

Publications for Keith A. Brewster, Ph.D. (current to 1/26/2023)

Refereed Publications:

- Baembitov, R., M. Kezunovic, K. Brewster, and Z. Obradovic, 2023: Incorporating wind modeling into an electric grid outage risk prediction and mitigation solution, *IEEE Access*, accepted for publication. doi: *IEEE Access*, DOI: [10.1109/ACCESS.2023.3234984](https://doi.org/10.1109/ACCESS.2023.3234984)
- Supinie, T.A., J. Park, N. Snook, X.-M. Hu, K.A. Brewster, M. Xue, J.R. Carley, 2022: Cool-Season Evaluation of FV3-LAM-Based CONUS-Scale Forecasts with Physics Configurations of Experimental RRFs Ensembles, *Mon. Wea. Rev.*, **150**(9), 2379-2398. doi: [10.1175/MWR-D-21-0331.1](https://doi.org/10.1175/MWR-D-21-0331.1)
- Hu, X.-M., J. Park, T. Supinie, N.A. Snook, M. Xue, K.A. Brewster, J. Brotzge, J.R. Carley, 2023: Diagnosing near-surface model errors with candidate physics parameterization schemes for multi-physics Rapid Refresh Forecast System (RRFS) ensemble during winter over northeastern US and southern Great Plains, *Mon. Wea. Rev.*, **151**(1), 39-61, doi: doi.org/10.1175/MWR-D-22-0085.1
- Morris, M. T., K. A. Brewster, and F. H. Carr, 2021: Assessing the impact of non-conventional radar and surface observations on high-resolution analyses and forecasts of a severe hail storm. *Electronic J. Severe Storms Meteor.*, 16(1), 1-39. <https://ejssm.org/archives/2021/vol16-1-2021>
- Snook, N., F. Kong, A. Clark, B. Roberts, K.A. Brewster, M. Xue, 2020: Comparison and Verification of Point-Wise and Patch-Wise Localized Probability-Matched Mean Algorithms for Ensemble Consensus Precipitation Forecasts, *Geophys. Res. Letters*, **47**, doi: [10.1029/2020GL087839](https://doi.org/10.1029/2020GL087839)
- McFarquhar, G. M., E. Smith, E. A. Pillar-Little, K. Brewster, P. B. Chilson, T. R. Lee, S. Waugh, N. Yussouf, X. Wang, M. Xue, G. de Boer, J. A. Gibbs, C. Fiebrich, B. Baker, J. Brotzge, F. Carr, H. Christophersen, M. Fengler, P. Hall, T. Hock, A. Houston, R. Huck, J. Jacob, R. Palmer, P. K. Quinn, M. Wagner, Y. Zhang, and D. Hawk, 2020: Current and Future Uses of UAS for Improved Forecasts/Warnings and Scientific Studies, *Bull. Amer. Meteor. Soc.*, **101**, doi: [10.1175/BAMS-D-20-0015.1](https://doi.org/10.1175/BAMS-D-20-0015.1)
- Potvin, C.K., J. R. Carley, A.J. Clark, L. J. Wicker, P. S. Skinner, A. E. Reinhart, B. T. Gallo, J. S. Kain, G. S. Romine, E. A. Aligo, K. A. Brewster, D. C. Dowell, L. M. Harris, I. L. Jirak, F. Kong, T. A. Supinie, K. W. Thomas, X. Wang, Y. Wang, and M. Xue, 2019: Systematic Comparison of Convection-Allowing Models during the 2017 NOAA HWT Spring Forecasting Experiment, *Wea. & Forecasting*, **34**, doi: [10.1175/WAF-D-19-0056.1](https://doi.org/10.1175/WAF-D-19-0056.1)
- Zhang, C., M. Xue, T.A. Supinie, F. Kong, N. Snook, K.W. Thomas, K. Brewster, Y. Jung, L.M. Harris and S.-J. Lin (2019). How well does an FV3-based model predict precipitation at a convection-allowing resolution? Results from CAPS forecasts for the 2018 NOAA hazardous weather test bed with different physics combinations. *Geophys. Res. Letters*, **46**. doi: [10.1029/2018gl081702](https://doi.org/10.1029/2018gl081702).
- Snook, N., F. Kong, K.A. Brewster, M. Xue, K.W. Thomas, T.A. Supinie, B. Albright, S. Perfater, 2019: Evaluation of convection-permitting precipitation forecast products using WRF, NMMB, and FV3 for the 2016-2017 NOAA Hydrometeorology Testbed Flash Flood and Intense Rainfall Experiments, *Wea. & Forecasting*, doi: [10.1175/waf-d-18-0155.1](https://doi.org/10.1175/waf-d-18-0155.1).
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Technical Reports

- Brewster, K.A., Degelia, S., Mueller, D., 2014: *Potential Availability and Stability of Solar Power in Oklahoma*, White Paper for Oklahoma Corporation Commission Hearing on Distributed Power, 11 September 2014.
- Brewster, K.A., M. Xue, F. Shen and K. Zhu, 2014: *High Resolution Data Assimilation for Trajectory Improvement*, Final Report to U.S. Air Force ISR Agency, AFTAC, FA7022-12-P-0004, 40 pp.
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Conference Papers -- First Author (since 2000)

- Brewster, K.A., A. Bajaj, B.L. Philips, D.L. Pepyne, E. Lyons, and F.H. Carr, 2017: CASA Dallas-Fort Worth Urban Testbed observations: Network of Networks at work. Special Symposium on Meteorological Observations and Instrumentation, 97th AMS Annual Meeting, Seattle, WA, January 22-26, 2017, Amer. Meteor. Soc., Paper 1027.

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Conference Papers -- Co-Author (since 2000)

- Carr, F.H., A.P. Osborne, M.T. Morris, and K.A. Brewster, 2016: Observing System Experiments in the Dallas-Fort Worth Testbed, *Preprints, Integrated Observing and Assimilation Systems for the Atmosphere, Oceans and Land Surface (IAOS-AOLS)*, New Orleans, LA, Amer. Meteor. Soc., Paper 262.
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- Kong, F., M. Xue, Y. Jung, K.A. Brewster, K.W. Thomas, Y. Wang, F. Shen, I.L. Jirak, A. Clark, J. Correia, Jr., S.J. Weiss, M.C. Coniglio, C.J. Melick, 2015: An overview of the CAPS Storm-Scale Ensemble Forecast of the 2015 NOAA HWT Spring Forecasting Experiment, *27th Conference on Wea. Analysis and Forecasting and 23rd Conf. on Numerical. Wea. Pred.*, Amer. Meteor. Soc., Paper 32.
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