Dr. Corene J. Matyas

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Education

2005 **Ph.D.**, Physical Geography (Climatology) Pennsylvania State University
2001 **M.A.,** Physical Geography (Climatology) Arizona State University
1999 **B.S.**, Environmental Geoscience (Atmospheric Science; Minor: Sculpture) Clarion Univ. of PA

Professional Appointments

2020 - pres. Professor – University of Florida
2012 - 2020 Associate Professor – University of Florida
2019 - 2022 University of Florida Term Professorship
2016 - 2019 University of Florida Term Professorship
2014 - 2015 Colonel Allan R. and Margaret G. Crow Term Professor
2005 - 2012 Assistant Professor – University of Florida
2004 - 2005 Visiting Assistant Professor – Ohio University

Awards and Honors

Fellow of the American Association of Geographers (2025)
Southeastern Division of the American Association of Geographers Excellence in Teaching (2019)
College of Liberal Arts and Sciences Teacher of the Year Award (2018-2019)
UF Water Institute's 2018 Photo Contest Winner
College of Liberal Arts and Sciences Teacher of the Year Award (2008-2009)
American Association of Geographers (AAG) Nystrom Award Competition Finalist (2006)
AAG Climate Specialty Group Student Paper Competition Winner (2005)

Professional Memberships

American Association of Geographers 1999-present
Climate Specialty Group of the AAG 1999-present
American Meteorological Society 2002-present
Society of Women Geographers 2003-present
Southeastern Division of the American Association of Geographers 2005-present
American Geophysical Union 2006-present
American Association for the Advancement of Science 2018 – present
Earth Science Women's Network 2019 – present
Midsouth Sculpture Alliance 2024 - present

UF Affiliations

Florida Climate Institute
School of Natural Resources and Environment
Eric Friedheim Tourism Institute
Center for Remote Sensing
Center for Adaptive Innovation, Resilience, Ethics & Science
Land Use and Environmental Change Institute
Center for African Studies
Center for Latin American Studies
FL Institute for Built Environment Resilience
Water Institute

Grant Activities

Assessing the Impact of Geo-Targeted Warning Messages on Residents Evacuation Decisions before a Hurricane. Quick Response Research Award Supported by the Natural Hazards Center at the University of Colorado Boulder with the support of the National Science Foundation and the National Oceanic and Atmospheric Administration Weather Program Office **$5235** (2021) Role: Co-PI; PI Yan Wang, UF Urban and Regional Planning

Collaborative Research: An Object-Oriented Approach to Assess the Rainfall Evolution of Tropical Cyclones in Varying Moisture Environments. National Science Foundation AGS-2012008 (UF), 2011981 (Virginia Tech), 2011812 (Mississippi State Univ.) **$621,816** (combined). (2020-2024) Role: PI

Collaboration at Mississippi State University and University of Tennessee. Southeastern Conference Faculty Travel Grant. **$2,454** (2018-2019), Role: PI.

Novel Analysis and Database Management Strategies to Track Hurricane Rainfall Regions Detected by Ground-Based Weather Radars. University of Florida Research Opportunity Fund **$75,038** (2016 –2018), Role: PI

Revising Radx Software for High-Performance Real-time Doppler Weather Radar Gridding and Warning Decision Support during Hurricane Events. Intel Code Modernization Fellowship (Jingyin Tang and Kyuseo Park), **$25,000** (2016-2017), Role: Faculty Advisor

Collaborative Research: GP-EXTRA: Geoscience Engagement and Outreach (GEO) - High-Impact Integrated Academic and Professional Experiences. National Science Foundation ICER-1540729 (Santa Fe College) and 1540724 (UF) **$489,670** (combined) (2015-2019), Role: Co-PI; PI: Heidi Lannon, Santa Fe College and Katie Stofer, UF Agricultural Education and Communication

Geometric Analysis of Moisture Budgets and Precipitation Structures in U.S. Landfalling Tropical Cyclones. Society of Women Geographers Pruitt Fellowship, **$8,479** (2015-2021), Role: PI.

MRI: Development of a Versatile, Self-Configuring Turbulent Flow Condition System for a Shared-Use Hybrid Low-Speed Wind Tunnel. National Science Foundation CMMI- 1428954 **$921,370** (2014-2019), Role: Co-PI; PI: Forrest Masters, University of Florida Dept. of Civil and Coastal Engineering

CNH: Climate Effects on Tea Quality and Socioeconomic Responses. National Science Foundation, BCS- 1313775 **$931,000** (2013-2019), Role: Senior Personnel; PI: Colin Orians Tufts University Dept. of Biology

CAREER: Geospatial Modeling of Tropical Cyclones to Improve the Understanding of Rainfall Patterns and Enrich the Analytical Skills of Students. National Science Foundation, BCS-1053864 **$470,000** (2011-2018), Role: PI

Identifying the Factors that Influence the Evacuation Decisions of Florida Tourists when Hurricanes Strike. Eric Friedheim Foundation, **$20,000** (2009-2010) Role: Co-PI, PI: Brijesh Thapa, University of Florida Dept. of Tourism, Recreation and Sport Management

SGER: Collection of Perishable Data on Crop and Forest Losses Due to Hurricane Dean. National Science Foundation Small Grant for Exploratory Research, BCS-0753190, $9,000 (2007-2008) Role: Co-PI, PI: Eric Keys, University of Florida Dept. of Geography

Refereed Publications (* student coauthor, & postdoctoral researcher coauthor) (+ invited submission)

&Kim, D. and **Matyas, C. J.** 2024. Classification of tropical cyclone rain patterns using convolutional autoencoder, *Scientific Reports,* 14:791 https://doi.org/10.1038/s41598-023-50994-5

*Stackhouse, S., Zick, S.E., **Matyas, C. J.,** Wood, K., Hazelton, A., Alaka, G. 2023. Evaluating the skillfulness of experimental high resolution model forecasts of tropical cyclone precipitation using an object-based methodology, *Weather and Forecasting*, 38 (10), 2111-2134. https://doi.org/10.1175/WAF-D-22-0223.1

Zhou, Y., Zhu, L., **Matyas, C. J.,** Tang, J. 2023. Exploring regional variations in conditions associated with spatial patterns of tropical cyclone rainfall, *International Journal of Climatology*, 43:5464-5484. DOI: 10.1002/joc.8156.

&Kim, D., Park, D.S., and **Matyas, C. J.** 2023. Spatial variations in tropical cyclone rainfall over the western North Pacific according to ENSO phase. *J. Climate*, **36**, 1697–1710, https://doi.org/10.1175/JCLI-D-22-0231.1

Jury, M.R. and **Matyas, C. J.** 2022. Tropical cyclones in the northern Mozambique Channel: Composite intra-seasonal forcing and 2019 event, *Meteorology and Atmospheric Physics,* 134 (70), 1-14. https://doi.org/10.1007/s00703-022-00911-8

Zick, S. E., **Matyas, C. J.**, Lackmann, G., Tang, J., and *Bennett, B. 2022. Illustration of an object-based approach to identify structural differences in tropical cyclone wind fields, *Quarterly Journal of the Royal Meteorological Society,* 148 (746), 2587-2606. https://doi.org/10.1002/qj.4326

Judge, J., Lannon, H. A., Stofer, K. A., **Matyas, C. J**., Lanman, B., Leissing, J. J., Rivera, N., Norton, H., Hom, B. 2022. Integrated academic, research, and professional experiences for 2-year college students lowered barriers in STEM engagement, *Journal of STEM Outreach,* 5 (1), 1-15. DOI*:* https://doi.org/10.15695/jstem/v5i1.03

Matyas, C. J., Stofer, K. A., Judge, J., Lannon, H. J., Hom, B., Lanman, B., 2022. Despite challenges, 2-year college students benefit from faculty-mentored geoscience research at a 4-year university as part of an extracurricular program, *Journal of Geoscience Education,* 70, 354-367. DOI: 10.1080/10899995.2022.2037403

*Wang, Y. and **Matyas, C. J.** 2022. Simulating the effects of land surface characteristics on precipitation for a modeled landfalling tropical cyclone, *Atmosphere*, 13, 138. DOI:.10.3390/atmos13010138

Zhou, Y. and **Matyas, C. J.** 2021. Regionalization of precipitation associated with tropical cyclones using spatial metrics and satellite precipitation, *GIScience & Remote Sensing*, 58, 542-561, DOI: 10.1080/15481603.2021.1908675

Stofer, K., Chandler, J. *Insalaco, S., **Matyas, C.,** Lannon, H., Judge, J., Lanman, B., Hom, B., Norton, H., 2021. Two year college students report multiple benefits from participation in an integrated geoscience research, coursework, and outreach internship program, *Community College Review*, 49(1), DOI: 10.1177/00915521211026682

+**Matyas, C. J**. and *VanSchoick, S. 2021. Geospatial analysis of rain fields and associated environmental conditions for cyclones Eline and Hudah, *Geomatics, 1,1.* https://doi.org/10.3390/geomatics1010008

*Catarelli, R.A., Fernandez-Caban, P.L., Masters, F.J., Bridge, J.A., Gurley, K.R., **Matyas, C. J.,** 2020. Automated terrain generation for precise atmospheric boundary layer simulation in the wind tunnel, *Journal of Wind Engineering and Industrial Aerodynamics*, 207, 104276. DOI:10.1016/j.jweia.2020.104276

Matyas, C. J. 2020. Variations in rainfall timing and changes in the leading edge of Hurricane Katrina (2005) during Gulf Coast landfalls*, International Journal of Environmental Sciences & Natural Resources*, 26(4): 556192. DOI: 10.19080/IJESNR.2020.26.556192.

*Kim, S., **Matyas, C. J.,** and *Yan, G. 2020. Rainfall symmetry related to moisture, storm intensity, and vertical wind shear for tropical cyclones landfalling over the U.S. Gulf Coastline, *Atmosphere,* 11, 895, 1-19. doi:10.3390/atmos11090895

Kfoury, N., *Scott, E., Orians, C., Ahmed, S., Cash, S., Griffin, T., **Matyas, C.,** Stepp, J., Han, W., Xue, D., Long, C., Robbat, A. 2019. Plant-climate interaction effects: Changes in the relative distribution and concentration of the volatile tea leaf metabolome in 2014-2016, *Frontiers in Plant Science*, 10, 1-10. DOI:10.3389/fpls.2019.01518.

Ahmed, S., Griffin, T., Kraner, D., Schaffner, K., Sharma, D., Hazel, M., Leitch, A., Orians, C, Han, W., Stepp, J., Robbat, A., **Matyas, C.,** Long, C., Xue, D., Houser, R., Cash, S. 2019. Factors variably impacting tea secondary metabolites in the context of climate change: A systematic review*, Frontiers in Plant Science*, 10, 1-16. DOI: 10.3389/fpls.2019.00939.

*Li, X., Cummings, A.R., *Alruzuq, A., **Matyas, C. J**., *Amanambu, A.C. 2019. Combining water fraction and DEM-based methods to create a coastal flood map: A case study of Hurricane Harvey, *International Journal of Geo-Information,* 8, 231, 1-23. DOI: 0.3390/ijgi8050231

+**Matyas, C.J.** and Tang, J. 2019. Measuring radial and tangential changes in tropical cyclone rain fields using metrics of dispersion and closure*, Advances in Meteorology*, 2019, 1-14. DOI: 10.1155/2019/861943

+Ahmed, S., Griffin, T., Cash, S.C., Han, W., **Matyas, C.,** Long, C., Orians, C.M., Stepp, J.R., Robatt, A., Xue, D. 2018. Global Climate Change, Ecological Stress, and Tea Production. In: Han, W. Ed. Stress Physiology of Tea in the Face of Climate Change. Springer Nature, 1-24. DOI: 10.1007/978-981-13-2140-5.

*Zhou, Y., **Matyas, C. J.**, Li, H., Tang, J. 2018. Conditions associated with rain field size for tropical cyclones landfalling over the eastern United States, *Atmospheric Research*, 214, 375-385. DOI:10.1016/j.atmosres.2018.08.019.

*Tang, J. and **Matyas, C. J.** 2018. A nowcasting model for tropical cyclone precipitation regions based on the TREC motion vector retrieval with a semi-Lagrangian scheme for Doppler weather radar, *Atmosphere*, 9, 1-18. DOI:10.3390/atmos9050200.

*DesRosiers, A. and **Matyas, C. J.** 2018 Analysis of the relationship between flooding potential of landfalling tropical cyclones and their size and forward speed. *University of Florida Journal of Undergraduate Research,* 19:2, 1-5.

*Zhou, Y. and **Matyas, C. J.** 2018. Spatial characteristics of rain fields associated with tropical cyclones landfalling over the western Gulf of Mexico and Caribbean Sea, *Journal of Applied Meteorology and Climatology*, 57, 1711- 1727. DOI: 10.1175/JAMC-D-18-0034.1.

Matyas, C. J., Zick. S. E. and *Tang, J. 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. *Monthly Weather Review*, 146, 1319-1340. DOI: 10.1175/MWR-D-17-0077.1

*Tang, J. and **Matyas, C. J**. 2018. Arc4nix: A cross-platform geospatial analytical library for cluster and cloud computing. *Computers & Geosciences*, 111, 159-166. DOI:10.1016/j.cageo.2017.11.011

*Hernandez Ayala, J.J. and **Matyas, C. J.** 2018. Spatial distribution of tropical cyclone rainfall and its contribution to the climatology of Puerto Rico. *Physical Geography*, 39, 1-20. DOI: 10.1080/02723646.2017.1354416

+**Matyas, C. J.**, 2017. Comparing the spatial patterns of rainfall and atmospheric moisture among tropical cyclones having a track similar to Hurricane Irene (2011). *Atmosphere*, 8, 165-185. DOI: 10.3390/atmos8090165

*Hernandez Ayala, J.J., Keellings, D., Waylen, P. and **Matyas, C. J.** 2017. Extreme floods and their relationship with tropical cyclones in Puerto Rico. *Hydrological Sciences Journal*, 62:13, 2103-2119. DOI:10.1080/02626667.2017.1368521

*Zhou, Y. and **Matyas, C. J.** 2017. Spatial characteristics of storm-total rainfall swaths associated with tropical cyclones over the eastern United States. *International Journal of Climatology,* 37, S1, 557-569. DOI:10.1002/joc.5021.

*Zick, S.E. and **Matyas, C. J.** 2016. A shape metric methodology for studying the evolving geometries of synoptic-scale precipitation patterns in tropical cyclones. *Annals of the Association of American Geographers*, 106, 1217-1235. DOI: 10.1080/24694452.2016.1206460.

*Tang, J. and **Matyas, C. J**. 2016. Fast playback framework for analysis of ground-based Doppler radar observations using Map-Reduce technology. *Journal of Atmospheric and Oceanic Technology,* 33, 621-634. DOI:10.1175/JTECH-D-15-0118.1

*Guo, Q. and **Matyas, C. J.** 2016. Comparing the spatial extent of Atlantic basin tropical cyclone wind and rain fields prior to land interaction. *Physical Geography*, 37, 5-25. DOI: 10.1080/02723646.2016.1142929.

*Hernandez-Ayala, J. J. and **Matyas, C. J**. 2016. Tropical cyclone rainfall over Puerto Rico and its relations to environmental and storm specific factors. *International Journal of Climatology,* 36, 2223-2237. DOI: 10.1002/joc4490.

Cahyanto, I., Pennington-Gray, L., Thapa, B., Srinivasan, S., Villegas, J., **Matyas, C**., Kiousis, S. 2016. Predicting information seeking regarding hurricane evacuation in the destination. *Tourism Management*, 52, 264-275. DOI: 10.1016/j.tourman.2015.06.014

*Zick, S.E and **Matyas, C. J.** 2015. Tropical cyclones in the North American Regional Reanalysis: The impact of satellite derived precipitation over-ocean. *Journal of Geophysical Research-Atmospheres,* 120, 8724-8742. DOI: 10.1002/2015JD023722.

+Silva, J. A., **Matyas, C. J.**, Cunguara, B. 2015. Regional inequality and polarization in the context of concurrent weather and economic shocks: The case of Mozambique**.** *Applied Geography*, 61 105-116. DOI:10.1016/j.apgeog.2015.01.015.

*Zick, S.E and **Matyas, C. J.** 2015. An assessment of tropical cyclone location, intensity, and structure in the North American Regional Reanalysis. *Journal of Geophysical Research- Atmospheres*, 120, 1651-1669. DOI: 10.1002/2014JD022417.

Matyas, C. J. 2015. Tropical cyclone formation and motion in the Mozambique Channel. *International Journal of Climatology,* 35, 375–390. DOI: 10.1002/joc.3985.

Ahmed, S., Stepp, J. R., Orians, C., Griffin, T., **Matyas, C.**, Robbat, A., Cash, S., Dayuan, X., Long, C., Unachukwu, U., Buckley, S., Small, D., and Kennelly, E. 2014. Effects of extreme climate events on tea (*Camellia sinensis*) functional quality validate indigenous farmer knowledge and sensory preferences in tropical China, *PLoS ONE*, 9 (10), e109126. DOI: 10.1371/journal.pone.0109126.

*Dzotsi, K. A., **Matyas, C. J**., Jones, J.W., Baigorria, G., Hoogenboom, G. 2014. Spatial and temporal variability of rainfall in southwest Georgia, *International Journal of Climatology*, 34:11, 3188-3203. DOI: 10.1002/joc.3904.

+**Matyas, C. J.** 2014. Conditions associated with large rain-field areas for tropical cyclones landfalling over Florida, *Physical Geography*, 32:2, 93-106. DOI: 10.1080/02723646.2014.893476.

Silva, J. A., **Matyas, C. J**. 2014. Relating rainfall patterns to agricultural income: Implications for rural development in Mozambique, *Weather, Climate and Society,* 6:2, 218-237. DOI: 10.1175/WCAS-D-13-00012.1.

*Cahyanto, I., Pennington-Gray, L., Thapa, B., Srinivasan, S., Villegas, J., **Matyas, C.**, Kiousis, S. 2014. An empirical evaluation of the determinants of tourists hurricane evacuation decision making, *Journal of Destination Marketing & Management*, 2, 253-265. DOI: 10.1016/j.jdmm.2013.10.003

Matyas, C. J. 2013. Processes influencing rain field growth and decay after tropical cyclone landfall in the U.S., *Journal of Applied Meteorology and Climatology*, 52, 1085-1096, DOI: 10.1175/JAMC-D-12-0153.1.

+Villegas, J., **Matyas, C.**, Srinivasan, S., *Cahyunto, I., Thapa, B., Pennington-Gray, L. 2013. Cognitive and affective responses of Florida tourists after exposure to hurricane warning messages. *Natural Hazards*, 66, 97-119, DOI: 10.1007/s11069-012-0119-3.

+ **Matyas, C. J.**, Silva, J.A. 2013. Extreme weather and economic well-being in rural Mozambique. *Natural Hazards*, 66, 31-49, DOI: 10.1007/s11069-011-0064-6.

*Ash, K.D., **Matyas, C. J.** 2012. The influences of ENSO and the Subtropical Indian Ocean Dipole on tropical cyclone trajectories in the South Indian Ocean. *International Journal of Climatology*, 32:1, 41-56, DOI: 10.1002/joc.2249.

Matyas, C., Srinivasan, S., *Cahyanto, I., Thapa, B., Pennington-Gray, L, Villegas, J. 2011. Risk perception and evacuation decisions of Florida tourists under hurricane threats: A stated preference analysis, *Natural Hazards*, 59:2, 871-890. DOI: 10.1007/s11069-011-9801-0.

*Thompson, B.K, Escobedo, F.J., Staudhammer, C.L., **Matyas, C. J.,** Qiu, Y. 2011. A model of hurricane-caused tree debris in Houston, Texas. *Landscape and Urban Planning*, 101:3, 286-297. DOI:10.1016/j.landurbplan.2011.02.034.

Matyas, C. J. 2010. Locating convection in landfalling tropical cyclones: A GIS-based analysis of radar reflectivities and comparison to lightning-based observations. *Physical Geography*, 31:5, 385-406. DOI:10.2747/0272-3646.31.5.385.

+ **Matyas, C. J.** 2010. Use of ground-based radar for climate-scale studies of weather and rainfall, *Geography Compass*, 4:9, 1218-1237.

Becker, S., Buker, M.L., **Matyas, C. J.,** Rohli, R.V. 2010. Assessing links between upper atmospheric vorticity patterns and directional changes in hurricane tracks. *Theoretical and Applied Climatology*, 102, 379-392. DOI: 10.1007/s00704-010-0269-8.

Matyas, C. J. 2010. Associations between the size of hurricane rain fields at landfall and their surrounding environments. *Meteorology and Atmospheric Physics*, 106, 135-148. DOI 10.1007/s00703-009-0056-1.

+ **Matyas, C. J.** 2010. A geospatial analysis of convective rainfall regions within tropical cyclones after landfall. *International Journal of Applied Geospatial Research*, 1:2, 71-91. DOI: 10.4018/jagr.2010020905.

Matyas, C. J. and Carleton, A. M. 2010. Surface radar-derived convective rainfall associations with Midwest U.S. land surface conditions in summers 1999 and 2000, *Theoretical and Applied Climatology,* 93:3, 315-330. DOI: 10.1007/s00704-009-0144-7.

+ **Matyas, C. J.** and *Cartaya, M. 2009. Comparing the rainfall patterns produced by Hurricanes Frances (2004) and Jeanne (2004) over Florida. *Southeastern Geographer* 49:2, 132-156.

Matyas, C. J. 2009. A spatial analysis of radar reflectivity regions within Hurricane Charley (2004), *Journal of Applied Meteorology and Climatology*, 48:1, 130-142. DOI: 10.1175/2008JAMC1910.1

Matyas, C. 2008. Shape measures of rain shields as indicators of changing environmental conditions in a landfalling tropical storm. *Meteorological Applications*, 15:2, 259-271.

+ **Matyas, C.** 2007. Quantifying the shapes of U.S. landfalling tropical cyclone rain shields. *The Professional Geographer*, 59:2, 158-172.

Matyas, C. 2006. Florida tropical cyclone rainfall totals as related to storm location and intensity. *The Florida Geographer*, 37, 58-71.

Matyas, C. 2006. Using GIS to assess the symmetry of tropical cyclone rain shields. *Papers of the Applied Geography Conferences* 29, 31-39.

Vega, A.J. and **Matyas, C.** 2004. North Atlantic tropical cyclone intensities and macro-scale temperature variations, *The Pennsylvania Geographer*, 42:1, 142-178.

Matyas, C. 1999. Representing the human race, *Janua Sophia*, 1, 1-7.

Manuscripts Under Review

Matyas, C.J., Zick, S.E., and Wood, K.M. Comparing reflectivity from space-based and ground-based radars during detection of rainbands in two tropical cyclones, revisions submitted to *Atmosphere*.

Matyas, C.J., Kim, D., Zick, S. E., Wood, K. M., Four moisture patterns surrounding Atlantic hurricanes revealed by deep learning, in revision *Atmospheric Research*.

Addington, K. D., Zick, S.E., Wood, K. M., Matyas, C. J., Berislavich, K. Variations in tropical cyclone size and rainfall patterns based on synoptic-scale moisture environments in the North Atlantic, in revision *Journal of Geophysical Research Atmospheres.*

Published Conference Proceedings (* student coauthor)

Matyas, C.J., *Ali, Z.S., Zick, S.E., Wood, K. 2023. Comparing reflectivity values from ground- and space-based radars detecting tropical cyclones during U.S. landfall, delivered at the *32nd Conference on Weather Analysis and Forecasting*, Madison, WI 5 pp.

Tang, J. and **Matyas, C. J.** 2021 High efficiency weather radar mosaic image generation framework, 2021 *IEEE International Geoscience and Remote Sensing Symposium* IGARSS, 367-369. http://dx.doi.org/10.1109/IGARSS47720.2021.9554081

Matyas, C. J. and Tang, J. 2020 Analyzing the location of TC rain bands relative to the storm center using metrics of dispersion and closure for changes in radial and tangential directions, *Tropical Meteorology and Tropical Cyclones Symposium*, Boston, MA 7pp.

Moulton, M., **Matyas, C**., Donnelly, J., Modestti, M., St. Laurent, K., Curtis, S., Wellner, J., Craw, M., Ravens, T., Chandra, V. 2018 Coasts and people: Storm resilience testbed, *National Science Foundation Coasts and People Workshop*, September 28, Virtual collaboration 5 pp.

Matyas, C. J., Tang, J., Zick S. 2018 Spatial metrics that facilitate the comparison of radar reflectivity values within landfalling tropical cyclones, *33rd Conference on Hurricanes and Tropical Meteorology*, Ponte Vedra, FL 12 pp.

*Miller, S. R., Meert, J. G., Stofer, K., **Matyas, C. J**., Lannon, H. J., Williams, A. J. 2018 Geobackgrounds: A brief survey of exposure and knowledge of geology among introductory level geology students in Florida, *GSA Annual Meeting*, Indianapolis, IN. http://dx.doi.org/10.1130/abs/2018AM-323415

Matyas, C. J., Stofer, K., Judge, J., Lannon, H. and Lanman, B. 2018 Undergraduate student experiences as part of the NSF-IUSE Geoscience Engagement and Outreach Program: Overview, projects, and results from years 1 and 2, *27th Symposium on Education*, Austin, TX 7pp.

Matyas, C. J. and *VanSchoick, S. 2018. Spatial analysis of rain rates for tropical cyclones affecting Madagascar and Mozambique, *32nd Conference on Hydrology*, Austin, TX 7 pp.

Matyas, C. J., *Tang, J., Zick, S., Schneider, M. 2017. Changes in the radial and tangential distribution of radar reflectivity during tropical cyclone landfalls over the United States, *38th Conference on Radar Meteorology*, Chicago, IL 6 pp.

Stofer, K., Lannon, H. J., **Matyas, C. J.** Judge, J., Lanman, B. 2017 Multiple pathways: Undergraduate research, coursework, and engagement with the public all support geoscience career pursuit. GAS Annual Meeting, Seattle, WA. http://dx.doi.org/10.1130/abs/2017AM-301393

Matyas, C. J., *Zhou, Y. 2017 A climatological analysis of the extent of rainfall produced over the U.S. by Atlantic basin tropical cyclones, *23rd Conference on Applied Climatology*, Asheville, NC 11 pp.

*Zhou, Y. and **Matyas, C.J.** 2016. Spatial characteristics of rainfall associated with tropical cyclones making landfalls over Southeast United States. *EOS Trans. AGU*, 97(52), Fall Meet. Suppl., Abstract A43H-0360.

Matyas, C. J., *Zick. S. E., *Tang, J. 2016 Using shape metrics to compare observed and simulated reflectivity during the landfall of Hurricane Isabel (2003), *32nd Conference on Hurricanes and Tropical Meteorology*, San Juan, Puerto Rico 11 pp.

*Zick. S. E. and **Matyas, C. J.** 2016 Evolving synoptic-scale precipitation patterns in U.S. landfalling tropical cyclones, *32nd Conference on Hurricanes and Tropical Meteorology*, San Juan, Puerto Rico 4 pp.

Matyas, C. J., *Tang, J., *Comstock, I. J., *Zick, S. E. 2016 A spatial analysis of Hurricane Katrina's outer rainbands prior to landfall in Louisiana, *Special Symposium on Hurricane Katrina: Progress in Leveraging Science, Enhancing Response and Improving Resilience*, New Orleans, LA, 6 pp.

*Zick, S. E. and **Matyas, C. J.** 2016 Evolving geometries in the precipitation patterns of 2004-2012 U.S. landfalling hurricanes, *Special Symposium on Hurricane Katrina: Progress in Leveraging Science, Enhancing Response and Improving Resilience*, New Orleans, LA, 9 pp.

Matyas, C. J., *Tang, J, *Zick, S. E. 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), 37th conference on Radar Meteorology, Norman, OK, 7 pp.

Matyas, C.J. 2012 The spatial patterns of rainfall produced by Hurricane Irene (2011) and other tropical cyclones with similar track, *30th Conference on Hurricanes and Tropical Meteorology,* Ponte Vedra, FL. 6 pp.

Matyas, C.J. 2010. A geospatial analysis of radar reflectivity data from landfalling tropical cyclones. *26th International Conference on Interactive Information Processing Systems for Meteorology, Oceanography, and Hydrology,* Atlanta, GA. 11 pp.

Matyas, C.J, *Fernandez-Salvador, L., and Calme, S. 2008. Tree damage in Quintana Roo, Mexico caused by Hurricane Dean (2007). *28th Conference on Hurricanes and Tropical Meteorology*, Orlando, FL. 5 pp.

Matyas, C.J. 2007. Comparing the rainfall patterns of Hurricanes Frances (2004) and Jeanne (2004) during landfall over Florida. *Proceedings of IUGG XXIV General Assembly; International Association of Meteorology and Atmospheric Sciences*, JMS010-989.

Matyas, C.J. 2007. Analyzing tropical cyclone radar reflectivity patterns using GIS. *Geophysical Research Abstracts*, 9, 03083.

Matyas, C.J. 2006. Relating rainfall and wind fields of Hurricane Charley (2004). *EOS Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract A13E-0979.

Matyas, C.J. 2006. Analyzing tropical cyclone rain shields according to storm size. *27th Conference on Hurricanes and Tropical Meteorology, Monterey, CA*. 6 pp.

Matyas, C.J. 2006. Using annular rings and quadrants to clip polygons representing tropical cyclone precipitation in a Geographical Information System. *22nd International Conference on Interactive Information Processing Systems for Meteorology, Oceanography, and Hydrology,* Atlanta, GA. 6 pp.

Matyas, C.J. 2005. Using Geographical Information Systems for the spatial analysis of base reflectivity radar data and applications to the study of tropical cyclone precipitation patterns. *15th Conference on Applied Climatology*, Savannah, GA. 6 pp.

<u>Other Publications: Project Reports, Conference Summaries, Software Review</u>

Matyas, C.J. and J. Collins 2013 I'll follow the sun . . . to Tampa, AAG newsletter September. DOI: 10.14433/2013.0017

Thapa, B., Pennington-Gray, L. Srinivasan, S. Villegas, J. **Matyas, C. J.,** *Cahyanto, I. P. 2010. Identifying the factors that influence the evacuation decisions of Florida tourists when hurricanes strike. Final report submitted to the Eric Friedheim Foundation by the Tourism Crisis Management Institute, University of Florida, February 1. 47 pp.

Collins, J. and **Matyas, C.J.** 2009. Using geographic techniques to investigate tropical cyclone rain fields. *Bulletin of the American Meteorological Society* 90:5, 600-600.

Matyas, C.J. 2006. 3D data visualization with Golden Software's Voxler. *Geospatial Solutions* software review. Sep. 28 issue, 5 pp.

Invited Talks

Climate Communications Summit, Florida Climate Institute, Gainesville, FL January 25, 2024
Dept. of Geographical Sciences, University of Maryland, College Park, MD May 11, 2023
Department of Geography, University of West Florida, virtual lecture, February 18, 2022
Pahokee High School: Scientist in Every Florida School, virtual lecture, August 20, 2021
WyGISC Geospatial Forum Series, University of Wyoming, virtual lecture, February 18, 2021
Florida Museum of Natural History and UF Thompson Earth Systems Institute, Gainesville, FL September 11, 2019
National Weather Service Jacksonville, FL August 16, 2019
Weather Prediction Center, College Park, MD June 28, 2019
Dept. of Geography, University of Tennessee, Knoxville, TN March 26, 2019
Dept. of Geosciences, Mississippi State University, Starkville, MS October 4, 2018
National Science Foundation Coasts and People Workshop, Virtual Meeting, September 28, 2018
Dept. of Geosciences, Georgia State University, Atlanta, GA March 1, 2018
Dept. of Geography, University of North Alabama, Florence, AL November 17, 2017
Lidar-Radar Open Source Environment (LROSE) Kick-off Workshop, National Center for Atmospheric Research, Boulder, CO April 11, 2017
Dept. of Geography, Texas A&M University, College Station, TX November 11, 2016
Dept. of Geography, University of North Texas, Denton, TX March 21, 2016
Dept. of Geography, University of North Carolina Chapel Hill, Chapel Hill, NC March 4, 2016
Cape Canaveral Chapter of the American Meteorological Society, Merritt Island, FL March 26, 2013
Dept. of Geographical Sciences, University of Maryland, College Park, MD, February 16, 2012
Embry-Riddle Aeronautical University, Daytona Beach, FL, February 26, 2009
West Central Florida Chapter of the AMS, Tampa, FL, September 30, 2008
Dept. of Anthropology, Geology, and Geography, Indiana State Univ. Terre Haute, IN April 30, 2007
National Hurricane Center, Miami, FL, August 15, 2006
AAG Warren Nystrom Competition Finals, Chicago, IL, March 10, 2006

Campus Talks

Environmental Science course lecture, October 29, 2024
Environmental Science course lecture, March 26, 2024
Department of Geography Colloquium, January 26, 2023
Department of Geography Colloquium, September 9, 2021
Department of Geological Sciences, November 21, 2019
UF Elegance of Science Awards Reception, April 1, 2019
UF Water Institute Collaborative Workshop, March 22, 2018
Physics Department Seminar, November 2, 2017
Geography Department Colloquium, October 27, 2016
Water, Wetlands and Watersheds Seminar, October 2, 2013
UF Center for Precollegiate Education and Training Summer Science Institute, July 17, 2013

Geography Department Colloquium, November 15, 2012
Geography Department Colloquium, January 26, 2012
Geography Department Colloquium, November 4, 2010
Transportation Seminar, Dept. of Civil and Coastal Engineering, October 28, 2010
GIS Day 2009, Smathers Libraries, November 18, 2009
Department of Agricultural and Biological Engineering Seminar, March 23, 2009
Crisis Management Interdisciplinary Think Tank, January 18, 2008
Geography Department Colloquium, October 18, 2007
Department of Civil and Coastal Engineering, October 15, 2007
Physics Department Seminar, October 19, 2006
Mathematics Department Seminar, April 12, 2006
Geography Department Colloquium, February 23, 2006

Presentations Delivered (since June 2005) (*graduate student coauthor, # undergraduate student)

Matyas, C.J., Kim, D., Zick, S.E., Wood, K.M. 2024 Dominant patterns of moisture surrounding Atlantic basin hurricanes, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 25, Greenville, SC.

Matyas, C. J. 2024 Geoscience research and geoscience mentoring, delivered to UF Environmental Science class, October 29, Gainesville, FL.

Matyas, C.J., *Ali, Z.S., Zick, S.E., Wood, K.M. 2024. Three methods for comparing reflectivity values detected by satellite and ground-based radars during landfalling tropical cyclones, delivered at the *36th Conference on Hurricanes and Tropical Meteorology*, May 10, Long Beach, CA.

Matyas, C. J. 2024 Climatology, tropical cyclones, and geoscience mentoring, delivered to UF Environmental Science class, March 26, Gainesville, FL.

Matyas, C.J., *Ali, Z.S., Zick, S.E., Wood, K. 2023. Examining differences between point-matched and mosaicked reflectivity values from multiple radars for two tropical cyclones, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 21, Norfolk, VA.

Matyas, C.J., *Ali, Z.S., Zick, S.E., Wood, K. 2023. Comparing reflectivity values from ground- and space-based radars detecting tropical cyclones during U.S. landfall, delivered at the *32nd Conference on Weather Analysis and Forecasting*, 20 July, Madison, WI.

Matyas, C.J., *Ali, Z.S., Zick, S.E., Wood, K. 2023. Different perspective: Space- and ground-based radars detecting tropical cyclones, delivered at the *Department of Geographical Sciences Colloquium*, 11 May, College Park, MD.

Matyas, C.J., *Ali, Z.S., Zick, S.E., Wood, K. 2023. An object-based comparison of reflectivity patterns in tropical cyclone rainbands detected by multiple radars, delivered at the *American Association of Geographers Annual Meeting,* 26 March, Denver, CO.

Matyas, C.J., *Ali, Z.S., Zick, S.E., Wood, K. 2023. Reflectivity as detected by space- and ground-based radars detecting tropical cyclones, delivered at the *Department of Geography Colloquium*, 26 January, Gainesville, FL.

Matyas, C.J., *Ali, Z.S., Zick, S.E., Wood, K. 2022. Mismatches in reflectivity as detected by space- and ground-based radars during landfalling tropical cyclones, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 21, Atlanta, GA.

Matyas, C.J., *Ali, Z.S., Zick, S.E., Wood, K. 2022. An object-based approach to comparing reflectivity values for tropical cyclone rainbands detected by satellite and ground-based radars, delivered at the *35th Conference on Hurricanes and Tropical Meteorology,* May 10, New Orleans, LA.

Matyas, C.J. 2022. Strategies for examining tropical cyclone rainbands using remotely-sensed datasets, *Dept. of Earth and Environmental Sciences University of West Florida,* February 18, remote presentation.

Matyas, C.J.; *Ali, Z.S.; *Holliday, B. M.; Wood, K. M.; Zick, S. E.; Tang, J. 2022. Comparing reflectivity values from ground- and space-based radars detecting tropical cyclones during U.S. landfall, delivered at the *Symposium on Radar Science in the Service of Earth System Predictability*, January 25, virtual meeting.

Matyas, C.J. and Zhou, Y. 2021. Comparing the width of TC rainfall swaths to the radius of the outermost closed isobar, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 22, Florence, AL.

Stofer, K., Lannon, H., Matyas, C., and Judge, J. 2021. High-impact mentored university-based STEM research for minoritized college students, group presentation and panel discussion delivered at the *Florida Statewide Symposium Best Practices in Undergraduate Research,* October 23, Gainesville, FL.

Matyas, C.J., Stofer, K. A., Lannon, H. J., Judge, J., Hom, B., Lanman, B. 2021. Mentoring diverse 2-year college students in geoscience research, delivered at the *Department of Geography Colloquium Series*, University of Florida, September 9, Gainesville, FL.

Matyas, C.J. 2021 Tropical cyclone formation and locations, delivered at *Pahokee High School: Scientist in Every Florida School*, August 20, 2021, Virtual Lecture.

Matyas, C.J. 2021 Geospatial research on rain fields of tropical cyclones moving over land, delivered at the *WyGISC Geospatial Forum Series*, University of Wyoming, February 18, Virtual Lecture.

Matyas, C.J. and *Ali, Z. 2020 Comparing differences in spatial resolution when analyzing reflectivity detected by ground-based radars, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 6, Virtual Meeting.

Matyas, C.J. and #VanSchoick, S. 2020 Differences in asymmetry for tropical cyclone rain fields near Madagascar and Mozambique, delivered at the *Florida Society of Geographers Annual Meeting*, February 8, Gainesville, FL.

Matyas, C.J. and Tang, J. 2020 Analyzing the location of TC rain bands relative to the storm center using metrics of dispersion, displacement, and closure to account for changes in radial and tangential directions, delivered at the *Tropical Meteorology and Tropical Cyclones Symposium*, January 15, Boston, MA.

Matyas, C.J., Stofer, K., Lannon, H., Judge, J., and Lanman, B. 2019 Students at a 2-year college benefit from but also encounter difficulties in geoscience research with faculty at a 4-year University, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 25, Wilmington, NC.

Matyas, C.J. 2019 Model predictions versus observations of hurricane rainbands, delivered at the *Geological Sciences Department Colloquium Series*, November 21, Gainesville, FL.

Matyas, C.J. 2019 Florida's experiences with tropical weather systems, delivered at the *Science on Tap Series* hosted by the Florida Museum of Natural History and UF Thompson Earth Systems Institute, September 11, Gainesville, FL.

Matyas, C.J. 2019 Tropical cyclones around the JAX CWA and research on TC rain extent, delivered at the *Mid-Season Tropical Webinar*, National Weather Service Office Jacksonville, FL.

Matyas, C.J. 2019 The Geography of rainfall regions within landfalling tropical cyclones, delivered at the *Weather Prediction Center*, June 28, College Park, MD.

Matyas, C.J., Stofer, K., Judge, J., Lannon, H. and Lanman, B. 2019 Mentoring undergraduate student research as part of the NSFIUSE Geoscience Engagement and Outreach Program: Successes and challenges, delivered at the *American Association of Geographers Annual Meeting*, April 4, Washington, D.C.

Matyas, C.J. 2019 Core melt, delivered at the UF Elegance of Science Awards Reception, Florida Museum of Natural History, April 1, Gainesville, FL.

Matyas, C.J. 2019 Tropical cyclones: Environmental conditions and spatial analysis, delivered to Extreme Weather and Climate course, Department of Geography, University of Tennessee, March 26, Knoxville, TN.

Matyas, C.J. 2018 Spatial metrics to compare rainfall regions of tropical cyclones, delivered at the Dept. of Geosciences Colloquium Series, Mississippi State University, October 4, Starkville, MS.

Matyas, C.J., Tang, J., Zick S.E. 2018 Spatial metrics that facilitate the comparison of radar reflectivity values within landfalling tropical cyclones, delivered at the *33rd Conference on Hurricanes and Tropical Meteorology*, April 19, Ponte Vedra, FL.

Matyas, C.J. 2018 Analyzing the spatial dimensions of the rain fields of tropical cyclones, delivered at the Department of Geosciences Colloquium Series at Georgia State University, March 1, Atlanta, GA.

Matyas, C J. and *VanSchoick, S. 2018 Spatial analysis of rain rates for tropical cyclones affecting Madagascar and Mozambique, delivered at the *32nd Conference on Hydrology*, January 9, Austin, TX.

Matyas, C.J., Stofer, K., Judge, J., Lannon, H. and Lanman, B. 2018 Undergraduate student experiences as part of the NSF-IUSE Geoscience Engagement and Outreach Program: Student research using GIS-based spatial analysis of rain rates, delivered at the *27th Symposium on Education*, January 8, Austin, TX.

Matyas, C.J. and Tang, J. 2017 Measuring changes in dispersion and closure of rainbands in two landfalling tropical cyclones, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 19, Starkville, MS.

Matyas, C.J. 2017 Conditions for hurricane formation and analysis of their rainfall patterns, delivered to the Department of Geography at the University of North Alabama, November 17, Florence, AL.

Matyas, C.J., 2017 Hurricanes: From formation to landfall, delivered at the Physics Department Seminar Series, November 2, Gainesville, FL.

Matyas, C.J., *Tang, J. Zick, S.E. and Schneider, M. 2017 Changes in the radial and tangential distribution of radar reflectivity during tropical cyclone landfalls over the United States, delivered at the *38th Conference on Radar Meteorology,* August 29, Chicago, IL.

Matyas, C.J., *Zhou, Y. 2017 A climatological analysis of the extent of rainfall produced over the U.S. by Atlantic Basin tropical cyclones, delivered at the *23rd Conference on Applied Climatology*, June 26, Asheville, NC.

Matyas, C.J. and *Tang, J. 2017 Defining the spatial properties of precipitation features using data from the WSR-88D network, delivered at the *LROSE Kick-off Workshop*, National Center for Atmospheric Research, April 11, Boulder, CO.

Matyas, C.J. Zick, S.E., and *Tang, J. 2017 Comparing the spatial arrangement of rainband structures observed and simulated for Hurricane Isabel (2003), delivered at the *American Association of Geographers Annual Meeting,* April 9, Boston, MA.

Zick, S.E. and Matyas, C.J. (Presenting Author) 2017 A global study of synoptic-scale changes in tropical cyclone structure & the relationship to large-scale moisture, delivered at the *American Association of Geographers Annual Meeting,* April 6, Boston, MA.

Matyas, C.J., Zick, S.E., and *Tang, J. 2016 Assessing bias in simulated radar reflectivity values for a landfalling hurricane, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 21, Columbia, SC.

Matyas, C.J. 2016 Investigating the spatial properties of tropical cyclone rain fields, delivered at the Department of Geography, Texas A&M University, November 11, College Station, TX.

Matyas, C.J. 2016. CAREER research update: Tropical cyclone structure and rainfall, delivered at the *Department of Geography Colloquium Series*, University of Florida, October 27, Gainesville, FL.

Matyas, C.J., *Zick. S.E., *Tang, J. 2016 Using shape metrics to compare observed and simulated reflectivity during the landfall of Hurricane Isabel (2003), delivered at the *32nd Conference on Hurricanes and Tropical Meteorology,* April 21, San Juan, Puerto Rico.

Matyas, C.J. and *Zhou, Y. 2016 Relating environmental conditions to storm shape for tropical cyclones landfalling over the western Gulf of Mexico and Caribbean Sea, delivered at the *American Association of Geographers Annual Meeting,* March 31, San Francisco, CA.

Matyas, C.J. 2016 Measuring space: Changes in tropical cyclone structure during landfall, delivered at the University of North Texas, March 21, Denton TX.

Matyas, C.J. 2016 On the edge: Identifying and measuring tropical cyclone rain fields, delivered at the *Department of Geography Colloquium Series*, University of North Carolina Chapel Hill, March 4, Chapel Hill, NC.

Matyas, C.J., *Tang, J., *Comstock, I. J., *Zick, S.E. 2016 A spatial analysis of Hurricane Katrina's outer rainbands prior to landfall in Louisiana, delivered at the *Special Symposium on Hurricane Katrina: Progress in Leveraging Science, Enhancing Response and Improving Resilience*, January 11, New Orleans, LA.

Matyas, C.J., Stepp, J.R, Orians, C., Ahmed, S., Griffin, T., Cash, S., Robbat, A. 2015 Precipitation variability at three tea-growing sites in China, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 23, Pensacola, FL.

Matyas, C.J., *Tang, J, *Zick, S. E. 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), delivered at the 37th Conference on Radar Meteorology, September 16, Norman, OK.

Matyas, C.J., *Comstock, I., *Hernandez-Ayala, J.J., *Tang, J., *Zhou, Y., *Zick, S., *Wang, Y., *Yan, G., *Guo, Q., *Kim, S. 2015 Measuring tropical cyclones and their rainfall using multiple datasets and analytical techniques, delivered at the *Association of American Geographers Annual Meeting*, April 23, Chicago, IL.

Matyas, C.J. 2015 Measuring gaps in tropical cyclone rainbands using Level II radar reflectivity data, delivered at *the 69th Annual Interdepartmental Hurricanes Conference*, March 3, Jacksonville, FL.

Matyas, C.J. 2015 Florida Hurricanes, delivered at the *Florida Museum of Natural History Science Café*, February 9, Newberry, FL.

Matyas, C.J. 2015 A GIS analysis of rain field size for tropical cyclones before and after landfall using data from TRMM, delivered at the *95th American Meteorological Society Annual Meeting,* January 8, Phoenix, AZ.

Matyas, C.J. 2014 Atmospheric and storm-relative conditions associated with large rain-field areas when tropical cyclones approach Florida, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 24, Athens, GA.

Matyas, C.J. and *Tang, J. 2014 Using a geographic information system to quantify the spatial arrangement of tropical cyclone rainbands as detected by ground-based radar, delivered at the *10th International Conference on Mesoscale Convective Systems*, September 15, Boulder, CO.

Matyas, C.J. and *Tang, J. 2014 Measuring the degree of closure of tropical cyclone outer rainbands and inner core, delivered at the *Association of American Geographers Annual Meeting*, April 9, Tampa, FL.

Matyas, C.J. 2014 Hurricanes and rainfall, delivered at the *University of Florida Medical Guild Lecture Series*, February 4, Gainesville, FL.

Matyas, C.J. 2014 Tropical cyclones in the Mozambique Channel: relationships with atmospheric teleconnections, delivered at the *94th American Meteorological Society Annual Meeting,* February 4, Atlanta, GA.

Matyas, C.J. 2013 Associations between the diurnal cycle and rain field size after tropical cyclone landfall, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 25, Roanoke, VA.

Matyas, C.J. 2013 The changing sizes of tropical cyclone rainfall regions near the time of Florida landfall, delivered at the Global Precipitation Measurement (GPM) Applications Workshop, November 12, College Park, MD.

Matyas, C.J. 2013 Tropical cyclone rainfall over land, delivered at the *Water, Wetlands and Watersheds Seminar*, October 2, Gainesville, FL.

Matyas, C.J. 2013 Hurricane formation, delivered at *the UF Center for Precollegiate Education and Training Summer Science Institute*, July 17, Gainesville, FL.

Matyas, C.J. 2013 A TRMM-based analysis of tropical cyclone rainfall regions over land and water, delivered at the *Association of American Geographers Annual Meeting*, April 10, Los Angeles, CA.

Matyas, C. J. 2013 Hurricanes at landfall: rain-field sizes and their relationship to environmental conditions, delivered at the *Symposium for Sustaining Economies and Natural Resources in a Changing World: Key Role of Land Grant Universities*, April 2, Gainesville, FL.

Matyas, C.J. 2013 Landfalling tropical cyclones: GIS-based radar analysis and survey of tourist interpretations of track forecast maps, delivered at the March meeting of the Cape Canaveral American Meteorological Society Chapter, March 26, Merritt Island, FL.

Matyas, C.J. and *Tang, J. 2013 Geospatial properties of tropical cyclone rain bands as detected by ground-based radar, delivered at the *29th Conference on Environmental Information Processing Technologies* at the *93rd American Meteorological Society Annual Meeting*, January 7, Austin, TX.

Matyas, C.J. 2012 Tropical cyclone formation in the Mozambique Channel, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 19, Asheville, NC.

Matyas, C.J. 2012 The spatial patterns of rainfall produced by Hurricane Irene (2011) and other tropical cyclones with similar track, delivered at the *American Meteorological Society's 30th Conference on Hurricanes and Tropical Meteorology,* April 17, Ponte Vedra, FL.

Matyas, C.J. 2012 The influence of the diurnal cycle on rain field size in landfalling tropical cyclones, delivered at the *Association of American Geographers Annual Meeting*, February 24, New York, NY.

Matyas, C.J. 2012 Tropical cyclone research from a Geographer's perspective, delivered at the *Department of Geographical Sciences lecture series on Human-Environment Interactions*, February 26, College Park, MD.

Matyas, C.J., Silva J.A. 2012 Rainfall patterns and economic well-being in rural Mozambique, delivered at the *UF Department of Geography Colloquium,* January 26.

Matyas, C.J., Villegas, J., Srinivasan, S., *Cahyunto, I., Thapa, B., Pennington-Gray, L. 2011 Evacuation intentions of Florida tourists when a hurricane is predicted to make landfall, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 21, Savannah, GA.

Matyas, C.J. 2011 Forcings associated with changes in the areal coverage of tropical cyclone rain fields after landfall, delivered at the *Florida Climate Institute Annual Conference and Workshop on Climate Variability and Change*, November 14, Gainesville, FL.

Matyas, C.J. 2011 Predicting the extent of hurricane rain fields at the time of landfall, delivered at the *Association of American Geographers Annual Meeting*, April 14, Seattle, WA.

Matyas, C.J., Srinivasan, S., *Cahyanto, I., Pennington-Gray, L., Thapa, B., Villegas, J. 2011 Attributes affecting the evacuation decisions of Florida tourists when a hurricane landfall is projected, delivered at the *Florida Society of Geographers annual meeting*, February 19, Gainesville, FL.

Matyas, C.J. 2011 Hurricanes, delivered at The Institute for Learning in Retirement, Oak Hammock, February 8, Gainesville FL.

Matyas, C.J. 2010 Radar reflectivity profiles of lightning flashes during the landfall of Hurricane Jeanne (2004), delivered at the *Association of American Geographers South East Division Annual Meeting,* November 23, Birmingham, AL.

Matyas, C.J. 2010 Current tropical cyclone research, delivered at the *UF Department of Geography Colloquium,* November 4.

Matyas, C.J. 2010 Investigating rainfall regions through a GIS-based analysis of radar reflectivity data, delivered at the *Florida Climate Institute Kick-Off Meeting*, November 16, Tallahassee, FL

Matyas, C.J. 2010 Hazards to transportation networks posed by tropical cyclones, delivered at the *UF Transportation Seminar Series*, Oct. 28, Gainesville, FL.

Matyas, C.J. 2010 A GIS-based analysis of the composition of tropical cyclone rain shields at landfall, delivered at the *Association of American Geographers Annual Meeting*, April 15, Washington, DC.

Matyas, C.J. 2010 Using geospatial analysis techniques to investigate the spatial properties of tropical cyclone rain fields, delivered at the *64rd Annual Interdepartmental Hurricanes Conference*, March 3, Savannah, GA.

Matyas, C.J. 2010 A geospatial analysis of radar reflectivity data from landfalling tropical cyclones, delivered at the *26nd International Conference on Interactive Information Processing Systems for Meteorology, Oceanography, and Hydrology,* January 19, Atlanta, GA.

Matyas, C.J. 2009 Comparing radar-derived convective precipitation with lighting data in landfalling tropical cyclones, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 24, Knoxville, TN.

Matyas, C.J. 2009 Using radar and GIS, delivered at *GIS Day 2009* held at Smathers Libraries, University of Florida, November 18, Gainesville, FL.

Matyas, C.J. 2009 A GIS-based analysis of the post-landfall shape properties of tropical cyclone rain fields, delivered at the *National Weather Association Conference on Inland Impacts of Tropical Cyclones*, June 11, Atlanta, GA.

Matyas, C.J. 2009 Analysis of hurricanes using shape metrics and GIS, delivered at the *Department of Agricultural and Biological Engineering seminar series,* March 23, Gainesville, FL.

Matyas, C.J. 2009 Hurricanes at landfall: rain-field sizes and their relationship to environmental conditions, delivered at the *63rd Annual Interdepartmental Hurricanes Conference*, March 4, St. Petersburg, FL.

Matyas, C.J. 2009 Tropical cyclone research: A GIS-based approach, delivered in the *Department of Applied Meteorology, Embry Riddle Aeronautical University*, February 26, Daytona Beach, FL.

Matyas, C.J. and Carleton, A.M. 2009 Associations between convective rainfall and land surface conditions in the U.S. Midwest, delivered at the *Florida Society of Geographers annual meeting*, January 24, St. Augustine, FL.

Matyas, C.J. 2008 Comparing the wind and rain fields of tropical cyclones at landfall, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 24, Greensboro, NC.

Matyas, C.J. 2008 Utilizing geographic techniques to investigate the spatial properties of the rain fields of tropical cyclones, delivered at *the West Central Florida chapter of the American Meteorological Society,* September 30, Tampa, FL.

Matyas, C.J, *Fernandez-Salvador, L., and Calme, S. 2008 Tree damage in Quintana Roo, Mexico caused by Hurricane Dean (2007), delivered at the *American Meteorological Society's 28th Conference on Hurricanes and Tropical Meteorology* May 1, Orlando, FL.

Matyas, C.J. 2008 Hurricane Dean: Relating observed forest damage to the official storm track, delivered at the *Association of American Geographers 2008 Annual Meeting*, April 17, Boston, MA.

Matyas, C.J. 2008 Hurricane-climate linkages, delivered at *The Institute for Learning in Retirement, Oak Hammock*, April 8, Gainesville FL.

Matyas, C. J. 2008 An examination of rainfall rates using radar estimates and rain gauge data during the passage of a hurricane, delivered at the *Florida Society of Geographers annual meeting*, January 26, Miami, FL.

Matyas, C.J. 2007 Classifying radar reflectivity regions during the landfall of Hurricane Charley (2004), delivered at the *Association of American Geographers South East Division Annual Meeting*, November 20, Charleston, SC.

Matyas, C.J. 2007 A GIS analysis of Hurricane Charley (2004), delivered at the *UF Department of Geography Colloquium* October 18.

Matyas, C.J. 2007 Analyzing hurricanes – A geographer's perspective, delivered at the *University of Florida Department of Civil and Coastal Engineering Seminar Series* October 15.

Matyas, C.J. 2007 Comparing the rainfall patterns of Hurricanes Frances (2004) and Jeanne (2004) during landfall over Florida, delivered at the *International Union of Geodesy and Geophysics XXIV General Assembly*, July 2, Perugia, Italy.

Matyas, C.J. 2007 Could global warming equal more hurricane warnings?, delivered at the *Department of Geography, Geology, and Anthropology, Indiana State University*, April 29, Terre Haute, Indiana.

Matyas, C.J. 2007 Analyzing tropical cyclone radar reflectivity patterns using GIS, delivered at the *European Geosciences Union General Assembly*, April 16, Vienna, Austria.

Matyas, C.J. 2007 A GIS analysis of radar and surface wind data from a landfalling hurricane, delivered at the *61st Annual Interdepartmental Hurricanes Conference*, March 7, New Orleans, LA.

Matyas, C.J. 2007 Spatial characteristics of tropical cyclone rainfall patterns in Florida, delivered at the *Florida Society of Geographers* annual meeting, February 10, Jacksonville, FL.

Matyas, C.J. 2006 Relating the rain and wind fields of Hurricane Charley 2004, delivered at the *American Geophysical Union Fall Meeting*, December 11, San Francisco, CA.

Matyas. C.J. 2006 Climate change and tropical cyclones: Is a category six on the horizon?, delivered at the *Physics Department Colloquium Series*, October 19, Gainesville, FL.

Matyas, C.J. 2006 Using GIS to assess the symmetry of tropical cyclone rain shields, delivered at the *29th Annual Applied Geography Conference,* October 12, Tampa, FL.

Matyas, C.J. 2006 Measuring tropical cyclone rain shield shapes with GIS, delivered at the *Hurricane Research Division of the National Oceanic and Atmospheric Administration,* August 15, Miami, FL.

Matyas, C.J. 2006 Analyzing tropical cyclone rain shields according to storm size, delivered at the *27th Conference on Hurricanes and Tropical Meteorology,* April 24, Monterrey, CA.

Matyas, C.J. 2006 Predicting the spatial extent of tropical cyclone rainfall, delivered at the *Department of Mathematics Colloquium Series*, April 12, Gainesville, FL.

Matyas, C.J. 2006 Relating the shapes of landfalling tropical cyclone rain shields to storm intensity, distance inland, and topography, delivered at the *Association of American Geographers 2006 Annual Meeting*, March 10, Chicago, IL.

Matyas, C.J. 2006 Quantifying the shapes of U.S. land falling tropical cyclone rain shields, *UF Geography* colloquium February 23.

Matyas, C.J. 2006 Quantifying the effects of wind shear on tropical cyclone rain shields, delivered at the *Florida Society of Geographers 2006 Annual Meeting*, February 18, St. Petersburg, FL.

Matyas, C.J. 2006 Using annular rings and quadrants to clip polygons representing tropical cyclone precipitation in a Geographical Information System. *22nd International Conference on Interactive Information Processing Systems for Meteorology, Oceanography, and Hydrology*, Atlanta, GA.

Matyas, C.J. 2005 Relating tropical cyclone rainfall patterns to storm size, delivered at the *Association of American Geographers South East Division Annual Meeting*, November 21, West Palm Beach, FL.

Matyas, C.J., 2005 Using Geographical Information Systems for the spatial analysis of base reflectivity radar data and applications to the study of tropical cyclone precipitation patterns, *15th Conference on Applied Climatology*, Savannah, GA.

Presentation Co-Authorship (&Postdoctoral Researcher, *Graduate Student, #Undergraduate Student)

*Akter, A. and Matyas, C. J. 2024. Comparison of three precipitation datasets in capturing rainfall patterns during tropical cyclones in the North Indian Ocean, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 25, Greenville, SC.

Wood, K., Zick, S.E., Matyas, C.J. 2024. A spatio-temporal comparison of moisture environments associated with North Atlantic and eastern North Pacific hurricanes, delivered at the *36th Conference on Hurricanes and Tropical Meteorology*, May 10, Long Beach, CA.

#Ghosh, S., Matyas, C. J., Deegan, A., Beyersdorf, A. 2024. Vertical distribution of Saharan dust during the NASA CPEX-CV campaign, delivered at the *36th Conference on Hurricanes and Tropical Meteorology*, May 9, Long Beach, CA.

*Ali, Z., Matyas, C.J., Wood, K.M., Zick, S.E. 2024. Assessing radar reflectivity in tropical cyclones: A comparative analysis from satellite and ground-based radars, delivered at the *36th Conference on Hurricanes and Tropical Meteorology*, May 7, Long Beach, CA.

*Akter, A. and Matyas, C.J. 2024. Comparing the spatial patterns of rainfall and atmospheric moisture among three major tropical cyclones: A case study of Bangladesh, delivered at the *American Association of Geographers Annual Meeting,* April 13, Honolulu, HI.

Zick, S.E., *Addington, K., Wood, K., *Berislavich, K., Matyas, C.J. 2024. The role of environmental moisture on tropical cyclone size and structure, delivered at the *American Meteorological Society Annual Meeting*, January 31, Baltimore, MD.

Wood, K., Zick, S.E., Matyas, C.J. 2023. Evolution of mature North Atlantic tropical cyclones in varied moisture environments, delivered at the *American Geophysical Union Annual Meeting*, December 15, San Francisco, CA.

&Kim, D., Park, D.S., Matyas, C.J. 2023. Influence of El Niño–Southern Oscillation on rainfall characteristics of tropical cyclones over the western North Pacific, delivered at the *American Geophysical Union Annual Meeting*, December 15, San Francisco, CA.

*Akter, A. and Matyas, C.J. 2023 Comparing spatial structure of total rainfall for four major tropical cyclones from 2000 to 2020 by using IMERG Data: A case study of Bangladesh, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 20, Norfolk, VA.

Wood, K. M., *Berislavich, K., Zick, S.E., *Addington K., and Matyas, C.J. 2023 Quantifying impacts of environmental moisture spatial patterns on tropical cyclones via observational datasets, delivered at the *32nd Conference on Weather Analysis and Forecasting*, 19 July, Madison, WI.

Zhou, Y. and Matyas, C. J. 2023 Assessing environmental conditions associated with spatially varying rainfall structure of North Atlantic tropical cyclones: An object-based climatological analysis, delivered at the *American Association of Geographers Annual Meeting,* 26 March, Denver, CO.

*Ali, Z., Matyas, C.J., Wood, K.M., Zick, S.E. 2023 Comparing radar reflectivity values of convective and stratiform precipitation retrieved from satellite- and ground-based radars in tropical cyclones, delivered at the *American Association of Geographers Annual Meeting,* 26 March, Denver, CO.

*Addington, K., Zick, S.E., Wood, K.M., *Berislavich, K., Matyas, C.J. 2023 The role of environmental moisture on tropical cyclone size and structure, delivered at the *American Association of Geographers Annual Meeting,* 23 March, Denver, CO.

*Berislavich, K., Wood, K.M., Zick, S.E., *Addington, K., Matyas, C.J., *Ali, Z.S., 2023. A multi-dataset assessment of the relationship between environmental moisture and rainband structure in mature North Atlantic tropical cyclones, delivered at the *5th Special Symposium on Tropical Meteorology and Tropical Cyclones*, January 11, Denver, CO.

*Stackhouse, S., Zick, S.E., Matyas, C.J., Wood, K.M., 2023. Evaluating the skillfulness of high resolution model forecasts of tropical cyclone precipitation using an object-based methodology, delivered at the *5th Special Symposium on Tropical Meteorology and Tropical Cyclones,* January 10, Denver, CO.

*Addington, K., Zick, S. E., Wood, K.M., *Berislavich, K., Matyas, C.J., 2023. The role of environmental moisture on tropical cyclone size and structure, delivered at the *5th Special Symposium on Tropical Meteorology and Tropical Cyclones,* January 10, Denver, CO.

*VanSchoick, S., Matyas, C.J., Ash, K.D., 2022. Exploratory analysis of FEMA individual assistance for tropical cyclone induced flooding, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 21, Atlanta, GA.

*Ali, Z., Matyas, C.J., Wood, K., Zick, S.E., 2022. Comparing radar reflectivity values of convective and stratiform precipitation retrieved from satellite- and ground-based radars in tropical cyclones, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 21, Atlanta, GA.

*Stackhouse, S., Zick, S.E., Matyas, C.J., Wood, K. 2022. Evaluating the skillfulness of the Hurricane Analysis and Forecasting System (HAFS) precipitation forecasts for Hurricane Isaias and Hurricane Laura using point- and object-based verification methods, delivered at the *35th Conference on Hurricanes and Tropical Meteorology,* May 11, New Orleans, LA.

*Ali, Z., Matyas, C.J., Wood, K., Zick, S.E., *Holliday, B.M., *Stackhouse, S. 2022. Using a point-based method to compare satellite-based and ground-based radar reflectivity values in landfalling tropical cyclones, delivered at the *35th Conference on Hurricanes and Tropical Meteorology,* May 11, New Orleans, LA.

*Berislavich, K., Wood, K., Zick, S.E., Matyas, CJ. 2022 Assessment of environmental moisture patterns and their Influence on tropical cyclone rainband structure, delivered at the *35th Conference on Hurricanes and Tropical Meteorology,* May 9, New Orleans, LA.

*Gao, S., Wang, Y., Wang, R., Matyas, C.J. 2022 Household-targeted hurricane warnings for effective evacuation. Delivered at the *Weather Ready Research Webinar*, April 13, virtual meeting.

*Ali, Z., Matyas, C. J., Wood, K., *Holliday, M., Zick, S., *Stackhouse, S. 2021. Point-based comparison between satellite-based and ground-based radar reflectivity values in tropical cyclones, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 22, Florence, AL.

Tang, J. and Matyas, C.J. 2021. High Efficiency Weather Radar Mosaic Image Generation Framework, delivered at the *IEEE's International Geoscience and Remote Sensing Symposium (IGARSS)* conference, July 13, Virtual Meeting.

#Barnard-Royer, C. R. and Matyas, C. J. 2021 20 Year rainfall climatology of Dominica and Analysis of Hurricane Maria 2017, delivered at the Florida-Caribbean Louis Stokes Regional Center of Excellence 2021 Mindsets for STEM Conference, July 9, Virtual Meeting.

Zhou. Y. and Matyas, C.J. 2020 Regionalization of precipitation associated with tropical cyclones using spatial metrics and satellite precipitation, delivered at the *American Geophysical Union Fall Meeting,* December 9, Virtual Meeting.

Lannon, H., Judge, J., Matyas, C., Stofer, K., Lanman, B. 2020 Geoscience education and outreach and the retention of underrepresented students through cohort activities, delivered at the *Florida Society of Geographers Annual Meeting*, February 8, Gainesville, FL.

*Yan, G. and Matyas, C. 2020 Comparison of tropical cyclone rainfall in Multi-Source Weighted-Ensemble Precipitation (MSWEP) and Tropical Rainfall Measuring Mission (TRMM) datasets

for Atlantic Basin, delivered at the *Florida Society of Geographers Annual Meeting*, February 8, Gainesville, FL.

Lannon, H., Matyas, C. J., Stofer, K., Judge, J. Lanman, B. 2019 The cohort made me do it: Cohort activities and the retention of underrepresented students in Geography, delivered at the *American Association of Geographers South East Division Annual Meeting,* November 25, Wilmington, NC.

#VanSchoick, S. and Matyas, C. J. 2019 Quantifying rainfield characteristics in tropical cyclones originating over the Southwest Indian Ocean and Mozambique Channel, delivered at the *SAEOPP Ronald E. McNair/SSS Research Conference*, June 28, Atlanta, GA.

Lannon, H., Stofer, K., Matyas, C., Judge, J. 2019 Cohort building with underrepresented students in Geography, delivered at the *American Association of Geographers Annual Meeting*, April 5, Washington, D.C.

#VanSchoick, S. and Matyas, C. 2019 Spatial Analysis of Rainfall Extent and Intensity Patterns in Tropical Cyclones Affecting Madagascar and Mozambique, delivered at the *American Association of Geographers Annual Meeting*, April 4, Washington, D.C.

Zhou, Y. and Matyas, C.J. 2019 Tracking the shape change of tropical cyclone precipitation in gridded observational data, delivered at the *American Association of Geographers Annual Meeting*, April 3, Washington, D.C.

*Yan, G. and Matyas, C.J. 2019 Comparison of tropical cyclone rainfall in Multi-Source Weighted-Ensemble Precipitation (MSWEP) and Tropical Rainfall Measuring Mission (TRMM) datasets for Atlantic Basin, delivered at the *American Association of Geographers Annual Meeting*, April 3, Washington, D.C.

#VanSchoick, S. and Matyas, C. 2019 A spatial analysis of rainfield extent and storm intensity in tropical cyclones affecting Madagascar and Mozambique, delivered at the 55th Annual Meeting of the Florida Society of Geographers, February 9, Orlando, FL.

Judge, J., Lannon, H., Lanman, B., Stofer, K., Matyas, C. 2018 Implementation of year-long integrated research, academic, and professional experiences in Geosciences through the NSF-IUSE-GEOPATHS program, delivered at the American Geophysical Union Fall Meeting, December 12, Washington, D.C.

#Hazen, A., and Matyas, C.J. 2018 An analysis of the extent of rainfall for tropical cyclones Hellen and Deliwe*,* delivered at the *Santa Fe College Honors Symposium*, December 7, Gainesville, FL.

#Russell, H. and Matyas, C.J. 2018 An analysis of the extent of rainfall for tropical cyclone Fundi, delivered at the *Santa Fe College Honors Symposium*, December 7, Gainesville, FL.

Lannon, H., Matyas, C., Stofer, K., Judge, J., Lanman, B. 2018 Finding geography with underrepresented students, delivered at the *American Association of Geographers South East Division Annual Meeting*, November 19, Johnson City, TN.

#VanSchoick, S. and Matyas, C. 2018 Analyzing spatial extent and intensity patterns of tropical cyclones affecting Madagascar and Mozambique, delivered at the *American Association of Geographers South East Division Annual Meeting*, November 18, Johnson City, TN. **(First Place Undergraduate Presentation)**

#Barnard-Royer, C. R. and Matyas, C. 2018 Hurricane Maria (2017) and other tropical cyclones affecting Dominica, delivered at the *American Association of Geographers South East Division Annual Meeting*, November 18, Johnson City, TN.

*Miller, S., Meert, J., Stofer, K., Matyas, C., Lannon, H., Williams, A. 2018 Geobackgrounds: A brief survey of exposure and knowledge of geology among introductory level geology students in Florida, delivered at the *Geological Society of America Annual Meeting*, November 5, Indianapolis, IN.

Moulton, M., Matyas, C., Donnelly, J., Modestti, M., St. Laurent, K., Curtis, S., Wellner, J., Craw, M., Ravens, T., Chandra, V. 2018 Coasts and people: Storm resilience testbed, delivered at the *National Science Foundation Coasts and People Workshop*, September 28, Virtual collaboration and presentation.

Lannon, H., Stofer, K., Matyas, C., Judge, J., Lanman, B. 2018 Students underrepresented in science, open access admissions and geography, delivered at the *National Council of Geographic Education Annual Conference*, August 8, Québec City, Canada.

Zick, S., Matyas, C., Lackmann, G., Tang, J. 2018 Using an object-based approach to quantify the influence of cumulus parameterization in the spatial structure of precipitation in Hurricane Isabel (2003), delivered at the *33rd Conference on Hurricanes and Tropical Meteorology*, April 19, Ponte Vedra, FL.

*Kim, S. and Matyas, C. 2018 The influence of moisture, vertical wind shear and storm motion on the rainfall distribution pattern of tropical cyclones in the Southern Gulf coastal states, delivered at the *33rd Conference on Hurricanes and Tropical Meteorology*, April 19, Ponte Vedra, FL.

*Wang, Y. and Matyas, C. 2018 Quantifying the effects of land surface characteristics on rainband structures of a modeled landfalling tropical cyclone, delivered at the *33rd Conference on Hurricanes and Tropical Meteorology*, April 19, Ponte Vedra, FL.

*Kim, S., Kim, J, *Yang, E., Matyas, C. 2018 Accessibility to hurricane shelters for Airbnb users in Miami metropolitan area, delivered at the *American Association of Geographers Annual Meeting*, April 12, New Orleans, LA.

*Zhou, Y. and Matyas, C. 2018 Spatial characteristics of rain fields associated with tropical cyclones landfalling over the western Gulf of Mexico and Caribbean Sea, delivered at the *American Association of Geographers Annual Meeting*, April 12, New Orleans, LA.

Lannon, H., Lanman, B., Matyas, C., Stofer, K., Judge, J. 2018 Recruitment and retention in Geosciences through integrated professional and academic experiences, delivered at the *American Association of Geographers Annual Meeting*, April 10, New Orleans, LA.

* Wang, Y., Matyas, C.J. 2018 Simulating the effects of land surface characteristics on planetary boundary layer parameters for a modeled landfalling tropical cyclone, delivered at the *Graduate Student Research Day*, April 3, Gainesville, FL**.**

Lannon, H., Stofer, K., Matyas, C., Judge, J. Lanman, B. 2018 Recruitment and retention challenges in the Geoscience Engagement and Outreach Program, delivered at the *Florida Society of Geographers Annual Meeting,* February 10, Melbourne, FL.

#Musameci, C. and Matyas, C.J. 2017 Tropical cyclones in the Indian Ocean, delivered at the *Santa Fe College Honors Symposium*, December 1, Gainesville, FL

#VanSchoick, S., and Matyas, C. 2017 Examining rain rates in tropical cyclones affecting Madagascar and Mozambique, delivered at the *2017 Santa Fe College Honors Symposium*, December 1, Gainesville, FL.

Ahmed, S., Griffin, T., Han, W., Stepp, J., Orians, C., Robbat, A., Cash, S., Matyas, C. 2017. Climate effects on tea metabolites and agroecological adaptation, delivered at the *American Public Health Association Annual Meeting & Expo*, November 5, Atlanta, GA.

Stofer, K., Lannon, H., Matyas, C., Judge, J., Lanman, B. 2017. Multiple pathways: Undergraduate research, coursework, and engagement with the public all support geoscience career pursuit, delivered at the *Geological Society of America Annual Meeting*, October 22, Seattle, WA.

*Tang, J., *Park, K., Matyas, C.J., and Schneider, M. 2017 Design a fast multi-radar gridding algorithm on modern CPU and GPU hardware, delivered at the *38th Conference on Radar Meteorology,* August 29, Chicago, IL.

Orians, C., Ahmed, S, Robbat, A., *Kowalsick, A., Scott, A., Cash, S., *Boehm, R., Griffin, T., Stepp, R., Matyas, C. 2017. Climate, tea and people: Impact of climate and herbivory on tea quality and farmer livelihoods, delivered at the *Association for Environmental Studies and Sciences Conference*, June 10, Washington, DC.

*Tang, J. and Matyas, C. J. 2017 Fast gridding of data from multiple radars, delivered at the *LROSE Kick-off Workshop*, National Center for Atmospheric Research, April 11, Boulder, CO.

*Zhou, Y. and Matyas, C. J. 2017 Rainfall size and variability of U.S. landfalling tropical cyclones over land and ocean, delivered at the *American Association of Geographers Annual Meeting,* April 8, Boston, MA.

Lannon, H., Judge, J., Stofer, K., Matyas, C. and Lanman, B. 2017 Geoscience engagement and outreach program – recruitment, retention, and results from the first cohort of students underrepresented in geosciences, delivered at the *American Association of Geographers Annual Meeting,* April 6, Boston, MA.

*Wang, Y. and Matyas, C. J. 2017 Simulating effects of land cover/use changes on landfalling tropical cyclone rainfall patterns using Weather Research Forecasting (WRF) model, delivered at the *American Association of Geographers Annual Meeting,* April 6, Boston, MA.

#Allen, S. and Matyas, C. J. 2017 Satellite-based quadrant analysis of tropical cyclones in the South Indian Ocean, delivered at the *45th Annual Southern Regional Honors Council*, March 31, Asheville, NC.

#DesRosiers, A. J. and Matyas, C. J. 2017 Analysis of flood events, watches, and warning in tropical cyclones impacting the U.S., delivered at the *University of Florida Undergraduate Research Symposium*, March 23, Gainesville, FL.

#Heslar, M., Matyas, C. J., and Hernandez Ayala, J.J. 2017 Improving rainfall estimations through the spatial analysis of tropical cyclone rainfall rates over Puerto Rico using TRMM, delivered at the *2017 Florida Undergraduate Research Conference*, February 25, Boca Raton, FL.

*Tang, J., Matyas, C. J., Xu, Z. 2017 Machine learning method of weather radar data quality control using Python and PySpark, delivered at the *7th Symposium on Advances in Modeling and Analysis Using Python*, January 24, Seattle, WA.

#DesRosiers, A. J. and Matyas, C. J. 2017 Analysis of flood events, watches, and warning in tropical cyclones impacting the U.S., delivered at the *16th Annual AMS Student Conference*, January 22, Seattle, WA.

#Allen, S. and Matyas, C. J. 2017 Satellite-based rain rate quadrant analysis of tropical cyclones in the South Indian Ocean, delivered at the *Orlando Science Center Otronicon*, January 13, Orlando, FL.

*Zhou, Y. and Matyas, C. J. 2016 Spatial characteristics of rain fields associated with tropical cyclones making landfall over eastern United States, delivered at the *American Geophysical Union Fall Meeting*, December 15, San Francisco, CA.

#Allen, S. and Matyas, C. J. 2016 Quadrant analysis of tropical cyclone Leon-Eline, delivered at the *Santa Fe College Honors Symposium*, December 2, Gainesville, FL.

*Wang, Y. and Matyas, C. J. 2016 Simulating effects of land surface characteristics on tropical cyclone rainfall pattern using Hurricane Nature Run (HNR) and Weather Research Forecasting (WRF) Model, delivered at the *Association of American Geographers South East Division Annual Meeting*, November 21, Columbia, SC.

*Zhou, Y. and Matyas, C. J. 2016 Spatial analysis of tropical cyclone rain fields for storms making landfall in the Southeast United States using TRMM satellite data, delivered at the *Association of American Geographers South East Division Annual Meeting*, November 21, Columbia, SC.

*Tang, J. and Matyas, C. J. 2016 Radar Toolkit for ArcGIS – Bringing easy radar data processing to Geographers, delivered at the *Association of American Geographers South East Division Annual Meeting*, November 21, Columbia, SC.

#Heslar, M., Matyas, C.J., and Hernandez Ayala, J.J. 2016 Improving rainfall estimations through the spatial analysis of tropical cyclone rainfall rates over Puerto Rico using TRMM, delivered at the *Association of American Geographers South East Division Annual Meeting*, November 20, Columbia, SC.

Silva, J., Matyas, C. J., and Cunguara, B. 2016 Desigualdade Regional no Contexto de Temperatura Extrema e Choques Económicos. [Regional Inequality in the Context of Extreme Weather and Economic Shocks,] delivered to the Mozambican Institute of Agricultural Research (IIAM), Ministry of Agriculture, August 2, Maputo, Mozambique.

Stofer, K., Judge, J. and Matyas, C. 2016 Integrating first-year undergraduates into research experiences, delivered at the *AAAS sponsored Envisioning the future of undergraduate STEM education: research and practice symposium*, April 28, Washington DC.

*Tang, J., *Wang, Y., Matyas C. J. 2016 Comparing rainfall of landfalling tropical cyclones on spatial mixed and fractional mixed landuse using natural run simulation, delivered at the *32nd Conference on Hurricanes and Tropical Meteorology,* April 21, San Juan, Puerto Rico.

*Zick. S. E. and Matyas, C. J. 2016 Evolving synoptic-scale precipitation patterns in U.S. landfalling tropical cyclones, delivered at the *32n d Conference on Hurricanes and Tropical Meteorology,* April 21, San Juan, Puerto Rico.

*Kim, S. and Matyas, C. J. 2016 The effect of precipitable water on the amount of rainfall and the rain-field size for tropical cyclone landfall, delivered at the *32nd Conference on Hurricanes and Tropical Meteorology,* April 19, San Juan, Puerto Rico.

*Zhou, Y. and Matyas, C. J. 2016 Spatial analysis of rainfall patterns of tropical cyclones making landfall in Southeast United States, delivered at the *32nd Conference on Hurricanes and Tropical Meteorology,* April 19, San Juan, Puerto Rico.

*Yan, G. and Matyas, C. J. 2016 The influences of ENSO and the subtropical Indian Ocean Dipole on tropical cyclone frequency in the southwestern Indian Ocean, delivered at the *American Association of Geographers Annual Meeting,* April 1, San Francisco, CA.

*Wang, Y. and Matyas, C. J. 2016 Detecting effects of spatial patterns of land surface on tropical cyclone rainfall structure using Hurricane Nature Run (HNR) with Weather Research Forecasting (WRF) Model, delivered at the *American Association of Geographers Annual Meeting,* March 31, San Francisco, CA.

*Zhou, Y. and Matyas, C. J. 2016 Spatial characteristics of precipitation associated with landfalling tropical cyclones over eastern U.S., delivered at the *American Association of Geographers Annual Meeting,* March 31, San Francisco, CA.

*Zick, S. E. and Matyas, C. J. 2016 Environmental conditions associated with evolving tropical cyclone synoptic-scale precipitation structure in the Gulf of Mexico region, delivered at the *American Association of Geographers Annual Meeting,* March 31, San Francisco, CA. (**Third place CSG Student Paper Competition**)

*Tang, J. and Matyas, C. J. 2016 Parallel spatial analysis scheme for processing large volume of weather radar data, delivered at the *American Association of Geographers Annual Meeting,* March 29, San Francisco, CA.

Lannon, H., Stofer, K., Matyas, C., Judge, J. and Lanman, B. 2016 Recruiting challenges in geosciences in the 2-year college environment, delivered at the *AAAS sponsored "Envisioning the future of*

undergraduate STEM education: research and practice symposium", February 16, Washington DC.

*Zick, S. E. and Matyas, C. J. 2016 Evolving geometries in the precipitation patterns of 2004-2012 U.S> landfalling hurricanes, delivered at the *Water Institute Symposium*, Feb. 6, Gainesville Florida **(Best student poster award)**

*Zick, S. E. and Matyas, C. J. 2016 Impact of precipitation assimilation on tropical cyclone structure in the NARR, delivered at the *12th Annual Symposium on New Generation Operational Environmental Satellite Systems*, January 13, New Orleans, LA.

*Tang, J. and Matyas, C. J. 2016 Radar toolkit for ArcGIS – Bringing easy radar data processing to Geographers, delivered at the *Sixth Symposium on Advances in Modeling and Analysis Using Python*, January 12, New Orleans, LA.

*Zick, S. E. and Matyas, C. J. 2016 Evolving geometries in the moisture budgets and precipitation structures of US Gulf Coast landfalling hurricanes, delivered at the *Special Symposium on Hurricane Katrina: Progress in Leveraging Science, Enhancing Response and Improving Resilience*, January 11, New Orleans, LA.

#DesRosiers, A., Matyas, C. J., Afmuth, J. 2015 Analysis of distances of landfalling tropical cyclone events, watches, and warnings from track and landfalling location, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 22, Pensacola, FL.

*Zick, S. E., Matyas, C. J. 2015 Tropical cyclones in the North American Regional Reanalysis (NARR): Impact of satellite-derived precipitation assimilation over ocean, delivered at the 37th conference on Radar Meteorology, September 17, Norman, OK.

*Tang, J., Matyas, C. J. 2015 Identifying spatial evolution of convective rainbands in landfalling hurricanes using high-resolution Doppler radar mosaic, delivered at the *5th International Summit of Hurricanes and Climate Change*, June 11, Chania, Greece. **(Presentation Award)**

*Yan, G. and Matyas, C. J. 2015 Spatial rainfall distribution of different hurricanes, delivered at the *Association of American Geographers Annual Meeting*, April 24, Chicago, IL.

*Kim, S. and Matyas, C. J. 2015 The relationship between TC motion and soil moisture, delivered at the *Association of American Geographers Annual Meeting*, April 23, Chicago, IL.

*Wang, Y. and Matyas, C. J. 2015 Detecting land surface processes influencing rainfall timing of Tropical Cyclones after landfall in United States from 1998 to 2010, delivered at the *Association of American Geographers Annual Meeting*, April 23, Chicago, IL.

*Zhou, Y. and Matyas, C. J. 2015 Variations of tropical cyclone precipitation over the eastern United States (1948 -2011), delivered at the *Association of American Geographers Annual Meeting*, April 23, Chicago, IL.

*Zick, S. E. and Matyas, C. J. 2015 Geometries in moisture budgets of U.S. landfalling tropical cyclones & implications for rainfall, delivered at the *Association of American Geographers Annual Meeting*, April 23, Chicago, IL. **(Third place CSG Student Paper Competition)**

*Zhou, Y. and Matyas, C. J. 2015 Estimating spatial variation of tropical cyclone precipitation over the eastern United States, delivered at *the Florida Society of Geographers Annual Meeting*, February 7, Jacksonville, FL.

*Zick, S. E. and Matyas, C. J. 2014 Moisture budgets in major U.S. landfalling hurricanes & implications for rainfall, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 24, Athens, GA.

*Zick, S. E. and Matyas, C. J. 2014 Moisture budgets in major U.S. landfalling hurricanes & implications for rainfall, delivered at the *10th International Conference on Mesoscale Convective Systems*, September 15, Boulder, CO.

*Tang, J. and Matyas, C.J. 2014 Measuring spatial-temporal pattern of three-dimensional structures of convective rainbands in landfalling tropical cyclones, delivered at the *Association of American Geographers Annual Meeting*, April 11, Tampa, FL.

*Comstock, I. and Matyas, C. J. 2014 Comparing tropical cyclone rain events to the passage of size criteria, delivered at the *Association of American Geographers Annual Meeting*, April 10, Tampa, FL.

*Zhou, Y. and Matyas, C.J. 2014 Measuring the width of rainfall fields produced by landfalling tropical cyclones, delivered at the *Association of American Geographers Annual Meeting*, April 10, Tampa, FL.

*Wang, Y. and Matyas, C. J. 2014 Characterizing the different land cover types that U.S. landfalling tropical cyclones have crossed, delivered at the *Association of American Geographers Annual Meeting*, April 10, Tampa, FL.

*Guo, Q. and Matyas, C. J. 2014 The relationship between size and rainfall distribution of Atlantic tropical cyclones prior to making landfall, delivered at the *Association of American Geographers Annual Meeting*, April 10, Tampa, FL.

*Zick, S. E. and Matyas, C. J. 2014 Moisture budgets in US landfalling tropical cyclones and implications for rainfall, , delivered at the *Association of American Geographers Annual Meeting*, April 9, Tampa, FL.

*Hernandez-Ayala, J. J. and Matyas, C.J. 2014 Multiple atmospheric teleconnections control of rainfall in the island of Puerto Rico, delivered at the *Association of American Geographers Annual Meeting*, April 8, Tampa, FL.

*Zick, S. E. and Matyas, C. J. 2014 Assessment of tropical cyclone kinematic and thermodynamic structures in the North American Regional Reanalysis, delivered at the *American Meteorological Society's 31st Conference on Hurricanes and Tropical Meteorology,* April 1, San Diego, CA.

#Kamrath, C and Matyas, C.J. 2014 A TRMM precipitation rate analysis of the extratropical transitioning (ET) of tropical cyclones in the North Atlantic, delivered at the 15th Annual Undergraduate Research Symposium, March 27, Gainesville, FL.

*Comstock, I. and Matyas, C. J. 2014 The timing of hurricane rain events along the coastal United States, delivered at the *94th American Meteorological Society Annual Meeting,* February 5, Atlanta, GA.

*Zick, S. E. and Matyas, C. J. 2014 Assessment of tropical cyclone moisture budgets and thermodynamics in the North American Regional Reanalysis, delivered at the *94th American Meteorological Society Annual Meeting,* February 5, Atlanta, GA.

*Tang, J. and Matyas, C.J. 2014 Spatial analysis infrastructure for tropical cyclones observation from ground-based Doppler radar towards big data and cloud computing, delivered at the *94th American Meteorological Society Annual Meeting,* February 3, Atlanta, GA.

*Zhou, Y. and Matyas, C.J. 2014 Measuring the width of rainfall swaths produced by landfalling tropical cyclones over the northeastern U.S., delivered at the *94th American Meteorological Society Annual Meeting*, February 3, Atlanta, GA.

#Kamrath, C. R. and Matyas, C. J. 2014 A TRMM precipitation rate analysis of the extratropical transitioning (ET) of tropical cyclones in the North Atlantic, delivered at the *94th American Meteorological Society Annual Meeting,* February 2, Atlanta, GA.

*Zick, S. E. and Matyas, C. J. 2013 Assessment of tropical cyclone moisture budgets in the North American Regional Reanalysis, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 25, Roanoke, VA.

*Zick, S. and Matyas, C. J. 2013 Thermodynamic predictors of tropical cyclone rainfall distributions, delivered at the *Association of American Geographers Annual Meeting*, April 11, Los Angeles, CA.

*Hernandez-Ayala, J. J. and Matyas, C.J. 2013 Spatial climatology of rainfall associated with tropical cyclones for the island of Puerto Rico, delivered at the *Association of American Geographers Annual Meeting*, April 11, Los Angeles, CA.

*Comstock, I. and Matyas, C.J. 2013 Relationships between tropical cyclone warning times, rain event duration, and rain accumulation, delivered at the *Symposium for Sustaining Economies and Natural Resources in a Changing World: Key Role of Land Grant Universities*, April 2, Gainesville, FL.

*Tang, J. and Matyas, C.J. 2013 Geospatial properties of tropical cyclone rain bands as detected by ground-based radar, delivered at the *Symposium for Sustaining Economies and Natural Resources in a Changing World: Key Role of Land Grant Universities*, April 2, Gainesville, FL.

Silva, J. and Matyas, C.J. 2013 Exploring the socio-economic dimensions of rainfall variability on subsistence agriculturalists in Mozambique, delivered at the *Eighth Symposium on Policy and Socio-economic Research* at the *93rd American Meteorological Society Annual Meeting*, January 8, Austin, TX.

*Comstock, I. and Matyas, C.J. 2012 Relationships between tropical cyclone warning times, rain event duration, and rain accumulation, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 19, Asheville, NC.

*Cahyanto, I., Pennington-Gray, L., Thapa, B., Srinivasan, S., Matyas, C., Spiro, K., & Villegas, J. 2012 Gender, residence, past experience and communication in tourist hurricane evacuation, delivered at *the 43rd Annual Travel and Tourism Research Association Conference*, June 18, Virginia Beach, VA.

Carleton, A.M., Adegoke, J., Allard, J., Arnold, D., Curran, S., Matyas, C., Travis, D., Mahmood, R. 2011 LULC modifications in mid-latitude continental areas, and interactions with climate, delivered at *the NCA Stakeholder Workshop*, November 29, Salt Lake City, UT.

*Comstock, I. and Matyas, C.J. 2011 Examining the distribution of wind speed and radar reflectivity about landfalling hurricanes using ground based radar and the H*Wind data set, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 21, Savannah, GA.

*Comstock, I. and Matyas, C.J. 2011 Comparisons of hurricane rainfall totals as estimated by radar and Florida Automated Weather Network rain gauges, delivered at the *Florida Climate Institute Annual Conference and Workshop on Climate Variability and Change*, November 14, Gainesville, FL.

*Parra, S., *Guerra-Saval, G., and Matyas, C.J. 2011 Storm surge and water current comparison at Mobile Bay between Hurricanes Katrina and Ivan, delivered at the *Florida Climate Institute Annual Conference and Workshop on Climate Variability and Change*, November 14, Gainesville, FL.

#Rouse, D., #Ziems, B., and Matyas, C.J. 2011 Comparison of storm-total rainfall among tropical cyclones with tracks similar to Irene (2011), delivered at the *Florida Climate Institute Annual Conference and Workshop on Climate Variability and Change*, November 14, Gainesville, FL.

*Cahyanto, I., Pennington-Gray, L., Srinivasan, S., Matyas, C., Thapa, B., and Villegas, J. 2011 Stated preferences of tourists for evacuating in the event of a hurricane, delivered at the *Travel and Tourism Research Association 42nd Annual Conference*, June 20, London, Ontario, Canada.

*Jia, P. and Matyas, C.J. 2011 Comparison of moisture content and estimated rainfall for Florida landfalling hurricanes, delivered at the *Association of American Geographers Annual Meeting*, April 16, Seattle, WA.

#El-Khouri, A. and Matyas, C.J. 2011 Lightning flash analysis in two landfalling Florida hurricanes, delivered at the *Florida Society of Geographers Annual Meeting*, February 19, Gainesville, FL. **(First Place Undergraduate Oral Presentation)**

*Jia, P. and Matyas, C. J. 2011 Relating atmospheric moisture and estimated rainfall for nine hurricanes landfalling over Florida, delivered at the *Florida Society of Geographers annual meeting*, February 19, Gainesville, FL.

#Morris, C., #Roop, C.E., #Ruiz, M., #Rosenthal, J., Matyas, C. J. 2011 Relationships between temperature and precipitation in Florida and atmospheric teleconnection indices, delivered at the *Florida Society of Geographers Annual Meeting*, February 19, Gainesville, FL.

*Jia, P. and Matyas, C. J. 2010 Comparison of moisture content between two landfalling hurricanes, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 22, Birmingham, AL.

#Motzer, N. and Matyas, C.J. 2010 Poverty, inequality, and rainfall patterns in Mozambique, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 21, Birmingham, AL.

*Cahyanto, I., Pennington-Gray, L., Thapa, B., Villegas, J., Matyas, C., and Srinivasan, S., 2010 Segmenting tourists' information behavior in the event of a crisis, delivered at the *Travel and Tourism Research Association 41st Annual Conference*, June 20, San Antonio, TX.

*Ash, K.D. and Matyas, C.J. 2010 The influence of ENSO on tropical cyclone trajectories in the South Indian Ocean, delivered at the 90th American Meteorological Society Annual Meeting, January 17, Atlanta, GA.

#Lackey, B. and Matyas, C.J. 2009 The effect of the AMO on U.S. landfalling Atlantic hurricane locations, delivered at *GIS Day 2009* held at Smathers Libraries, University of Florida, November 18, Gainesville, FL. **(First Place Poster Presentation)**

*Ash, K.D. and Matyas, C.J. 2009 Testing consistency of TC frequency and genesis location in the Southwest Indian Ocean using IBTrACS, delivered at the *Int'l Best Tracks Archive for Climate Stewardship (IBTrACS) Workshop*, May 6, Asheville, NC.

*Ash, K.D. and Matyas, C.J. 2009 Tropical cyclone formation and landfall probabilities for the Southwest Indian Ocean Basin, delivered at the *Florida Society of Geographers annual meeting*, January 24, St. Augustine, FL.

*Cartaya, M. and Matyas, C.J. 2009 Analyzing convective rainfall locations in relation to the center of Hurricanes Katrina (2005) and Danny (1997) after landfall, delivered at the *Florida Society of Geographers annual meeting*, January 24, St. Augustine, FL.

#Lackey, B. and Matyas, C.J. 2009 The effect of the AMO on U.S. landfalling Atlantic hurricane locations, delivered at the *Florida Society of Geographers annual meeting*, January 24, St. Augustine, FL.

#Ruiz, M., #Steffen, J., and Matyas, C.J. 2009 Assessment of direct hurricane strikes for oil rig locations along the Gulf Coast, delivered at the *Florida Society of Geographers annual meeting*, January 24, St. Augustine, FL.

*Tsai, H. and Matyas, C.J. 2009 A study of tropical cyclone genesis with Taiwan landfall, delivered at the *Florida Society of Geographers annual meeting*, January 24, St. Augustine, FL. **(First Place Poster Presentation)**

*Bunting, E.L. and Matyas, C.J. 2008 The spatial distribution of tropical cyclone rainfall in relation to the radius of gale-force winds in U.S. landfalling storms, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 24, Greensboro, NC.

*Cartaya, M., *Ash, K.D., Matyas, C.J. 2008 Sampling convective rainfall rates in relation to the distance from the center of Tropical Storm Fay, delivered at the *Association of American Geographers South East Division Annual Meeting,* November 23, Greensboro, NC.

Keys, E.G., Matyas, C.J., *Schramski, S., Schmook, B., Calme, S., *DiGiano, M. 2008 Assessing resilience, vulnerability, and hurricane damage in Southeastern Mexico, delivered at the *Association of American Geographers 2008 Annual Meeting,* April 18, Boston, MA.

*Bunting, E. L. and Matyas, C.J. 2008 Relating the radius of gale-force winds to the rain shield of landfalling tropical cyclones, delivered at the *Association of American Geographers 2008 Annual Meeting,* April 19, Boston, MA.

*Bunting, E. L. and Matyas, C.J. 2008 Convection pattern analysis of three landfalling tropical cyclones in northwest Florida, delivered at the *Florida Society of Geographers annual meeting*, January 26, Miami, FL.

#Cooley, J. L. and Matyas, C.J. 2008 Tropical cyclone frequency in South Carolina, delivered at the *Florida Society of Geographers annual meeting*, January 26, Miami, FL. **(First Place Undergraduate Oral Presentation)**

#Cartaya, M., #Kell, K., and Matyas, C.J. 2008 Rainfall comparison for hurricanes Frances and Jeanne, delivered at the *Florida Society of Geographers annual meeting*, January 26, Miami, FL.

*Bunting, E. L., and Matyas, C. J. 2007 The relationship between wind radii and rainfall extent of Hurricane Katrina, delivered at the *Association of American Geographers South East Division Annual Meeting*, November 19, Charleston, SC.

#Cooley, J.L. and Matyas, C. J. 2007 Geospatial frequency analysis of tropical cyclone tracks through South Carolina from1851-2006, delivered at the *Association of American Geographers South East Division Annual Meeting*, November 19, Charleston, SC.

Waylen, P. and Matyas, C.J. 2006 Shifting patterns of seasonal rainfall, Jacksonville, 1872-2005, delivered at the *Florida Society of Geographers 2006 Annual Meeting*, February 18, St. Petersburg, FL.

Professional Service

Journal Editorial Board: *Atmosphere* 2019 – present
Guest editor for journal: *Atmosphere* 2025, 2023-2024, 2016-2018, *Remote Sensing* 2019-2021
Journal Editorial Board: *Annals of the American Association of Geographers* 2017 -2020
Journal Editorial Board: *International Journal of Climatology* 2013 - present
Journal Editorial Board: *Geography Compass:* Atmosphere section 2011- 2020
98 verified editor records Matyas, Corene - Web of Science Core Collection)
AAG Fellow Selection Committee (2025-2028)
External Thesis Examiner, University of Cape Town, South Africa 2023
Nominations Committee: SEDAAG 2019-2021
Reviewer for Climate Specialty Group John Russell Mather Paper of the Year Competition 2021
Panelist SEDAAG annual meeting 2019 session: Involving Undergraduates in Geoscience Research

Session Chair: SEDAAG annual meeting 2013, 2019, 2022, 2023, 2024
Session Chair and Organizer of Panel at 2019 AAG Annual Meeting: Underrepresented Groups in Geography-Climatology (Sponsored by Climate Specialty Group, Careers and Professional Development, Harassment-Free AAG Initiative)
Co-Chair Society of Women Geographers Pruitt National and Minority Fellowships Committee 2018
External Reviewer for Tenure and Promotion Summers 2014 (2), 2018, 2021, 2023, 2024, Spring 2024
National Science Foundation proposal reviews (multiple divisions) 2010, 2013, 2014, 2018, 2019
Referee for proposals submitted to the Woods Hole Oceanographic Institute Sea Grant
Reviewer for Evelyn Pruitt National Dissertation Fellowship: Society of Women Geographers 2015, 2017
Panelist SEDAAG annual meeting 2017 session: Hurricanes in 2017 – a new normal?
Honors Director: Climate Specialty Group of the AAG (annual student paper competition, paper of the year award competition, lifetime achievement award) 2011-2013
Local Arrangements Committee for 2014 AAG annual meeting in Tampa 2012-2014
Program Selection Committee for 2014 AAG annual meeting in Tampa 2013
Executive Board Member: Southeastern Division of the AAG (Florida Rep.) 2013-2017
Executive Board Member: Florida Society of Geographers 2008-2012
Student Paper Competition Judge: Climate Specialty Group AAG meetings 2008, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2019, 2023
Panel Organizer/Moderator AAG: Women IN the Discipline (WIND) Climatology 2012
Program Committee Chair: annual meeting of the Florida Society of Geographers 2011
Session Chair/Organizer AAG: 2012, 2013
Session Chair/Organizer FSG: 2008, 2009, 2011
Session Discussant/Paper Review: South East Division AAG meetings 2005, 2007, 2008
Judge Student Paper/poster competition Florida Society of Geographers meeting 2007
Peer Reviews of journal articles: 171 verified since 2012: Matyas, Corene - Web of Science Core Collection
Advances in Environmental and Engineering Research, Advances in Meteorology, African Geographical Review, American Journal of Climate Change, Annals of the American Association of Geographers, Applied Geography, Atmosfera, Atmosphere, Bulletin of the American Meteorological Society, Climate, Climate Dynamics, Climate Research, Earth Interactions, Entropy, Environmental Hazards, Frontiers in Earth Science, GeoCarto, Geographical Bulletin, Geography Compass, Geomatics, Natural Hazards and Risk, Geophysical Research Letters, Geoscience and Remote Sensing Letters, Geosciences, Hydrological Sciences Journal, International Journal of Applied Geospatial Research, International Journal of Climatology, International Journal of Disaster Risk Research, International Journal of Environmental Research and Public Health, *Ingenieria e Investigacion Journal, ISPRS International Journal of Geo-Information, Journal of Applied Meteorology and Climatology, Journal of Atmospheric Sciences, Journal of Climate, Journal of Geophysical Research – Atmospheres, Journal of Geoscience Education, Journal of Hydrology, Journal of Hydrometeorology*, *McGill Science Undergraduate Research Journal, Meteorological Applications, Meteorology and Atmospheric Physics, Natural Hazards, npj Climate and Atmospheric Science, Oceans, Papers of the Applied Geography Conference, Physical Geography, Physics and Chemistry of the Earth, Professional Geographer, Quarterly Journal of the Royal Meteorological Society, Remote Sensing, Risk Analysis, Science Advances, Science of the Total Environment, Southeastern Geographer, Springer Nature Scientific Reports, Tellus A:*

Dynamic Meteorology & Oceanography, Theoretical and Applied Climatology, Transportation Research Part F: Traffic Psychology and Behaviour, Tropical Cyclone Research and Review, Water Resources Research, Weather and Forecasting, Weather Climate and Society

University/College Service

CLAS Tenure and Promotion Committee 2022 - 2024
Graduate Council 2021- 2024
GatorX Faculty Oversight Committee 2023-present
CLAS Teacher of the Year Committee 2019-2020
CLAS Sabbatical Leave Committee for 2020-2021
Mentor for McNair Scholars Program 2019- 2020
UF News list of experts: Hurricanes 2005 – present
Meetings in collaboration with College of Journalism to develop a major in Broadcast Meteorology for certification by the American Meteorological Society (2005-2022)
Faculty advisor to Gators Chapter of the American Meteorological Society Fall 2008 –2019 (includes taking students to NHC, NWS, numerous conferences, field research)
Developed and oversee Undergraduate Certificate in Meteorology and Climatology (2013-present)
Developed and oversee Graduate Certificate in Applied Atmospheric Sciences (2013- present)
School of Natural Resources and Environment Climate Concentration Steering Committee (2014-present)
CLAS Curriculum Committee 2017 - 2018
Supervised Honor's Thesis Alex DesRosiers, College of Engineering 2018
Commencement Marshal Undergraduate Degree Ceremony Spring 2017; Advanced Degree Ceremony Spring 2009, 2010, 2011
Mentor for the University Scholars Program 2013-2014, 2016-2017
Preview Advisor for Undergraduate Students Summers 2006, 2008, 2009, 2010, 2011, 2012, 2013
Judge for Graduate Student Research Day poster competition 2013, 2014, 2015, 2017, 2018
CLAS Graduate Affairs Committee 2015 – 2016
Natural Sciences Grand Challenge Course Design Team Summer/Fall 2014
Florida Climate Institute Education Committee (2010 – 2012)
UF Center for Precollegiate Education and Training Summer Science Institute lecture 2013
Mentor for UF Teach Program 2012-2013
College of Liberal Arts and Sciences Teaching and Advising Committee Fall 2009
Guest speaker: IDH3931 Discovering Research & Communicating Science, Oct. 19, 2010; GIS Day at University Libraries November 18, 2009; various Geography courses
College of Liberal Arts and Sciences Student Appeals Committee Spring 2009
Exploring Florida: Teaching Resources project sponsored by the Florida Center for Instructional Technology: Spring 2008
Media Interviews:

Television – CNN, Science Channel (UK), CTV (Canada) (2), BBC World News, Prime Time (Ireland), Australian Broadcasting Corporation, Gainesville Television Network (2), WCJB (2), NBC9 (1), ABC News on Campus (1), WUFT (15)

Radio - AW3 Melbourne, Australia, Australian Broadcasting Corporation (2), BBC World Tonight, BBC World One, BBC News Day (3), BBC One to One, CBC St. John's On the Go, CBC Yellowknife – Trail's End, CBC Saskatchewan – Afternoon Edition,

CBC London – Afternoon Drive, CBC Ottawa – All in a Day (2), CBC London Morning, CBC Quebec AM, CBC Windsor Morning, CBC Kitchener-Waterloo, CBC West Coast Morning, CBC The Trailbreaker Yellowknife, CBC Daybreak Kamloops, CBC The Morning Edition Regina, CBC Saskatoon Morning, CBC On the Island Victoria, CBC on the Coast Vancouver (2), National Public Radio (3), KETR (Texas), Florida Public Radio, WKTK FM, WRUF AM850 (31), WUFT (2)

Newspaper: The Guardian UK, Pravda (Slovakia), La Tercera (Chile), USA Today, Los Angeles Times, Biloxi Times, International Business Times (2), Columbus Dispatch, Dayton (Ohio) Daily News, Santa Rosa Press Democrat (California), News-Press and Herald-Tribune Sarasota, FL, South Florida Sun Sentinel, Orlando Sentinel, ASP Miami, Tallahassee Democrat, Palm Beach Post (3), St. Augustine Record, Tampa Bay Times (3), PolitiFact Florida, St. Augustine Post, The Beaches Leader (Jacksonville Beach), The Villages Daily Sun (2), Treasure Coast, Gainesville Sun (3), Independent Alligator (16)

Other: NBC Universal (2), National Geographic, Time, Science News, NASA Image of the Day, Zitamar News Mozambique, Reddit's AMA series, Fortune, Forbes (2), Cheddar.com (2), Phys.Org, RIA Novosti, Air Mail News, VOA Persian Broadcast, The Hill, The New Republic, Power & Motoryacht Magazine, journalism students (104); CLAS Alumni Magazine, UF Press Release of Hurricane Research, Real Science Website, Explore Research at UF, Severe Storms podcast, AccuWeather, HowStuffWorks Website, The Borgen Project, Alabama Media Group, Thompson Earth Science Institute Earth to Florida Feature Story

Department Service

Chair of Search Committee: Department Chair (2024-2025)
Certificate Coordinator for Applied Atmospheric Science (Graduate) and Meteorology and Climatology (Undergraduate) 2013 – present
Graduate Committee (2023 – present)
Mentor Assistant Instructional Professor Stephen Mullens (2019 – present)
Mentor Assistant Professor Dr. Esther Mullens (2018 – present)
Mentor Assistant Professor Dr. Berry Wen (2022-present)
Post Tenure Review Committee 2024
Meteorology Program Development Committee 2019-2023
Diversity, Equity, and Inclusion Committee 2022 - 2023
By-Laws Committee 2006, 2009, 2013 – 2016, 2019-2021 (Chair), 2022-2023
Steering Committee 2022-2023
Increasing Majors Committee 2022 - 2023
Peer Teaching Evaluation Committee 2021-2022
Chair of Search Committee for Two Assistant Professors in AI and Atmospheric Science 2021
Curriculum Committee 2011- 2017, 2019-2021
Merit Committee 2006, 2013, 2014, 2019, 2021
Organize Anderson Lecturer visit Spring 2018
Search Committee for Administrative Assistant 2018
Chair of Search Committee for Assistant Professor in Meteorology 2017
UF Online Committee 2016 - 2018
Strategic Plan Committee 2017 - 2018

Design of MET4560 for UF Online Geography BA degree Fall 2017
Graduate Student Admissions Committee 2009 – 2017
Graduate Coordinator 2012- 2016
Student Awards Committee 2012 – 2016
Department Chair search committee 2015-2016
Second reader of undergraduate honor's thesis 2015, 2017, 2018
Design of GEO3250 for UF Online Geography BA Degree Summer/Fall 2015
Website Committee 2013 - 2015
Organized Anderson Lecturer visit fall 2012
Designed and installed materials to advertise Meteorology and Climatology program in display case located in Turlington Lobby Nov/Dec 2011
Dunkle Award Committee 2006 – 2011
Undergraduate Curriculum Committee 2006-2009
Poehling Award Committee 2009
Supervised undergraduate field research summers 2008, 2009
Colloquium Organizer Fall 2008, Spring 2009
Represent Department at UF majors fair Oct. 14, 2008
Committee for Education Programs and Students Fall 2007
Represent Department at UF Family Day October 6, 2006 and October 13, 2007
Edward Fik Graduate Scholarship Committee 2006
Supervision of 72 hours of independent study for undergraduates (fall 2007 – spring 2014)
Guest Speaker for Geography Courses: GEO2200 Physical Geography, GEO6938 Research Methods; GEO3930 Introduction to Climate Change; GEO2242 Extreme Weather; GEO6118 Contemporary Geographic Thought; GEO2200L Physical Geography Lab

Postdoctoral Fellow Supervision

Dr. Dasol Kim	2021-2024	Assistant Professor Seoul Tech University

Graduate Student Supervision (Graduate faculty status attained October 2006)

MS:	Erin Bunting	Graduated 8/2009	Ph.D. program Univ. of Florida
	Kevin Ash	Graduated 5/2010	Ph.D. program Univ. of South Carolina
	Qiao Guo	Graduated 12/2014	GIS internship for Apple
	Sanghoon Kim	Graduated 8/2017	Ph.D. program Univ. of Florida
Ph.D.:	Stephanie Zick	Graduated 5/2016	Assistant Professor, Virginia Tech
	Jose J. Hernandez-Ayala	Graduated 5/2016	Assistant Professor, Sonoma State Univ.
	Jingyin Tang	Graduated 8/2017	Weather Analyst Citadel
	Yao Zhou	Graduated 5/2018	Assistant Prof., Embry Riddle Aeronautical Univ.
	Yu Wang	Graduated 12/2020	Product Engineer, ESRI
	Zainab Ali	Fall 2020 – present	
	Airin Akter	Fall 2023 - present	

Graduate Student Committees

Anna Szyniszewska	(MS – Geography)	Graduated 12/2009
Benjamin Thompson	(MS – Forest Resources and Conservation)	Graduated 12/2009
Ian Elsner	(MA – Digital Arts and Sciences)	Graduated 5/2014

Emilly Foster	(MS – Forest Resources and Conservation)	Graduated 5/2016
Michael Dillen	(MS – Geography)	Graduated 5/2020
Holli Capps	(MS – Geography)	Graduated 8/2021
Megan Borowski	(MS – Geography)	Graduated 5/2024
Caley Feemster	(MS – Geography)	Graduated 8/2023
Haotong Jing	(MS – Geography)	Graduated 8/2024

Andrew Condon	(PhD – Coastal Engineering)	Graduated 12/2011
Ignatius Cahyanto	(PhD – Tourism, Recreation, & Sport Mgmt)	Graduated 5/2012
Kofikuma Dzotsi	(PhD – Agricultural Engineering)	Graduated 8/2012
Hechen Liu	(PhD – Computer Science)	Graduated 12/2012
Carlos Canas	(PhD – Geography)	Graduated 12/2012
Juan A. Balderrama	(PhD – Coastal Engineering)	Graduated 8/2015
Xi Feng	(PhD – Coastal Engineering)	Graduated 12/2015
Jerome Maleski	(PhD – Agricultural Engineering)	Graduated 5/2016
David Roueche	(PhD – Coastal Engineering)	Graduated 12/2016
Johanna Engström	(PhD – Geography)	Graduated 5/2017
Robert Nedbor-Gross	(PhD – Environmental Engineering Sci.)	Graduated 8/2017
Alyssa Jaisle	(PhD – Mass Communication)	Graduated 5/2019
Ryan Catarelli	(PhD – Coastal Engineering)	Graduated 8/2019
Rachel Joyce	(PhD – Microbiology and Cell Science)	Graduated 5/2020
Luming Shi	(PhD – Coastal and Oceanographic Egn.)	Graduated 12/2020
Caroline Hugenin	(PhD – Geography)	
Mariel Ojeda Tuz	(PhD – Civil Engineering)	Graduated 8/2024
Hongsheng Wang	(PhD – Geography)	Graduated 12/2023
Trista Brophy-Duron	(PhD – Interdisciplinary Ecology)	
Haiyan Hao	(PhD – Urban and Regional Planning)	
Weikang Qian	(PhD – Geography)	
Michelle Ruiz	(PhD – Geography)	

UF- Sponsored Undergraduate Student Mentorship

Sarah VanSchoick	(McNair Scholars Program)	2019-2020	(Geography Major)
Alexander DesRosiers	(Univ. Scholars Program)	2016-2017	(Engineering Major)
Christian Kamrath	(Univ. Scholars Program)	2013-2014	(Geography Major)
Barry Congressi	(UF Teach Program)	2012-2013	(Mathematics Major)

Advise Undergraduate Honor's Thesis

Alex DesRosiers	Engineering Major	2018 (MS Atmospheric Science Colorado State Univ.)
Sarah VanSchoick	Geography Major	2020 (MS Geography UF)

Teaching Experience (+ course developed by Matyas) (Sabbatical fall 2018/spring2019)

University of Florida

Introductory Undergraduate:

Extreme Weather (F2006, 07, 08, 09, 10, 11)

+ Climate Change: Science and Solutions (Interdisciplinary team development and teaching across 3 colleges) (F2014)

Intermediate Undergraduate:
Climatology (F2005, Sp2007, 08, 09, 10, 11, 12, 13, 14, 15)
+Climatology 100% online (Sp2016, 18, 20, 21, 22, 23, 24, 25); Flipped course (Sp2017)
+Weather and Forecasting (Sp2006, 07, 08, 09, 10, 11)
Advanced Undergraduate:
+Hurricanes (F2006, 07, 08, 09, 10, 11, 12, 13, 14, 16, 17, 19, 20, 22, 23, 24)
+Spatial Analysis of Atmospheric Data using GIS (F2012, 14, 16) (100% online F2020) (hybrid F2021)
+Atmospheric Teleconnections (F2013, 15) 100% online Sp2018, 20, 22, 25
+Atmospheric Science Seminar (Sp2017)
Individual Work (F2007, Sp08, Sum08, Sp09, Sum09, F09, Sp10, F10, Sp11, Sp12, F12, Sp14)
Undergraduate Research Supervision (new course available Fall 2014) F2014, Sp15, F15, Sp16, F16, Sp17, Su17, F17, Sp18, Su 18, F18, Sp19, Su19, F19, S20, S21, F23, S24, F24
Honor's Thesis (S20)
Graduate Courses
Colloquium (F2008, Sp2009)
+Climatology (Sp2008, 09, 10, 11, 12, 13, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25)
+Weather and Forecasting (Sp2007, 09)
+Hurricanes (F2006, 07, 08, 09, 10, 11, 12, 13, 14, 16, 17, 19, 20, 22, 23, 24)
+ Spatial Analysis of Atmospheric Data using GIS (F2012, 14, 16, 20, 21)
+Atmospheric Teleconnections (F2013, 15) 100% online Sp2018, 20, 22, 25
+Atmospheric Science Seminar (Sp2017)
Special Topics (F10, Sp11, F11, Sp12, Sum12, F12, Sp13, Sum13, F13, Sp14, Sum14, Sp15, F15, S19, F20)

Ohio University (Instructor of Record): Introduction to Weather (3 quarters), Meteorology (with Lab), Climatology, Physical Geography 2004-2005
Pennsylvania State University (Instructor of Record): Physical Geography 2004
Pennsylvania State University (TA): Climatology, Physical Geography 2003-2004

Exhibition Record (Communicating Science through Visual Arts)

2025 *Materials Symposium*, East Carolina University, Greenville, NC
2024 *Connections vol. 4*, UrbanGlass, Brooklyn, NY curated by Tracey Carswell, Rebecca Lee, and SULO BEE
2024 *Dreamscapes*, Brick City Center for the Arts, Ocala, FL, juried by Allison McCarthy
2024 *MSA Select*, Vulcan Materials Gallery at the Alabama School of Fine Arts, Birmingham, AL, juried by Vanessa German
2024 *Thriving, Abundant, Joyful Presents and Futures,* Pennant Place, Gainesville, FL, curated by Flounder Lee with jurors Aya Rodriguez-Izumi and Lauryn Tyler
2024 *Post Cards from Utopia*, Italy International Center traveling exhibition, Palazzo Gallio, Alvito, Italy
2024 *Mugshot: Artistic Drinking Vessels Exhibition*, Arvada Center, Arvada, CO
2024 *HEAT*, Gainesville Fine Arts Association, Gainesville, FL curated by Katy Lemle and Skip Snow with jurors Jane Gilbert and Jeff Goodell
2024 *Summer Intensive Exhibition*, THE HUB Gallery, New York School of the Arts, New York, NY, curated by Kathryn Cameron

2024 *Sculpture Garden*, Museum of Contemporary Art Long Island, Patchogue, NY, curated by John Cino
2024 *State of Water*, Cade Museum, Gainesville, FL, juried by UF faculty and local artists
2024 *Continuous Cycles*, Working Method Contemporary Gallery, Tallahassee, FL, curated by Kim Springs and Jillian Heusohn
2023 *Post Cards from Utopia*, Italy International Center traveling exhibition, Phillipi Crest Clubhouse, Sarasota, FL
2023 *ARTBOX.PROJECTS Miami 4.0*, Miami, FL
2023 *Openings*, Decagon Gallery (online)
2023 *Extinction: An International Group Exhibition* by Gallerium (online)
2022 *Sculpture*, Possum Creek Park, Gainesville, FL
2004 *The Weather Project*, State College, PA
2003 Site-Specific Installation, *Hanging Water*, Walker Building stairwell, State College, PA
2001 *Wood You? Wood You Not?*, Step Gallery, Tempe, AZ
2001 *Mystery Gallery*, Art Detour 13, Phoenix, AZ
1999 **Solo Exhibition**, *Capstone for Sculpture Minor*, Empty Set Gallery, Clarion PA
1998 **Two-Person Exhibition**, *Changing Channels*, Empty Set Gallery, Clarion, PA
1998 **Solo Exhibition**, *A Journey to the Desert*, Empty Set Gallery, Clarion PA

Community Service

Florida Museum of Natural History Educate public about weather observations with mobile radar truck from the University of Oklahoma, September 17, 2022 Gainesville, FL
Scientist in Every Florida School – Pahokee High School August 2021
Florida Museum of Natural History and UF Thompson Earth Systems Institute, September 11, 2019 Gainesville, FL – presentation on Florida hurricanes
Florida Museum of Natural History Science Cafe, Newberry, FL – presentation on U.S. landfalling hurricanes, frequency/intensity, hazards, and forecasting, February 9, 2015
University of Florida Medical Guild, Gainesville, FL – presentation on hurricanes, forecasting, and rainfall, February 18, 2014
The Institute for Learning in Retirement, Oak Hammock, Gainesville Florida - presentation on hurricanes February 8, 2011
Norton Elementary – guest lectures to two 5th grade classes on hurricanes and weather, January 15, 2009
Chiles Elementary – two lectures on hurricanes and weather equipment, December 16, 2008
The Institute for Learning in Retirement, Oak Hammock, Gainesville Florida - presentation on climate change April 8, 2008
Florida Math-Science Partnership and Florida Center for Instructional Technology: I contributed materials to the Coastal Dynamics module that met six Sunshine State Science Standards. I created simple experiments that could be performed in the classroom, explained the science behind the formation of tropical cyclones and the dangers they pose when interacting with land, developed test questions, contributed a Scientist's Story with pictures and text, and was filmed explaining the content of the module that I designed. February – March, 2008.
High Springs Community School – guest lecture on weather prediction and equipment December 7, 2007