

# Brandon O. Wolding

NOAA Physical Sciences Laboratory  
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## Work Experience

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### August 2020 - Present

CIRES/NOAA PSL, Boulder, CO

#### Research Scientist

- Understanding and improving model representation of thermodynamic-convection coupling
- Assessing the role of air-sea interactions in the destabilization, maintenance, and propagation of the Madden-Julian Oscillation

### August 2018 - July 2020

NOAA PSL, Boulder, CO

#### NOAA Climate and Global Change Fellow

- Developing process-oriented diagnostics used to improve representation of tropical convection in global weather and climate models
- Identifying and understanding sources of Subseasonal to Seasonal (S2S) predictability in present and future climates

## Education

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### January 2013 - May 2017

#### Colorado State University

- Ph.D. Atmospheric Science
- Dissertation: Vertically Resolved Weak Temperature Gradient Analysis of the Madden-Julian Oscillation

### August 2011 - December 2013

#### Colorado State University

- MSc Atmospheric Science
- Thesis: Moist Static Energy and the Madden-Julian Oscillation: Understanding Initiation, Maintenance and Propagation Through the Application of Novel Diagnostics

### February 2009 - June 2010

#### University of Cape Town, South Africa

- MSc Applied Marine Science
- Thesis: Exploring Winter Rainfall in Western South Africa: Connections, Influences, and the Potential for Statistical Seasonal Forecasting

### August 2002 - January 2007

#### Hawaii Pacific University

- BSc Oceanography

## Publications

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2021

**Wolding, B. O.**, J. Dias, G. Kiladis, C. DeMott, L. Back, and E. D. Maloney (2021), Mixed-layer model analysis of boundary layer convergence and the MJO, *J. Clim.*, in prep.

2020

**Wolding, B. O.**, J. Dias, G. Kildadis, E. D. Maloney, and M. Branson (2020), Interactions between moisture and tropical convection. Part II: The convective coupling of equatorial waves, *J. Atm. Sci.*, 77(5), 1801-1819

**Wolding, B. O.**, J. Dias, G. Kildadis, F. Ahmed, S.W. Powell, E. D. Maloney, and M. Branson (2020), Interactions between moisture and tropical convection. Part I: The co-evolution of moisture and convection, *J. Atm. Sci.*, 77(5), 1783-1799

2018

DeMott, C., **B.O. Wolding**, E. D. Maloney, and D. Randall (2018), Atmospheric mechanisms for MJO decay over the Maritime Continent, *J. Geophys. Res.*, 123(10), 5188-5204

2017

**Wolding, B. O.**, E. D. Maloney, S. Henderson, and M. Branson (2017), Climate change and the Madden-Julian Oscillation: A vertically resolved weak temperature gradient analysis, *J. Adv. Model. Earth Syst.*, 9(1), 307-331

Singh, M. S., Z. Kuang, E. D. Maloney, W. M. Hannah, and **B. O. Wolding** (2017), Increasing potential for intense tropical and subtropical thunderstorms under global warming, *Proc. National Acad. Sci.*, 114(44), 11657-11662

2016

**Wolding, B. O.**, E. D. Maloney, and M. Branson (2016), Vertically resolved weak temperature gradient analysis of the Madden-Julian Oscillation in SP-CESM, *J. Adv. Model. Earth Syst.*, 8(4), 1586-1619

2015

**Wolding, B. O.** and E. D. Maloney (2015b), Objective diagnostics and the Madden-Julian Oscillation. Part II: Application to moist static energy and moisture budgets, *J. Clim.*, 28(19), 7786-7808

**Wolding, B. O.** and E. D. Maloney (2015a), Objective diagnostics and the Madden-Julian Oscillation. Part I: Methodology, *J. Clim.*, 28(10), 4127-4140

Maloney E. D. and **B. O. Wolding** (2015), Initiation of an intraseasonal oscillation in an aquaplanet general circulation model, *J. Adv. Model. Earth Syst.*, 7(4), 1956-1976

## Teaching Experience

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### Spring Semester 2015

#### Colorado College

- Primary Instructor, Introduction to Climate Change

### Spring Semester 2014

#### Colorado State University

- Graduate Teaching Assistant, ATS 606 Introduction to Climate

## Honors and Awards

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2018	<b>NOAA Climate and Global Change Fellow</b> , UCAR CPAESS
2016	<b>Outstanding Student Paper Award</b> , American Geophysical Union
2016	<b>SoGES Sustainability Leadership Fellow</b> , Colorado State University
2015	<b>Outstanding Student Presentation</b> , American Meteorological Society
2015	<b>Teaching Fellow</b> , Colorado College
2010	<b>Distinction Awarded</b> , University of Cape Town
2006	<b>Outstanding Student in Oceanography</b> , Hawaii Pacific University

## Service

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2021	<b>Co-chair</b> of 9th MJO Symposium at the AMS Annual Meeting and Convection session at AMS Tropical Conference
2019	<b>Volunteer</b> in Research Experience for Community College Students (RECCS) program, administered by University of Colorado Boulder
2013 - Present	<b>Reviewer</b> for Journal of Climate, Journal of Atmospheric Science, and Journal of Geophysical Research, among many others

## Additional Work Experience

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<b>March 2007 - July 2008</b> National Marine Fisheries Service MRAG Americas, Honolulu, Hawaii	<b>Observer Biologist</b> <ul style="list-style-type: none"><li>- Collection of species data and samples aboard longline tuna and swordfish boats in Hawaiian and American Samoan fisheries</li><li>- Overcoming language/cultural barriers to work effectively as a team</li></ul>
<b>February 2007 - January 2009</b> Puena Productions, Amherst Jct, WI	<b>Proprietor of Video Production Company</b> <ul style="list-style-type: none"><li>- Video capture, editing and production per government contract</li><li>- Managing and coordinating multiple projects simultaneously</li></ul>