

ZACHARY S. KAUFMAN

214 Segre Pl., Santa Cruz, CA, 95060
(650) 759-2861 ◊ zskaufma@ucsc.edu

OVERVIEW

I have been involved in PhD research since 2017. My research is focused on the climate sensitivity of Earth's polar regions. In particular, I am interested in how sea ice governs the high latitude energy budget through local and remote climate feedbacks.

EDUCATION

University of California, Santa Cruz *Fall 2017 - Present*
PhD Candidate
Earth and Planetary Sciences
Advisor: Professor Nicole Feldl

Wesleyan University *2012-2016*
B.A. Earth and Environmental Sciences *GPA: 3.7*

Danish Institute for Study Abroad *Fall 2014*
Environmental Science of the Arctic Program

Relevant Coursework

Geophysical Fluid Dynamics
Atmospheric Science
Scientific Computing (Python and Fortran)
Statistical Data Analysis
Marine Sedimentology
Isotope Geochemistry

AWARDS, HONORS, AND FELLOWSHIPS

NSF Graduate Research Fellowship *2019 - Present*

Mary and John Sease Prize for Outstanding Achievement in Environmental Science *Wesleyan University, 2016*

Dean's List; Departmental Honors *Wesleyan University, 2016*

McKenna Fellow *Wesleyan University, 2015*

PUBLICATIONS AND PRESENTATIONS

1. **Z.S. Kaufman**, N. Feldl, W. Weijer, M. Veneziani, 2020: Causal Interactions Between Southern Ocean Polynyas and High-Latitude Atmosphere-Ocean Variability. *Journal of Climate*, 33, 4891-4905. <https://doi.org/10.1175/JCLI-D-19-0525.1>.
2. **Z.S. Kaufman**, W. Weijer, N. Feldl, M. Veneziani. "Causal Interactions Between Southern Ocean Polynyas and High-Latitude Atmosphere-Ocean Variability" *Ocean Sciences Meeting*. AGU, 2020 (Poster presented by co-author).

3. **Z.S. Kaufman**, and N. Feldl. “Linking the Vertical Structure of Arctic Warming to Local and Remote Processes: A Causal Network Approach.” *AGU Fall Meeting 2019*. AGU, 2019 (Poster).
4. J. L. Pinsky, G. H. Edwards, R. E. Maxwell, E. Schnorr, **Z.S. Kaufman**, A. M. Donaldson. “Event-Based Programming Tools to Promote Diversity, Equity, and Inclusion within Earth and Planetary Science Departments.” *AGU Fall Meeting 2019*. AGU, 2019 (Poster).
5. **Z.S. Kaufman**, W. Weijer, N. Feldl, M. Veneziani. “Ocean-Atmosphere Heat Exchange Over Weddell Sea Polynyas Influences High-Latitude Climate Variability.” *15th Conference on Polar Meteorology and Oceanography*. AMS, 2019 (Oral).
6. **Z.S. Kaufman**, “Sediment Interpretations of Ice Rafted Debris in the Weddell Sea, Antarctica: a 3-3.8 mya Record from ODP Site 697.” Undergraduate Thesis, 2016.

RESEARCH EXPERIENCE

Computational Physics and Methods Group

Los Alamos National Laboratory

Summer 2018

Graduate Research Intern; Principal Investigator: Dr. Wilbert Weijer

Studied ocean-atmosphere heat exchange over Weddell Sea Polynyas, as part of the High Latitude Application and Testing of Earth System Models (HiLAT) Project.

O’Connell Lab, Marine Sedimentology

Wesleyan University

2015-2016

Undergraduate Research Assistant

Studied Pliocene paleoclimate in the Weddell Sea through the analysis of ice-rafted debris provenance in a deep-sea sediment core.

Quantitative Analysis Center

Wesleyan University

Summer 2014

Research Apprentice; ArcGIS Tutor

Studied spatiotemporal patterns of society in Medieval England, using geospatial analysis.

Research Experience for Undergraduates (REU)

University of California, Santa Cruz

Summer 2013

Studied anthropogenic changes in the ecology of Elkhorn Slough National Estuarine Research Reserve.

TEACHING EXPERIENCE AND OUTREACH

Teaching Assistant

EART-121, The Atmosphere

Fall 2018

EART-12, Intro to Weather and Climate

Winter 2018

Geoscientists Encouraging Openness and Diversity in Earth Sciences (GEODES)

UC Santa Cruz

Fall 2017 - Winter 2020

Graduate Student Group Leader

Organized Event-Based Programming Events for the Campus STEM Community

Undergraduate Mentor

UC Santa Cruz

Spring 2019

Conducted weekly meetings, teaching skills in scientific computing and data analysis of climate models.

Museum Guide

Griffith Observatory, Los Angeles

2017