Verified Publications/Releases Supported by WPO - FY22

FY of Publication	Program	PI	Citation					
FY22	JTTI	Joannes Westerink	K.J. Roberts; D. Wirasaet, J.C. Dietrich, W. Pringle and J.J. Westerink, "Load Balancing for Predictions of Storm Surge and Coastal Flooding," Environmental Modeling and Software, 140, 105045, 2021, https://doi.org/10.1016/j.envsoft.2021.105045.					
FY22	JTTI	Nusrat Yussouf	Wang, Y., N. Yussouf, E. R. Mansell, B. C. Matilla, R. Kong, M. Xue, V. C. Chmielewsk, 2021: Impact of Assimilating GOES-R Geostationary Lightning Mapper Flash Extent Density Data on Severe Convection Forecast in a Warn-on-Forecast System, Monthly Weather Review https://doi.org/10.1175/MWR-D-20-0406.1					
FY22	JTTI	G. Romine	Schwartz, C. S., J. Poterjoy, J. R. Carley, D. C. Dowell, G. S. Romine, K. Ide, 2022: Comparing partial and continuously cycling ensemble Kalman filter data assimilation systems for convection-allowing ensemble forecast initialization. Wea. Forecasting, 37, 85-112.					
FY22	JTTI	G. Romine	Schwartz, C. S., J. Poterjoy, G. S. Romine, D. C. Dowell, J. Carley, J. Bresch, 2022: Short-term convection-allowing ensemble forecast sensitivity to resolution of initial condition perturbations and central initial states. Wea. Forecasting.					
FY22	JTTI	Paola Passalacqua	D'Angelo, C., P. Passalacqua, A. Fiori, E. Volpi (2022), Identification of flood-prone areas with GeoFlood: Lessons learned from the Tiber River case study, Journal of Flood Risk Management, https://doi.org/10.1111/jfr3.12795.					
FY22	JTTI	Paola Passalacqua	Zheng, X., C. D'Angelo, D. Maidment, P. Passalacqua (2022), Continental-scale flood forecasting: Application of the National Water Model and the Height Above Nearest Drainage to Hurricane Harvey, Journal of the American Water Resources Association, https://doi.org/10.1111/1752-1688.12987.					
FY22	JTTI	Jason Otkin	Li, J., A. J. Geer, K. Okamoto, J. A. Otkin, Z. Liu, W. Han, and P. Wang, 2022: Satellite all-sky infrared radiance assimilation: Recent progress and future perspectives. Adv. Atmos. Sci., 39, 9−21, https://doi.org/10.1007/s00376-021-1088-9.					

FY22	JTTI	Ripberger	Krocak, M. J., Ripberger, J. T., Ernst, S., Silva, C. L., & Jenkins-Smith, H. C. (2022). Exploring the differences in SPC Convective Outlook interpretation using categorical and numeric information. Weather and Forecasting, 37(2), 303-311. DOI: https://doi.org/10.1175/WAF-D-21-0123.1
FY22	JTTI	Ripberger	Ernst, S., Ripberger, J., Krocak, M. J., Jenkins-Smith, H., & Silva, C. (2021). Colorful Language: Investigating Public Interpretation of the Storm Prediction Center Convective Outlook. Weather and Forecasting, 36(5), 1785-1797. DOI: https://doi.org/10.1175/WAF-D-21-0001.1
FY22	JTTI	Ripberger	Rosen, Z., Krocak, M. J., Ripberger, J. T., Cross, R., Lenhardt, E., Silva, C. L., & Jenkins-Smith, H. C. (2021). Communicating Probability Information in Hurricane Forecasts: Assessing Statements that Forecasters Use on Social Media and Implications for Public Assessments of Reliability. Journal of Operational Meteorology, 9(7). DOI: https://doi.org/10.15191/nwajom.2021.0907
FY22	JTTI	Vergara	Duarte, J.A., González, A.D. & Gourley, J.J. Wildfire burn scar encapsulation. Optim Lett (2021). https://doi.org/10.1007/s11590-021-01800-6
FY22	JTTI	Trogdon	2022 AMS Progress Report: Generating Storm Surge Hazards In Hazard Services
FY22	JTTI	Xue	Kong, R., M. Xue, C. Liu, A. O. Fierro, and E. R. Mansell, 2022: Development of new observation operators for assimilating GOES-R geostationary lightning mapper flash extent density data using GSI EnKF: Tests with two convective events over the US. Mon. Wea. Rev.
FY22	JTTI	Gronewold	Khazaei, B., Read, L.K., Casali, M., Sampson, K.M, and Yates, D.N. GLOBathy, the global lakes bathymetry dataset. Sci Data 9, 36 (2022). https://doi.org/10.1038/s41597-022-01132-9
FY22	JTTI	Cohen	Mouatadid S, Orenstein P, Flaspohler G, Oprescu M, Cohen J, Wang F, Knight S, Geogdzhayeva M, Levang S, Fraenkel E, Mackey L. Learned Benchmarks for Subseasonal Forecasting. arXiv preprint arXiv:2109.10399.
FY22	Obs	Brotzge	Wang, J., Brotzge, J., Shultis, J., & Bain, N. (2021). Enhancing Icing Detection and Characterization Using the New York State Mesonet, Journal of Atmospheric and Oceanic Technology, 38(9), 1499-1514. DOI: https://doi.org/10.1175/JTECH-D-20-0215.1
FY22	Obs	Zhang	Miles, T.N., D. Zhang, G. Foltz, J. Zhang, C. Meinig et al. 2022: Uncrewed Ocean Gliders and Saildrones Support Hurricane Forecasting and Research. Oceanography,

			78–81. https://doi.org/10.5670/oceanog.2021.supplement.02-28
FY22	Obs	Zhang	G. Foltz, C. Zhang, C. Meinig, J. Zhang, D. Zhang 2022: An Unprecedented View Inside a Hurricane, EOS, 103, https://doi.org/10.1029/2022EO220228.
FY22	Obs	JZhang	Hazelton, A., J.A. Zhang, and S.G. Gopalakrishnan. Comparison of the performance of the observation-based hybrid EDMF and EDMF-TKE PBL schemes in 2020 tropical cyclone forecasts from the Global-nested Hurricane Analysis and Forecast System. Weather and Forecasting, https://doi.org/10.1175/WAF-D-21-0124.1
FY22	Obs	JZhang	Wadler, J.B., J.J. Cione, J.A. Zhang, E.A. Kalina, and J. Kaplan. The effects of environmental wind shear direction on tropical cyclone boundary layer thermodynamics and intensity change from multiple observational datasets. Monthly Weather Review, 150(1):115-134, https://doi.org/10.1175/MWR-D-21-0022.1
FY22	Obs	JZhang	Zawislak, J., R.F. Rogers, S.D. Aberson, G.J. Alaka, G. Alvey, A. Aksoy, L. Bucci, J.Cione, N. Dorst, J. Dunion, M. Fischer, J. Gamache, S. Gopalakrishnan, A. Hazelton, H.M. Holbach, J. Kaplan, H. Leighton, F. Marks, S.T. Murillo, P. Reasor, K. Ryan, K. Sellwood, J.A. Sippel, and J.A. Zhang. Accomplishments of NOAA'S airborne hurricane field program and a broader future approach to forecast improvement. Bulletin of the American Meteorological Society, 103(2):E311-E338, https://doi.org/10.1175/BAMS-D-20-0174.1
FY22	Obs	JZhang	Chen, X., G.H. Bryan, J.A. Zhang, J.J. Cione, and F.D. Marks. A framework for simulating the tropical-cyclone boundary layer using large-eddy simulation and its use in evaluating PBL parameterizations. Journal of the Atmospheric Sciences, 78(11):3559-
FY22	Obs	JZhang	Wadler, J.B., D.S. Nolan, J.A. Zhang, and L.K. Shay. Thermodynamic characteristics of downdrafts in tropical cyclones as seen in idealized simulations of different intensities. Journal of the Atmospheric Sciences,
FY22	Obs	JZhang	Zhang, Z., J.A. Zhang, G.J. Alaka, Jr., K. Wu, A. Mehra, and V. Tallapragada. A statistical analysis of high frequency track and intensity forecasts from NOAA's Operational Hurricane Weather Research and Forecast (HWRF) modeling system. Monthly Weather Review, 149(10):3325-3339, https://doi.org/10.1175/MWR-D-21-0021.1
FY22	Obs	Mass	McNicholas, C., & Mass, C. F. (2021). Bias Correction, Anonymization, and Analysis of Smartphone Pressure Observations Using Machine Learning and Multiresolution

			Kriging, Weather and Forecasting, 36(5), 1867-1889. https://doi.org/10.1175/WAF-D-20-0222.1
FY22	CTB	Chang	Stan, Cristiana, Cheng Zheng, Edmund K.M. Chang, and coauthors, 2022: Advances in the prediction of MJO Teleconnections in the S2S forecast systems. Bull. Amer. Meteoro. Soc., in press. DOI: 10.1175/BAMS-D-21-0130.1.
FY22	S2S	Barnes	Hsiao, Wei-Ting, Elizabeth A. Barnes, Eric D. Maloney, Stefan N. Tulich, Juliana Dias, and George N. Kiladis. 2022. "Role of the Tropics in State-dependent Improvements of US West Coast NOAA Unified Forecast System Precipitation Forecasts." Geophysical Research Letters 49 (5). https://doi.org/10.1029/2021gl096447.
FY22	JTTI	Cristiana Stan	Krishnamurthy, V., J. Meixner, L. Stephanova, J. Wang, D. Worthen, S. Moorthi, B. Li, T. Sluka, and C. Stan, 2021: Sources of subseasonal predictability over CONUS during Boreal Summer. Journal of Climate, doi:10.1175/JCLI-D-20-0586.1
FY22	JTTI	Cristiana Stan	Krishnamurthy, V. and C. Stan, 2021: Prediction of extreme events in precipitation and temperature over CONUS during boreal summer in the UFS coupled model. Climate Dynamics.
FY22	JTTI	Ming Xue	Kong, R., M. Xue, C. Liu, A. O. Fierro, and E. R. Mansell, 2022: Development of new observation operators for assimilating GOES-R geostationary lightning mapper flash extent density data using GSI EnKF: Tests with two convective events over the US. Mon. Wea. Rev.
FY22	JTTI	Andrew Gronewold	Benjamin, S. G., Smirnova, T. G., James, E. P., Anderson, E. J., Fujisaki-Manome, A., Kelley, J. G. W., Mann, G. E., Gronewold, A. D., Chu, P., and Kelley, S. G. T.: Inland lake temperature initialization via cycling with atmospheric data assimilation, Geosci. Model Dev [Accepted], https://doi.org/10.5194/gmd-2021-409, 2022.
FY22	JTTI	Andrew Gronewold	Khazaei, B., Read, L.K., Casali, M., Sampson, K.M, and Yates, D.N. GLOBathy, the global lakes bathymetry dataset. Sci Data 9, 36 (2022). https://doi.org/10.1038/s41597-022-01132-9
FY22	HMT	Christiane Jablonowski	Fujisaki-Manome, A., D. M. Wright, G. E. Mann, E. J. Anderson, P. Chu, C. Jablonowski, S. G. Benjamin (2022), Forecasting Lake/Sea-Effect Snowstorms, Advancement, and Challenges, Wiley Interdisciplinary Reviews (WIREs), e1594, https://doi.org/10.1002/wat2.1594
FY22	HMT	Christiane Jablonowski	Lin, Y., A. Fujisaki-Manome, E. J. Anderson (2022), Simulating Landfast Ice in Lake Superior, Journal of Marine

			Science and Engineering, 10(7), 932, https://doi.org/10.3390/jmse10070932.
FY22	SPSM	Marty Ralph	Brandt, W.T., Haleakala, K., Hatchett, B.J. and Pan, M., 2022. A review of the hydrologic response mechanisms during mountain rain-on-snow. Frontiers in Earth Science, p.505.
FY22	SPSM	Pan	Vergopolan, N., N. W. Chaney, M. Pan, J. Sheffield, H. E. Beck, C. R. Ferguson, L. Torres-Rojas, S. Sadri, E. F. Wood, SMAP-HydroBlocks, a 30-m satellite-based soil1moisture dataset for the conterminous US, Scientific, in press, Feb 2022
FY22	SPSM	Minder	Letcher, T., J. R Minder, and P. Naple, (2022): Understanding and Improving Snow Processes in Noah-MP over the Northeast United States via the New York State Mesonet. ERDC Technical Report. in-press. Feb 2022
FY22	IS	Parker	Infrasound signals in simulated nontornadic and pre-tornadic supercells The Journal of the Acoustical Society of America 151, 939 (2022); https://doi.org/10.1121/10.0009400
FY22	IS	Elbing	B White & U Patel (2022) “Preliminary adaptation of speech source localization algorithm for reduced bandwidth of interest in tornadic infrasound signals,” 2022 AIAA SciTech Forum, AIAA2022-2615, San Diego, CA (Jan 3-7) (doi.org/10.2514/6.2022-2615)
FY22	SPSM	Y Zhang	Gan, Y., Zhang, Y., Liu, Y., Kongoli, C. and Grassotti, C., 2022. Assimilation of blended in situ-satellite snow water equivalent into the National Water Model for improving hydrologic simulation in two US river basins. Science of The Total Environment, p.156567.
FY22	NWM	Dyer	Raczynski, K. and J. Dyer, 2022: Development of an objective low flow identification method using breakpoint analysis. Water, 14, 2212. https://doi.org/10.3390/w14142212
FY22	NWM	Dyer	Dyer, J., A. Mercer, and K. Raczynski, 2022: Identifying spatial patterns of hydrologic drought over the southeast US using retrospective National Water Model simulations. Water, 14(10), 1525. https://doi.org/10.3390/w14101525
FY22	Obs	McPartland	Michael McPartland, Timothy Bonin and Tom Reynolds. "A New System for Obtaining Aircraft Derived Atmospheric Observations for Enhanced Weather Forecasting," AIAA 2022-4154. AIAA AVIATION 2022 Forum. June 2022.
FY22	Obs	Brotzge	Shrestha, B., Brotzge, J. A., and Wang, J. (2022): Evaluation of the New York State Mesonet Profiler Network Data. Atmospheric Measurement Techniques. Discussion [preprint], https://doi.org/10.5194/amt-2022-85

FY22	**Obs**	**Brotzge**	**Brotzge, J., J. Wang, N. Bain, S. Miller and C. Perno, 2022: Camera Network for Use in Weather Operations, Research and Education. Bull. Amer. Meteorol. Soc., in press. DOI: https://doi.org/10.1175/BAMS-D-21-0056.1**
FY22	**Obs**	**JZhang**	**Gramer, L.J., J.A. Zhang, G. Alaka, A. Hazelton, and S. Gopalakrishnan. Coastal downwelling intensifies landfalling hurricanes. Geophysical Research Letters, 49(13):e2021GL096630.**

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1. **(JTTI FY19- Pu)** Zhang,S., Z. Pu, 2020:Evaluation of the Four-Dimensional Ensemble-Variational Hybrid Data Assimilation with Self-Consistent Regional Background Error Covariance for Improved Hurricane Intensity Forecasts. Atmosphere,2020, 11, 1007; doi:10.3390/atmos11091007.
2. **(AirQ FY19 - Baek)** Pan, L., Kim, H., Lee, P., Saylor, R., Tang, Y., Tong, D., Baker, B., Kondragunta, S., Xu, C., Ruminski, M.G. and Chen, W., 2020. Evaluating a fire smoke simulation algorithm in the National Air Quality Forecast Capability (NAQFC) by using multiple observation data sets during the Southeast Nexus (SENEX) field campaign. GEOSCIENTIFIC MODEL DEVELOPMENT, 13(5), pp.2169-2184.
3. **(Obs FY19 - Kevin)** "Modeling the Performance of a Diode Laser-Based (DLB) Micro-Pulse Differential absorption Lidar (MPD) for Temperature Profiling in the Lower Troposphere", Catharine E. Bunn, Kevin S. Repasky, Matthew Hayman, Robert A. Stillwell, and Scott M. Spuler, Optics Express 27.23 (2019): 33543-33563.
4. **(Obs FY19 - Kevin)** Robert A. Stillweel, Scott M. Spuler, Matthew Hayman, Kevin S. Repasky, and Catharine E. Bunn, "Demonstration of a combined differential absorption and high spectral resolution lidar for profiling atmospheric temperature", Optics Express. 2020 Jan 6;28(1):71-93.
5. **(Obs FY19 - Guimond)** Sroka, S. and S. Guimond, 2020: Organized Backscatter in the Hurricane Boundary Layer from Radar Measurements. J. Fluid Mech., Accepted.
6. **(SSM FY19 - Pan)** Noemi Vergopolan, Nathaniel W. Chaney, Hylke E. Beck, Ming Pan, Justin Sheffield, Steven Chan, Eric F. Wood, 2020: Combining hyper-resolution land surface modeling with SMAP brightness temperatures to obtain 30-m soil moisture estimates. Remote Sensing of Environment, Volume 242, 111740, ISSN 0034-4257, https://doi.org/10.1016/j.rse.2020.111740
7. **(AirQ FY19 - Baek)** Tao, Z.; He, H.; Sun, C.; Tong, D.; Liang, X.-Z. Impact of Fire Emissions on U.S. Air Quality from 1997 to 2016–A Modeling Study in the Satellite Era. Remote Sens. 2020, 12, 913.
8. **(CTB FY18 - Kirtman)** Siqueira, L., B. P. Kirtman, L. C. Laurindo, 2020: Forecasting remote atmospheric response to decadal Kuroshio stability transitions. J. Climate (in press).
9. **(Infrasound FY18 - Brian)** Van Den Broeke, M. S. (2020) "Disdrometer, polarimetric radar, and condensation nuclei observations of supercell and multicell storms on 11 June 2018 in eastern Nebraska," Atmosphere, 11(7), 770-17 (doi.org/10.3390/atmos11070770).
10. **(Infrasound FY18 - Brian)** Green, E (2020) "An in-depth statistical analysis of the associations between polarimetric supercell signatures," M.S. Thesis, University of Nebraska-Lincoln, Department of Earth and Atmospheric Sciences.

11. **(EPIC FY19 - Curtis)** Purser, R. J., 2020: Description and some formal properties of Beta filters; compact support quasi-Gaussian convolution operators with applications to the construction of spatial covariances. NOAA/NCEP Office Note 498, https://doi.org/10.25923/qvfm-js76.
12. **(EPIC FY19 - Curtis)** Purser, R. J., 2020: A formulation of the Hexad algorithm using the geometry of the Fano projective plane. NOAA/NCEP Office Note 499, https://doi.org/10.25923/xrzp-x016.
13. **(EPIC FY19 - Curtis)** Purser, R. J., 2020: A formulation of the Decad algorithm using the symmetries of the Galois field, GF(16). NOAA/NCEP Office Note 500, https://doi.org/10.25923/4nhy-x681.
14. **(EPIC FY19 - Gopalakrishnan)** Leighton, H., Black, R., Zhang, X., Marks, F. D., & Gopalakrishnan, S. G. (2020). Ice particle size distributions from composites of microphysics observations collected in tropical cyclones. Geophysical Research Letters, 47, e2020GL088762. https://doi.org/10.1029/2020GL088762
15. **(EPIC FY19 - Curtis)** Bengtsson, L., J. Dias, S. Tulich, M. Gehne and J.-W. Bao, 2020: A stochastic parameterization of organized tropical convection using cellular automata for global forecasts in NOAA's Unified Forecast System (UFS). Journal of Advances in Modeling Earth Systems. https://doi.org/10.1029/2020MS002260
16. **(EPIC FY19 - Elena)** Joint Effort for Data Assimilation Integration (JEDI) Finite Volume (FV3) JEDI-FV3 1.0.0 Release https://www.jcsda.org/jedi-fv3-release from the Joint Center for Satellite Data Assimilation (JCSDA) October 28, 2020
17. **(EPIC FY19 - Elena)** Public release of open-source release of the Community Radiative Transfer Model (CRTM) version 2.4 https://www.jcsda.org/news-blog/2020/10/19/jcsda-announcing-the-public-release-of-crtm-version-24-3 & https://ufscommunity.org/wp-content/uploads/2020/09/UFS_Newsletter_Summer_2020_Full.pdf from the Joint Center for Satellite Data Assimilation (JCSDA) October 28, 2020
18. **(EPIC FY19 - Arun)** UFS Medium-Range Weather (MRW) Application releases https://ufscommunity.org/science/code/ in both March 2020 (v1.0.0) and October 06, 2020 (v1.1.0)
19. **(HMT FY17 - Ralph)** Sumargo, E, McMillan, H, Weihs, R, Ellis, CJ, Wilson, AM, Ralph, FM. A soil moisture monitoring network to assess controls on runoff generation during atmospheric river events. Hydrological Processes 2021; 35:e13998. https://doi.org/10.1002/hyp.13998
20. **(HMT FY19 - Fujisaki-Manome)**Fujisaki-Manome, A., G. E. Mann, E. J. Anderson, P. Y. Chu, L. E. Fitzpatrick, S. G. Benjamin, E. P. James, T. G. Smirnova, C. R. Alexander, and D. M. Wright (2020). Improvements to Lake-Effect Snow Forecasts Using a One-Way Air–Lake Model Coupling Approach, Journal of Hydrometeorology, 21(12), 2813-2828, https://journals.ametsoc.org/view/journals/hydr/21/12/jhm-d-20-0079.1.xml
21. **(HWT FY17 - Johnson)** Johnson, A. and X. Wang, 2020: Interactions between physics diversity and multiscale initial condition perturbations for storm-scale ensemble forecasting. Mon. Wea. Rev., 148, 3549-3565.
22. **(HWT FY17 - Johnson)** Johnson, A., X. Wang, Y. Wang, A. Reinhart, A. J. Clark, I. L. Jirak, 2020: Neighborhood- and object-based probabilistic verification of the OU MAP ensemble forecasts during 2017 and 2018 Hazardous Weather Testbeds. Wea. Forecasting, 35, 169-191.
23. **(HWT FY19 - Sobash)** Sobash, R. A., Romine, G. S., & Schwartz, C. S. (2020). A comparison of Neural-Network and Surrogate-Severe Probabilistic CONVECTIVE Hazard Guidance derived from a Convection-Allowing Model. *Weather and Forecasting, 35*(5), 1981-2000. doi:10.1175/waf-d-20-0036.1

24. **(JHT FY17 - Wang)** Wang, X. and H. Jiang, 2021: Contrasting behaviors between the rapidly intensifying and slowly intensifying tropical cyclones in the North Atlantic and Eastern Pacific basins. J. Climate, 34, 987–1003. https://doi.org/10.1175/JCLI-D-19-0908.1
25. **(CTB FY20 - Stan)** Lybarger, N. D., C.-S. Shin, and C. Stan, 2020: MJO Wind energy and prediction of El Niño. Journal of Geophysical Research - Oceans, doi:10.1029/2020JC016732
26. **(JTTI FY20 - Tang)** Tang, Y., Bian, H., Tao, Z., Oman, L. D., Tong, D., Lee, P., Campbell, P. C., Baker, B., Lu, C.-H., Pan, L., Wang, J., McQueen, J., and Stajner, I.: Comparison of chemical lateral boundary conditions for air quality predictions over the contiguous United States during pollutant intrusion events, Atmos. Chem. Phys., 21, 2527–2550
27. **(JTTI FY18-Tong)** Tong, C.-C., Y. Jung, M. Xue, and C. Liu, 2020: Direct assimilation of radar data within the National Weather Service operational GSI EnKF and hybrid En3DVar systems for the stand-alone regional FV3 model at a convection-allowing resolution. Geophy. Res. Lett., 47, e2020GL090179, https://doi.org/10.1029/2020GL090179.
28. **(JTTI FY18-Xue)** Labriola, J., Y. Jung, C. Liu and M. Xue, **2021**: Evaluating forecast performance and sensitivity to the GSI EnKF data assimilation configuration for the 28-29 May 2017 mesoscale convective system case. Wea. Forecasting, 36, 127-146. https://doi.org/10.1175/WAF-D-20-0071.1.
29. **(JTTI FY18-Chen)** Chen, L., C. Liu, M. Xue, G. Zhao, R. Kong, and Y. Jung, **2021**: Use of Power Transform Mixing Ratios as Hydrometeor Control Variables for Direct Assimilation of Radar Reflectivity in GSI-based En3DVar and Tests with Five Convective Storms Cases. Mon. Wea. Rev., 149, 645-659. https://doi.org/10.1175/MWR-D-20-0149.1
30. **(JTTI FY18-Chen)** Chen, L., C. Liu, Y. Jung, P. Skinner, M. Xue, and R. Kong, **2021**: Object-based Verification of Convection-allowing Forecasts Initialized by EnKF and Hybrid En3DVar Data Assimilation Schemes. Wea. Forecasting.
31. **(JTTI FY18-Rittger)** Rittger, K., Bormann, K., Bair E.H., Dozier, J., and Painter, T., Evaluation of VIIRS and MODIS snow covered fraction in High Mountain Asia using Landsat 8 (in press), Front. Remote Sens, doi: 10.3389/frsen.**2021**.647154
32. **(JTTI FY18-Rittger)** Bair, E.H., Stillinger, T. and J. Dozier **(2021)**, Snow Property Inversion from Remote Sensing (SPIReS): A Generalized Multispectral Unmixing Approach with Examples from MODIS and Landsat 8 OLI, doi: 10.1109/TGRS.2020.3040328
33. **(SSP FY19-Morss)** Melissa Bica, Joy Weinberg and Leysia Palen (ACCEPTED). Achieving Accuracy through Ambiguity: The Interactivity of Risk Communication in Severe Weather Events. Journal of Computer Supported Cooperative Work, Springer.
34. **(IS FY19 - Elbing)** Wilson, M. B. & Van Den Broeke, M. S. (2021) “An automated Python algorithm to quantify ZDR arc and KDP-ZDR separation signatures in supercells,” Journal of Atmospheric and Oceanic Technology, 38, 371-386 (doi.org/10.1175/JTECH-D-20-0056.1)
35. **(SPSM FY18 - Niu)** Neto, A. A. M., Niu, G. Y., Roy, T., Tyler, S., & Troch, P. A. (2020). Interactions between snow cover and evaporation lead to higher sensitivity of streamflow to temperature. Communications Earth & Environment, 1(1), 1-7.
36. **(SPSM FY18 - Niu)** Chang, L. L., Yuan, R., Gupta, H. V., Winter, C. L., & Niu, G. Y. (2020). Why is the terrestrial water storage in dryland regions declining? A perspective based on GRACE observations and Noah-MP simulations. Water Resources Research, 56 (11), e2020WR027102.
37. **(SPSM FY18 - Niu)** Niu, G. Y., Fang, Y. H., Chang, L. L., Jin, J., Yuan, H., & Zeng, X. (2020). Enhancing the Noah‐MP ecosystem response to droughts with an explicit representation of plant water storage supplied by dynamic root water uptake. Journal of Advances in Modeling Earth Systems, 12(11), e2020MS002062.
38. **(Other FY19 Dyer)** Mercer, A. and J. Dyer, 2021: Identification of dominant warm-season latent heat flux patterns in the lower Mississippi River alluvial valley. Procedia Comp. Sci.
39. **(S2S FY19 Randall)** Jenney, A. M., D. A. Randall, and M. D. Branson, 2020: Understanding the response of tropical ascent to warming using an energy balance framework. J. Adv. Modeling Earth Syst., 12, e2020MS002056. https://doi.org/10.1029/2020MS002056.

40. **(S2S FY19 Randall)** Andrea Michelle Jenney, 2020: Quantifying and understanding current and future links between tropical convection and the large-scale circulation. Ph.D. dissertation, Colorado State University.
41. **(JTTI FY19-Wang)** Wang, Y., and X. Wang, 2021: Development of Convective-Scale Static Background Error Covariance within GSI- Based Hybrid EnVar System for Direct Radar Reflectivity Data Assimilation. Mon. Wea. Rev., 149(8), 2713-2716.
42. **(Obs FY19-Guimond)** Sroka, S., & Guimond, S. (2021). Organized kinetic energy backscatter in the hurricane boundary layer from radar measurements. Journal of Fluid Mechanics, 924, A21. doi:10.1017/jfm.2021.632
43. **(JTTI FY19-Pu)** Wang, Y., Z. Pu, 2021: Assimilation of Radial Velocity from Coastal NEXRAD into HWRF for Improved Forecasts of Landfalling Hurricanes. Weather and Forecasting. 36, 587-599
44. **(JTTI FY19-Pu)**2) Li, X., Z. Pu, 2021: Vertical eddy diffusivity parameterization based on a large eddy simulation and its impact on prediction of hurricane landfall. Geophysical Research Letters, https://doi.org/10.1029/2020GL090703
45. **(JTTI FY19-Pu)**4) Li, X., Z. Pu, and Z. Gao, 2021: Effects of Roll Vortices on the Evolution of Hurricane Harvey During Landfall. Journal of Atmospheric Sciences. 78, 1847-1867.
46. **(JTTI FY19-Passalacqua)** Schomp, R., Estimating inundation extent and depth from National Water Model outputs and high resolution topographic data, MS Thesis, The University of Texas at Austin, May 2021

Verified Publications Supported by WPO - FY20

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