## STEPHANIE E. ZICK

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DEPARTMENT OF GEOGRAPHY UNIVERSITY OF FLORIDA 3141 TURLINGTON HALL GAINESVILLE, FL 32611

#### **WORK EXPERIENCE**

## The University of Florida, Gainesville, FL

Graduate Teaching and Research Assistant

Aug 2012—present

- <u>Research Experience</u>: As a graduate research assistant under Ph.D. advisor Dr. Corene Matyas, I am applying spatial analysis techniques to improve understanding of the evolving moisture budgets and precipitation structures in landfalling tropical cyclones, using NEXRAD level III radar data, National Center for Environmental Prediction (NCEP) North American Regional Reanalysis (NARR) data, and NASA's TRMM Multi-satellite Precipitation Analysis (TMPA).
- Teaching Experience:
  - Summer 2014: Instructor for GEO 2242 Extreme Weather
  - Spring 2013: Distance Learning Instructor for GEO 2200 Physical Geography
- Fall 2012: Distance Learning Teaching Assistant for GEO 2200 Physical Geography

## The Johns Hopkins University, Baltimore, MD

May 2014—present

Visiting Graduate Student

# **Silver Stars Gymnastics,** Silver Spring, MD **Santa Cruz Gymnastics Center**, Santa Cruz, CA

Sep 2011—Nov 2011

Sep 2010—Nov 2001

Gymnastics Instructor

- Developed gymnastics conditioning and training regimens for individual and team success
- Mentored gymnasts, ages preschool through adolescence, in building and achieving goals

## Naval Postgraduate School, Monterey, CA

July 2008—April 2010

Research Associate

- Led a team of scientists and graduate students in creating and presenting daily weather briefings during TPARC/TCS08, a field campaign designed to investigate the tropical cyclone throughout its life cycle.
- Evaluated and verified output from the COAMPS-TC tropical cyclone forecasting model for development and improvement of model for public release
- Analyzed tropical cyclone tracking models, including THORPEX Interactive Grand Global Ensemble (TIGGE) data and European Center (ECMWF) 32-day ensemble tropical cyclone tracks
- Advised and facilitated graduate students in completing thesis research projects, including in-depth analyses of convection and wind fields in Typhoon Nuri (2008) using COAMPS-TC.

## Penn State University, State College, PA

Sep 2005—July 2008

Graduate Research Assistant

■ Identified that low-level vorticity and vertical wind shear associated with the Madden Julian Oscillation (MJO) strongly affected genesis location and intensification of simulated tropical cyclones using the Weather Research and Forecasting (WRF) Model

## Rutgers University, New Brunswick, NJ

June 2004—May 2005

Research Assistant

■ Diagnosed the relative importance of latent heat flux in contributing to ice sheet mass balances using climate model output from present day and doubled CO<sub>2</sub> atmospheres

#### **EDUCATION**

University of Florida, Gainesville, FL

Ph.D. Candidate, Department of Geography, GPA 4.00

Advisor: Dr. Corene Matyas

<u>Dissertation:</u> Geometric Analysis of Moisture Budgets and Precipitation Structures in U.S. Landfalling Tropical Cyclones

Pennsylvania State University, University Park, PA

M.S. Meteorology, GPA 3.58

January 2008

<u>Thesis</u>: Effects of the Madden-Julian Oscillation on the Cyclogeneses of Hurricane Fausto (2002) and Hurricane Emily (2005)

Cook College, Rutgers-The State University of NJ, New Brunswick, NJ

B.S., Meteorology, Minor in Mathematics,

May 2005

GPA 3.859, Summa Cum Laude

Thesis: Analysis of CO<sub>2</sub>-Induced Changes in Ice Sheet Mass Balance in a Global Climate Model

#### **PUBLICATIONS**

- **Zick, S. E.,** and C. J. Matyas. Geometries of Moisture Budgets in U.S. Landfalling Hurricanes and Implications for Rainfall. (Manuscript in preparation).
- **Zick, S. E.,** and C. J. Matyas. Tropical Cyclones in the North American Regional Reanalysis: The Impact of Satellite-derived Precipitation Over-Ocean. (Manuscript in preparation).
- **Zick, S. E.,** and C. J. Matyas, 2015: Tropical Cyclones in the North American Regional Reanalysis: An Assessment of Spatial Biases in Location, Intensity, and Structure. *Journal of Geophysical Research-Atmospheres*. (Manuscript in review).
- Chen, Y., **S. E. Zick**, and A.R. Benjamin, 2015: A Comprehensive, Cartographic Approach to Visualization of an Evacuation Map for Hurricane Ike in Galveston County, TX. *Cartography and Geographic Information Science*. (Manuscript accepted).
- **Zick, S. E.**, 2008: Effects of the Madden-Julian Oscillation on the Cyclogenesis of Hurricanes Emily (2005) and Fausto (2002). *Masters Thesis, Penn State University*. University Park, PA, 103 pp.
- **Zick, S. E.,** 2005: Analysis of CO<sub>2</sub>-Induced Changes in Ice Sheet Mass Balance in a Global Climate Model. *Undergraduate Honors Thesis, Rutgers University.* New Brunswick, NJ, 62 pp.

#### POSTERS AND PRESENTATIONS

2014 SOUTHEAST DIVISION OF THE AMERICAN ASSOCIATION OF GEOGRAPHERS (SEDAAG).

Zick, Stephanie E., and C. J. Matyas.

PAPER: Geometries of Moisture Budgets in US Landfalling Tropical Cyclones & Implications for Rainfall. Athens, GA, November 2014.

INTERNATIONAL CONFERENCE ON MESOSCALE METEOROLOGY AND TROPICAL CYCLONES-X (ICMCS-X). **Zick, Stephanie E.,** and C. J. Matyas.

PAPER: Moisture Budgets in US Landfalling Tropical Cyclones & Implications for Rainfall. Boulder, CO, September 2014.

JOHNS HOPKINS UNIVERSITY, EARTH AND PLANETARY SCIENCES, DARRYN WAUGH GROUP MEETING.

Zick, Stephanie E., and C. J. Matyas.

PRESENTATION: *Moisture Budgets in US Landfalling Tropical Cyclones & Implications for Rainfall.* Baltimore, MD, April 2014.

2014 ASSOCIATION OF AMERICAN GEOGRAPHERS (AAG) ANNUAL MEETING.

Zick, Stephanie E., and C. J. Matyas.

PAPER: Moisture Budgets in US Landfalling Tropical Cyclones & Implications for Rainfall. Tampa, FL, April 2014.

31st CONFERENCE ON HURRICANES AND TROPICAL METEOROLOGY

Zick, Stephanie E., and C. J. Matyas.

POSTER: Assessment of Tropical Cyclone Kinematic and Thermodynamic Structures in the North American Regional Reanalysis.

San Diego, CA, March 2014.

2014 AMERICAN METEOROLOGICAL SOCIETY (AMS) ANNUAL MEETING.

Zick, Stephanie E., and C. J. Matyas.

POSTER: Assessment of Tropical Cyclone Moisture and Thermodynamic Budgets in the North American Regional Reanalysis.

Atlanta, GA, February 2014.

2013 SOUTHEAST DIVISION OF THE AMERICAN ASSOCIATION OF GEOGRAPHERS (SEDAAG).

Zick, Stephanie E., and C. J. Matyas.

PAPER: Assessment of Tropical Cyclone Moisture Budgets in the North American Regional Reananlysis. Roanoke, VA, November 2013.

UNIVERSITY OF FLORIDA DEPARTMENT OF GEOGRAPHY FALL 2013 COLLOQUIUM.

Waylen, P. R., S. E. Zick, J. Steele, and D. Nekorchuk,

PRESENTATION: "4G or not 4G? Geography's Bold Leap Into the Next Frontier: Online Learning." Gainesville, FL, October 2013.

2013 ASSOCIATION OF AMERICAN GEOGRAPHERS (AAG) ANNUAL MEETING.

Zick, Stephanie E., and C. J. Matyas.

PAPER: Thermodynamic Predictors of Rainfall in a Landfalling Tropical Cyclone.

Los Angeles, CA, April 2013.

2012 SOUTHEAST DIVISION OF THE AMERICAN ASSOCIATION OF GEOGRAPHERS (SEDAAG).

#### Zick, Stephanie E.

PAPER: Effects of the Madden-Julian Oscillation on the Cyclogenesis of Hurricane Fausto (2002). Asheville, NC, November 2012.

28<sup>TH</sup> CONFERENCE ON HURRICANES AND TROPICAL METEOROLOGY.

## Zick, Stephanie E., and W. M. Frank.

PAPER: Effects of the Madden Julian Oscilation on the Cyclogeneses of Hurricane Fausto (2002) and Hurricane Emily (2005).

Orlando, FL, May 2008.

3<sup>RD</sup> NORTHEAST TROPICAL WORKSHOP.

### Zick, Stephanie E.

PAPER: Effects of the Madden Julian Oscilation on the Cyclogeneses of Hurricane Fausto (2002) and Hurricane Emily (2005).

Dedham, MA, June 2007.

### GEORGE H. COOK POSTER CONTEST AND COLLOQUIUM

### Zick, Stephanie E., and A. J. Broccoli.

POSTER: Analysis of Greenland Ice Mass Budgets in a Doubled CO<sub>2</sub> Global Climate Model.

New Brunswick, NJ, April 2005.

#### **MEMBERSHIPS**

American Meteorological Society (AMS)	2003—present
Association of American Geographers (AAG)	2012—present
Southeast Division of the AAG (SEDAAG)	2012—present
Florida Climate Institute	2012—present
Association for Women in Sciences (AWIS)	2012—present
UF Women in Science and Engineering (WiSE)	2012—present
Chi Epsilon Pi National Meteorology Honors Society	2005—present
Chi Alpha Sigma National College Athlete Honors Society	2005—present

#### **AWARDS**

Ryan Poehling Fellowship, UF Department of Geography	2014
<ul> <li>Land Use and Environmental Change Institute (LUECI) Travel Grant</li> </ul>	Spring 2014
American Meteorological Society Radar Conference Student Travel Grant	Sept 2013
<ul> <li>Land Use and Environmental Change Institute (LUECI) Travel Grant</li> </ul>	Spring 2013
UF Graduate Student Council Travel Grant	2013, 2014
AMS Industry/Government Graduate Fellowship, NOAA Office of Global Programs	2005—2006
Rutgers Athletic Director's Excellence Award	2005
• USA Gymnastics Collegiate All-American, Uneven Bars and Floor Exercise	2005
Academic All-American, Rutgers University Women's Gymnastics	2001—2005

#### **SERVICE** • UF Geography Department Graduate Student Representative 2013-2014 Florida Museum of Natural History 2012—present Special Events Volunteer 2012—present School Programs Docent 2014—present University of Florida Women in Science and Engineering (WiSE) 2012—present 2013-2014 Webmaster & Graphics/Social Media President 2014—present Rutgers Gymnastics Alumni Executive Board 2013—present Science Fair Judge, Alachua County Public Schools 2012—present 2012-2013 · Conversation Partner, The English Language Institute at UF 2012-2013 • "Blue Crew" Volunteer, Smithsonian National Air and Space Museum • Forecaster, THORPEX Pacific-Asian Regional Campaign, Naval Postgraduate School 2008 · Coordinator, Monterey Operations Center Driftsonde Launch Center, 2008 THORPEX Pacific-Asian Regional Campaign, Naval Postgraduate School 2006-2008 Orientation Committee Head, Penn State Meteorology Graduate Activities Council 2005-2007 • Tutor, Chi Epsilon Pi National Meteorology Honors Society 2003-2005 • Producer/Anchor, Rutgers TV Weather Watcher Program · Rutgers Division I Women's Gymnastics 2001-2005 Co-captain 2005 Most Valuable Gymnast 2004 Scholar Athlete Award 2002-2003 Cook College Student Orientation Ambassadors 2001-2005 **Publicity Chair** 2003 Cook College Program and Activities Council 2002-2005