

CIWRO

**BIBLIOMETRIC ANALYSIS
OCTOBER 2021 – MARCH 2025**





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BIBLIOMETRIC ANALYSIS:
OCTOBER 2021 – MARCH 2025

UNIVERSITY OF OKLAHOMA
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SCHOLARLY PRODUCTIVITY

There have been 1702 peer-reviewed journal articles published over the lifetime of CIMMS/ CIWRO since 1978, and 426 have publication dates of 2021 to 2025. These numbers were identified from a master publication listed that is maintained within CIWRO, where new publications are obtained from CIWRO’s annual reports, self-reported by employees, or obtained from a database that the National Severe Storms Laboratory (NSSL) maintains. The list of publications from 2021-2025, the lifetime of CIWRO, is included as Appendix A and includes all papers that have been accepted for publication and assigned a doi before 14 March 2025. Many other papers are in preparation or have been submitted, and are not included in Appendix A. As many of the ideas for these papers are first presented in conferences, Appendix B provides a list of all conference presentations presented by CIWRO scientists since 1 October 2021.

TOP JOURNALS BY IMPACT FACTOR

The journal impact factor, calculated by Clarivate Analytics, is a measure of the average number of times articles from a two-year time frame have been cited in a given year, based on citations captured by the Web of Science database. It is one factor that can be used to judge the impact of a journal article. Table 1 lists CIWRO articles published between 2021 and 2025 in journals with the highest impact factors.

Journal	Publications	Impact Factor
Science	1	44.7
Science Advances	1	11.7
Earth System Science Data	3	11.2
Scientific Data	3	9.55
Bulletin of the American Meteorological Society	39	8.77
Climate and Atmospheric Science	1	8.5
IEEE Transactions on Geoscience and Remote Sensing	9	7.5
Quarterly Journal of the Royal Meteorological Society	2	7.24
Journal of Hydrology	4	6.71
IIEE Transactions on Automation Science and Engineering	1	5.6

Table 1: CIWRO Highest Impact Journals 2021 - 2025

NATIONAL COLLABORATIONS

CIWRO consortium partners include activities from five different universities: OU, Howard University, the University at Albany, Texas Tech University and Penn State University. Publications from members of these universities are included in CIWRO's publication lists if completed with funding from the Cooperative Agreement. However, few are included in the current list because work from the consortium partners only started on 1 October 2021. In addition to these universities, CIWRO scientists are involved in collaborations with individuals from multiple other institutions. Figure 1 illustrates all of the domestic universities and government agencies with which CIWRO scientists have co-authored a paper since 1 October 2021, when CIWRO was established.

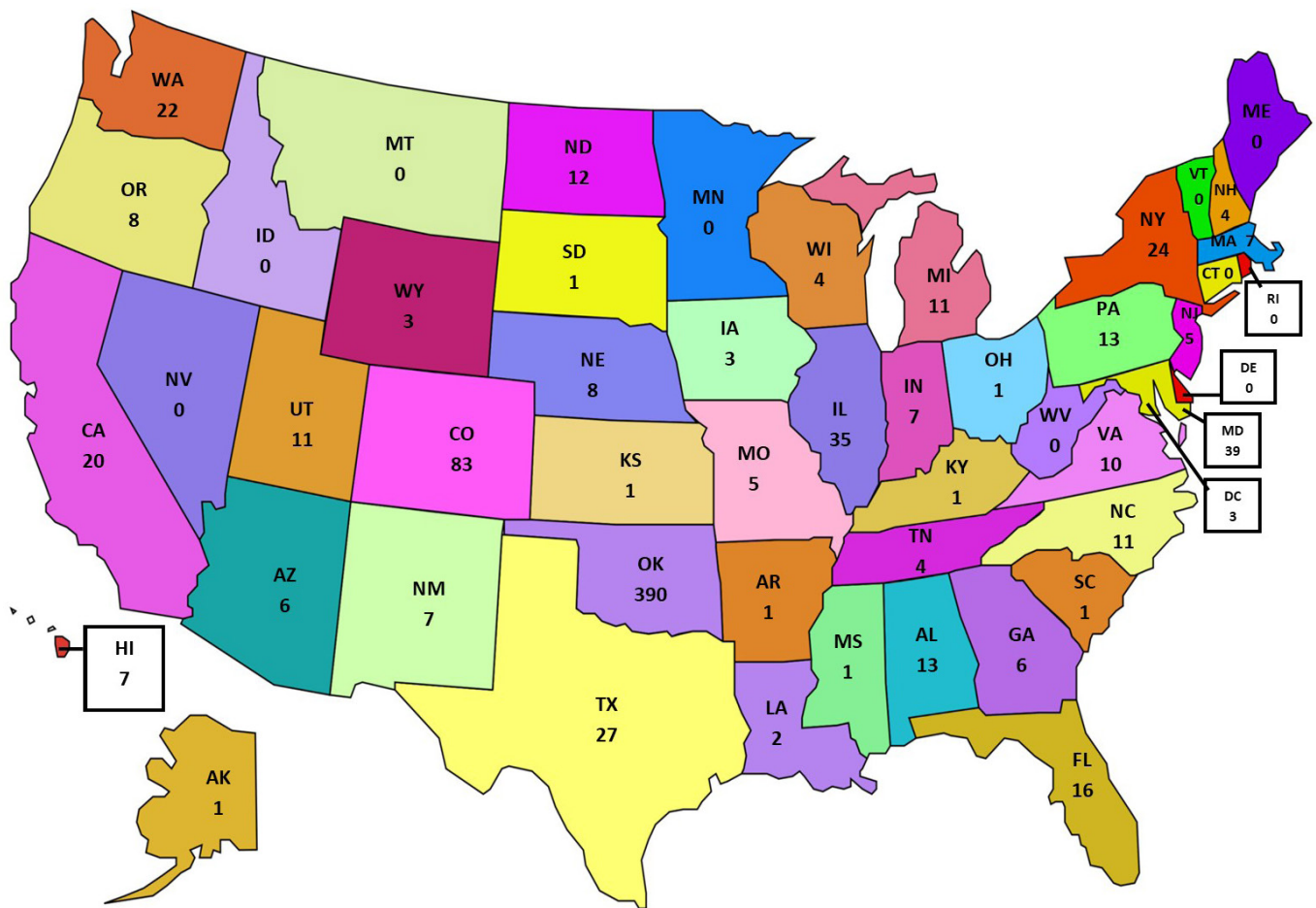


Figure 1: Number of instances of collaborations with different institutes in given state for papers published between 2021 and 2025.

INTERNATIONAL COLLABORATIONS

In addition to collaboration with domestic universities, CIWRO scientists are involved in collaborations with a number of individuals from foreign universities and government agencies. Figure 2 illustrates the number of foreign institutes CIWRO scientists have co-authored a paper with since 1 October 2021, when CIWRO was established. Figure 3 highlights the collaborations with countries in Europe which are not readily visible in Figure 2.

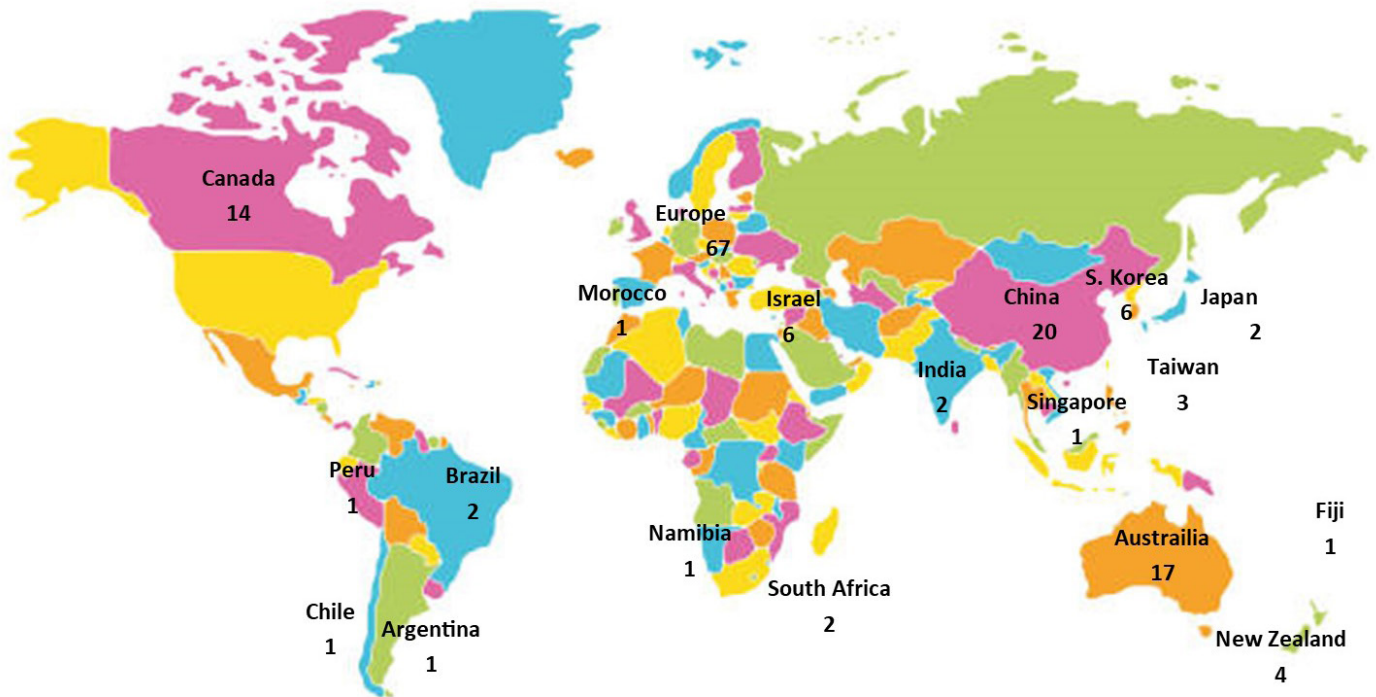


Figure 2: Number of instances of collaborations with different institutes in given country for papers published between 2021 and 2025.



Figure 3: Number of instances of collaborations with different institutes in given European country for papers published between 2021 and 2025.

FUNDING SOURCES

This pie chart shows the funding sources acknowledged for CIWRO authors in papers co-authored by CIWRO employees from 2021-2025. The information on which this graphic is based was obtained by checking the acknowledgements section of each paper, and tabulating the funding source listed for CIWRO authors only. For a single paper, each funding agency was only counted once even if more than one grant was acknowledged, but multiple funding agencies could be counted for each paper. Thus, because each paper might have multiple funding sources, the totals do not add up to 100%.

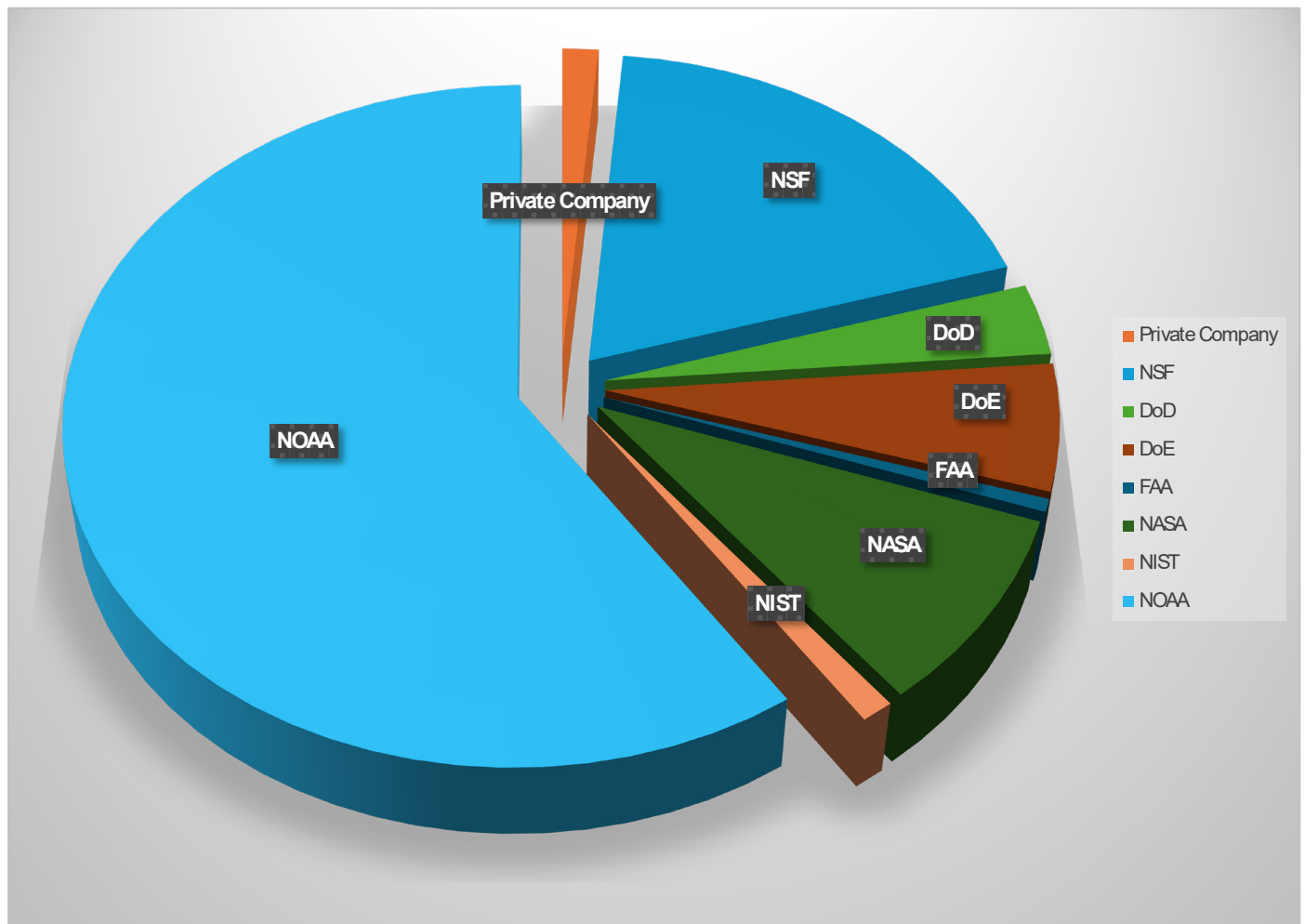


Figure 4: Funding sources acknowledged for CIWRO authors in papers co-authored by CIWRO employees from 2021-2025.

KEYWORD FREQUENCY

To get some idea about the topics included in CIWRO papers, Figure 5 shows a schematic that illustrates the frequency different keywords are used in papers between 2021 and 2025 to describe the topic of the paper. Keywords were obtained by manually checking each of the published papers.



Figure 5: Word cloud of keywords from CIWRO published papers.

CIWRO PEER-REVIEWED PUBLICATIONS 2021-25

As of March 16, 2025

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- Zrnić, D., **I. R. Ivić**, **D. Mirković**, L. Borowska, and G. Zhang, 2024: “Polarimetric planar phased array radar — challenges for observing weather.” In *Advances in Weather Radar, Volume 1: Precipitation Sensing Platforms*, V. Bringi, V. Mishra, and M. Thurai, eds., The Institute of Engineering and Technology.

CIWRO CONFERENCE PRESENTATIONS

October 2021 - June 2022

- Adams, A., R. M. Rauber, B. Jewett, and G. M. McFarquhar, 2022: The evolution of CAPE, the cold pool, and nocturnal low-level jet and their impact on surface-based vs. elevated convection within a simulated severe PECAN MCS. *31st Conf. on Weather Analysis and Forecasting (WAF)/27th Conf. on Numerical Weather Prediction*, Amer. Meteor. Soc. Annual Meeting, Houston, TX, January 2022.
- Adams, T. M., C. A. Shivers-Williams, L. Williams, and S. Chiao, 2022: Building Social Science Capacity at NCAS-M: An Interdisciplinary Approach for Research and Training in the Weather Enterprise. *102nd American Meteorological Society Annual Meeting*, virtual, Houston, TX.
- Alford, A. A., M. I. Biggerstaff, and G. Carrie, 2022: Evaluating the Observed Tangential Wind Tendency in Hurricane Harvey (2017) Using Ground-Based Dual-Doppler Analysis. *35th Conference on Hurricanes and Tropical Meteorology*, New Orleans, LA, American Meteorological Society.
- Alford, A. A., X. Lu, M. I. Biggerstaff, and X. Wang, 2022: Using Ground-Based Radar Observations to Evaluate a Hurricane-WRF Simulation of Hurricane Harvey (2017). *19th Conference on Mesoscale Processes*, Houston, TX, American Meteorological Society.
- Alford, A. A., B. A. Schenkel, J. Zhang, M. I. Biggerstaff, S. M. Waugh, and E. Blumenauer, 2022: Characterizing Deep-Layer Vertical Wind Shear Available to Miniature Supercells in Landfalling Tropical Cyclones. *19th Conference on Mesoscale Processes*, Houston, TX, American Meteorological Society.
- Alford, A., B. Schenkel, J. Zhang, E. Blumenauer, and M. Biggerstaff, 2022: Hurricane Supercell Response to the Coast in Three Landfalling Tropical Cyclones. *35th Conference on Hurricanes and Tropical Meteorology*, New Orleans, LA, American Meteorological Society.
- Bates, A. V., G. Stumpf, K. L. Manross, Y. Guo, C. Ling, P. T. Hyland, J. Ramer, C. Golden, J. W. Monroe, J. G. Madden, S. Murphy, and K. L. Berry, 2022: Stepping toward NWS warning operations in the FACETs era via Threats-in-Motion (TIM) testing within virtual NOAA Hazardous Weather Testbed experiments. *12th Conf. on Transition of Research to Operations*, Virtual, American Meteorological Society, 14B.4.
- Bianchi, C., J. E. Trujillo-Falcón, V. Yas, C. J. Schultz, I. Sans, A. Romero, M. Torres, and K. Murphy, 2022: National Lightning Safety Awareness Week en español: Successes from 2021 and a vision forward. *49th Conference on Broadcast Meteorology*, American Meteorological Society, Milwaukee, WI. 14–17 June.
- Biggerstaff, M., A. A. Alford, G. Carrie, and J. A. Stevenson, 2022: Real-Time Mobile Radar Observations and Rapid Wind Retrievals during Landfalling Hurricanes to Support the COASTAL Act. *20th Symposium on the Coastal Environment*, Houston, TX, American Meteorological Society.
- Bitterman, A., M. J. Krocak, J. Ripberger, S. R. Ernst, J. E. Trujillo-Falcón, A. R. Gaviria Pabón, C. Silva, and H. Jenkins-Smith, 2022: Cross-sector collaboration for effective risk communication: A case study of SPC risk categories in Spanish. *17th Symposium on Societal Applications*, 102nd American Meteorological Society Annual Meeting, Houston, TX. 23–27 January.
- Bodine, D. J., J. M. Kurdzo, C. B. Griffin, R. D. Palmer, B. Isom, F. Nai, A. Mahre, M. Yeary, and T. Y. Yu, 2022: Overview of a decade of field experiments with the Atmospheric Imaging Radar. *2022 IEEE Radar Conference*, New York City, NY, IEEE, <https://doi.org/10.1109/RadarConf2248738.2022.9764270>.
- Boggs, L., and Coauthors, 2021: Novel radio, optical, and meteorological observations of a gigantic jet with extraordinary charge transfer. *American Geophysical Union 2021 Fall Meeting*, New Orleans, LA, American Geophysical Union, AE22A–01.
- Brannan, A. L., J. Vancil, and I. Jirak, 2022: A Comparison of Climatological Metrics Used to Define Seasonal Severe Weather Activity. *12th Conference on Transition of Research to Operations*, Houston, TX, Amer. Meteor. Soc.
- Brannan, A. L., J. Vancil, and I. Jirak, 2021: A Comparison of Climatological Metrics Used to Define Seasonal Severe Weather Activity. *Student and Early Career Conference on Severe Local Storms Topics*, Amer. Meteor. Soc., virtual.
- Brauer, N., A. A. Alford, S. M. Waugh, M. I. Biggerstaff, P. Kirstetter, J. B. Basara, G. Carrie, and D. T. Dawson, 2022: Hurricane Laura (2020): A Comparison of Drop Size Distribution Moments Using Ground and Radar Remote Sensing Retrievals. *36th Conference on Hydrology*, Houston, TX, American Meteorological Society.
- Brechner, P., G. M. McFarquhar, A. Schwarzenboeck, and A. V. Korolev, 2021: Ice crystal size distributions in tropical mesoscale

- convective systems in the vicinity of Darwin, Australia: Results from the HAIC/HIWC campaign. *AGU Fall Meeting*, New Orleans, LA.
- Brechner, P.A., G. M. McFarquhar, A. Schwarzenboeck, and A. Korolev, 2022: Ice crystal size distributions in tropical mesoscale convective systems in the vicinity of Darwin, Australia: Results from the HAIC/HIWC campaign. *22nd Conf. on Aviation, Range, and Aerospace Meteorology*, Amer. Meteor. Soc. Annual Meeting, Houston, TX, January 2022.
- Britt, K., P. S. Skinner, P. L. Heinselman, C. K. Potvin, M. L. Flora, B. Matilla, A. E. Reinhart, and K. H. Knopfmeier, 2021: Identification and verification of QLCSs in the Warn-on-Forecast System (WoFS). *Virtual Student and Early Career Conference on Severe Local Storms Topics*, Amer. Meteor. Soc.
- Bruning, E., K. Calhoun, J. Leeman, V. Chmielewski, D. Kennedy, Z. Barney, K. Brunner, and S. Weiss, 2022: An updated balloon-borne vector electric field meter with full inertial reference measurement. *17th International Conference on Atmospheric Electricity*, Tel Aviv, Israel.
- Buban, M. S., T. R. Lee, and C. B. Baker, 2022: Development of a daily-updating gridded soil water analysis model product (SWAMP) over the Conterminous US. (Virtual) *102nd American Meteorological Society Annual Meeting*, 23-27 Jan 2022, Houston, TX.
- Buban, M. S., T. R. Lee, and C. B. Baker, 2021: Development of daily-updating gridded soil moisture products over the conterminous US. *American Geophysical Union Fall Meeting*, 13-17 Dec 2021, New Orleans, LA.
- Bukovčić, P., A. Ryzhkov, and D. Zrnica, 2021: Polarimetric radar estimation of heavy snow, *NOAA/OU – KNU workshop 2021 on Advancement of Observation and Meteorological Processes*, online meeting, Kyungpook National University, 19-20 October 2021, Daegu, South Korea.
- Burke, P., T. J. Galarneau, Jr., K. Knopfmeier, B. C. Matilla, and D. Dowell, 2022: The historic August 2021 Tennessee flash flood in the Warn-on-Forecast storm-scale ensemble system. *Major Weather Events and Impacts of 2021*, Houston, TX, Amer. Meteor. Soc., 8.3, <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/400728>
- Burke, P. C., K. A. Wilson, B. Gallo, P. Skinner, J. G. Madden, J. W. Monroe, J. Guerra, D. Morris, C. M. Gravelle, T. Lindley, and S. W. Bieda, 2022: The Virtual 2021 Warn-on-Forecast Testbed Experiment. in *31st Conference on Weather Analysis and Forecasting/27th Conference on Numerical Weather Prediction*, Houston, TX. Amer. Meteor. Soc., virtual. <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/393718>
- Calhoun, K. M., P. A. Campbell, R. B. Steeves, T. Sandmael, C. N. Satrio, P. T. Hyland, J. W. Monroe, J. G. Madden, and K. L. Berry, 2022: Forecaster creation and evaluation of probabilistic hazard information for severe weather. *10th Symp. on Building a Weather-Ready Nation*, Virtual, American Meteorological Society, 2.2.
- Carlin, J. T., 2021: Incorporating novel melting-layer detection algorithm observations into the hydrometeor spectral bin classifier. *NOAA/OU-KNU Workshop on Advancement of Observation and Meteorological Processes*. 20-21 October 2021 (virtual).
- Carlin, J. T., E. N. Smith, and K. Giannakopoulos, 2021: Contextualizing polarimetric retrievals of boundary layer height using state-of-the-art boundary layer profiling. *NOAA/OU-KNU Workshop on Advancement of Observation and Meteorological Processes*. 20-21 October 2021 (virtual).
- Carlin, J. T., E. L. Dunnavan, J. Krause, and A. V. Ryzhkov, 2021: Current status of the spectral bin classifier (SBC) for transitional winter weather: Recent updates. *ICICLE Workshop #4*. 6-9 December 2021 (virtual).
- Chmielewski, V. C., C. Potvin, P. Skinner, A. Reinhart, E. Mansell, and K. Calhoun, 2021: Improvements on a machine learning forecast of cloud-to-ground lightning rates within the NSSL Experimental Warn-on-Forecast System. *American Geophysical Union 2021 Fall Meeting*, New Orleans, LA, American Geophysical Union, A22G–03.
- Chmielewski, V. C., K. Calhoun, V. Salinas, and D. Kennedy, 2021: Plans for targeted NSSL Lightning Mapping Array deployments. *American Geophysical Union 2021 Fall Meeting*, New Orleans, LA, American Geophysical Union, AE35A–1906.
- Chmielewski, V., K. Calhoun, D. Kennedy, V. Salinas, J. Ringhausen, E. Bruning, and K. Brunner, 2022: Preliminary Mobile Lightning Mapping Array observations during the PERiLS field campaign. *17th International Conference on Atmospheric Electricity*, Tel Aviv, Israel.
- Clark, A. J., I. L. Jirak, B. Gallo, K. Knopfmeier, B. Roberts, M. Krocak, J. Vancil, K. Hoogewind, N. A. Dahl, E. D. Loken, D. E. Jahn, D. R. Harrison, D. Imy, P. C. Burke, L. J. Wicker, P. Skinner, P. Heinselman, P. T. Marsh, K. A. Wilson, A. R. Dean, G. J. Creager, T. A. Jones, J. Gao, Y. Wang, M. Flora, C. Potvin, C. A. Kerr, N. Yussouf, J. Martin, J. Guerra, B. C. Matilla, and T. J. Galarneau, Jr., 2022: The second virtual NOAA Hazardous Weather Testbed Spring Forecasting Experiment. *12th Conf. on Transition of Research to Operations*, Houston, TX, Amer. Meteor. Soc., 7B.1, <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395751>.
- Cocks, S. B., L. Tang, W. Hanft, C. Langston, J. Zhang, and K. Howard, 2022: Real-time verification/ evaluation results for the MRMS experimental dual-pol QPE Product during the 2021 warm season. *36th Conf. on Hydrology*, Amer. Meteor. Soc., 437, <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395587>.

- Cocks, S. B., L. Tang, A. Osborne, J. Zhang, and K. Howard, 2022: Impacts of NEXRAD supplemental lower-elevation angles on MRMS quality control and QPE. *36th Conf. on Hydrology*, Amer. Meteor. Soc., 14B.4, <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395576>.
- Cross, R., D. Bodine, B. Cheong, R. Palmer, C. Fulton, S. Torres, C. Griffin, M. Schneider, J. Lujan, and T. Maruyama, 2022: Analyzing Observational Tornado Debris Signature Hypotheses Using Radar Simulations and Large-Eddy Simulations. *38th Conf. on Environmental Information Processing Technologies*, Houston, TX, Amer. Meteor. Soc., Paper 6B.4.
- D'Alessandro, J., G. M. McFarquhar, W. Wu, J. Stith, J. Jensen, and R. M. Rauber, 2022: Comparing single and multi-layered cloud regimes and evaluation of liquid spatial inhomogeneity over the Southern Ocean using in situ observations from SOC-RATES. *14th Symposium on Aerosol-Cloud-Climate Interactions*, Amer. Meteor. Soc. Annual Meeting, Houston, TX, January 2022.
- DeWinter, T., D. Hogg, and K. Klockow-McClain, 2022: Impacts of Uncertainty on Emergency Managers Communicating Threats-In-Motion. *6th Conference on Weather Warnings and Communication*, June 15, 2022, Milwaukee, Wisconsin.
- DeWinter, T., R. McPherson, J. Koch, and K. Klockow-McClain, 2022: A Spatial Analysis of Simulated Tornado Warning Decisions in the United States. *102nd American Meteorological Society Annual Meeting*, January 24, 2022, Houston, Texas.
- Dixon, A. W., P. S. Skinner, and L. Orf, 2021: Simulated WSR-88D observations of the streamwise vorticity current. *Virtual Student and Early Career Conference on Severe Local Storms Topics*, Amer. Meteor. Soc.
- Dixon, A. W., P. S. Skinner, and L. Orf, 2022: Simulated WSR-88D observations of the streamwise vorticity current. *31st Conf. on Weather Analysis and Forecasting/27th Conf. on Numerical Weather Prediction*, Houston, TX, Amer. Meteor. Soc., 57.
- Dong, J., R. Panda, J. A. Abeles, J. R. Carley, C. R. Holt, C. W. Harrop, D. Abdi, M. E. Pyle, A. Chawla, B. Gallo, and S. Trojaniak, 2022: Evaluation of the Prototype Rapid Refresh Forecast System (RRFS) Ensemble Forecasts with Cloud High Performance Computing (HPC) at NOAA Testbeds. *12th Conference on the Transition of Research to Operations*, AMS Annual Meeting, 23–27 January.
- Dunnavan, E., 2021: Observations and modeling applications of polarimetric Lagrangian trajectories in winter storms. KNU/OU ICE-POP workshop seminar series. Oral presentation *NOAA/OU - KNU Workshop Oct 20th, 2021* (online).
- Dunnavan, E., 2021: Radar retrieval evaluation and investigation of polarimetric signatures in winter storms. Oral presentation. *NOAA/OU - KNU Workshop Oct 20th, 2021* (online).
- Dunnavan, E., 2021: Evaluation of polarimetric ice retrievals using WSR-88D radar observations and aircraft microphysical measurements during ICICLE. *4th ICICLE workshop Dec 6th, 2021* (online).
- Dunnavan, E., 2021: Radar-based Bayesian Estimation of Ice Aggregate Parameters Within a Microphysics Model. *AGU Fall Meeting*, (virtual component) Dec. 16th, 2021. url: <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/960923>.
- Dzambo, A., G. McFarquhar, and J. Finlon, 2021: A framework for quantifying variability in velocity-dimension relationships appropriate for use in weather and climate models. *AGU Fall Meeting*, New Orleans, LA.
- Earnest, B., A. McGovern, and I. L. Jirak, 2022: Using Deep Learning to Predict the Existence of Wildfires with Fuel Data. *21st Conf. on Artificial Intelligence for Environmental Science*, Virtual, Amer. Meteor. Soc. 3.6 [Note: First place, Outstanding Student Presentation Award]
- Edwards, S., D. A. Morris, S. Borg, E. Jacobsen, M. A. Magsig, M. J. Lamkin, K. Grempler, and J. D. Hardy, 2022: Future Applications of the WES in the Cloud. in *38th Conference on Environmental Information Processing Technologies*, virtual, Amer. Meteor. Soc. <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398701>
- Emmerson, S., R. D. Palmer, D. J. Bodine, P. S. Skinner, and C. Fulton, 2022: Minimizing sidelobe contamination in multistatic weather radar systems through sidelobe whitening and optimal network layouts. *38th Conf. on Environmental Information Processing Technologies* Houston, TX, Amer. Meteor. Soc., 8A.4.
- Ernst, S. R., 2022: Introducing CASTBot (Coding Algorithm for Storm coverage Transcripts) through a study of broadcast coverage of TORFF events. *49th Conference Broadcast Meteorology and 6th Conference on Weather Warnings and Communications: Messaging the Perfect Forecast*. 14–17 June.
- Ernst, S. R., J. Ripberger, J. Krutz, D. Nowicki, K. Klockow-McClain, and K. L. Berry, 2022: Using Code to Reduce the Costs of Coding: The Development of a Broadcast Meteorologist Coverage Thematic Coding Algorithm. *17th Symposium on Societal Applications: Policy, Research, and Practice*, AMS Annual Meeting, 23–27 January.
- Ernst, S. R., M. Krocak, and J. Ripberger, 2022: Keeping Context in Probabilities: Comparing Public Responses to Absolute and Relative Probability Forecasts of Tornadoes. *17th Symposium on Societal Applications: Policy, Research, and Practice*, AMS Annual Meeting, 23–27 January.
- Ernst, S. R., J. Ripberger, J. Krutz, K. Klockow-McClain, and K. L. Berry, 2022: Cracking the TORFF Code: Understanding Broadcaster Coverage of Simultaneous Tornado and Flash Flood Events. *10th Symposium on Building a Weather-Ready Nation: Enhancing Our Nation's Readiness, Responsiveness, and resilience to High Impact Weather Events* and *10th Symposium*

- on the Weather, Water, and Climate Enterprise, AMS Annual Meeting, 23–27 January.
- Fleegel, K., T. Brice, S. Atkins, N. Carletta, R. Fox, P. Hyland, J. Keyes, J. A. Malingowski, S. Rogowski, S. Shiveley, and K. Sullivan, 2022: COVID-19 and Virtual Weather Presentations. *31st Conference on Education*, Houston, TX, American Meteorological Society.
- Fu, D., L. Di Girolamo, R.M. Rauber, G. McFarquhar, S. Nesbitt, J. R. Loveridge, Y. Hong, B. van Dierenhoven, B. Cairns, M. D. Alexandrov, P. Lawson, S. Woods, S. Tanelli, and S. Schmidt, 2021: Validation of MODIS bi-spectral retrieved liquid cloud droplet effective radius over the Philippines with CAMP²EX airborne remote sensing and in-situ measurements. *AGU Fall Meeting*, New Orleans, LA. AGU Fall Meeting, New Orleans, LA
- Gallo, B. T., A. J. Clark, I. L. Jirak, B. Roberts, and coauthors, 2021: An Overview of the Second Virtual Spring Forecasting Experiment in NOAA’s Hazardous Weather Testbed. *Virtual Student and Early Career Conference on Severe Local Storms Topics*, Amer. Meteor. Soc.
- Gallo, B. T., I. L. Jirak, A. J. Clark, K. A. Wilson, P. C. Burke, P. Skinner, B. Roberts, K. Knopfmeier, D. E. Jahn, and D. Imy, 2022: Lessons from two years of virtual experiments “in” NOAA’s Hazardous Weather Testbed. *31st Conf. on Weather Analysis and Forecasting/27th Conf. on Numerical Weather Prediction*, Houston, TX, Amer. Meteor. Soc., J15B.2, <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395577>.
- Gao, J., P. C. Burke, S. Pan, J. Hu, P. Skinner, B.C. Matilla, M. Flora, B. Roberts, K. Knopfmeier, A. J. Clark, B. Gallo, D. Dowell, G. J. Creager, T. A. Jones, N. Yussouf, E. R. Mansell, C. K. Potvin, L. J. Wicker, and P. Heinselman, 2022: Testing of the Warn-on-Forecast hybrid data assimilation and forecasting system at 1.5-km resolution during the HWT Spring Forecasting Experiment in 2021. *12th Conf. on Transition of Research to Operations*, Houston, TX, Amer. Meteor. Soc., 11B.6, <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395399>
- Griffin, S. M., J. A. Otkin, S. E. Nebuda, T. L. Jensen, P. S. Skinner, T. A. Supinie, and M. Xue, 2022: Evaluating the impact of planetary boundary layer, land surface model, and microphysics parameterization schemes on simulated GOES-16 water vapor brightness temperatures. *31st Conf. on Weather Analysis and Forecasting/27th Conf. on Numerical Weather Prediction*, Houston, TX, Amer. Meteor. Soc., J2.4.
- Guerra, J. E., P. S. Skinner, B. C. Matilla, M. L. Flora, and A. E. Reinhart, 2022: Quantification of NSSL Warn-on-Forecast System skill by storm age using object-based verification. *31st Conf. on Weather Analysis and Forecasting/27th Conf. on Numerical Weather Prediction*, Houston, TX, Amer. Meteor. Soc., J15A.2.
- Gupta, S., G. M. McFarquhar, J. O’Brien, M. Poellot, and D. Delene, 2021: Comparing MODIS retrievals with in-situ observations of marine stratocumulus over the Southeast Atlantic to study aerosol-cloud interactions. *AGU Fall Meeting*, New Orleans, LA.
- Gupta, S., G. McFarquhar, J. O’Brien, M. Poellot, D. Delene, R. Miller, and J. Griswold, 2021: Precipitation susceptibility of marine stratocumulus with variable above and below-cloud aerosol concentrations over the Southeast Atlantic: Results from ORACLES. *AGU Fall Meeting*, New Orleans, LA.
- Haggerty, J., C. Wolff, A. Rugg, A. Korolev, G. M. McFarquhar, J. Schima, and E. Schaefer, 2022: Comparison of supercooled large drop icing conditions in oceanic and continental environments. *22nd Conference on Aviation, Range and Aerospace Meteorology*, Amer. Meteor. Soc. Annual Meeting, Houston, TX, January 2022.
- Handler, S. L., and H. D. Reeves, 2022: Generating a probabilistic subfreezing road temperature nowcast and forecast from the High-Resolution Rapid Refresh Ensemble using machine learning. *31st Conf. on Weather Analysis and Forecasting/27th Conf. on Numerical Weather Prediction*. Amer. Meteor. Soc., Paper 6A.2.
- Harrison, D., A. McGovern, C. Karstens, I. Jirak, and P. Marsh, 2022: Winter Precipitation-Type Classification with a 1D Convolutional Neural Network. *31st Conf. on Wea. Analysis and Forecasting/27th Conf. on Num. Wea. Prediction*, Houston, TX, Amer. Meteor. Soc., J11.4.
- Harrison, D., A. McGovern, C. Karstens, I. Jirak, and P. Marsh, 2022: A Machine Learning Approach to Generating Guidance for SPC Watch Products. *31st Conf. on Wea. Analysis and Forecasting/27th Conf. on Num. Wea. Prediction*, Houston, TX, Amer. Meteor. Soc., 480.
- Harrison, D., A. McGovern, C. Karstens, J. Demuth, A. Bostrom, I. Jirak, and P. Marsh, 2022: Challenges and Benefits of Machine Learning in an Operational Environment: Survey Results from the 2021 Hazardous Weather Testbed Spring Forecasting Experiment. *21st Conf. on Artificial Intelligence for Environmental Science*, Houston, TX, Amer. Meteor. Soc., 1.4.
- Hatzis, J., J. Kim, and K. Klockow McClain, 2022: The Development of a Tornado Protective Action Decision Model for the City of Norman, Oklahoma. *17th Symposium on Societal Applications*, Houston, TX, American Meteorological Society, 7A.4.
- Heimes, K., H. E. Brooks, and K. A. Hoogewind, 2021: A Long-Term History of Favorable Patterns for Severe Storms. *Virtual Student and Early Career Conference on Severe Local Storms Topics*, Amer. Meteor. Soc.
- Hu, X.-M., W. Wu, G. McFarquhar, and M. Xue, 2021: Three modes of cloud-boundary layer coupling over the Southern Ocean:

- Performance of conventional and mass-flux PBL schemes. *AGU Fall Meeting*, New Orleans, LA.
- Hu, Y., G. M. McFarquhar, W. Wu, P. Brechner, Y. Huang, A. Schwarzenboeck, A. Protat, A. Korolev, M. Wolde, C. Nguyen, R. M. Rauber and 庆, 2021: 冰晶的微物理特性及其对环境参数的依赖: 南美卡宴实验场地数据. *Ocean University of China Science Forum*, China, November 2021.
- Huang, Y., W. Wu, G. McFarquhar, M. Xue, H. Morrison, J. Milbrandt, A. Korolev, Y. Hu, Z. Qu, M. Wolde, C. Nguyen, A. Schwarzenboeck, and I. Heckman, 2021: Microphysical processes producing High Ice Water Contents (HIWCs) in tropical convective clouds during the HAIC-HIWC field campaign: Dominant roles of secondary ice production. *AGU Fall Meeting*, New Orleans, LA.
- Humphries, R. S., M. D. Keywood, S. Gribben, I. M. McRobert, J. P. Ward, P. Selleck, S. Taylor, J. Harnwell, C. Flynn, G. R. Kulkarni, G. G. Mace, A. Protat, S. Alexander, and G. McFarquhar, 2022: Southern Ocean latitudinal gradients of cloud condensation nuclei. *13th Conf. Southern Hemisphere Meteorology and Oceanography*, Christchurch, New Zealand, February 2022.
- Ivić, I. R., 2022: Experimental Evaluation of the Antenna Tilt Effects in PPAR. *38th Conference on Environmental Information Processing Technologies*, Houston, TX, Amer. Meteor. Soc., Paper 7B.4.
- Jahn, D. E., I. L. Jirak, A. Wade, and J. Milne, 2022: Storm mode and tornado potential determination using statistical moments of updraft helicity distribution. *27th Conf. Numerical Weather Prediction*, Amer. Meteor. Soc., Houston, TX.
- Janiszewski, A., R. M. Rauber, B. Jewett, and G. M. McFarquhar, 2022: Kinematic modeling study of the re-organization of snow-fall beneath cloud-top generating cells in midlatitude winter storms. *19th Conf. on Mesoscale Processes*, Amer. Meteor. Soc. Annual Meeting, Houston, TX, January 2022.
- Jones, T. A., R. Ahmadov, and E. Jones, 2021: Prototype of a Warn-on-Forecast System for smoke forecasting (WoFS-Smoke)., *American Geophysical Union Fall Meeting*, Monitoring, Modeling, and Forecasting Fire Emissions, Smoke, and Their Health Impacts II, New Orleans, LA.
- Kerr, C., 2022: Predictability of the 13 April 2020 Central Savannah River Area tornado outbreak using the Warn-on-Forecast System. *31st Conf. on Weather Analysis and Forecasting/ 27th Conf. on Numerical Weather Prediction*, Virtual, Amer. Meteor. Soc., paper 13C.3.
- Kim, J., and P. A. Campbell, 2022: Commercial Building–Type Classification Using Convolutional Neural Network (CNN) for Predicting Community Risks from Severe Weather Threats. *10th Symposium on Building a Weather-Ready Nation*, Houston, TX, American Meteorological Society.
- Klockow-McClain, K.E., 2021: Exploring Connections Between Probabilistic Hazard Information and Warnings. Invited presentation, virtual. *Australian Bureau of Meteorology Annual R&D Workshop*.
- Klockow-McClain, K.E., 2022: Building a Social Science Team in a NOAA Cooperative Institute and Laboratory. *17th Symposium on Societal Applications*, Virtual, American Meteorological Society, 1B.2.
- Klockow-McClain, K.E., 2022: Exploring Dissemination: Making Threats-in-Motion work for NWS and its Partners. *6th Conference on Weather Warnings and Communications*, American Meteorological Society, 4.5.
- Klockow McClain, K. E., G. Stumpf, K. L. Berry, S. Murphy, and A. V. Bates, 2022: User Dissemination Requirements and Policy Concerns for Threats-in-Motion. *12th Conf. on Transition of Research to Operations*, Amer. Meteorol. Soc., 11A.3.
- Knutson, T., M. Bender, R. Tuleya, and B. A. Schenkel, 2022: Dynamical Downscaling Projections of Late Twenty-First-Century U.S. Landfalling Hurricane Activity. *20th Symposium on the Coastal Environment*, Houston, TX, American Meteorological Society.
- Krocak, M. J., S. R. Ernst, J. Ripberger, C. Silva, H. Jenkins-Smith, J. Picca, P. T. Marsh, I. L. Jirak, and R. S. Schneider, 2022: Examining the Public Utility of Intensity Forecast Information in the SPC Convective Outlook. *17th Symposium on Societal Applications: Policy, Research, and Practice*. AMS Annual Meeting 23–27 January.
- Krocak, M. J., S. R. Ernst, J. Ripberger, C. Silva, and H. Jenkins-Smith, 2022: Forecast Information Type across Time: What Do People Want and Need? *17th Symposium on Societal Applications: Policy, Research, and Practice*. AMS Annual Meeting 23–27 January.
- Ladino-Rincon, A., S. W. Nesbitt, R. Miller, D. Fu, L. Di Girolamo, R. M. Rauber, G. M. McFarquhar, O. Sy, and S. Tanelli, 2021: Characterization of macrophysical characteristics of clouds and precipitation during the CAMP²EX field campaign. *AGU Fall Meeting*, New Orleans, LA.
- LaDue, J. G., J. D. Hardy, S. Borg, K. Christian, S. Edwards, J. Gibbs, K. Grempler, E. Jacobsen, M. J. Lamkin, M. A. Magsig, B. E. Mayes Boustead, D. A. Morris, R. A. Prentice, C. Spannagle, H. Wells, and A. C. Wood, 2022: Developing and Delivering the Applied NWS Radar and Applications Course in a Virtual Environment Using Cloud-Based Technology. in *12th Conference on Transition of Research to Operations*, virtual, Amer. Meteor. Soc. <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399462>

- LaDue, J. G., D. A. Morris, M. A. Magsig, B. E. Mayes Boustead, E. Jacobsen, C. Spannagle, M. J. Lamkin, J. D. Hardy, S. Edwards, S. Borg, H. Wells, R. A. Prentice, A. C. Wood, K. Grempler, K. Christian, and J. Gibbs, 2021: Developing the RAC-in-the-Cloud Workshop. *National Weather Association Annual Meeting*, virtual.
- Lamkin, M. J., S. Borg, K. Christian, S. Edwards, J. Gibbs, K. Grempler, J. D. Hardy, E. Jacobsen, J. G. LaDue, M. A. Magsig, B. E. Mayes Boustead, D. A. Morris, R. A. Prentice, C. Spannagle, H. Wells, and A. C. Wood, 2022: How the NWS Radar and Applications Course Managed Team Dynamics in a Virtual Environment. in *12th Conference on Transition of Research to Operations*, Houston, TX, Amer. Meteor. Soc. <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399464>
- Lee, T. R., M. Buban, and T. P. Meyers, 2022: An overview of new bulk Richardson parameterizations for surface-atmosphere exchange and their applicability over different surface roughnesses, (Virtual) *102nd American Meteorological Society Annual Meeting*, 23-27 Jan 2022, Houston, TX.
- Lee, T. R., M. S. Buban, E. Dumas, T. J. Schuyler, and C. B. Baker, 2021: Evolution of early morning transition periods using uncrewed aerial systems, *American Geophysical Union Fall Meeting*, 13-17 Dec 2021, New Orleans, LA.
- Loken, E. D., A. J. Clark, and A. McGovern, 2021: Using and understanding next-day severe weather hazard forecasts from random forests. *Severe Conference on Local Storms for Students and Early Career Professionals*, Amer. Meteor. Soc.
- Loken, E. D., A. J. Clark, and A. McGovern, 2022: Understanding probabilistic next-day severe weather forecasts from random forests. *21st Conf. on Artificial Intelligence for Environmental Science*, Houston, TX., Amer. Meteor. Soc., 11.5, <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59606>
- Martinaitis, S. M., S. B. Cocks, C. Langston, B. Kaney, J. Zhang, K. Howard, H. M. Grams, M. Hurwitz, and M. Mullusky, 2022: Designing the next-generation Multisensor Precipitation Estimator program for NWS River Forecast Centers. *38th Conf. on Environmental Information Processing Technologies*, Amer. Meteor. Soc., 8B.2, <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395037>
- Martinaitis, S. M., S. B. Cocks, J. Zhang, S. Lincoln, and D. Schlotzhauer, 2022: A temporal quality control of gauges to improve precipitation processes for MRMS. *36th Conf. on Hydrology*, Amer. Meteor. Soc., 16B.5, <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395020>
- McCloskey, S., E. D. Loken, C. Karstens, B. T. Smith, and D. E. Jahn, 2022: Examining when and how random forests add value to next-day Storm Prediction Center hail forecasts, *31st Conf. on Weather Analysis and Forecasting/27th Conf. on Numerical Weather Prediction*, Houston, TX, Amer. Meteor. Soc., J8.3. <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60424>.
- McFarquhar, G. M., 2022: Lessons learned from Southern Ocean cloud-aerosol-precipitation-radiation field campaigns in 2017-2018: Needs for future observations. *13th Conf. Southern Hemisphere Meteorology and Oceanography*, Christchurch, New Zealand, February 2022.
- Melnikov, V., 2021: Measurements of the radar differential phases upon transmission and reception on WSR-88Ds. *3rd Radar Calibration Workshop*, 25-29 Nov., 2021, Toulouse, France (online).
- Melnikov, V., 2022: Refraction of radar waves in clouds and precipitation. *102nd AMS Annual Meeting*. <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/391779>.
- Miller, M., J. Mejia, D. Gonzalez, J. E. Trujillo-Falcón, and G. Montgomery, 2022: Lost in translation: Improving communication of extreme weather to Spanish-speaking communities. *6th Conference on Weather Warnings and Communications*, American Meteorological Society, Milwaukee, WI. 14–17 June 2022.
- Miller, R. L., R. M. Rauber, L. Di Girolamo, G. M. McFarquhar, S.W. Nesbitt, L. D. Ziemba, and J. Wang, 2021: Biomass burning and anthropogenic aerosol intercomparison on cumulus cloud microphysical properties using data from CAMP²EX. *AGU Fall Meeting*, New Orleans, LA.
- Miller, R. L., R. M. Rauber, L. Di Girolamo, G. M. McFarquhar, S. W. Nesbitt, L. D. Ziemba, and J. Wang, 2022: Biomass burning and anthropogenic aerosol influence on cumulus cloud microphysical properties during CAMP²EX. *Eur. Geophys. Union. Annual Meeting*, Vienna, Austria, April 2022.
- Milne, J., 2021: Exploring an alternative method for calculating updraft helicity. *Student and Early Career Conference on Severe Local Storms Topics*, Amer. Meteor. Soc., virtual.
- Monroe, J. W., J. G. Madden, A. E. Reinhart, K. L. Berry, and K. M. Calhoun, 2022: The use of AWIPS in the cloud for experiments in the 2021 Hazardous Weather Testbed Experimental Warning Program. *12th Conf. on Transition of Research to Operations*, Virtual, American Meteorological Society, 7B.2.
- Mose, A., P. Skinner, S. W. Emmerson, D. J. Bodine, K. Knopfmeier, C. Fulton, and R. D. Palmer, 2022: Observing system simulation experiments on assimilation of multistatic passive radar network observations into the Warn-on-Forecast system to improve short-term prediction of thunderstorm hazards. *31st Conf. on Weather Analysis and Forecasting/27th Conf. on Numerical Weather Prediction*, Houston, TX, Amer. Meteor. Soc., 648, <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60424>.

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- Ngan, F., C. P. Loughner, S. Zinn, M. Cohen, T. Lee, E. Dumas, T. Schuyler, M. Buban, B. Baker, J. Maloney, and D. Hotz, 2022: The use of small unmanned aircraft systems data in WRF and HYSPLIT modeling, (Virtual) *102nd American Meteorological Society Annual Meeting*, 23–27 Jan 2022, Houston, TX.
- Nguyen, D., and B. A. Schenkel, 2022: Do a Tropical Cyclone’s Outer Size and Structure Change during Extratropical Transition? *19th Conference on Mesoscale Processes*, Houston, TX, American Meteorological Society
- Nguyen, D., and B. Schenkel, 2022: Does Tropical Cyclone Outer Size and Structure Change during Extratropical Transition? *35th Conference on Hurricanes and Tropical Meteorology*, New Orleans, LA, American Meteorological Society.
- Niu, Q., G. McFarquhar, R. Marchand, C. Flynn, S. Cavallo, S. Ding, A. Theisen, R. Humphries, and M. Loria Salazar, 2021: Meteorological controls of boundary layer CCN-active aerosol sources over the Southern Ocean: Results from ship-based observations. *AGU Fall Meeting*, New Orleans, LA.
- Nowicki, D., S. R. Ernst, J. Ripberger, K. Klockow-McClain, and K. L. Berry, 2022: Broadcast Media Communication Leading up to the Deep Freeze in Texas and Oklahoma. *10th Symposium on the Weather, Water, and Climate Enterprise*, AMS Annual Meeting, 23–27 January, PD10.3.
- Nowicki, D., F. Xu, L. Gao, G. M. McFarquhar, J. Redemann, and C. I. Flynn, 2022: Information content analysis of combined lidar-polarimeter retrievals to improve aerosol remote sensing accuracy. *22nd Symposium on Meteorological Observation and Instrumentation*, Amer. Meteor. Soc. Annual Meeting, Houston, TX, January 2022.
- Orr, M., A. Borth, M. S. Sublette, B. Lindmeier, J. E. Trujillo-Falcón, E. W. Maibach, and J. Cook, 2022: Climate myth debunking for TV meteorologists. *17th Symposium on Societal Applications*, 102nd American Meteorological Society Annual Meeting, Houston, TX. 23–27 January.
- Osborne, A. P., M. Simpson, J. Zhang, S. B. Cocks, and K. Howard, 2022: Evaluation and interpretation of an MRMS machine learning approach for precipitation estimation in complex terrain. *21st Conf. on Artificial Intelligence*, Amer. Meteor. Soc., 7B.4, <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394304>
- Pal, S. M. Hamel, N. Clark, T. R. Lee, M. Anand, and D. Curtis, 2022: Examining the role of horizontal advection on convective boundary layer dynamics across complex interfaces using lidar and radiosonde observations, *30th International Laser Radar Conference*, 26 Jun –1 Jul 2022, Big Sky, MT.
- Pal, S. T. R. Lee, M. Buban, N. Clark, and M. Conder, 2022: Combined lidar and in-situ based observations and numerical simulations to examine the spatiotemporal variability in urban heat advection, *30th International Laser Radar Conference*, 26 Jun –1 Jul 2022, Big Sky, MT.
- Pal, S., D. Curtis, M. Anand, N. Clark, M. Hamel, T. R. Lee, and M. Buban, 2022: Examining the impact of horizontal advection on boundary layer dynamics across complex interfaces using radiosonde and Doppler lidar measurements, (Virtual) *102nd American Meteorological Society Annual Meeting*, 23–27 Jan 2022, Houston, TX.
- Pal, S., D. Curtis, M. Conder, T. R. Lee, and M. Buban, 2022: A combined observation and simulation-based framework to investigate spatiotemporal variability in urban heat and associated heat advection, (Virtual) *102nd American Meteorological Society Annual Meeting*, 23–27 Jan 2022, Houston, TX.
- Palmer, R. D., D. J. Bodine, C. Fulton, P.-E. Kirstetter, M. B. Yeary, B. L. Cheong, J. Salazar-Cerreno, T.-Y. Yu, M. I. Biggerstaff, H. B. Bluestein, N. Goodman, P. Heinselman, C. R. Homeyer, J. Kelly, D. S. LaDue, E. R. Martin, J. McDaniel, G. M. McFarquhar, A. McGovern, J. Metcalf, J. Redemann, J. Ruyle, A. Ryzhkov, S. Salesky, D. Schwartzman, A. Shapiro, H. Sigmars-son, S. Torres, X. Wang, N. Yussouf, L. D. Carey, P. N. Gatlin, M. R. Kumjian, L. D. White, and S. W. Nesbitt, 2021: The Transportable phased array radar: Meeting community imperatives in weather science. *AGU Fall Meeting*, New Orleans, LA.
- Palmer, R. D., D. J. Bodine, C. Fulton, P.-E. Kirstetter, M. B. Yeary, B. L. Cheong, J. Salazar-Cerreno, T.-Y. Yu, M. I. Biggerstaff, H. B. Bluestein, N. Goodman, P. Heinselman, C. R. Homeyer, J. Kelly, D. S. LaDue, E. R. Martin, J. McDaniel, G. M. McFarquhar, A. McGovern, J. Metcalf, J. Redemann, J. Ruyle, A. Ryzhkov, S. Salesky, D. Schwartzman, A. Shapiro, H. Sigmars-son, S. Torres, X. Wang, N. Yussouf, L. D. Carey, P. N. Gatlin, M. R. Kumjian, L. D. White, and S. W. Nesbitt, 2022: The Transportable phased array radar: Meeting community imperatives in weather science. *38th Conf. Environmental Information Processing Techniques*, Amer. Meteor. Soc. Annual Meeting, Houston, TX, January 2022, Paper J4B.2.
- Paredes, M., B. Schenkel, R. Edwards, and M. Coniglio, 2022: Tropical Cyclone Outer Size Impacts the Number and Location of Tornadoes. *35th Conference on Hurricanes and Tropical Meteorology*, New Orleans, LA, American Meteorological Society.
- Pearson, C., T. Y. Yu, D. Bodine, and S. Torres, 2022: Assessing Scanning Strategies with All-Digital Phased Array Weather Radars for Characterization and Detection of Microbursts. *38th Conf. on Environmental Information Processing Technologies*, Houston, TX, Amer. Meteor. Soc., Paper 6B.3.
- Peppler, R. A., 2022: “Things are not balancing out”: Perceptions of a Changing Climate Among Native Agriculturalists and Traditionalists in Southwestern Oklahoma. *Resilient Futures: Interdisciplinary Perspectives on Climate Change, Migration*

- & *Habitation*, University of Oklahoma College of Architecture, Norman, OK, April 13-14, 2022. Invited presentation. <https://architecture.ou.edu/resilientfutures/>.
- Pillar-Little, E. A., B. R. Greene, A. Segales, S. R. Whyte, M. R. Baldwin, G. H. B. de Azevedo, and J. F. Rotundo, 2021: UAS Operations at the University of Oklahoma, Part B: Trace Gas and Aerosol Observations with UAS. *AGU Fall Meeting*, New Orleans, LA, American Geophysical Union, IN43A-04. Invited Talk; Session Co-Chair.
- Pillar-Little, E. A., M. R. Baldwin, J. F. Rotundo, and S. R. Whyte, 2021: Observations of Carbon Dioxide in the Planetary Boundary Layer Measured using Uncrewed Aircraft Systems. *AGU Fall Meeting*, New Orleans, LA, American Geophysical Union, A15G-1736.
- Plassin, S. S., J. A. M. Koch, R. A. Peppler, M. T. Wilson, and K. L. Ho, 2022: An exploratory analysis of unconventional energy development, agriculture, drought, and water resources in a semiarid region: the Permian Basin, New Mexico and Texas. *17th Symposium on Societal Applications: Policy, Research and Practice*, 102nd American Meteorological Society Annual Meeting, Houston, TX, January 23-27, Paper 4B.4.
- Potvin, C. K., P. S. Skinner, M. L. Flora, B. T. Gallo, A. E. Reinhart, B. Roberts, K. A. Wilson, W. J. S. Miller, R. A. Sobash, C. Broyles, K. C. Britt, and C. N. Satrio, 2022: Automating storm identification and classification for convection-allowing models and gridded radar data. *12th Conf. on Transition of Research to Operations*, Houston, TX, Amer. Meteor. Soc., 12B.4.
- Potvin, C. K., C. Broyles, P. S. Skinner, and H. E. Brooks, 2022: A hierarchical Bayesian model for reconstructing the U.S. tornado climate record. *27th Conf. on Probability and Statistics*, Houston, TX, Amer. Meteor. Soc., J4.1.
- Qiao, Y., W. Wu, and G. M. McFarquhar, 2021: Turbulent supersaturation fluctuations and cloud droplet spectral broadening observed during HI-SCALE and CACTI. *AGU Fall Meeting*, New Orleans, LA.
- Qiao, Y., W. Wu, and G. McFarquhar, 2022: Cloud droplet clustering and cloud droplet spectral broadening in turbulent clouds observed during HI-SCALE and CACTI. *14th Symposium on Aerosol-Cloud-Climate Interactions*, Amer. Meteor. Soc. Annual Meeting, Houston, TX, January 2022.
- Ray, A. J., and Coauthors, 2022: NOAA Testbeds and Proving Grounds: A keystone in building successful research to operations collaborations. *12th Conf. on Transition of Research to Operations*, Virtual, American Meteorological Society, 6B.1.
- Reeves, H.D., N. Lis, G. Zhang, and A.A. Rosenow, 2022: Development and testing of an advanced hydrometeor-phase algorithm to meet emerging needs in the aviation sector. *22nd Conf. on Aviation, Range, and Aerospace Meteorology*, Amer. Meteor. Soc., Paper J9.5.
- Reinhart, A. E., J. Martin, H. M. Grams, L. J. Wicker, K. Cooper, J. W. Monroe, J. G. Madden, K. A. Wilson, T. Sandmael, B. R. Smith, K. M. Calhoun, P. A. Campbell, M. Simpson, M. A. Wagner, M. C. Coniglio, J. Brogden, K. Howard, K. L. Berry, A. Gerard, and P. Heinselman, 2022: Cloud computing at the National Severe Storms Laboratory: Enabling scientific research during and beyond the remote work era. *38th Conf. on Environmental Information Processing Technologies*, Virtual, American Meteorological Society, 11.2.
- Reliford, A. S. Smith, L. Myles, T. Schuyler, E. Dumas, T. Lee, and M. Buban, 2022: Using computational fluid dynamics to investigate optimal sensor placement on a quadcopter, (Virtual) *102nd American Meteorological Society Annual Meeting*, 23-27 Jan 2022, Houston, TX.
- Ringhausen, J., P. Bitzer, V. Chmielewski, and K. Calhoun, 2022: Regional and Seasonal Variations in Random Forests Model Performance for GLM Flash Type Classification. *17th International Conference on Atmospheric Electricity*, Tel Aviv, Israel.
- Roberts, B., P. S. Skinner, B. C. Matilla, and K. A. Hoogewind, 2021: An update on the Warn-on-Forecast System web display. *Virtual Student and Early Career Conference on Severe Local Storms Topics*, Amer. Meteor. Soc.
- Roberts, B., A. J. Clark, I. L. Jirak, B. T. Gallo, L. Reames, C. S. Schwartz, C. Bain, and D. L. A. Flack, 2022: The Influence of Model Configuration versus Initial and Boundary Conditions in Next-Day CAM Forecasts: A Controlled Experiment. *31st Conference on Weather Analysis and Forecasting/27th Conference on Numerical Weather Prediction*, Amer. Meteor. Soc., 47, <https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/396123>.
- Rosenow, A. A., and H. D. Reeves, 2022: Toward a heavy snow rate diagnostic algorithm. *38th Conf on Env. Info. and Process. Technol.*, Amer. Meteor. Soc., Paper 5B.3.
- Rosenow, A. A., and H. D. Reeves, 2022: Ensemble and algorithmic uncertainty with four commonly used snow ratios. *31st Conf. on Weather Analysis and Forecasting/27th Conf. on Numerical Weather Prediction*. Amer. Meteor. Soc., Paper 14B.3.
- Roy, L., W. Wu, G. M. McFarquhar, and V. Bringi, 2021: Impacts of stochastic hydrometeor fall speed on modeled rain processes. *AGU Fall Meeting*, New Orleans, LA.
- Roy, L., W. Wu, G. Lee, V. Bringi, D. Brunkow, and G. M. McFarquhar, 2022: Numerical simulation of a warm rain event using a new Lagrangian cloud microphysics model: Comparison with two X-band polarimetric radars in Korea. *14th Symposium on Aerosol-Cloud-Climate Interactions*, Amer. Meteor. Soc. Annual Meeting, Houston, TX, January 2022.
- Ryzhkov, A., 2021: Current status and possible modifications of the NEXRAD rainfall estimation algorithm based on A and K_{DP} –

- 2021 NOAA/OU – KNU workshop on Advancement of Observation and Meteorological Processes, October 20.
- Ryzhkov, A., 2021: Novel polarimetric algorithm for melting layer detection and determination of its height – 2021 NOAA/OU – KNU workshop on Advancement of Observation and Meteorological Processes, October 21.
- Salazar-Cerreno, J., R. D. Palmer, D. Bodine, J. McDaniel, C. R. Homeyer, B. Cheong, D. Schwartzman, G. McFarquhar, B. Isom, T.-Y. Yu, J. Kelly, M. Yeary, M. Kumjian, P. Kollias, P.E. Kirstetter, S. Tanelli, J. Redemann, M. Fromm, C. B. Clements, M. Loria, A. Shapiro, L. Leon-Colon, R. R. Solis, S. Frasier, S. Ellis, and F. Miranda, 2022: Dual-Doppler 3D Mobile Ka-band Rapid-Scanning Volume Imaging Radar for earth system science. *38th Conf. on Environmental Information Processing Technologies*, Amer. Meteor. Soc. Annual Meeting, Houston, TX, January 2022.
- Salinas, V., J. Ringhausen, V. Chmielewski, K. Calhoun, and A. Reinhart, 2022: Examining Lightning Activity as a Proxy for Cold-Pool Heterogeneity During the Perils Field Project: Introducing A QLCS Tracking and Sampling Method for Surface, Lightning, and Radar Measurements. *17th International Conference on Atmospheric Electricity*, Tel Aviv, Israel.
- Sandmael, T., B. R. Smith, J. W. Monroe, J. G. Madden, P. T. Hyland, B. A. Schenkel, 2022: The 2021 Hazardous Weather Testbed Experimental Warning Program Radar Convective Applications Experiment: Evaluating the Tornado Potential Algorithm and the AzShear Rotation Detection Algorithm. *31st Conference on Weather Analysis and Forecasting (WAF)/27th Conference on Numerical Weather Prediction (NWP)*, Virtual, Amer. Meteor. Soc., J15B.4.
- Sandmael, T., C. N. Satrio, R. B. Steeves, K. M. Calhoun, P. A. Campbell, and P. T. Hyland, 2022: Using Tornado Probability Guidance from a Machine Learning Model in the 2021 Hazardous Weather Testbed Experimental Warning Program Probabilistic Hazards Information Prototype Tool Experiment. *31st Conference on Weather Analysis and Forecasting (WAF)/27th Conference on Numerical Weather Prediction (NWP)*, Virtual, Amer. Meteor. Soc., J7.3.
- Sandmael, T., and A. E. Reinhart, 2022: Using Linear Least-Square Shear Product Signatures from Single-Radar to Evaluate Tornado Potential for Quasi-Linear Convective System Circulations. *Symposium on Radar Science in the Service of Earth System Predictability*, Virtual, Amer. Meteor. Soc., 14.3.
- Schaefer, E., G. M. McFarquhar, J. Schima, J. D'Alessandro, J. Haggerty, C. Wolff, and W. Smith Jr., 2022: Characterization of supercooled large drop environments over the Southern Ocean: Results from SOCRATES. *22nd Conference on Aviation, Range and Aerospace Meteorology*, Amer. Meteor. Soc. Annual Meeting, Houston, TX, January 2022.
- Schaefer, J., G. M. McFarquhar, U. Romatschke, J. Vivekanandan, J. D'Alessandro, J. Haggerty, C. Wolff, W. Wu, and E. Schaefer, 2021: Characterization of Southern Ocean boundary layer clouds using airborne radar, lidar data, and in-situ cloud measurements: Results from SOCRATES. *AGU Fall Meeting*, New Orleans, LA.
- Schenkel, B., I. Sloan, M. Coniglio, R. Edwards, and S. Waugh, 2022: Diurnal Variability of Tropical Cyclone Tornadoes and Its Sensitivity to Distance from the Coast. *35th Conference on Hurricanes and Tropical Meteorology*, New Orleans, LA, American Meteorological Society.
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- Baldwin, M.E., H.D. Reeves, and A.A. Rosenow, 2023: Evaluation of probabilistic guidance for sub-freezing roads. *Special Symposium on Forecasting a Continuum of Environmental Threats (FACETs)*, Amer. Meteor. Soc., P9.5, <https://ams.confex.com/ams/103ANNUAL/meetingapp.cgi/Paper/418429>.
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- Carlin, J., E. Dunnavan, A. Ryzhkov, and M. Oue, 2022: Impacts of vertical nonuniform beam filling on the observability of secondary ice production due to sublimation. *11th European Conference on Radar in Meteorology and Hydrology*, Locarno, Switzerland, 207. 29 August – 2 September 2022.
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- Miller, R. L., and M. C. Coniglio, 2024: Diagnosis of Severe Wind Processes in Two Nocturnal MCSs Observed during PECAN.

- 104th AMS Annual Meeting, Baltimore, MD.
- Monroe, J. W., J. G. Madden, K. L. Berry, and K. M. Calhoun, 2024: Activities of the 2023 Hazardous Weather Testbed Experimental Warning Program. 14th Conference on Transition of Research to Operations, Baltimore, MD, American Meteorological Society, 8C.3.
- Nai, F., J. Kurdzo, S. Torres, and C. Curtis, 2023: Novel Adaptive Beamforming Technique for Weather Observations Using the Advanced Technology Demonstrator at NSSL. 40th Conference on Radar Meteorology, Minneapolis, MN, Amer. Meteor. Soc., 3A.3.
- Niu, Q., C.S. McCluskey, and G.M. McFarquhar, 2023: Southern Ocean boundary layer cloud condensation nuclei (CCN): CAM6 biases against field campaign observations. CESM 2023 Workshop, Boulder, CO.
- Niu, Q., C. McCluskey, and G. McFarquhar, 2024: Assessing the CAM6 cloud condensation nuclei bias in the “pre-industry-like” pristine Southern Ocean marine boundary layer. CESM Workshop, Boulder, CO, June 2024.
- Norwood, N., A. Humphrey, A. W. Lyza, E. D. Vaughn, and A. Cope, 2023: Blown away: Examining tornado risks and the ongoing effort to improve forecast and lead time for warnings. Panel, National Association of Black Journalists National Convention, August 2023, Birmingham, AL.
- Obermeier, H., T. Maciag, D. Hogg, K.L. Berry, M. Krocak, A.C. Wanless, S. Stormer and T. Lindley, 2024: How emergency managers and broadcast meteorologists receive, use and communicate wildfire forecasts and National Weather Service fire weather products: A preliminary study in the Southern Plains, 2024: 7th Conference on Weather Warnings and Communication, Myrtle Beach, SC, 8.2.
- Osborne, A. P., J. Zhang, R. A. Clark, and K. Howard, 2024: Evaluating and Optimizing the MRMS Machine Learning QPE Performance over the Western CONUS. 23rd Conference on Artificial Intelligence for Environmental Science, Baltimore, MD, Amer. Meteor. Soc., 12B.2.
- Ostaszewski, J. S., E. N. Smith, T. Bell, J. Gebauer, and C. C. Weiss, 2024: Near-Storm Environment Spatiotemporal Analysis of the Lowest 1-km of the Boundary Layer using High-Resolving Mobile Lidar and Radar from the TORUS Project. 24th Symposium on Meteorological Observation and Instrumentation, Baltimore, MD, Amer. Meteor. Soc., 9.2, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/428791>.
- Paleri, S., T. Meyers, M. Heuer, and T. R. Lee, 2023: Observations of diurnal and seasonal variation of heat fluxes and an evaluation of bulk Richardson parameterization in the East River Watershed, Colorado. AGU Annual Meeting, San Francisco, CA.
- Pan S., J. Gao, Y. Wang and X. Wang, 2024: Development of Weather-Dependent Background Error Structures within a Convective-Scale Variational Radar Data Assimilation System. 104th AMS Annual Meeting, Baltimore, MD, Amer. Meteor. Soc.
- Park, S., J. Um, E. Järvinen, M. Schnaiter, G.M. McFarquhar, and J. Kim, 2023: Quantifying errors in determining morphological variables of ice crystals. IUGG/IAMAS meeting, Berlin, July 2023.
- Patil, S., and G.M. McFarquhar, 2023: The processing of cloud in-situ observations from the ESCAPE Field Campaign using UIOOPS. Workshop on Clouds Containing Ice Particles, Joh. Gutenberg Univ. Mainz, Alte Mensa, 23-26 July 2023.
- Patil, S., G.M. McFarquhar, P. Kollias, M. Wolde, L. Nichman, K. Ranjbar, C. Nguyen, N. Bliankinshtein, K. Bala, G.C. Robert, and Z. Mages, 2023: The dependence of intense updrafts on environmental conditions and their impact on cloud microphysical properties during ESCAPE. Amer. Geophy. Union Annual Meeting, San Francisco, CA, December 2023.
- Peppler, R. A., T. R. Lee, S. Paleri, and G. M. McFarquhar, 2024: Key Research Findings from the Collaboration Between the NOAA Air Resources Laboratory and Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO) at the University of Oklahoma. 12th Symposium on the Weather, Water, and Climate Enterprise, 104th American Meteorological Society Annual Meeting, Baltimore, MD, January 28-February 1, 12A.4.
- Potvin, C. K., A. J. Clark, M. G. Duda, T. A. Jones, K. H. Knopfmeier, E. Mansell, L. J. Reames, W. Skamarock, Y. Wang, L. J. Wicker, and N. Yussouf, 2023: Comparing storm environments and forecast performance in the HRRR, RRFS, and the NSSL MPAS models, 28th Conf. on Numerical Weather Prediction/20th Conf. on Mesoscale Processes/32nd Conf. on Weather Analysis and Forecasting, Madison, WI, Amer. Meteor. Soc., 46.
- Potvin, C. K., M. L. Flora, P. S. Skinner, A. E. Reinhart, and B. C. Matilla, 2023: Using machine learning to predict convection-allowing ensemble forecast skill: Evaluation with the NSSL Warn-on-Forecast System. 28th Conf. on Numerical Weather Prediction, Madison, WI, Amer. Meteor. Soc., 99.
- Potvin, C. K., L. Reames, A. J. Clark, D. Dowell, M. G. Duda, T. A. Jones, K. H. Knopfmeier, E. R. Mansell, W. Skamarock, Y. Wang, L. J. Wicker, and N. Yussouf, 2024: Verification and comparison of storm and storm-environment fields in the HRRR, RRFS, and NSSL MPAS models, 3rd Symposium on Community Modeling and Innovation, Baltimore, MD, Amer. Meteor. Soc., 7.3.
- Ranjbar, K., L. Nichman, G.M. McFarquhar, M. Wolde, P. Kollias, and K. Bala, 2023: Assessing optical measurements of Saharan dust in the ESCAPE 2022 campaign. IUGG/IAMAS meeting, Berlin, July 2023.

- Reames, L. J., A. J. Clark, M. G. Duda, T. A. Jones, K. H. Knopfmeier, E. Mansell, C. K. Potvin, W. Skamarock, Y. Wang, L. J. Wicker, and N. Yussouf, 2023: Comparing surrogate severe forecasting skill and storm object properties of the experimental NSSL MPAS, RRFS, and HRRR models, 28th Conf. on Numerical Weather Prediction, Madison, WI, Amer. Meteor. Soc., 16.4.
- Reames, L. J., A. J. Clark, M. G. Duda, T. A. Jones, K. H. Knopfmeier, E. Mansell, C. K. Potvin, W. Skamarock, Y. Wang, L. J. Wicker, and N. Yussouf, 2024: Comparing surrogate severe forecasting skill and storm object properties of the experimental NSSL MPAS, RRFS, C-SHIELD, and HRRR models, 3rd Symposium on Community Modeling and Innovation, Baltimore, MD, Amer. Meteor. Soc., 8.2.
- Reames, L. J., 2024: MPASSIT: A scalable tool for MPAS data post-processing. Joint WRF and MPAS Users' Workshop, Boulder, CO, NCAR.
- Rearden, S., S. M. Martinaitis, J. Anthony, and D. Meyer, 2024: Analyzing the performance of different parameter settings with the ensemble nowcasting of tropical cyclone precipitation. 38th Conf. on Hydrology, Baltimore, MD, Amer. Meteor. Soc., 293.
- Reedy, J. R., Trujillo-Falcón, J. E., and A. R. Gaviria Pabón, 2024: Paths for understanding weather hazards and warnings: Socialization of Spanish-speaking immigrants to weather communication in the U.S. 19th Symposium on Societal Applications, 104th AMS Annual Meeting, Baltimore, MD.
- Reeves, H.D., 2024: On the development of polygon recommenders for IDSS within the Aviation Weather Center. 24th Conf. on Aviation, Range, and Aerospace Meteorology, Amer. Meteor. Soc. Baltimore, MD. P15.1. <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/433488>.
- Reinhart, A., S. Torres, D. Wasielewski, T. Schuur, R. Mendoza, L. Hopper, and K. Hondl, 2023: An Update of the Phased Array Research Program at the National Severe Storms Laboratory. 40th Conf. on Radar Met., Minneapolis, MN, Amer. Meteor. Soc., 9B.1.
- Reinke, R., D. Schwartzman, R. D. Palmer, T. Yu, and F. Nai, 2023: Phase-Only Pattern Synthesis for Imaging Beams Using NURBS. 40th Conf. on Radar Met., Minneapolis, MN, Amer. Meteor. Soc., 3A.1.
- Ringhausen, J., V. C. Chmielewski, and K. Calhoun, 2023: Intercomparison of lightning measurements in tornadic QLCS storms. PERiLS Workshop, Memphis, TN.
- Ringhausen, J., A. A. Alford, V. Chmielewski, K. M. Calhoun, S. Waugh, and N. Brauer, 2023: A first look at 3-D lightning measurements inside Hurricane Ian. AGU23, San Francisco, CA, Amer. Geophys. Union, AE21A-07A.
- Ringhausen, J., V. Chmielewski, and K. M. Calhoun, 2023: Beauty is in the eye of the sensor: A comparison of how multiple lightning networks behave during QLCS tornadogenesis. AGU23, San Francisco, CA, Amer. Geophys. Union, AE11B-2422.
- Roberts, G., K. Ranjbar, L. Nichman, M. Wolde, C. McCluskey, N. Allwayin, E. Rosky, R. Shaw, S. Patil, G. McFarquhar, and P. Kollias, 2023: Marine aerosol to refinery emissions: Transport and evolution of CCN and their impact on microphysical properties during ESCAPE. Amer. Geophys. Union Annual Meeting, San Francisco, CA, December 2023.
- Rosenow, A. A., P. Bukovčić, H.D. Reeves, and M.E. Baldwin, 2024: Towards a Radar-based Gridded Snowfall Intensity Analysis. 24th Conf. on Aviation, Range, and Aerospace Meteorology, Amer. Meteor. Soc. Baltimore, MD. 3.3. <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/433473>
- Rosenow, A. A., J. Correia, H.D. Reeves, D.D. Tripp, K.J. Harnos, A.D. Werkema, J. Dufort, and M.E. Baldwin, 2024: Operational Challenges of Precipitation Type Forecasts. 40th Conference on Environmental Information Processing Technologies, Amer. Meteor. Soc. Baltimore, MD. J15B.2 <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/433598>.
- Roy, L., and G.M. McFarquhar, 2024: 1st Symposium on Cloud Physics, Amer. Meteorol. Soc. Annual Meeting, January 2024.
- Sandmæl, T., R. B. Steeves, Z. Fruits, I. Schick, M. Ake, Z. A. Cooper, J. Widanski, Q. Thomas, and R. Galang, 2023: The Development of a Single-Radar Tornado Prediction Algorithm Using Machine Learning. 40th AMS Radar Conference, Minneapolis, MN.
- Satrio, M. A., M. C. Coniglio, E. N. Rasmussen, C. L. Ziegler, and D. M. Stechman, 2023: A Triple-Doppler Analysis of the 17 May 2019 McCook/Farnam, NE Tornadoic Supercell. 40th Conference on Radar Meteorology, Minneapolis, MN, Amer. Meteor. Soc., 7A.4, <https://ams.confex.com/ams/40RADAR/meetingapp.cgi/Paper/426269>.
- Schenkel, B., I. Sloan, M. Brown, J. Ruppert, R. Edwards, and S. Waugh, 2024: Diurnal Variability of Tropical Cyclone Tornadoes Strengthens with Increasing Distance from the Coast, 36th Conference on Hurricanes and Tropical Meteorology, Long Beach, CA.
- Schenkel, B., K. M. Calhoun, T. Sandmæl, A. A. Alford, H. E. Brooks, and R. Edwards, 2024: A Climatology of Tornado Warning Skill in Landfalling Tropical Cyclones, 36th Conference on Hurricanes and Tropical Meteorology, Long Beach, CA.
- Schenkel, B., 2024: How will tropical cyclone outer size change by the late twenty-first century? TROPICAL Cyclones in ANthropocene: physics, simulations & Attribution (TROPICANA) Workshop (Invited), Orsay, France.

- Schima, J., and G.M. McFarquhar, 2023: A multi-probe automated classification of ice crystal habits during the IMPACTS campaign. Amer. Meteor. Soc. Radar Conference, Madison, WI, August 2023.
- Schima, J., G.M. McFarquhar, D. Delene, A.J. Heymsfield, A. Bansemmer, M. Schnaiter, J.A. Finlon, and E. Järvinen, 2024: A multi-probe automated classification of ice crystal habits during the IMPACTS campaign. 1st Symposium on Cloud Physics, Amer. Meteorol. Soc. Annual Meeting, January 2024.
- Schneider, M., D. Bodine, R. Palmer, S. Torres, B. Cheong, C. Fulton, C. Griffin, H. Bluestein, and R. Cross, 2023: A Novel Technique to Correct Debris Centrifuging Bias in Doppler Velocity Measurements of Tornadoes. 40th Conf. on Radar Met., Minneapolis, MN, Amer. Meteor. Soc., 15B.2
- Schultz, C., D. Schwartzman, V. C. Chmielewski, T. Y. Yu, D. J. Bodine, and M. Stock, 2024: Investigation of lightning and storm electrification processes using a phased array radar and Lightning Mapping Array. 104th AMS Annual Meeting. Baltimore, MD, Amer. Meteor. Soc., 123.
- Segales, A. R., T. M. Bell, J. G. Gebauer, E. N. Smith, 2023: CopterSonde Weather UAS: Considerations for Mitigating Airborne Catastrophic Failures in Extreme Wind Conditions. 8th ISARRA Conference, Bergen, Norway, University of Bergen.
- Segales, A. R., T. M. Bell, J. Gebauer, and E. N. Smith, 2024: CopterSonde Weather UAS: Survival Analysis and Considerations for Prolonged Operational Implementation. 24th Symposium on Meteorological Observation and Instrumentation, Baltimore, MD, 886, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/436376>.
- Segall, J. H., S. D. Loeffler, M. B. Wilson, A. E. Reinhart, K. L. Ortega, M. M. French, and D. M. Kingfield, 2024: Comparison and evaluation of hydrometeor size sorting signature identification algorithms in tornadic and nontornadic supercells. 104th AMS Annual Meeting, Baltimore, MD.
- Segall, J. H., and K. L. Ortega, 2024: Verification of the hail differential reflectivity using the severe hazards analysis and verification experiment (SHAVE) dataset. 104th AMS Annual Meeting, Baltimore, MD.
- Sempier, T., J. E. Sharpe, and K. Allen, 2024: Bridging divides: Progress reaching underserved and overlooked populations at risk from severe weather in the southeast United States. 19th Symposium on Societal Applications, 104th AMS Annual Meeting, Baltimore, MD, 9.1.
- Sharpe, J. E. (and L. Harvey), 2024: A Year in Tornadoes Told from the Perspective of the Public via Tornado Tales: Challenges and Solutions to Analyzing and Sharing Data and Next Steps. 19th Symposium on Societal Applications, 104th AMS Annual Meeting, Baltimore, MD, 8B5.
- Sharpe, J. E., 2024: Engaging, Communicating and Training: A Holistic Approach to Addressing Equity in Weather Warnings. Preparedness to Respond. 2nd WMO/WWRP Weather and Society Conference, Frei Universität Berlin, Feb 26 – Mar 1.
- Shedd, L., D. Bodine, D. Schwartzman, A. E. Reinhart, J.C. Snyder, and K.L. Ortega, 2023: Polarimetric Observations and MRMS Algorithms with the All-Digital Horus Radar on Hail Producing Storms. 104th AMS Annual Meeting, Baltimore, MD.
- Sherman, Z., M. A. Grover, R. C. Jackson, S. M. Collis, J. R. O'Brien, C. R. Homeyer, R. Chase, T. J. Lang, D. M. Stechman, A. Sockol, K. Mühlbauer, J. Thielen, A. Theisen, and S. T. Gardner IV, 2023: Effective Visualization of Radar Data for Users Impacted by Color Vision Deficiency. 40th Conference on Radar Meteorology, Minneapolis, MN, Amer. Meteor. Soc., 10B.5, <https://ams.confex.com/ams/40RADAR/meetingapp.cgi/Paper/426274>.
- Silcott, M. K., D. Hogg, P. C. Burke, M. Krocak, P. Heinselman, K. L. Berry, and H. Obermeier, 2024: The impact of the Warn-on-Forecast system in the “watch-to-warning” period. 7th Conference on Weather Warnings and Communication, Myrtle Beach, SC, 12.1.
- Skinner, P. S., J. E. Guerra, C. A. Kerr, B. C. Matilla, M. L. Flora, A. J. Clark, N. Carpenter, and A. E. Reinhart, 2023: Object-based verification to inform design and real-time use of the Warn-on-Forecast System (WoFS). 28th Conf. on Numerical Weather Prediction, Madison, WI, Amer. Meteor. Soc., 5.2.
- Skinner, P. S., S. Emmerson, D. Schwartzman, D. Bodine, P. Kirstetter, R. D. Palmer, T. Lindley, and C. Fulton, 2024: Development of real-time multistatic radar networks for severe weather prediction. 24th Symp. on Meteorological Observation and Instrumentation. Baltimore, MD, Amer. Meteor. Soc., 5.5.
- Smith, B. R. and T. Sandmæl, 2023: Generating Statistical and Probabilistic Guidance for the New Mesocyclone Detection Algorithm, National Weather Association 48th Annual Meeting, Kansas City, MO.
- Smith, E. N., T. M. Bell, A. Segales, J. G. Gebauer, 2023: CopterSonde in PERiLS: Successes, Challenges, and Other Stories About Operating UAS within a NOAA Severe Storm Project. 8th ISARRA Conference, Bergen, Norway, University of Bergen.
- Snyder, J. C., K. L. Ortega, and S. M. Waugh, 2023: Using Images of Naturally Falling Hailstone Observed with High-Speed, High-Resolution Stereographic Cameras to Re-Examine Radar-Hail Relations. 40th AMS Radar Conference, Minneapolis, MN.
- Sockol, A. J., 2023: The ARM Data Quality Office: A Summary of Current Tools and Capabilities, 2023 Joint ARM User Facility

- and ASR PI Meeting, Rockville, Maryland, August 7-10, 2023, Plenary Session Talk.
- Sockol, A. J., R. A. Pepler, K. Kehoe, C. Godine, and M. Li, 2023: The ARM Data Quality Office: A Summary of Current Tools and Capabilities, 2023 Joint ARM User Facility and ASR PI Meeting, Rockville, Maryland, August 7-10, 2023.
- Spencer, M. R., E. N. Smith, P. M. Klein, T. J. Wagner, F. M. Lappin, T. M. Bell, and J. Gebauer, 2024: The Variability of the Houston Sea-Breeze: Analysis of Planetary Boundary-Layer Height Evolution and Characteristics from Observations During TRACER-CUBIC. 22nd Symposium on the Coastal Environment, Baltimore, MD, 2.3, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/436417>.
- Stechman, D. M. and C. L. Ziegler, 2023: Multi-Doppler Analysis of QLCS Mesovortices Observed During the 30 April 2017 Mission of the VORTEX-SE Field Campaign. 40th Conference on Radar Meteorology, Minneapolis, MN, Amer. Meteor. Soc., 104, <https://ams.confex.com/ams/40RADAR/meetingapp.cgi/Paper/426300>.
- Stechman, D. M. and C. L. Ziegler, 2023: Multi-Doppler Analyses Detailing the Evolution of the 20 May 2019 Mangum, OK Supercell Observed During TORUS. 40th Conference on Radar Meteorology, Minneapolis, MN, Amer. Meteor. Soc., 7A.2, <https://ams.confex.com/ams/40RADAR/meetingapp.cgi/Paper/426334>.
- Stock, M., J. Tilles, G. Taylor, J. Dowell, and N. Liu, 2023: Positive leader tip observations with the long wavelength array, AGU23, San Francisco, CA, Amer. Geophys. Union, AE21A-07A.
- Stratman, D. R., N. Yussouf, C. A. Kerr, B. C. Matilla, and Y. Wang, 2023: Testing Stochastic Physics Perturbation Methods in an Experimental Next-Generation 1-km Warn-on-Forecast System. 28th Conf. on Numerical Weather Prediction, Madison, WI, Amer. Meteor. Soc. 15.1.
- Stumpf, G. J., K. L. Manross, A. V. Bates, K. L. Berry, Y. Guo, P. T. Hyland, J. G. Madden, J. W. Monroe, S. Murphy, J. Ramer, 2023: Update on Threats-In-Motion for Severe Storm Warnings – 2023 Edition. 48th Annual Meeting, Kansas City, MO, National Weather Association.
- Thiel, K., 2023: A Research to Operations Perspective of the Geostationary Lightning Mapper. 48th National Weather Association Annual Meeting, Kansas City, MO.
- Thiel, K., 2024: Lessons learned from the 2023 HWT Satellite Convective Applications Experiment. 14th Conf. on Transition of Research to Operations, Baltimore, MD, Amer. Meteor. Soc., 8C.6.
- Tirone, E. A., M. Wagner, Z. Chen, D. Candela, E. Rasmussen, and M. Coniglio, 2024: Automated treefall detection using zero-shot deep learning. 23rd Conference on Artificial Intelligence for Environmental Science, Baltimore, MD, Amer. Meteor. Soc., 16B.5, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/439466>.
- Torres, S. and F. Nai, 2023: A Signal Processing Technique to Mitigate Wind Turbine Clutter on the NEXRAD Network. 40th Conf. on Radar Met., Minneapolis, MN, Amer. Meteor. Soc., 7B.3.
- Torres, S. and S. Gregg, 2024: Initial Evaluation of Single-Face Rotating PAR Concepts of Operations at the National Weather Radar Testbed. 40th Conf. on Environmental Information Processing Technologies, Baltimore, MD, Amer. Meteor. Soc., 9A.6.
- Tripp, D.D., A.D. Werkema, H.D. Reeves, B. Barjenbruch, K.J. Sanders 2024: Creation and Evaluation of a CONUS-Wide Gridded Analysis-of-Record for Ice Accumulation in Preparation for NWS Operations. 14th Conf. on Transition of Research to Operations, Amer. Meteor. Soc. Baltimore, MD. P12B.5. <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/432627>.
- Trujillo-Falcón, J. E., 2023: Probabilistic information: Is it useful for bilingual speakers? 48th National Weather Association Annual Meeting, Kansas City, MO.
- Trujillo-Falcón, J. E., Reedy, J., Gaviria Pabón, A. R., & Klockow-McClain, K. E., 2023: Systemic vulnerabilities in Hispanic and Latinx immigrant communities led to the reliance of an informal warning communication system in the December 10-11, 2021 tornado outbreak. 109th National Communication Association Annual Meeting, National Harbor, MD.
- Trujillo-Falcón, J. E., Sutton, J., A. R. Gaviria Pabón, and J. Reedy, 2024: Wireless Emergency Alerts in Spanish: Benefits and opportunities for improvement. 2nd Symposium on the Future of Weather, Forecasting, and Practice, 104th AMS Annual Meeting, Baltimore, MD.
- Turner, D. D., J. Gebauer, T. Bell, B. Adler, and U. Löhnert, 2023: TROPoe: A containerized thermodynamic profile retrieval system for ground-based remote sensors. AGU 2023, San Francisco, CA, American Geophysical Union, A31M-2566, <https://agu.confex.com/agu/fin23/meetingapp.cgi/Paper/1355399>.
- Wagner, M. A., D. Candela, E. Rasmussen, and D. J. Bodine, 2024: Comparisons of Close-Range Radar Observations with UAS-Based Damage Analysis of the 11 May 2023 Cole OK Tornado. Estimating Wind Speeds of Tornadoes and Other Windstorms, Baltimore, MD, Amer. Meteor. Soc., 16.5, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/440057>.
- Vancil, J. T. and I. L. Jirak, 2023, Evaluation of the Rapid Refresh Forecast System during the 2023 NOAA Hazardous Weather Testbed Spring Forecasting Experiment. 32nd Conf. on Wea. Analysis and Forecasting, Madison, WI, Amer. Meteor. Soc.,

10.2.

- Wade, A. R., B. J. Squitieri, and I. L. Jirak, 2023: 26-year climatology of severe wind-producing mesoscale convective systems in the United States. 32nd Conf. Weather Analysis and Forecasting, Madison, WI, Amer. Meteor. Soc., 1.5, <https://www.spc.noaa.gov/publications/wade/mcsclimo.pdf>.
- Wagner, M. A. and R. K. Doe, 2024. Uncrewed Aerial Systems (UAS) collective learning: applied research in operational environments. 24th Symposium on Meteorological Observation and Instrumentation, Baltimore, MD, Amer. Meteor. Soc., 10.1, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/440105>.
- Wang, Y, L. Reames, T. Jones, N. Yussouf and L. Wicker, 2024: The Development of an Experimental Warn-on-Forecast System Using the MPAS dynamic Core and the DART system. 28 January to 1 February, 2024. 104th AMS Annual Meeting, Baltimore, MD, Amer. Meteor. Soc.
- Warde, D. and S. Torres, 2023: SZ-2 keeps getting better: Improvements to the SZ-2 Algorithm. 40th Conf. on Radar Met., Minneapolis, MN, Amer. Meteor. Soc., 121.
- Warde, D., F. Nai, and S. Torres, 2024: Identification and Characterization of Wind Turbine Clutter (WTC) Contamination on the WSR-88D. 40th Conference on Environmental Information Processing Technologies, Baltimore, MD, Amer. Meteor. Soc., 11A.3.
- Wasielewski, D., S. Torres, T. Schuur, A. Reinhart, R. Mendoza, K. Hondl, and L. Hopper, 2024: An Update on the Phased Array Radar Research Program at NOAA's National Severe Storms Laboratory. 40th Conf. on Environmental Information Processing Technologies, Baltimore, MD, Amer. Meteor. Soc., 9A.2.
- Werkema, A.D., H.D. Reeves, 2024: MRMS Quality Control for Light Winter Precipitation. 24th Conf. on Aviation, Range, and Aerospace Meteorology, Amer. Meteor. Soc. Baltimore, MD. P11.3. <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/430887>.
- Wheeler, K., B. Schenkel, and N. Yussouf, 2024: Does Extratropical Transition Impact Tropical Cyclone Tornado Environments, 104th AMS Annual Meeting, Baltimore, MD.
- Xia, Z., and G.M. McFarquhar, 2024: Comparisons of environmental influences on boundary layer clouds macro and microphysical properties over the North Atlantic and Southern Ocean: Results from COMBLE and MARCUS. 1st Symposium on Cloud Physics, Amer. Meteorol. Soc. Annual Meeting, January 2024.
- Yu, T.-Y., D. Schwartzman, M. D. Tzeng, D. J. Bodine, E. C. Bruning, V. C. Chmielewski, and M. Stock, 2023: High temporal resolution observations of cloud electrification with spectral polarimetry. 40th Conf. on Radar Meteorology, Minneapolis, MN, Amer. Meteor. Soc., 43.
- Yu, T.-Y., C. Pearson, D. Bodine, S. Torres, N. Kuhr, and C. Kuster, 2023: Assessment of scanning strategies on the characterization and detection of downburst and its precursors with all-digital polarimetric phased array weather radar. 40th Conf. on Radar Met., Minneapolis, MN, Amer. Meteor. Soc., 70.
- Yu, T.-Y., B. Pearson, D. Bodine, S. Torres, and A. Reinhart, 2024: A Framework for the Systematic Assessment of Microburst Precursor Observations Using an All-Digital Phased Array Weather Radar. 40th Conf. on Environmental Information Processing Technologies, Baltimore, MD, Amer. Meteor. Soc., 11A.3.
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