTAL RESEARCH**  
**Staff Scientist I**, Climate Analysis Branch
- 2008 – 2010 **GEORGIA INSTITUTE OF TECHNOLOGY ATHLETICS**  
**Forecaster**, NCAA Football and Baseball Games
- 2005 – 2010 **GEORGIA INSTITUTE OF TECHNOLOGY**  
**Graduate Research Assistant**, School of Earth & Atmospheric Sciences
- 2002 – 2005 **COLORADO STATE UNIVERSITY**  
**Graduate Research Assistant**, Department of Atmospheric Science

## REFEREED PUBLICATIONS

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\* Student Author

### IN PREPARATION

- **Furtado, J. C.**, J. Cohen, E. Becker, and D. Collins, 2018: Evaluation of the forecast skill of sudden stratospheric warming events in the NMME Phase-2 Models. *Geophys. Res. Lett.*, in prep.
- 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, 2018: The role of stratosphere – troposphere coupling in sub-seasonal to seasonal prediction using the S2S database. *Q. J. Roy. Meteor. Soc.*, in prep.
- Flanagan, P. X.\*, J. B. Basara, **J. C. Furtado**, E. R. Martin, and X. Xiao, 2018: Role of Pacific sea surface temperatures in United States Great Plains years. *J. Climate*, in prep.
- Green, M. R.\*, **J. C. Furtado**, E. A. Barnes, L. M. Ciasto, and M. L’Heureux, 2018: Modulation of MJO boreal winter teleconnections by Northern Hemisphere extratropical stratospheric variability. *J. Climate*, in prep.
- You, Y.\* and **J. C. Furtado**, 2018: The relationship between South Pacific atmospheric internal variability and ENSO in the NMME Phase-II Models. *Geophys. Res. Lett.*, in prep.

### UNDER REVIEW

- You, Y.\*, and **J. C. Furtado**, 2018: The South Pacific Meridional Mode and its role in tropical Pacific climate variability. *J. Climate*, accepted pending revisions.
- Henderson, G., Y. Peings, **J. C. Furtado**, and P. Kushner, 2018: The impact of Northern Hemisphere snow cover variability and change on extratropical circulation. *Nature Climate Change*, under review.

### PUBLISHED

#### 2018

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22. 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. Hydrometeorol.*, in press, <https://doi.org/10.1175/JHM-D-17-0148.1>.

#### 2017

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21. 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](https://doi.org/10.1002/2017GL073475)
20. Anderson. B. T., **J. C. Furtado**, D. J. S. Gianotti, and E. Di Lorenzo, 2017: Tracking the Pacific Decadal Precession. *J. Geophys. Res.*, **122**, 3214–3227, doi:10.1002/2016JD02596.

#### 2016

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19. 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.
18. **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.

17. 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](https://doi.org/10.1002/2016GL068206).

## 2015

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16. 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.
15. **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.

## 2014

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14. 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.
13. 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.

## 2013

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12. 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>.
11. 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**, <http://dx.doi.org/10.5670/oceanog.2013.70>.
10. 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.
9. 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.

## 2012

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8. **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.
7. 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.
6. 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

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5. **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.

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.

## 2010

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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.

## 2009

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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 nonstationarity. *J. Climate*, **22**, 1104 – 1123.

## 2006

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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.

## SELECT CONFERENCE PRESENTATIONS

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First author is presenter. \* Student Author

## 2018

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41. **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.
40. **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.
39. **Furtado, J. C.**, and Y. You\*, 2018: "The South Pacific Oscillation and Its Potential Role in ENSO Development." 2018 AGU / ASLO / TOS Ocean Sciences Meeting, Portland, OR, USA. Oral Presentation.
38. 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." 2018 AGU / ASLO / TOS Ocean Sciences Meeting, Portland, OR, USA. Oral Presentation.
37. 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.
36. 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.
35. 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.
34. 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.

33. **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.
32. 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

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31. 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.
30. 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.
29. 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.
28. 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.
27. 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.
26. **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.
25. 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." 42nd Annual NOAA Climate Diagnostics and Prediction Workshop, Norman, OK, USA. Poster Presentation.
24. **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.
23. **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.
22. **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.

21. 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.
20. 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

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19. 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.
18. **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.
17. 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

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16. **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

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15. 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.
14. 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

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13. Cohen., J., **J. C. Furtado**, 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

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12. 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.
11. **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.

10. **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

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9. 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.
8. **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.
7. **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

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6. **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.
5. **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

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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

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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. **Furtado, J. C.**, E. Di Lorenzo, 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

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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.

## INVITED TALKS

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### 2018

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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

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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

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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

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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

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1. **[14 March 2005]** "On the Balanced Response of the Troposphere to the Stratosphere." NASA GISS, New York, VT, USA.

## OTHER WORKSHOPS AND CONFERENCES

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### 2018

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

### 2006

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

## FUNDED RESEARCH GRANTS

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### CURRENT

1. **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.
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. 07/01/17 – 06/30/22. \$1,842,562.



3. **Co-PI** - Collaborative Research: Structure and Influence of Coherent Vertical Pulses of Wave Activity Flux in Observations and Models, from Daily to Seasonal Timescales. NSF. 08/15/17 – 8/14/20. \$231,521.

## PAST

1. **PI** - Analysis of Oklahoma Transportation Infrastructure Investments for Climate Change Adaptation. Southern Plains Transportation Center. 07/01/16 – 06/30/17 \$12,600.
2. **PI** - Evaluating Sudden Stratospheric Warmings and NAM Predictability in the NMME Phase-2 System. NOAA. 08/01/15 – 07/31/16 \$59,118
3. **Co-I** - Implementation and Validation of Solar Variability in Radiation Code RRTMG\_SW. NASA. 08/01/13 – 07/31/16, \$215,926.00.
4. **Co-I** - Identifying Mechanisms of AMOC Variability in ECCO State Estimates and CMIP5 Models. NOAA. 08/01/13 – 07/31/16, \$310,659.00.

## AWARDS AND HONORS

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2018	<b>Top Faculty/Staff Forecaster</b> , Flagstaff, AZ, WxChallenge
2017	<b>Dean's Excellence in Teaching Award</b> , College of Atmospheric and Geographic Sciences, University of Oklahoma <b>Top Faculty/Staff Runner-Up Forecaster</b> , Jackson, MS, WxChallenge
2015	<b>AGU Editor's Citation for Excellence for Refereeing</b> , <i>Geophysical Research Letters</i>
2014	<b>Employee of the Year</b> , Atmospheric and Environmental Research <b>Team of the Year</b> , Verisk Climate
2010	<b>Georgia Tech Earth &amp; Atmospheric Sciences Chair Service Award</b>
2008	<b>Top Graduate Student Forecaster</b> , Tucson, AZ, WxChallenge
2006	<b>Top National Forecaster</b> , Salt Lake City, UT, NCWFC <b>Top Graduate Student Forecaster</b> , Pensacola, FL, NCWFC
2005 – 2009	<b>Georgia Tech Presidential Fellowship</b>
2004	<b>Top Graduate Student Forecaster</b> , Hoquiam, WA, NCWFC
2002 – 2003	<b>AMS/NASA Earth Science Enterprise Fellowship</b> <b>Colorado State University 3F Fellowship</b>
2001	<b>AMS Howard T. Orville Scholarship in Meteorology</b>
1998 – 2002	<b>Lyndon State College Presidential Scholar</b> <b>Martin Luther King Jr. Foundation Scholar</b> <b>Portuguese-American Scholar</b>

## TEACHING EXPERIENCE

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2015 –	<b>UNIVERSITY OF OKLAHOMA</b> <b>Courses Taught</b> METR 1014 – Introduction to Weather and Climate METR 4322 – Physical Meteorology III: Radiation and Climate METR 5433 – Advanced Statistical Meteorology  <b>Guest Lectures</b> METR 3523 – Managing for a Changing Climate (Online Course) METR 4491/5491 – Weather Briefing (Spring 2016, Spring 2017) METR 4543/5443 – Global Climate Change (Spring 2017) METR 4922 – Senior Capstone II (Spring 2016, Spring 2018)
2014 – 2015	<b>BOSTON UNIVERSITY</b> <b>Courses Taught</b> GE310 – Climate and the Environment GE507 – Dynamical Oceanography
April 2012	<b>UNIVERSITY OF MASSACHUSETTS AT LOWELL</b> <b>Guest Lecture</b> ATMO 5080 - The Climate System
2007 – 2010	<b>GEORGIA INSTITUTE OF TECHNOLOGY</b> <b>Graduate Teaching Assistant</b> EAS 1600HP – Introduction to Environmental Science EAS 8803 – Advanced Environmental Data Analysis  <b>Guest Lecture</b> EAS 3113 – Energy, Environment, and the Energy Cycle (Fall 2008)
2006 – 2012	<b>PRIVATE ACADEMIC TUTOR</b>
2005 – 2006	<b>GEORGIA INSTITUTE OF TECHNOLOGY ATHLETIC ASSOCIATION</b> <b>Student-Athlete Tutor</b>
2004	<b>COLORADO STATE UNIVERSITY</b> <b>Graduate Teaching Assistant</b> AT605 – General Circulation of the Atmosphere ( <i>Graduate</i> )
1999 – 2002	<b>LYNDON STATE COLLEGE</b> <b>Math Lab Tutor</b>

## GRADUATE STUDENTS ADVISED

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### CURRENT

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Matthew R. Green (M.S.) (2016 – )  
Gregory Jennrich (M.S.) (2017 – )  
Jacob Ohnstad (M.S.) (2018 – )  
Matthew Rogers (M.S.) (2018 – )

Ty Dickinson (Ph.D.) (2018 – )  
Simon Lee (Ph.D.) (2018 – ) - **Co-advised w/ A. Charlton-Perez at University of Reading**

## PAST

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Yujia You (M.S.) (2016 – 2018)  
**Thesis:** South Pacific Atmospheric Internal Variability and Its Role in the El Niño-Southern Oscillation

## THESIS AND DISSERTATION COMMITTEE MEMBERSHIP

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### CURRENT

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Ryann Wakefield (M.S.) (2017 – )

Paul Flanagan (Ph.D.) (2016 – )  
Jordan Christian (Ph.D.) (2017 – )  
Makenzie Krocak (Ph.D.) (2017 – )  
Ryan Lagerquist (Ph.D.) (2017 – )  
Samuel Lillo (Ph.D.) (2017 – )

### PAST

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Allison Brannon (M.S.) (2016 – 2017)  
Erik Loken (M.S.) (2016 – 2017)  
James Danco (M.S.) (2015 – 2016)

## SERVICE AND LEADERSHIP

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2016 –	<b>Member</b> , NOAA MAPP Subseasonal-to-Seasonal (S2S) Task Force <b>Faculty Panelist</b> , OU School of Meteorology High School Visitation Days <b>Member</b> , OU School of Meteorology Undergraduate Curriculum Committee
2015 –	<b>Member</b> , NOAA NMME Task Force <b>Local Manager</b> , OU WxChallenge Team <b>Member</b> , <a href="http://weather.ou.edu">weather.ou.edu</a> Development Committee <b>Graduate Admissions Committee</b> , OU School of Meteorology
2014 –	<b>Proposal Reviewer</b> , National Science Foundation <b>Member</b> , AMS Weather Analysis and Forecasting Committee
2003 –	<b>Peer Reviewer</b> , <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>
2017 – 2018	<b>Member</b> , Inaugural Class of AMS Early Career Leadership Academy
October 2017	<b>Host and Co-Organizer</b> , 42nd Annual NOAA Climate Diagnostics and

	Prediction Workshop
May – July 2017	<b>Mentor</b> , OU REU Program
August 2016	<b>Participant</b> , NSF Effectively Communicating Science Workshop – Expert Witness Training Program
2015 – 2017	<b>Chairman</b> , OU School of Meteorology Reanalysis Data Bank Committee
2013 – 2015	<b>Proposal Review Panelist</b> , NSF Graduate Research Fellowship Program
2013 – 2015	<b>Debate Judge</b> , Boston Debate League
September 2014	<b>Panelist</b> , Belmont High School Career Night
December 2013	<b>Co-Convener</b> , Natural and Societal Impacts of Decadal Climate Variability, AGU 2013 Fall Meeting
November 2013	<b>Speaker</b> , First Lego League Competition
2011	<b>Contributing Member</b> , PICES Working Group 20
2009 – 2010	<b>Secretary</b> , Metro Atlanta Chapter of the AMS <b>Member</b> , Prospective Graduate Student, Social, and Undergraduate Committees, Georgia Tech School of Earth & Atmospheric Sciences
2008 – 2010	<b>Speaker</b> , Public outreach program for elementary students about science/weather
2006 – 2010	<b>Local Manager</b> , Georgia Tech NCWFC / WxChallenge Forecast Team
2003 – 2005	<b>Radio DJ</b> , KCSU 90.5 FM
2002 – 2005	<b>Local Manager</b> , Colorado State University NCWFC Forecast Team
2002	<b>Radio DJ</b> , WWLR 91.5 FM
2001 – 2002	<b>President</b> , Lyndon State College Chapter of the AMS/NWA
1999 – 2000	<b>Treasurer</b> , Lyndon State College Chapter of the AMS/NWA

## MEDIA INTERVIEWS

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### 2018

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- [23 April 2018] "[Climate change could leave Californians with 'weather whiplash'](#)" – CNN
- [12 Mar 2018] "[Third nor'easter in 2 weeks to slam New England: What's going on here?](#)" – Mashable

- [5 Jan 2018] [“‘Bomb cyclone’ is the new ‘polar vortex.’ Here’s where this year’s weather word comes from”](#) – Associated Press
- [4 Jan 2018] “The ‘Bomb Cyclone’” – Discovery Canada. [Video Link]
- [3 Jan 2018] [“Science Says: Why there’s a big chill in a warmer world”](#) – Associated Press

## 2017

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- [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
- [27 Oct 2017] [“Science Says: Jack Frost nipping at your nose ever later”](#) – Associated Press
- [5 Oct 2017] [“OU Gets \\$1.5 Million to Study Rain”](#) – The Journal Record
- [17 Aug 2017] [“July ranks 2nd for heat globally, hottest recorded on land”](#) – Associated Press
- [3 May 2017] [“Climate change expected to make turbulence stronger and more frequent”](#) – CNN
- [17 March 2017] [“‘The numbers are in on this freakishly warm February”](#) – CBS News / Associated Press
- [1 February 2017] [“‘Beyond the extreme’: Scientists marvel at ‘increasingly non-natural’ Arctic warmth”](#) – Capital Weather Gang / The Washington Post
- [18 January 2017] [“Earth Sets Hottest Year Record for Third-Straight Time.”](#) – Associated Press
- [18 January 2017] [“Scientists react to Earth’s warmest year: ‘We are heading into a new unknown’”](#) – Associated Press

## 2016

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- [15 December 2016] [“Polar Vortex: The Chilly Science of an Arctic Blast.”](#) – LiveScience
- [13 December 2016] [“The Polar Vortex is Back – Ugh”](#) -NBC Connecticut
- [30 November 2016] [“Arctic Air Poised to Invade the U.S. After Record Warm November”](#) – Mashable
- [18 October 2016] [“Earth’s 16-Month Record Heat Streak Ends but Warming Remains”](#) – ABC News / Associated Press
- [17 August 2016] [“July was ‘absolutely’ Earth’s hottest month ever recorded”](#) – Capital Weather Gang / The Washington Post
- [2 August 2016] [“Scientists’ annual physical of planet: ‘Earth’s fever rises’”](#) – Associated Press
- [16 May 2016] [“Earth’s relentless streak of record-warm months expands to seven”](#) – Capital Weather Gang / The Washington Post
- [9 May 2016] [Panasonic \(Yes, Panasonic\) May Have Created the World’s Best Weather Model”](#) – Slate
- [19 April 2016] [“Earth’s hot streak continues for a record 11 months”](#) – CBS News / Associated Press
- [17 March 2016] [“Beyond record hot, February was ‘astronomical’ and ‘strange’”](#) – US News / Associated Press
- [11 March 2016] [“Panel: Finding Climate Fingerprints in Wild Weather Is Valid”](#) – Associated Press
- [18 February 2016] [“El Niño Weakens a Tad, but We Won’t Feel That for Months”](#) – US News / Associated Press

- [5 February 2016] [“How melting Arctic ice may have set off era of vicious East Coast snow storms”](#)– Capital Weather Gang / The Washington Post
- [7 January 2016] [“All the winter’s a weird weather stage; Here are the players”](#) – Yahoo News / Associated Press
- [4 January 2016] [“Arctic outbreak barreling toward U.S. may be Storm Frank’s revenge”](#) – Mashable

## 2015

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- [16 November 2015] [“By one measure, this wicked El Niño is the strongest ever recorded: What it means”](#) – Capital Weather Gang / The Washington Post
- [23 October 2015] Hurricane Patricia Coverage – OU Nightly
- [20 August 2015] [“Heating Up: El Niño Could Increase Business for Climate Forecasters”](#)– The Journal Record
- [5 March 2015] [“How climate change may be producing more blockbuster snowstorms”](#) – Capital Weather Gang / The Washington Post

## PROFESSIONAL MEMBERSHIPS

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- American Geophysical Union
- American Meteorological Society
- National Weather Association