

Danielle Groenen

813-313-9017
dgoenen@fsu.edu
danigroenen@gmail.com

EDUCATION

Ph.D., Meteorology, Florida State University, Tallahassee, FL Dec 2018
M.S., Atmospheric Science, University of California, Davis, CA Dec 2009
B.S., Physics, University of York, UK July 2006

RESEARCH EXPERIENCE

Graduate Research Assistant, Florida State University, FL Jan 2014-Present
Dissertation Title: *Diagnosing the Atmospheric and Oceanic Phenomena Associated with the Onset and Demise of the Rainy Season in Mesoamerica*
Co-Advisors: Drs. Mark Bourassa and Vasubandhu Misra

Internship at NASA/JPL, Pasadena, CA Jun 2016-Aug 2016
Advisors: Drs. Duane Waliser and Huikyo Lee

- Studied seasonal evolution of large-scale circulation precursors to the onset/demise of the Mesoamerican Rainy Season and evaluation of RCMs

Internship at NASA/JPL, Pasadena, CA Jun 2014-Aug 2014
Project: Work on the Regional Climate Model Evaluation System (RCMES)
Advisors: Drs. Duane Waliser and Paul Loikith

- Investigated Central American Mid-Summer Drought using TRMM Satellite Data and RegCM4 model output

Graduate Student Researcher, U.C. Davis, CA Sept 2007-Sept 2009
Project: *Study of Cloud Tilting Properties using 2-D Cloud Simulations*
Advisor: Dr. Shu-hua Chen

- Ran idealized case of the Weather and Research Forecasting (WRF) Model and plotted results using RIP4 and Matlab

PUBLICATIONS

Groenen, D., 2018: The Effects of Climate Change on the Pests and Diseases of Coffee Crops in Mesoamerica. *J. Climatol. Weather Forecasting*, **6: 239**. doi:10.4172/2332-2594.1000239

Misra, V., **D. Groenen**, A. Bharadwaj, and A. Mishra, 2016: The warm pool variability of the tropical northeast Pacific. *Int. J. Climatol.*, **36 (14)**: 4625–4637, doi:10.1002/joc.4658

SEMINAR/CONFERENCE PRESENTATIONS

Groenen, D. and M. A. Bourassa (2017), Diagnosing the Atmospheric/Oceanic Phenomena Associated with the Onset, Demise and Mid-Summer Drought of the Rainy Season in Mesoamerica, Abstract A21F-2222 presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec. (**poster**).

Danielle Groenen

“Weather Precursors to the Mesoamerican Rainy Season.” Center for Ocean-Atmospheric Prediction Studies Monthly Short Seminar Series, Tallahassee, FL, April 3, 2017 (**presentation**).

“Developing a Process-Oriented Metric to Diagnose the Onset of the Mesoamerican Rainy Season and MSD.” American Geophysical Union Fall Meeting 2016, San Francisco, CA, December 16, 2016 (**presentation**).

“Comparison of 2 Methods for Calculating the Onset Date of the Mesoamerican Rainy Season.” Center for Ocean-Atmospheric Prediction Studies Monthly Short Seminar Series, Tallahassee, FL, December 5, 2016 (**presentation**).

“Atmospheric and Oceanic Precursors of the Onset and Demise of the Mesoamerican Rainy Season.” Center for Ocean-Atmospheric Prediction Studies Monthly Short Seminar Series, Tallahassee, FL, September 12, 2016 (**presentation**).

“Large-Scale Features Associated with the Onset and Demise of the Rainy Season of Mesoamerica.” Center for Ocean-Atmospheric Prediction Studies Monthly Short Seminar Series, Tallahassee, FL, March 7, 2016 (**presentation**).

“Characterization of the Onset and Demise of the Central American MSD.” Center for Ocean-Atmospheric Prediction Studies Monthly Short Seminar Series, Tallahassee, FL, September 14, 2015 (**presentation**).

“The Warm Pool Variability of the Tropical Northeast Pacific and its Relation to the Atlantic Warm Pool.” 2015 IASCLIP Virtual Workshop, Observing & Modeling Climate Variability in the Intra-Americas Seas & Impacts on the Continental Americas & the Caribbean, September 9-11, 2015 (**poster**).

“Representation of Central American Midsummer Drought in Climate Models.” Center for Ocean-Atmospheric Prediction Studies Monthly Short Seminar Series, Tallahassee, FL, September 8, 2014 (**presentation**).

“Study of Cloud Properties with Different Shear and CAPE Environments using 2D WRF Idealized Simulations,” 10th Annual WRF Users’ Workshop, Boulder, CO, June 2009 (**poster**).

“Study of Convective Clouds in Different Regions using 2-D WRF Model,” FORMOSAT-3/COSMIC Workshop, Taipei, Taiwan, October 2008 (**poster and presentation**).

MEMBERSHIPS

- FSU Fellows Society (2016-present)
- Chi Epsilon Pi, Meteorology Honors Society (2014-present)
 - President-Elect 2015-2016
- American Geophysical Union (2007-present)

Danielle Groenen

- American Meteorological Society (2007-present)
- American Association of Physics Teachers (2010-2013)
- National Science Teachers Association (2012-2013)
- Institute of Physics, UK (2003-2006)

HONORS, AWARDS AND CERTIFICATES

- Accepted into the inaugural Yale School of Public Health's Climate Change and Health Certificate program (18-week, online program from Sep 2018-Jan 2019)
- NASA Earth and Space Science Fellow (NESSF), 2015-2018
 - Project Title: *Mid-Summer Droughts Amidst Landfalling Tropical Cyclones and Atmospheric Rivers*
- 1 out of 26 students selected to participate in the 2017 NASA/JPL Center for Climate Sciences (CCS) Summer School in Pasadena, CA on August 21-25, 2017. Theme of the school was "Using Satellite Observations to Advance Climate Models."
- Earned 2013 Program for Instructional Excellence (PIE) Certificate
- Professional Teaching Certification in Florida covering Physics (6-12) (valid from 2010-2017)
- 1 out of 20 students accepted worldwide for a 2.5-week workshop for the Intensive Summer School of Computing in Environmental Sciences (ISSCENS) at the University of Virginia in Summer 2014

TEACHING EXPERIENCE

Teaching Assistant, Young Scholars Program June-July 2018
Helped plan lessons, grade problem sets, and taught several classes for the Physics of the 20th and 21st Centuries summer class (19 students) at Florida State University

Instructor, Florida State University, Tallahassee, FL Aug 2013-April 2014
Introduction to the Atmosphere lecture section (42 students) in Fall 2013
Introductory Meteorology lab section (23 students) in Spring 2014

Outreach Specialist, Deep-C Consortium, Tallahassee, FL Aug 2013-Mar 2014
Developed curriculum for brand new citizen science initiative called Project GOO (Gulf Oil Observers), and implemented lessons in the high school classroom to teach students how to look for oil patties along Gulf beaches, in collaboration with Woods Hole Oceanographic Institution (WHOI)

Physics Teacher, Academy of the Holy Names, Tampa, FL Aug 2011-June 2013
1 class of Physics Honors at 9th grade level
4 classes of Physics College Prep at 9th grade level

Physics Teacher, Howard W. Blake High School, Tampa, FL Aug 2010-June 2011
3 classes of Physical Science at 10th grade level
2 classes of Physics Honors at 11th and 12th grade levels
1 class of AP Physics B at 11th and 12th grade levels

Danielle Groenen

Math and Physics Tutor

Nov 2009-Dec 2012

Private tutor for junior high, high school and college students in Geometry, Algebra I and II, Trigonometry, SAT Math, and Physics

Teaching Assistant, U.C. Davis, CA

Jan-March 2009

Global Climate Change lecture section (100 students)

- Graded weekly quizzes and exams, held office hours

LEADERSHIP AND MANAGEMENT EXPERIENCE

Founder and Facilitator of the Tallahassee F2F Networking Group 2015-2016

Young Survival Coalition (YSC)

- Organized and led monthly support group meetings
- Attended regional and national conferences
- Participated in cancer related community events in Tallahassee, Florida

Facilitator of Science Professional Learning Community (PLC) 2012-2013

Academy of the Holy Names

- Led weekly meetings for science team (8 people)
- Attended professional development opportunities for leadership training

Freshmen Class Coordinator

Academy of the Holy Names

2012-2013

- Organized two lunches for freshmen class
- Coordinated freshmen class meetings

Climate Change Public Outreach and Education Student Rep

2008-2009

University of California, Davis

- Organized, coordinated and managed a team of 15 people for an interactive presentation and exhibits for the Atmospheric Science Department during UC Davis Picnic Day 2008 and 2009
- Led science demonstrations and represented UC Davis at several climate change conferences

SELECTION OF PARTICIPATION IN OUTREACH EVENTS

- OASIS Summer Camp for Girls: “Girls Can Do Anything” on July 27, 2017
- Ladies Learning to Lead (L3) Leadership Conference: S.T.E.A.M & Entrepreneurship Mentor Breakfast on May 20, 2017
- Tallahassee March for Science on April 22, 2017
- Prospective Grad Students Visit at FSU on February 24-25, 2017
- Science Saturday at Lake Ella on September 10, 2016
- NASA Science Booth at the FSU/COAPS Open House on February 26, 2016

SERVICE

Mentor2.0, Big Brothers Big Sisters of the Big Bend, Tallahassee, FL 2015-2018

Danielle Groenen

- Mentor to a high school senior at Godby High School, which involved monitoring her progress in school, helping her apply to colleges, and meeting face to face twice a month

Junior Women's Club of Midtown, Tallahassee, FL 2014-2018

- Volunteer at community events such as Big Brothers Big Sisters Trunk or Treat, Wig Out Social for Wigs For Kids, Tulip Trot 5K, Tallahassee Animal Services, and Crawl for a Cause

Junior League of Tallahassee, Tallahassee, FL 2013-2014

- Served on the Boys and Girls Club Family Night Committee, which feeds club families twice a month in an interactive, family friendly night

Junior League of Tampa, Tampa, FL 2011-2013

- Served on the Food 4 Kids Committee, which works with Feeding America to provide food for low-income families on the weekends
- Won "Active of the Month" award in November 2012

National Weather Service, Tampa Bay, FL Jan-April 2010

- Volunteered at Open House Event, Teach the Teachers: Weather and Climate Forecasting Workshop and the P3 Hurricane Awareness Tour
- Assisted Science Officer in research related to smoke-fog and tornadoes

Research Writer, U.C., Office of the President, Oakland, CA June-Sept 2009

- Participated in the start-up portal website on climate change, UCverse

ClimateChangeEducation.Org, Oakland, CA 2008-2009

- Edited and volunteered for the portal website on climate change education
- Helped communicate climate change to students and the public, through an online community of researchers and numerous climate change organizations

SKILLS

- Proficient in Microsoft Word, PowerPoint, and Excel
- Proficient in the following programming languages: Python, Fortran, Matlab, GrADS, R Studio
- Social media literate:
 - Twitter: @CC_Danielle and @danigroenen; Instagram: @daniellegroenen
 - Facebook: <https://www.facebook.com/degroenen>
- Proficient in writing and editing scientific papers and extensive public speaking experience
- Fluent in English; Basic knowledge of French, Spanish, and Dutch