

STEPHANIE E. ZICK

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PROFESSIONAL EXPERIENCE

- 2016- **Virginia Polytechnic Institute and State University**, Blacksburg, VA
Assistant Professor, Department of Geography
- 2014-2016 **Johns Hopkins University**, Baltimore, MD
Visiting Graduate Student, Department of Earth and Planetary Sciences
- 2012-2016 **University of Florida**, Gainesville, FL
Graduate Teaching and Research Assistant, Department of Geography
- 2008-2010 **Naval Postgraduate School**, Monterey, CA
Research Associate, Department of Meteorology
- 2005-2008 **Pennsylvania State University**, University Park, PA
Graduate Research Assistant, Department of Meteorology
- 2004-2005 **Rutgers University**, New Brunswick, NJ
Research Assistant, Department of Environmental Sciences

EDUCATION

- 2016 **University of Florida**, Gainesville, FL
Ph.D. Geography, GPA 4.00
Certificate in Applied Atmospheric Sciences
Advisor: Corene J. Matyas
Dissertation: An Assessment of Tropical Cyclone Representation in a Regional Reanalysis and a Shape Metric Methodology for Studying the Evolving Precipitation Structure Prior to and During Landfall
- 2008 **Pennsylvania State University**, University Park, PA
M.S. Meteorology, GPA 3.58
Advisor: William M. Frank
Thesis: Effects of the Madden-Julian Oscillation on the Cyclogenesis of Hurricane Fausto (2002) and Hurricane Emily (2005)
- 2005 **Cook College, Rutgers-The State University of NJ**, New Brunswick, NJ
B.S. Meteorology, GPA 3.86, *Summa Cum Laude*
Minor in Mathematics
Advisor: Anthony J. Broccoli
Thesis: Analysis of CO₂-Induced Changes in Ice Sheet Mass Balance in a Global Climate Model

GRANTS & FELLOWSHIPS

| | | |
|-----------|--|---|
| 2020-2022 | Matyas, C. (PI), Wood, K. (Co-PI) and S. E. Zick (Co-PI) . NASA-ROSES: Three-dimensional assessment of mature tropical cyclone structural evolution during landfall and in varying moisture environments using GPM measurements | \$426,521 submitted (extramural) |
| 2018-2019 | Foroutan, H. (PI) and S. E. Zick (Co-PI) . NOAA: “Wall-Function” Approach to Represent Air-Sea Interactions in Tropical Cyclone Forecast Models | \$361,172 not funded (extramural) |
| 2017-2018 | Zick, S. E. (PI), W. Carstensen (CO-PI), and D. Carroll (Co-PI) NOAA: Verification of the Origins of Rotation in Tornadoes Experiment– Southeast (VORTEX-SE) <i>Shape analysis of low-level structural evolution in tornadic versus non-tornadic supercells and quasi-linear convective systems</i> | \$300,000 not funded (extramural) |
| 2017-2018 | Zick, S. E. Virginia Tech Mentoring Program for New Faculty Members <i>Building Regional Mentoring Relationships and Collaborative Partnerships toward Developing a Collaborative Science, Technology, and Applied Research (CSTAR) funding proposal</i> | \$1,500 AWARDED (intramural) |
| 2015-2016 | Zick, S. E. (Co-PI) and C. J. Matyas (PI) Society of Woman Geographers (SWG) Pruitt Dissertation Fellowship: <i>Geometric Analysis of Moisture Budgets and Precipitation Structures in U.S. Landfalling Hurricanes</i> | \$8,479 AWARDED (extramural) |
| 2015 | Ryan Poehling Fellowship, University of Florida Department of Geography | \$1,500 |
| 2014 | International Conference on Mesoscale Convective Systems-X (ICMCS-X) Student Travel Grant | \$700 |
| 2013-2015 | Travel grants through University of Florida College of Liberal Arts and Sciences (2x) & Graduate Student Council (3x) | \$300-350 each |
| 2013 | American Meteorological Society 37 th Conference on Radar Meteorology Student Travel Grant | travel expenses |
| 2005-2006 | American Meteorological Society (AMS) Industry/Government Graduate Fellowship, funded by the NOAA Office of Global Programs | tuition, stipend, and travel |

REFEREED PUBLICATIONS

Matyas, C. J., **S. E. Zick**, and J. Tang, 2018: Using an Object-Based Approach to Quantify the Spatial Structure of Reflectivity Regions in Hurricane Isabel (2003). Part I: Comparisons between Radar Observations and Model Simulations. *Mon. Wea. Rev.*, **146**, 1319–1340, doi:[10.1175/MWR-D-17-0077.1](https://doi.org/10.1175/MWR-D-17-0077.1).

- Zick, S. E.**, and C. J. Matyas, 2016: A Shape Metric Methodology for Studying the Evolving Geometries of Synoptic-Scale Precipitation in Tropical Cyclones, *Annals of the American Association of Geographers*, doi: [10.1080/24694452.2016.1206460](https://doi.org/10.1080/24694452.2016.1206460).
- Chen, Y., **S. E. Zick**, and A.R. Benjamin, 2016: A Comprehensive, Cartographic Approach to Visualization of an Evacuation Map for Hurricane Ike in Galveston County, TX. *Cartography and Geographic Information Science*, doi: [10.1080/15230406.2015.1014426](https://doi.org/10.1080/15230406.2015.1014426).
- Zick, S. E.**, and C. J. Matyas. Tropical Cyclones in the North American Regional Reanalysis: The Impact of Satellite-derived Precipitation Over-Ocean, *Journal of Geophysical Research-Atmospheres*, 120, doi: [10.1002/2015JD023722](https://doi.org/10.1002/2015JD023722).
- 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*, 120: 1651–1669. doi: [10.1002/2014JD022417](https://doi.org/10.1002/2014JD022417).

MANUSCRIPTS IN PREPARATION OR UNDER REVIEW

- Zick, S. E.**, C. J. Matyas, G. L. Lackmann, and J. Tang. Using an Object-Based Approach to Quantify the Spatial Structure of Reflectivity Regions in Hurricane Isabel (2003): Part II: The Influence of Cumulus Parameterization, *Monthly Weather Review* (in revision).
- Elkhouly, M, A. Hoegh, **S. E. Zick**, and M. A. R. Ferreira. Increased atmospheric instability and changes in tornado risk, *Journal of Climate* (in review).
- Zick, S. E.** Measuring Extreme Precipitation Forecasting Skill in High Resolution Models Using Spatial Patterns: A Case Study of the 2016 and 2018 Ellicott City Floods, *Anthropocene* (in review).
- Zick, S. E.** and C. J. Matyas. Environmental Conditions Associated with Evolving Synoptic-Scale Precipitation Patterns in U.S. Landfalling Tropical Cyclones. (in preparation).

CONFERENCE PROCEEDINGS

- Zick, S. E.**, and C. J. Matyas, 2015. Evolving Geometries in the Moisture Budgets and Precipitation Structures of US Gulf Coast Landfalling Hurricanes. *96th American Meteorological Society Annual Meeting*, New Orleans, LA, January 2016. [Available online from AMS](#).
- Matyas, C. J., J. Tang, I. Comstock, and **S. E. Zick**, 2015. A Spatial Analysis of Hurricane Katrina's Outer Rainbands prior to Landfall in Louisiana. *96th American Meteorological Society Annual Meeting*, New Orleans, LA, January 2016. [Available online from AMS](#).
- Matyas, C. J., J. Tang, and **S. E. Zick**, 2015: Performing spatial analysis on tropical cyclone rainband structures after creating a 3D Mosaic of WSR-88D reflectivity data using a map-reduce framework and a Geographic Information System (GIS). *AMS 37th Conference on Radar Meteorology*, Norman, OK, September 2015. [Available online from AMS](#).
- Zick, S. E.**, and W. M. Frank, 2008: Effects of the Madden-Julian Oscillation on the Cyclogenesis of Hurricane Fausto (2002) and Hurricane Emily (2005). *AMS 28th Conference on Hurricanes and Tropical Meteorology*, Orlando, FL, May 2008. [Available online from AMS](#).

DISSERTATIONS AND THESES

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. [eTD available online from PSU](#).

Zick, S. E., 2005: Analysis of CO₂-Induced Changes in Ice Sheet Mass Balance in a Global Climate Model. *Undergraduate Honors Thesis, Rutgers University*. New Brunswick, NJ, 62 pp.

INVITED PRESENTATIONS

Monthly Webinar Series, Society of Women Geographers

Zick Stephanie E.

Anatomy of a Storm: Fusing Form and Function in Weather Research and Forecasting.
Washington, DC, June 2018.

Departmental Seminar, North Carolina State University, Department of Marine, Earth and Atmospheric Sciences

Zick, Stephanie E.

Anatomy of a Storm: Fusing Form and Function in Weather Research and Forecasting
Raleigh, NC, March 2018.

Departmental Colloquium, University of Virginia, Department of Environmental Sciences

Zick, Stephanie E.

Anatomy of a Storm: Fusing Form and Function in Weather Research and Forecasting
Charlottesville, VA, March 2017.

CNRE Briefing Day, College of Natural Resources and Environment, Virginia Tech

Zick, Stephanie E.

Anatomy of a Storm: Fusing Form and Function in Weather Research and Forecasting
Blacksburg, VA, January 2017.

CONFERENCE TALKS

33rd CONFERENCE ON HURRICANES AND TROPICAL METEOROLOGY

Zick, Stephanie E., C. J. Matyas, G. M. Lackmann, and J. Tang

Using an Object-Based Approach to Quantify the Influence of Cumulus Parameterization in the Spatial Structure of Precipitation in Hurricane Isabel (2003)

Ponte Vedra, FL, April 2018.

33rd CONFERENCE ON HURRICANES AND TROPICAL METEOROLOGY

Matyas, Corene J., J. Tang, and **S. E. Zick**

Spatial Metrics that Facilitate the Comparison of Radar Reflectivity Values within Landfalling Tropical Cyclones

Ponte Vedra, FL, April 2018.

2018 AMERICAN ASSOCIATION OF GEOGRAPHERS (AAG) ANNUAL MEETING

Zick, Stephanie E.

Rain or No Rain: Evaluation of Thresholds for Defining Rainfall Regions in Object-Based Precipitation Verification Methods.

New Orleans, LA, April 2018

2017 SOUTHEAST DIVISION OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS.

Zick, Stephanie E.

Rain or No Rain: Evaluation of Thresholds for Defining Rainfall Regions in Object-Based Precipitation Verification Methods.

Starkville, MS, November 2017.

2017 AMERICAN ASSOCIATION OF GEOGRAPHERS (AAG) ANNUAL MEETING

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

A Global Study of Synoptic-Scale Changes in Tropical Cyclone Structure and the Relationship to Large-Scale Moisture

Boston, MA, April 2017.

32nd CONFERENCE ON HURRICANES AND TROPICAL METEOROLOGY

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

Evolving Synoptic-Scale Precipitation Patterns in U.S. Landfalling Tropical Cyclones.

San Juan, PR, April 2016.

32nd CONFERENCE ON HURRICANES AND TROPICAL METEOROLOGY

Matyas, C. J., **S. E. Zick**, and J. Tang

Using Shape Metrics to Compare Observed and Simulated Reflectivity During the Landfall of Hurricane Isabel (2003).

San Juan, PR, April 2016.

2016 AMERICAN ASSOCIATION OF GEOGRAPHERS (AAG) ANNUAL MEETING

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

Environmental Conditions Associated with Evolving Tropical Cyclone Synoptic-Scale Precipitation Structure in the Gulf of Mexico Region.

San Francisco, CA, April 2016.

3rd place in Climate Specialty Group student paper competition

2015 SOUTHEAST DIVISION OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS (SEDAAG).

Zick, Stephanie E.

Application of a Shape Analysis Methodology for Quantifying the Evolving Structure of Landfalling Tropical Cyclones Based on Large-Scale Moisture Availability: A Comparison of Landfalls in Florida versus other Gulf Coast States.

Pensacola, FL, November 2015.

2015 ASSOCIATION OF AMERICAN GEOGRAPHERS (AAG) ANNUAL MEETING

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

Geometries of Moisture Budgets in Major Landfalling Hurricanes and Implications for Rainfall.

Chicago, IL, April 2015

3rd place in Climate Specialty Group student paper competition

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

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

Geometries of Moisture Budgets in US Landfalling Tropical Cyclones and 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.

Moisture Budgets in US Landfalling Tropical Cyclones and Implications for Rainfall.

Boulder, CO, September 2014.

2014 ASSOCIATION OF AMERICAN GEOGRAPHERS (AAG) ANNUAL MEETING.

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

Moisture Budgets in US Landfalling Tropical Cyclones and Implications for Rainfall.

Tampa, FL, April 2014.

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

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

Assessment of Tropical Cyclone Moisture Budgets in the North American Regional Reanalysis.

Roanoke, VA, November 2013.

UNIVERSITY OF FLORIDA DEPARTMENT OF GEOGRAPHY FALL 2013 COLLOQUIUM.

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

"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.

Thermodynamic Predictors of Rainfall in a Landfalling Tropical Cyclone.

Los Angeles, CA, April 2013.

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

Zick, Stephanie E.

Effects of the Madden-Julian Oscillation on the Cyclogenesis of Hurricane Fausto (2002).

Asheville, NC, November 2012.

28TH CONFERENCE ON HURRICANES AND TROPICAL METEOROLOGY.

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

Effects of the Madden Julian Oscillation on the Cyclogenesis of Hurricane Fausto (2002) and Hurricane Emily (2005).

Orlando, FL, May 2008.

3RD NORTHEAST TROPICAL WORKSHOP.

Zick, Stephanie E.

Effects of the Madden Julian Oscillation on the Cyclogenesis of Hurricanes Fausto (2002) and Emily (2005).

Dedham, MA, June 2007.

PANELS

2018 ASSOCIATION OF AMERICAN GEOGRAPHERS (AAG) ANNUAL MEETING

Josie Wittmer, University of Guelph; A. Marie Ranjbar, Ohio State University; **Stephanie Zick, Virginia Tech**
Panelists for Society of Woman Geographers Fellowship Recipients I

New Orleans, LA, April 2018.

2017 SOUTHEAST DIVISION OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS

Jennifer Collins, University of South Florida; Kelsey Ellis, University of Tennessee, Knoxville; Corene Matyas,
University of Florida; **Stephanie Zick, Virginia Tech**

Special Session: Hurricanes in 2017 – a new normal?

Starkville, MS, November 2017.

POSTERS

33rd CONFERENCE ON HURRICANES AND TROPICAL METEOROLOGY

Kirkland, Jessica* **and S. E. Zick**

Changes in the Spatial Patterns of Precipitation Bands in Tropical Cyclones During Landfall along the Gulf of Mexico and Atlantic Coasts of the United States

Ponte Vedra, FL, April 2018.

33rd CONFERENCE ON HURRICANES AND TROPICAL METEOROLOGY

Updike, Aaron* **and S. E. Zick**

A Modeling Study of the Principal Rainband in Hurricane Matthew (2016) during Its Intensification in the Caribbean

Ponte Vedra, FL, April 2018.

2017 SOUTHEAST DIVISION OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS

Kirkland, Jessica* **and S. E. Zick**

Changes in the Spatial Patterns of Precipitation Bands in Tropical Cyclones During Landfall along the Gulf of Mexico and Atlantic Coasts of the United States

Starkville, MS, November 2017.

38th CONFERENCE ON RADAR METEOROLOGY

Matyas, C. J., J. Tang, and **S. E. Zick**

Changes in the Radial and Tangential Distribution of Radar Reflectivity During Tropical Cyclone Landfalls Over the United States.

Chicago, IL, September 2017.

97th AMERICAN METEOROLOGICAL SOCIETY (AMS) ANNUAL MEETING.

Zick, Stephanie E.

A Global Study of Synoptic-Scale Changes in Tropical Cyclone Structure and the Relationship to Large-Scale Moisture.

Seattle, WA, January 2017.

2016 SOUTHEAST DIVISION OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS

Zick, Stephanie E.

Evaluation of an Autometric Methodology for Delineating the Binary Shape of Tropical Cyclone Precipitation Patterns

Columbia, SC, November 2016.

5th UF WATER INSTITUTE SYMPOSIUM

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

Evolving Geometries in the Precipitation Patterns of 2004-2012 US Landfalling Hurricanes.

Gainesville, FL, February 2016.

Best Student Poster Award Winner

96th AMERICAN METEOROLOGICAL SOCIETY (AMS) ANNUAL MEETING.

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

Evolving Geometries in the Precipitation Patterns of 2004-2012 US Landfalling Hurricanes.

New Orleans, LA, January 2016.

96th AMERICAN METEOROLOGICAL SOCIETY (AMS) ANNUAL MEETING.

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

Tropical Cyclones in the North American Regional Reanalysis: The Impact of Satellite-derived Precipitation Over-Ocean

New Orleans, LA, January 2016.

37th CONFERENCE ON RADAR METEOROLOGY

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

Tropical Cyclones in the North American Regional Reanalysis: The Impact of Satellite-derived Precipitation Over-Ocean

Norman, OK, September 2015.

37th CONFERENCE ON RADAR METEOROLOGY

C. J. Matyas, J. Tang, and **S. E. Zick**

Performing spatial analysis on tropical cyclone rainband structures after creating a 3D Mosaic of WSR-88D reflectivity data using a map-reduce framework and a Geographic Information System (GIS)

Norman, OK, September 2015.

31st CONFERENCE ON HURRICANES AND TROPICAL METEOROLOGY

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

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

San Diego, CA, March 2014.

94th AMERICAN METEOROLOGICAL SOCIETY (AMS) ANNUAL MEETING.

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

Assessment of Tropical Cyclone Moisture Budgets and Thermodynamics in the North American Regional Reanalysis.

Atlanta, GA, February 2014.

GEORGE H. COOK POSTER CONTEST AND COLLOQUIUM

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

Analysis of Greenland Ice Mass Budgets in a Doubled CO₂ Global Climate Model.

New Brunswick, NJ, April 2005.

* **indicates an advisee**

WORKSHOPS ATTENDED

- 2018 Virginia Tech Proposal Development Institute
- 2017 Geography Faculty Development Alliance (GFDA) workshop
- 2017 NSF CAREER Proposal Writing Workshop
- 2016 ARC: Introduction to Python for Scientific Computing
- 2016 ARC: Parallel Matlab Workshop
- 2016 NAGT/SERC Early Career Workshop for Geoscience Faculty
- 2015 Global Precipitation Mission (GPM) Applications Workshop, *College Park, MD.*
- 2015 Tropical Cyclone Research Forum/69th Interdepartmental Hurricane Conference (*attended virtually*)
- 2007 3rd Northeast Tropical Workshop, *Dedham, MA.*

TEACHING EXPERIENCE

GEOG 1514 Introduction to Meteorology (Fall 2016)
GEOG 4984/5984: Tropical Meteorology (Spring 2017, Fall 2018)
GEOG 4504 Synoptic Meteorology (Fall 2017, Fall 2018)
MTRG 4994 Undergraduate Research: Applied Atmospheric Studies (Fall 2017)
GEOG 4515 Physical Meteorology (Spring 2018)

STUDENTS ADVISED

2018- Mohamed El Khoully, Ph.D. Statistics, committee member
2017- **Aaron Updike**, M.S. Geography, primary advisor
2017- Stephen Walsh, M.S. Statistic, co-advisor
2017- Omchand Mahdu, Ph.D. Planning, Governance and Globalization, committee member
2016-2018 **Jessica Kirkland**, M.S. Geography, primary advisor
2016-2017 Jessica Suggs, M.S. Geography, committee member

* **primary advisor for students in bold**

AWARDS

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|------------|--|------------|
| 2016 | 5 th UF Water Institute Symposium Best Student Poster Award | \$1,000 |
| 2015, 2016 | 3 rd Place, Association of American Geographers (AAG) Climate Specialty Group Student Paper Competition | \$100 |
| 2013, 2014 | Land Use and Environmental Change Institute (LUECI) Travel Grant | \$300 each |
| 2013 | 1 st Place, American Society for Photogrammetry and Remote Sensing (ASPRS)/Cartography and Geographic Information Science (CaGIS) Student Map Competition | N/A |
| 2004-2005 | Rutgers Athletic Director's Excellence Award | N/A |

SERVICE

- **Reviewer:**
 - Atmosphere* 2017—
 - Journal of Hydrometeorology* 2017—
 - Geophysical Research Letters* 2016—
 - Quarterly Journal of the Royal Meteorological Society (QJRMS)* 2016—
 - Natural Hazards* 2016—
 - Journal of Geophysical Research-Atmospheres* 2014—
- **Departmental Service: Inclusive VT Department Representative** 2018—
- **Departmental Service: Graduate Committee** 2018—
- **Student Poster Judge, 33rd Conference on Hurricanes and Tropical Meteorology** 2018
- **Student Paper Competition Judge, Climate Specialty Group, 2018 AAG Annual Meeting** 2018

- **Session Chair and Organizer, Southeast Division of the AAG (SEDAAG)** 2017
- **Achievable Dream Academy:** Hands-on activity for meteorology afternoon session 2017
- **Departmental Service: Department Head Search Committee** 2017
- **Departmental Service: Undergraduate Committee** 2016—2018
- **Student Poster Judge, Annual Meeting of the American Meteorological Society** 2017
- **UF Geography Department Graduate Student Representative** 2013—2014
- **Florida Museum of Natural History** 2012—2015
 - Special Events Volunteer* 2012—2015
 - School Programs Docent* 2013—2015
- **University of Florida Women in Science and Engineering (WiSE)** 2012—present
 - Webmaster & Graphics/Social Media* 2013—2014
 - President* 2014—2015
 - Officer-at-Large* 2015—present
 - WiSE Girlz Camp chaperone* 2014, 2015, 2016
- **Rutgers Gymnastics Varsity R Letterwinners Executive Board** 2013—present
 - 2001-2005 Era Rep*
- **Science Fair Judge, Alachua County Public Schools** 2012, 2014, 2015
- **“Blue Crew” Volunteer, Smithsonian National Air and Space Museum** 2012—2013
- **Penn State Meteorology Graduate Activities Council** 2006—2008
 - Orientation Committee Head* 2006—2008
- **Producer/Anchor, Rutgers TV Weather Watcher Program** 2003—2005
- **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

INTERVIEWS

“Weather Journal: Hurricane talk with a local expert,” *Roanoke Times*, October 3, 2017.
http://www.roanoke.com/weather/columns_and_blogs/columns/weather_journal/weather-journal-hurricane-talk-with-a-local-expert/article_ddecdbcc-6b53-5cd0-802b-4b165c12793f.html

“IIAV ‘Redoubling’ Hurricane Preparedness Efforts Since Following Harvey’s Texas Impact,” *Insurance Journal*, August 28, 2017. <http://www.insurancejournal.com/news/east/2017/08/28/462555.htm>

“The Rising Tide,” *With Good Reason* radio program, August 11, 2017.
<http://withgoodreasonradio.org/episode/the-rising-tide/>

“Blown away: what you need to know before next hurricane season,” WTKR, 30 January 2017.
<http://wtkr.com/2017/01/30/blown-away-2/>

“Top 100 Meteorology Twitter Accounts to Follow,” AtmoLife, 6 January 2017.

<https://atmolife.com/2017/01/11/top-100-meteorology-twitter-accounts-to-follow-in-2017/>

“All Eyes Shift to Hurricane Matthew,” *Hokie Weather Watch Live*, WUVT, 10 October 2016.

<https://hokiewxwatch.wordpress.com/2016/10/04/all-eyes-shift-to-hurricane-matthew/>

“Virginia Tech experts assess Hurricane Matthew damage,” WSLs, 10 October 2016.

<http://wsls.com/2016/10/10/virginia-tech-experts-assess-hurricane-matthew-damage/>

“Why The 'Blob' East Of Hurricane Matthew's Eye Should Concern Us,” *Forbes*, 3 October 2016.

<http://www.forbes.com/sites/marshallshepherd/2016/10/03/why-have-we-seen-a-blob-east-of-hurricane-matthews-eye-and-why-it-should-concern-us/>

PROFESSIONAL MEMBERSHIPS

| | |
|--|--------------|
| • American Meteorological Society (AMS) | 2003—present |
| • Association of American Geographers (AAG) | 2012—present |
| • Southeast Division of the AAG (SEDAAG) | 2012—present |
| • Society of Women Geographers (SWG) | 2015—present |
| • Virginia Water Resources Research Center | 2016—present |
| • Florida Climate Institute | 2012—2016 |
| • Chi Epsilon Pi National Meteorology Honors Society | 2005—present |

FIELD CAMPAIGNS

2008 THORPEX Pacific-Asian Regional Campaign/Tropical Cyclone Structure-08 Experiment,

Naval Postgraduate School, Monterey, CA

• **Forecaster, Monterey Operations Center**

For the entire TCS-08 field experiment, I served as forecaster under a supervisory tropical meteorologist from the Australian Bureau of Meteorology. The forecaster role involved: 1) writing a daily weather briefing and 2) creating current observational and forecast model graphics for the briefing. I also led the weather briefing 1-2x/week and participated in informal forecast discussions related to the TCS-08 field campaign.

• **Coordinator of Driftsonde Launches & Quality Control, Monterey Ops Center**

As the Monterey representative of the Driftsonde launch team, I trained and coordinated graduate students in the operation of the driftsonde computer workstation. Since the driftsonde balloon launch occurred remotely (in Hawaii) and the driftsonde system was advected with the flow in the upper troposphere, dropsonde launches from the driftsonde gondola were activated via a secure website. The main tasks at the driftsonde workstation in Monterey were to 1) “launch” a dropsonde every 3 hours and 2) perform a quality control check of the dropsonde data before sending it to the Global Telecommunication System (GTS) for ingest into numerical weather prediction models.

Information on the driftsonde: https://www.eol.ucar.edu/observing_facilities/driftsonde