Catherine L. Stauffer

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Education

Florida State University	Ph.D.:	Major:	Meteorology	Expected 7/2023
	M.S.:	Major:	Meteorology	12/2020
	B.S.:	Major:	Meteorology *cum laude*, with Honors in the Major *Minors: Mathematics and Physics*	5/2018

Professional Experience

Graduate Research Assistant, Supervisor: Allison A. Wing, Ph.D. 8/2018-Present
FSU Department of Earth, Ocean and Atmospheric Science, Tallahassee, FL
- Concentrations: cloud physics, climate dynamics, climate modeling, remote sensing, deep convection, tropical dynamics, idealized modeling
- Dissertation: *Clouds, convective self-aggregation, and climate sensitivity in the Radiative-Convective Equilibrium Model Intercomparison Project*

Undergraduate Research Assistant, Supervisor: Mark A. Bourassa, Ph.D. 8/2016-8/2018
FSU Center for Ocean-Atmospheric Prediction Studies, Tallahassee, FL
- Concentrations: research vessel data, remote sensing, air-sea coupling
- Thesis: *Air-sea coupling dependency on sea surface temperature fronts as observed by research vessel data*

Meteorological Analyst, Supervisor: Mark Powell, Ph.D. 5/2016-8/2018
Risk Management Solutions, Inc. (RMS), Tallahassee, FL
- Analyzed, imported, and managed data from several sources to create a wind field of tropical cyclones to help communicate risk to reinsurers and initialize risk models

Student Researcher (through the FSU Undergraduate Research Opportunity Program) 8/2015-5/2016
HWind Scientific (Now RMS), Tallahassee, FL
- Project: *Historical reconstruction of Hurricane Allen (1980)*: compared the reconstruction of the wind field of Hurricane Allen using reconnaissance data to using the Climate Forecast System Reanalysis (CFSR) product

Peer-Reviewed Publications

4 **Stauffer, C.L.** and A.A. Wing (in prep): The influence of organized convection on cloud feedbacks
3 **Stauffer, C.L.** and A.A. Wing (in prep): Cloud feedbacks in radiative-convective equilibrium simulations
2 **Stauffer, C.L.** and A.A. Wing (2022): Properties, changes, and controls of deep-convecting clouds in radiative-convective equilibrium, J. Adv. Model. Earth Syst., 14, e2021MS002917, doi:10.1029/2021MS002917.
1 Wing, A.A., **C.L. Stauffer**, et al. (2020): Clouds and convective self-aggregation in a multi-model ensemble of radiative-convective equilibrium simulations, J. Adv. Model. Earth Syst., 12, e2020MS002138, doi:10.1029/2020MS002138.

Datasets

1 **Stauffer, C.L.** and A.A. Wing. (2022). Cloud Properties and Changes in RCEMIP [Data set]. Zenodo. doi:10.5281/zenodo.6323552.

Conference Presentations

11 **Stauffer, C.L.** and A.A. Wing, Cloud feedbacks in the radiative-convective equilibrium model intercomparison project, 2022 CFMIP Meeting on Clouds, Precipitation, Circulation, and Climate Sensitivity, UW, Seattle, WA, 19-22 July 2022. [oral]
10 **Stauffer, C.L.** and A.A. Wing, The Influence of Changes in Cloud and Aggregation Properties on Cloud Feedbacks in the Radiative-Convective Equilibrium Model Intercomparison Project, Tropical Cyclones, Convection, and Climate: A Symposium in Honor of Kerry Emanuel, MIT, Cambridge, MA, 21-22 June 2022. [poster]
9 **Stauffer, C.L.** and A.A. Wing, Cloud Feedbacks in RCEMIP, The 35th Conference on Hurricanes and Tropical Meteorology, New Orleans, LA, 9-13 May 2022. [oral]
8 **Stauffer, C.L.** and A.A. Wing, Properties, Changes, and Controls of Deep Convecting Clouds in the Radiative Convective Equilibrium Model Intercomparison Project. 2021 CFMIP Meeting on Clouds, Precipitation, Circulation, and Climate Sensitivity, Virtual, 14-16 September 2021. [poster, virtual]
7 **Stauffer, C.L.** and A.A. Wing, Control on Cloud Top Properties in RCEMIP, 2020 Virtual CFMIP Meeting on Clouds, Precipitation, Circulation, and Climate Sensitivity, 14-18 September 2020. [poster, virtual]

6 **Stauffer, C.L.**, A.A. Wing, and K.A Reed, Radiative Convective Equilibrium, Self-Aggregation, and Climate in the RCEMIP Suite. 34th Conference on Hurricanes and Tropical Meteorology, Virtual, 10-14 May 2021 (delayed from 2020 due to the COVID-19 pandemic). [oral, virtual]

5 **Stauffer, C.L.**, Observed intensity vs potential intensity of 2017 Hurricanes Harvey, Irma, and Maria, The 33rd Conference on Hurricanes and Tropical Meteorology, Ponte Vedra, FL, April 2018. [poster]

4 **Stauffer, C.L.**, Air-sea coupling dependency on sea surface temperature fronts as observed by research vessel data, College of Arts and Sciences Celebration of Philanthropy and Student Showcase, Tallahassee, FL, March 2018. [poster]

3 **Stauffer, C.L.**, Air-sea coupling dependency on sea surface temperature fronts as observed by research vessel data, Women in Math, Science, and Engineering Research Symposium, Tallahassee, FL, April 2018. [oral]

2 **Stauffer, C.L.**, Historical reconstruction of Hurricane Allen (1980), Women in Math, Science, and Engineering Research Symposium, Tallahassee, FL, April 2016. [poster]

1 **Stauffer, C.L.**, Historical reconstruction of Hurricane Allen (1980), FSU Undergraduate Research Symposium, Tallahassee, FL, April 2016. [poster]

Co-Authored Presentations

3 Wing, A.A., **C.L. Stauffer**, T. Becker, K.A. Reed, M.-S. Ahn, N.P. Arnold, S. Bony, M. Branson, G.H. Bryan, J.-P. Chaboureau, S.R. de Roode, K. Gayatri, C. Hohenegger, I.-K. Hu, F. Jansson, T.R. Jones, M. Khairoutdinov, D. Kim, Z.K. Martin, S. Matsugishi, B. Medeiros, H. Miura, Y. Moon, S.K. Müller, T. Ohno, M. Popp, T. Prabhakaran, D. Randall, R. Rios-Berrios, N. Rochetin, R. Roehrig, D.M. Romps, J.H. Ruppert, Jr., M. Satoh, L.G. Silvers, M.S. Singh, B. Stevens, L. Tomassini, C.C. van Heerwaarden, S. Wang, and M. Zhao (2020): Clouds and convective self-aggregation in a multi-model ensemble of radiative-convective equilibrium simulations, AGU Fall Meeting, Virtual, 1-17 Dec 2020. [oral, invited]

2 Wing, A.A., **C. Stauffer**, K.A. Reed, T. Becker, M. Satoh, B. Stevens, S. Bony, and T. Ohno, Tropical clouds and convection in RCE simulations. 2019 CFMIP Meeting on Clouds, Precipitation, Circulation, and Climate Sensitivity, Mykonos, Greece, 30 September - 4 October 2019. [oral]

1 Wing, A.A., K.A. Reed, **C. Stauffer**, M. Satoh, B. Stevens, S. Bony, and T. Ohno, Convective aggregation, clouds, and climate sensitivity in RCE simulations, UCP2019: Understanding Clouds and Precipitation, Berlin, Germany, 25 February - 1 March 2019. [oral]

Non-Refereed

2 **Stauffer, C.L.** and A.A. Wing Cloud Feedbacks in the Radiative-Convective Equilibrium Model Intercomparison Project, Preprints, 35th Conference on Hurricanes and Tropical Meteorology, New Orleans, LA, Amer. Meteorol. Soc.

1 **Stauffer, C.L.**, A.A. Wing, and K.A Reed, Radiative Convective Equilibrium, Self-Aggregation, and Climate in the RCEMIP Suite, Preprints, 34th Conference on Hurricanes and Tropical Meteorology, New Orleans, LA, Amer. Meteorol. Soc.

Honors and Awards

Honors in the Major – defended an undergraduate thesis, Florida State University	4/2018
Garnet and Gold Scholar Society, Florida State University	4/2018
Chi Epsilon Pi Meteorology Honor Society, Florida State University	4/2018
Omicron Delta Kappa National Leadership Honor Society, Florida State University	11/2015
Unit Counselor of the Week Award, Girl Scouts of Western Washington	6/2015
Girl Scout Gold Award, Girl Scouts of the United States of America	8/2014
Venturing Silver Award, Boy Scouts of America Suwanee River Area Council	2/2013

Professional Society Membership

American Meteorology Society 2017-Present