KRISTEN L. CORBOSIERO

University at Albany / State University of New York
Department of Atmospheric and Environmental Sciences

EDUCATION

University at Albany, PhD, Atmospheric Science, May 2005
Thesis: *The structure and evolution of a hurricane in vertical wind shear: Hurricane Elena (1985)*
Advisor: Dr. John Molinari

University at Albany, MS, Atmospheric Science, August 2000
Thesis: *The effects of vertical wind shear and storm motion on the distribution of lightning in tropical cyclones*
Advisors: Dr. John Molinari and Dr. Vincent Idone

Cornell University, BS with Distinction, Soil, Crop, and Atmospheric Science, May 1997

EDUCATIONAL EMPLOYMENT

Associate Professor, University at Albany, September 2017–present

Assistant Professor, University at Albany, August 2011–August 2017

Assistant Professor, University of California Los Angeles, August 2007–July 2011

Advanced Study Program Postdoctoral Fellow, National Center for Atmospheric Research, August 2005–August 2007

PUBLICATIONS (* indicates student)

Refereed Articles

Ditchek, S. D.*, J. Molinari, K. L. Corbosiero, and R. G. Fovell, 2019: An objective climatology of tropical cyclone diurnal pulses in the Atlantic Basin. *Mon. Wea. Rev.*, **147**, 591–605.

Fischer, M. S.*, B. H. Tang, K. L. Corbosiero, and C. M. Rozoff, 2018: Normalized convective characteristics of tropical cyclone rapid intensification events in the North Atlantic and eastern North Pacific basins. *Mon. Wea. Rev.*, **146**, 1133–1155.

Stevenson, S. N.*, K. L. Corbosiero, M. DeMaria, and J. Vigh, 2018: A 10-year survey of tropical cyclone inner core lightning bursts and their relationship to intensity change. *Wea. Forecasting*, **33**, 23–36.

Evans, C., and Coauthors, 2017: The extratropical transition of tropical cyclones: definition, structure, processes, direct impacts, and forecasting. *Mon. Wea. Rev.*, **145**, 4317–4344.

Ditchek, S. D.*, T. C. Nelson*, M. Rosenmayer*, and K. L. Corbosiero, 2017: The relationship between tropical cyclones at genesis and their maximum attained intensity. *J. Climate*, **30**, 4897–4913.

Alland, J.*, B. H. Tang, and K. L. Corbosiero, 2017: Effects of dry air aloft on the development of the tropical cyclone secondary circulation. *J. Atmos. Sci.*, **74**, 1455–1470.

Bu, Y. P.*, R. Fovell, and K. L. Corbosiero, 2017: The influences of boundary layer mixing and cloud-radiative forcing on tropical cyclone size. *J. Atmos. Sci.*, **74**, 1273–1292.

Fischer, M. S.*, B. H. Tang, and K. L. Corbosiero, 2017: Assessing the influence of upper-tropospheric troughs on tropical cyclone intensification rates after genesis. *Mon. Wea. Rev.*, **145**, 1295–1313.

Tang, B., R. Rios-Berrios*, J. Alland*, J. Berman*, and K. L. Corbosiero, 2016b: Sensitivity of axisymmetric tropical cyclone spin-up to dry air aloft. *J. Atmos. Sci.*, **73**, 4269–4287.

Peirano, C. M.*, K. L. Corbosiero, and B. H. Tang, 2016: Revisiting trough interactions and tropical cyclone intensity change. *Geophys. Res. Lett.*, **43**, doi: 10.1002/2016GL069040.

Fovell, R. G., Y. P. Bu*, K. L. Corbosiero, W.-W. Ten, Y. Cao*, H.-C. Kuo, L.-H. Hsu*, and H. Su, 2016: Influence of cloud microphysics and radiation on tropical cyclone structure and motion: A review., *Meteorol. Monographs*, **56**, 11.1–11.27.

Tang, B., M. Vaughan*, R. Lazear, K. Corbosiero, L. F. Bosart, T. A. Wasula, I. R. Lee, and K. S. Lipton, 2016a: Topographic and boundary influences on the 22 May 2014 Duanesburg, New York, tornadic supercell. *Wea. Forecasting*, **31**, 107–127.

Stevenson, S. N.*, K. L. Corbosiero, and S. F. Abarca, 2016: Lightning in eastern North Pacific tropical cyclones: A comparison to the North Atlantic. *Mon. Wea. Rev.*, **144**, 225–239.

Stevenson, S. N.*, K. L. Corbosiero, and J. Molinari, 2014: The convective evolution and rapid intensification of Hurricane Earl (2010). *Mon. Wea. Rev.*, **142**, 4363–4380.

Bu, Y. P.*, R. Fovell, and K. L. Corbosiero, 2014: Influence of cloud-radiative forcing on tropical cyclone structure. *J. Atmos. Sci.*, **71**, 1644–1662.

Cao, Y.*, R. G. Fovell, and K. L. Corbosiero, 2011: Tropical cyclone track sensitivity to initialization in idealized simulations: A preliminary study. *Terr. Atmos. Ocean. Sci.*, **22**, 559–578.

Abarca, S. F.*, and K. L. Corbosiero, 2011: Secondary eyewall formation in WRF simulations of hurricanes Rita and Katrina (2005). *Geophys. Res. Lett.*, **38**, doi:10.1029/2011GL047015.

Abarca, S. F.*, K. L. Corbosiero, and D. Vollaro, 2011: The World Wide Lightning Location Network and convective activity in tropical cyclones. *Mon. Wea. Rev.*, **139**, 175–191.

Abarca, S. F.*, K. L. Corbosiero, and T. J. Galarneau, Jr., 2010: An evaluation of the World Wide Lightning Location Network (WWLLN) using the National Lightning Detection Network (NLDN) as ground truth. *J. Geophys. Res.*, **115**, doi:10.1029/2009JD013411.

Fovell, R. G., K. L. Corbosiero, A. Seifert, and K. N. Liou, 2010: Impact of cloud-radiative processes on hurricane track. *Geophys. Res. Lett.*, **37**, doi:10.1029/2010GL042691.

Fovell, R. G., K. L. Corbosiero, and H.-C. Kuo, 2009: Cloud microphysics impact on hurricane track as revealed in idealized experiments. *J. Atmos. Sci.*, **66**, 1764–1778.

Corbosiero, K. L., M. J. Dickinson, and L. F. Bosart, 2009: The contribution of eastern North Pacific tropical cyclones to the warm season rainfall climatology of the southwest United States. *Mon. Wea. Rev.*, **137**, 2415–2435.

Davis, C., W. Wang, S. S. Chen, Y. Chen, K. Corbosiero, M. DeMaria, J. Dudhia, G. Holland, J. Klemp, J. Michalakes, H. Reeves, R. Rotunno, and Q. Xiao, 2008: Prediction of landfalling hurricanes with the Advanced Hurricane WRF Model. *Mon. Wea. Rev.*, **136**, 1990–2005.

Molinari, J., P. Dodge, D. Vollaro, K. L. Corbosiero, and F. D. Marks, Jr., 2006: Mesoscale aspects of the downshear reformation of a tropical cyclone. *J. Atmos. Sci.*, **63**, 341–354.

Corbosiero, K. L., J. Molinari, A. R. Aiyyer, and M. L. Black, 2006: The structure and evolution of Hurricane Elena (1985). Part II: Convective asymmetries and evidence for vortex Rossby waves. *Mon. Wea. Rev.*, **134**, 3073–3091.

Corbosiero, K. L., J. Molinari, and M. L. Black, 2005: The structure and evolution of Hurricane Elena (1985). Part I: Symmetric intensification. *Mon. Wea. Rev.*, **133**, 2905–2921.

Molinari, J., D. Vollaro, and K. L. Corbosiero, 2004: Tropical cyclone formation in a sheared environment: A case study. *J. Atmos. Sci.*, **61**, 2493–2509.

Corbosiero, K. L., and J. Molinari, 2003: The relationship between storm motion, vertical wind shear, and convective asymmetries in tropical cyclones. *J. Atmos. Sci.*, **60**, 366–376.

Corbosiero, K. L., and J. Molinari, 2002: The effect of vertical wind shear on the distribution of convection in tropical cyclones. *Mon. Wea. Rev.*, **130**, 2110–2123.

Unrefereed Articles

Corbosiero, K. L., 2004: The structure and evolution of a hurricane in vertical wind shear: Hurricane Elena (1985). Preprints of the 26th Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, 90–91.

Corbosiero, K. L., 2002: The relationship between storm motion, vertical wind shear, and convective asymmetries in tropical cyclones. Preprints of the 25th Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, 321–322.

Corbosiero, K. L., J. Molinari, and L. Bosart, 2001: The distribution of convective precipitation in tropical cyclones after landfall. Preprints of the 81st Annual Meeting of the American Meteorological Society, Symposium on Precipitation Extremes: Prediction, Impacts, and Responses, American Meteorological Society, 350–351.

Corbosiero, K. L., 2000: Convective asymmetries in tropical cyclones. Preprints of the 24th Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, 410–411.

Corbosiero, K. L., 1999: Lightning in hurricanes. Preprints of the 23rd Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, 66–67.

WORK IN PROGRESS

Fischer, M. S.*, B. H. Tang, and K. L. Corbosiero, 2019: A climatological analysis of tropical cyclone rapid intensification in environments of upper-tropospheric troughs. Part I: Objective trough morphology identification. *Mon. Wea. Rev.*, In revision.

Fischer, M. S.*, B. H. Tang, and K. L. Corbosiero, 2019: A climatological analysis of tropical cyclone rapid intensification in environments of upper-tropospheric troughs. Part II: Environmental influences, convective characteristics, and trough forcings. *Mon. Wea. Rev.*, In revision.

Nelson, T. C.*, L. Harrison, and K. L. Corbosiero, 2019: Convective asymmetries measured by eXpendable digital dropsondes (XDDs) in tropical cyclones. *Mon. Wea. Rev.*, In review.

Nelson, T. C.*, L. Harrison, and K. L. Corbosiero, 2019: Temporal and spatial autocorrelations from eXpendable digital dropsondes (XDDs) in tropical cyclones. *Mon. Wea. Rev.*, In review.

Tymochko, S.*, E. Munch, J. Dunion, K. Corbosiero, and R. Torn, 2019: Using persistent homology to quantify a diurnal cycle in Hurricane Felix. *Pattern Recognition Letters*, In review.

GRANT FUNDING

Improving Analyses, Numerical Models, and Situational Awareness of High-Impact Severe Convective and Mixed-Phase Precipitation Events in Complex Terrain, NOAA-NWS-NWSPO-2019-2005754: Collaborative Science, Technology, and Applied Research (CSTAR) Program, 5/1/2019–4/30/2022, $450,000. (PI with co-PIs Dr. Nicholas Bassill, Dr. Andrea Lang, Dr. Robert Fovell, Dr. Justin Minder, Dr. Brian Tang)

Investigating Ventilation Processes and Effects on Tropical Cyclones, NSF, 2/16/2018–2/25/2021, $397,626. (Co-PI with Dr. Brian Tang)

Investigating Tropical Cyclone Intensity Change due to Trough-Induced Vertical Wind Shear, NASA ROSES 2016 A23: Weather and Atmospheric Dynamics, Hurricane Science Research, 2/24/2017–2/23/2020, $299,997. (PI with co-PI Dr. Brian Tang)

Physics and Dynamics of the Tropical Cyclone Cirrus Canopy, NSF, 2/24/2017–2/23/2020, $574,167. (Co-PI with Dr. John Molinari and Dr. Robert Fovell)

Development of Improved Diagnostics, Numerical Models, and Situational Awareness of High-Impact Cyclones and Convective Weather Events, NOAA-NWS-NWSPO-2016-2004564: Collaborative Science, Technology, and Applied Research (CSTAR) Program, 5/1/2016–4/30/2018, $450,000. (PI with co-PIs Dr. Andrea Lang, Dr. Justin Minder, Dr. Brian Tang, Dr. Ryan Torn, Dr. Lance Bosart, and Dr. Daniel Keyser)

Forecasting Tropical Cyclone Intensity Change: Assessing the Impact of Inner Core Lightning Bursts, Cooperative Program for Operational Meteorology, Education, and Training (COMET) GOES-R Partners Project, NOAA/UCAR Z1520542, 7/7/2015–7/30/2016, $19,939. (PI with co-PI Dr. Mark DeMaria)

Collaborative Research with the National Weather Service on the Occurrence and Prediction of High-Impact Precipitation Events in the Northeastern United States, NOAA-NWS-NWSPO-2013-2003473: Collaborative Science, Technology, and Applied Research (CSTAR) Program, 9/1/2013–8/31/2017, $375,000. (PI with co-PIs Dr. Lance Bosart, Dr. Daniel Keyser, Dr. Andrea Lang, Dr. Brian Tang, and Dr. Ryan Torn)

Investigating the Influence of Vertical Wind Shear on Tropical Cyclone Structure and Intensity, NASA ROSES 2011: Hurricane Science Research Program, 07/01/2012–6/30/2017, $300,000. (PI with co-PI Dr. John Molinari)

Hurricane Forecast Improvement Through Optimization and Validation of Model Physics, NOAA-NWS-NWSPO-2011-2002893: Hurricane Forecast Improvement Project (HFIP), 01/01/2012–12/31/2013, $227,461. (Co-PI with Dr. Robert Fovell)

Eastern North Pacific Ocean Tropical Cyclone Characteristics as Revealed by the World Wide Lightning Location Network, UCLA Faculty Career Development Award, 7/1/2011–7/31/2011, $9,933. (PI)

Using Lightning Flash Locations to Characterize Eastern North Pacific Tropical Cyclones, University of California Institute for Mexico and the United States–Mexican National Council for Science and Technology (UCMEXUS–CONACYT), 07/01/2010–12/31/2011, $25,000. (PI with co-PI Graciela Raga)

CONFERENCE PRESENTATIONS (**Last five years + a sampling prior; talks only**)

Corbosiero, S. N. Stevenson, and S. D. Ditchek, 2019: Investigating the diurnal cycle of lightning in tropical cyclones. Ninth Conference on the Meteorological Applications of Lightning Data, 7–10 January, Phoenix, Arizona.

Corbosiero, K. L., S. N. Stevenson, and R. D. Torn, 2018: Diagnosis of secondary eyewall formation mechanisms in ensembles of high-resolution hurricane simulations. 33rd Conference on Hurricanes and Tropical Meteorology, 16–20 April, Ponte Vedra, Florida.

Corbosiero, K. L., and S. N. Stevenson, 2017: Tropical cyclone intensity changes associated with inner core lightning. Eighth Conference on the Meteorological Applications of Lightning Data, 23–25 January, Seattle, Washington.

Corbosiero, K. L., and R. D. Torn, 2016: Diagnosis of secondary eyewall formation mechanisms in Hurricane Igor (2010). 32nd Conference on Hurricanes and Tropical Meteorology, 17–22 April, San Juan, Puerto Rico.

Corbosiero, K. L., and R. D. Torn, 2015: Analysis of ensemble variability in secondary eyewall formation. Seventh Northeast Tropical Workshop, 9–12 June, Dedham, Massachusetts.

Corbosiero, K. L., and R. A. Lazear, 2015: Application of the NLDN in the analysis of the variability of warm season thunderstorm occurrence. 40th Northeastern Storm Conference, 6–8 March, Saratoga Springs, New York.

Corbosiero, K. L., and R. A. Lazear, 2015: Application of the NLDN in the analysis of the variability of warm season thunderstorm occurrence. Seventh Conference on the Meteorological Applications of Lightning Data, 5–8 January, Phoenix, Arizona.

Corbosiero, K. L., and S. N. Stevenson, 2014: Investigation of the rapid intensification of Hurricane Earl (2010). NASA HS3 Science Meeting, 29 April–1 May, NASA Research Park, Moffett Field, California.

Corbosiero, K. L., and R. D. Torn, 2014: Investigating the factors responsible for secondary eyewall formation in an ensemble of high-resolution hurricane simulations. 31st Conference on Hurricanes and Tropical Meteorology, 30 March–4 April, San Diego, California.

Corbosiero, K. L., and R. D. Torn, 2013: Investigating the factors responsible for secondary eyewall formation in an ensemble of high-resolution hurricane simulations. 16th Cyclone Workshop, 21–27 September, Sainte-Adèle, Quebec, Canada.

Corbosiero, K. L., and R. G. Fovell, 2013: The impact of cloud microphysics on hurricane track. 38th Northeastern Storm Conference, 2–4 March, Rutland, Vermont.

Corbosiero, K. L., and R. A. Lazear, 2013: Verification of thunderstorm occurrence using the National Lightning Detection Network. Sixth Conference on the Meteorological Applications of Lightning Data, 6–10 January, Austin, Texas.

Corbosiero, K. L., S. Abarca, and M. T. Montgomery, 2012: Vortex Rossby waves and secondary eyewall formation in a high-resolution simulation of Hurricane Katrina (2005). 30th Conference on Hurricanes and Tropical Meteorology, 16–20 April, Ponte Vedra Beach, Florida.

Corbosiero, K. L., R. McTaggart-Cowan, and L. Bosart, 2011: The impact of recurving eastern Pacific tropical cyclones on the downstream North American flow pattern. 15th Cyclone Workshop, 27 March–1 April, Pacific Grove, California.

Corbosiero, K. L., S. F. Abarca, G. B. Raga, and F. O. Rosales, 2011: Tropical cyclone lightning characteristics as revealed by the World Wide Lightning Location Network (WWLLN). Fifth Conference on the Meteorological Applications of Lightning Data, 24–26 January, Seattle, Washington.

Corbosiero, K. L., and K. A. Shontz, 2010: The distribution of helicity and intense convection in tropical cyclones. 29th Conference on Hurricanes and Tropical Meteorology, 10–14 May, Tucson, Arizona.

Corbosiero, K. L., and T. J. Galarneau, Jr., 2009: Verification of a daily thunderstorm probability forecast contest using the National Lightning Detection Network. 23rd Conference on Weather Analysis and Forecasting, 1–5 June, Omaha, Nebraska.

Corbosiero, K. L., M. J. Dickinson, and L. Bosart, 2008: Recurving eastern North Pacific tropical cyclones. 14th Cyclone Workshop, 22–26 September, Sainte-Adèle, Quebec, Canada.

Corbosiero, K. L., W. Wang, J. Done, J. Dudhia, and C. Davis, 2008: Inner core structures and intensity change simulated with the Advanced Hurricane WRF model. 28th Conference on Hurricanes and Tropical Meteorology, 28 April–2 May, Orlando, Florida.

Corbosiero, K. L., W. Wang, J. Done, J. Dudhia, and C. Davis, 2007: Inner core structures and intensity change simulated with the Advanced Hurricane WRF model. AGU Fall Meeting, 10–14 December, San Francisco, California.

Corbosiero, K. L., W. Wang, Y. Chen, J. Dudhia, and C. Davis, 2007: Advanced research WRF high resolution simulations of the inner core structure of Hurricanes Katrina, Rita and Wilma (2005). Eighth Annual WRF User's Workshop, 11–15 June, Boulder, Colorado.

Corbosiero, K. L., M. J. Dickinson, and L. Bosart, 2006: Recurving eastern North Pacific tropical cyclones. 13th Cyclone Workshop, 23–26 October, Pacific Grove, California.

Corbosiero, K. L., V. Cheruvu, J. Richter, C. Johnson and T. Eastburn, 2006: Climate and weather, the two go together: Girl Scouts at the National Center for Atmospheric Research program. Seventh International Conference on School and Popular Meteorological and Oceanic Education, 3–7 July, Boulder, Colorado.

Corbosiero, K. L., M. J. Dickinson, and L. Bosart, 2006: The contribution of eastern North Pacific tropical cyclones to the warm season rainfall climatology of the southwestern United States. Second International Symposium on Quantitative Precipitation Forecasting and Hydrology. 5–8 June, Boulder, Colorado.

Corbosiero, K. L., J. Molinari, A. R. Aiyyer, and M. L. Black, 2006: Inner core asymmetries and vortex Rossby waves in Atlantic basin tropical cyclones. 27th Conference on Hurricanes and Tropical Meteorology, 24–28 April, Monterey, California.

Corbosiero, K. L., 2002: Can the environment of maritime tropical cyclones support supercell thunderstorms? 27th Northeastern Storm Conference, 8–10 March, Saratoga Springs, New York.

OTHER PRESENTATIONS (Invited)

The relationships between lightning activity and intensity changes in tropical cyclones. School of Marine and Atmospheric Sciences, Stony Brook University, 13 September 2017.

Improving forecasts of high-impact weather events in New York State. Science Teachers Association of New York State–Eastern Section. Brown's Brewery, 8 February 2017.

Investigating the mechanisms responsible for secondary eyewall formation in high-resolution hurricane simulations. Geoscience Department, Hobart and William Smith Colleges, 6 November 2013.

Observing hurricane structure and intensity. 10th Annual Science Research Symposium Keynote, Cohoes High School, 6 June 2012.

Vortex Rossby waves and secondary eyewall formation in high-resolution hurricane simulations. Department of Earth and Atmospheric Sciences, Cornell University, 25 April 2012.

The World Wide Lightning Location Network (WWLLN): Network overview, evaluation, and its application to tropical cyclone research. Department of Atmospheric Sciences, Texas A&M University, 15 February 2011.

The contribution of eastern North Pacific tropical cyclones to the warm season rainfall climatology of the southwest United States. Environmental Science and Engineering Seminar Series, California Institute of Technology, 20 May 2009.

The inner core structure and intensity change of Hurricane Elena (1985). Institute for Pure and Applied Mathematics at the University of California, Los Angeles, Small Scales and Extreme Events: The Hurricane, 14 February 2007.

The structure and evolution of a hurricane in vertical wind shear: Hurricane Elena (1985). National Center for Atmospheric Research, Mesoscale and Microscale Meteorology Seminar, 22 September 2005.

The influence of vertical wind shear on tropical cyclones. Hurricane Research Division of the National Oceanic and Atmospheric Administration, 9 July 2002.

TEACHING

Courses Offered

ATM 400, Synoptic Meteorology I; Fall 2011–2019
ATM 421, Tropical Meteorology; Spring 2013, 2015, 2017, 2019
ATM 527, Observations and Theory of Tropical Cyclones; Spring 2014, 2018
ATM 741, Special Problems in Tropical Cyclone Research; Spring 2012, 2016

PhD and MS Students Advised

Joshua Alland (PhD candidate; co-advised with Dr. Brian Tang)
Tomer Burg (MS candidate; co-advised with Dr. Andrea Lang and Dr. Ryan Torn)
Dylan Card (PhD candidate)
Sarah Ditchek (PhD candidate; co-advised with Dr. John Molinari)
Tyler Leicht (PhD candidate; co-advised with Dr. Lance Bosart)
Casey Peirano (PhD candidate; co-advised with Dr. Brian Tang)
Emily Paltz ((PhD candidate; co-advised with Dr. Brian Tang)

Michael Fischer (PhD, June 2018; co-advised with Dr. Brian Tang)
Stephanie Stevenson (PhD, May 2018)
Molly Smith (MS, May 2017; co-advised with Dr. Ryan Torn)
Adrian Mitchell (MS, December 2014; co-advised with Dr. Lance Bosart)
Sergio Abarca (PhD, May 2011, UCLA)
Kathryn Shontz (MS, December 2009, UCLA)

PhD Committees and MS Theses Second Reader

PhD committee member for Leon Nguyen, Philippe Papin, Patrick Durran, Rosimar Rios-Barrios, and T. Connor Nelson

MS thesis second reader for Travis Elless, Erin Dougherty, Eric Bunker, Ernesto Findlay

Undergraduate Students Mentored

Kurt Hansen (co-advised with Dr. Ben Schenkel), University at Albany Honors College, "Intra-seasonal variability of tropical cyclone formation", March 2014–December 2015.

Jason Keefer, University at Albany Honors College, "The rapid intensification of Hurricane Gustav (2008)", October 2011–May 2012.

High School Students Mentored

Katie McKeown, Advanced Science Research Course, Yorktown, NY High School, "The relationship between major meteorological seasons", May 2013–June 2015.

Reid Kisselback, University at Albany University in the High School Program, Cohoes, NY High School, "Integrated kinetic energy versus The Saffir-Simpson Scale: A study on the destructive potential of hurricanes", June 2011–May 2013.

Student Awards

Joshua Alland, University at Albany, Bernard Vonnegut Teaching Award, 2018.

Michael Fischer, University at Albany Narayan R. Gokhale Research Award, 2018.

Joshua Alland, 2018 UCAR Capitol Hill Visit Essay Contest winner, June 2018.

Joshua Alland, NCAR Advanced Study Program Graduate Student Visitor, May–August 2018.

Michael Fischer, Outstanding Student Oral Presentation, "Characteristics of tropical cyclone rapid intensification in environments of upper-tropospheric troughs", 33rd Conference on Hurricanes and Tropical Meteorology, April 2018.

Michael Fischer, UCAR Cooperative Programs for the Advancement of Earth System Science (CPAESS) Visiting Graduate Student at the National Hurricane Center (NHC), February 2018.

Dylan Card, Science, Mathematics, and Research for Transformation (SMART) Scholarship, June 2017–present.

Stephanie Stevenson, NASA Earth and Space Science Fellowship, "Kinematic and thermodynamic analysis of tropical cyclone intensity changes signaled by outer rainband lightning activity during NASA's GRIP and HS3 missions", May 2015–present.

Casey Peirano, National Defense Science and Engineering Graduate Fellowship, April 2015–present.

Katie McKeown, Association of Women Geoscientists Award and First Place Earth and Space Science, "The relationship between major meteorological seasons", Westchester Science and Engineering Fair, March 2015.

Stephanie Stevenson, Best Student Poster Award, "Using lightning data to unravel tropical cyclone structure and intensity changes", Seventh Conference on the Meteorological Applications of Lightning Data at the 95th Annual American Meteorological Society Meeting, January 2015.

Joshua Alland, NSF Graduate Research Fellowship, September 2014–August 2017.

SERVICE

Departmental

Department of Atmospheric and Environmental Sciences (DAES) Graduate Program Committee, May 2013–present (Chair September 2018–present).

Department of Atmospheric and Environmental Sciences (DAES) Inclusion and Diversity Committee, April 2017–present (Chair April 2017–August 2018).

DAES/Atmospheric Science Research Center (ASRC) Graduate Student Recruitment Weekend Faculty Chair, 2015–2018.

DAES Department Chair Search Committee, December 2016–February 2017.

DAES/ASRC Seminar Coordinator, August 2012–May 2013.

DAES Ocean–Atmosphere Interactions/Climate–Cryosphere Dynamics and Feedbacks Faculty Search Committee, August 2012–March 2013.

DAES Graduate Committee, May 2012–May 2013.

DAES Ocean–Atmosphere Interactions/Climate–Cryosphere Dynamics and Feedbacks Faculty Search Committee, August 2011–March 2012.

College (CAS)

Women in Science and Health (WISH), Steering Committee, May 2018–present.

University at Albany, College of Arts and Sciences Faculty Council, September 2014–September 2016.

University

University at Albany, Advisement Services Center Academic Advisor Search Committee, October 2013–January 2014.

Professional

Editor, *Monthly Weather Review*, 2019–present.

Co-organizer, 16th–19th Cyclone Workshops, 2012–present.

Associate Editor, *Monthly Weather Review*, 2008–2018.

Member, Developmental Testbed Center Science Advisory Board, 2014–2017.

Panel Member, Skilled-Based Careers in Atmospheric Science: Research, 15th Annual AMS Student Conference, 9 January 2016.

Member of the American Meteorological Society Science and Technological Activities Commission on Tropical Meteorology and Tropical Cyclones, 2010–2015.

Best Student Poster Award Committee, 31st AMS Conference on Hurricanes and Tropical Meteorology, 2014.

Max Eaton Award Committee, 30th AMS Conference on Hurricanes and Tropical Meteorology, 2012.

Member of the National Centers for Environmental Prediction external review panel for the Ocean Prediction Center and the National Hurricane Center, 2009–2011.

Chair, Max Eaton Award Committee, 28th AMS Conference on Hurricanes and Tropical Meteorology, 2008.

Reviewer for National Science Foundation, National Aeronautics and Space Administration, *Monthly Weather Review, Journal of the Atmospheric Sciences, Journal of Climate, Weather and Forecasting, Bulletin of the American Meteorological Society, Quarterly Journal of the Royal Meteorological Society, Nature Geosciences, Journal of Geophysical Research, Geophysical Research Letters, Journal of Advances in Modeling Earth Systems*

HONORS AND AWARDS

Faculty and Staff, Third Place Trophy for excellent in forecasting for Sioux Falls, SD, WxChallenge, April 2018.

Faculty and Staff, First Place Trophy for excellent in forecasting for Grand Island, NE, WxChallenge, November 2016.

Faculty and Staff, First Place Trophy for excellent in forecasting for Reno, NV, WxChallenge, November 2016.

Women in Science Award, Ford Foundation University at Albany Initiatives for Women (IFW), May 2015.

NASA Group Achievement Award, Hurricane and Severe Storm Sentinel Team, 2015.

Faculty and Staff, First Place Trophy for excellent in forecasting for Springfield, IL, WxChallenge, February 2015.

Monthly Weather Review Editor's Award, "For providing thorough reviews of a large number of manuscripts and for special assistance to the editors in evaluating controversial manuscripts.", 2010.

Narayan R. Gokhale Distinguished Research Award, University at Albany, 2005.

PROFESSIONAL AFFILIATIONS

American Meteorological Society, 1994–present
American Geophysical Union, 2006–present
National Weather Association, 2009–present
Royal Meteorological Society, 2011–2018