Jonathan A. Christophersen

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EDUCATION

Doctor of Philosophy, Meteorology, 05/01/2020
Department of Earth, Ocean and Atmospheric Science, Florida State University
Tallahassee, Florida
Dissertation: Observational Analysis of Atmospheric and Oceanic Diurnal Cycles in the Tropical Atlantic
Advisor: Prof. Philip Sura

Master of Science, Meteorology, 12/20/2013
Department of Earth, Ocean and Atmospheric Science, Florida State University
Tallahassee, Florida
Thesis: Analysis of Extreme Events in the PUMA model
Advisor: Prof. Philip Sura

Bachelor of Arts, Mathematics, 12/20/2006
Department of Mathematics, University of Florida
Gainesville, Florida

EMPLOYMENT HISTORY:

2023 – Present: Meteorologist
Employer: United States Naval Research Laboratory

2020 – 2023: Postdoctoral Associate
Employer: The National Academy of Sciences/National Research Council & Naval Research Laboratory - Monterey

2016 – 2020: Research Associate II & III and Research Assistant - PhD
Employer: Cooperative Institute for Marine & Atmospheric Studies (CIMAS), University of Miami & NOAA AOML/Physical Oceanography Division

REFEREED PUBLICATIONS

Christophersen, J.A., Chen, S., Flatau, M., Wijesekera, H., Jensen, T., Leuke, C., 2025: Multi-year subsurface mixing properties and air-sea interaction in the Arabian Sea Warm Pool. In prep.

Christophersen, J.A., Rydbeck, A., Flatau, M., Janiga, M., Reynolds, C.A., Jensen, T., et al., 2023: Oceanic Rossby wave predictability in ECMWF's subseasonal-to-seasonal reforecasts. *Quarterly Journal of the Royal Meteorological Society*, 1–20. Available from: https://doi.org/10.1002/qj.4636

Frassoni, A., and Coauthors, 2023: Systematic Errors in Weather and Climate Models: Challenges and Opportunities in Complex Coupled Modeling Systems. *Bull. Amer. Meteor. Soc.*, **104**, E1687–E1693, https://doi.org/10.1175/BAMS-D-23-0102.1.

Rydbeck, A., **J.A. Christophersen**, M. Flatau, M. Janiga, T. Jensen, C. Reynolds, J. Ridout, T. Smith, H. Wijesekera, 2022: Anchoring intraseasonal air-sea interactions: the moored moist static energy budget in the Indian Ocean from reanalysis. *J. Climate*, **36**, 959–981, https://doi.org/10.1175/JCLI-D-22-0182.1.

Dong, S., G. Goni, R. Domingues, F. Bringas, M. Goes, **J. Christophersen**, and M. Baringer, 2021: Synergy of in-situ and satellite ocean observations in determining meridional heat transport in the Atlantic Ocean. J. Geophys. Res., 126(4), e2020JC017073. DOI: 10.1029/2020JC017073

Christophersen, J.A., G.R. Foltz, R.C. Perez, 2020: Surface expressions of atmospheric thermal tides in the tropical Atlantic and their impact on open-ocean precipitation. *J. Geophys. Res.*, 125(22), e2019JD031997. DOI:10.1029/2019JD031997

Goes, M., J. Christophersen, S. Dong, G. Goni, and M. Baringer, 2018: An updated estimate of salinity for the Atlantic Ocean sector using temperature-salinity relationships. J. Atmos. Ocean. Technol., 35, 1771-1784. DOI: 0.1175/JTECH-D-18-0029.1

RECENT PRESENTATIONS

Christophersen, J.A., G.R. Foltz, R.C. Perez, 2023: Timescales of Upper-ocean Shear and Instability from PIRATA Moorings in the ITCZ and Trade Wind Regions, *PIRATA-26 / TRIATLAS Conference and General Assembly,* Banyuls-sur-Mer, France.

Christophersen, J.A., A. Rydbeck, M. Flatau, M. Janiga, C. Reynolds, T. Jensen, T. Smith, 2023: Oceanic Rossby wave predictability in ECMWF's S2S model, *Asia Oceania Geosciences Society,* Singapore.

Christophersen, J.A., A. Rydbeck, M. Flatau, 2023: Oceanic Rossby wave predictability in ECMWF's S2S model, *American Meteorological Society Annual Meeting,* Denver, CO.

Christophersen, J.A., A. Rydbeck, M. Flatau, M. Janiga, C. Reynolds, T. Jensen, T. Smith, 2023: Oceanic Rossby wave predictability in ECMWF's S2S model, *6th WGNE Workshop on Systematic Errors in Weather and Climate Models,* Reading, U.K.

Christophersen, J.A., A. Rydbeck, M. Flatau, 2022: Predictability of the Navy's ESPC Model on the Indian Ocean Dipole event in 2019, *American Meteorological Society Annual Meeting,* Houston, TX.

Christophersen, J.A., G.R. Foltz, R.C. Perez, 2021: Diurnal and Seasonal Thermocline and Shear Modulations from Internal Gravity Waves, *Prediction and Research Moored Array in the Tropical Atlantic (PIRATA)/Tropical Atlantic Variability (TAV) meeting*, Miami, FL.

Research Expeditions

Christophersen, J. A. (2019). *Ronald H. Brown*. PIRATA Charleston, SC -- Charleston, SC.

Christophersen, J. A. (2014). *Ronald H. Brown*. CLIVAR Repeat Hydrography A16S Brazil -- Chile.

Volunteer Experience

Session Chair

November 2022: 6th WGNE workshop on systematic errors in weather and climate models, Reading, U.K.

May 2021: 24th Prediction and Research Moored Array in the Tropical Atlantic /Tropical Atlantic Variability Meeting, Miami, FL (Virtual)

Honors and Awards

The Jim and Sheila O'Brien Graduate Fellowship Award 1/23/2020

Award given annually to graduate students who are working in the general areas of air-sea interaction and physical oceanography.

National Research Council Research Associate Award 5/11/2020 – 2/12/2023