

**Thursday, January 26<sup>th</sup>, 2022**

## **Symposium on Radar Science in the Service of Earth System Predictability**

9:30a - 13.5 - Bayesian Modeling to Generate Maps of Rainfall Forecast Uncertainty for Tropical Cyclones

[Ebone Denise Smith \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399357>

11:15a - 14.3 - Using Linear Least Square Shear Product Signatures from Single Radars to Evaluate Tornado Potential for Quasi-Linear Convective System Circulations

[Thea Sandmael \(Presenter\)](#) – NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/393253>

1:30p – 3p - Panel Discussion 15 - Radar Research and Development for Operations: Research Aimed at Operations across the Development Life Cycle

[David J. Bodine](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60541>



## **12th Conference on Transition of Research to Operations**

9:15a - 13A.4 - Developing and Delivering the Applied NWS Radar and Applications Course in a Virtual Environment Using Cloud-Based Technology

[Jill D. Hardy \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399462>

9:30a - 13A.5 - How the NWS Radar and Applications Course Managed Team Dynamics in a Virtual Environment

[Melissa Jayne Lamkin \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399464>

11:30a - 14A.4 - Social Science and Research to Operations: The Collaborative Evolution of the Brief Vulnerability Overview Tool (BVOT)

[Jack R. Friedman \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/396914>

11:30a - 14B.4 - Stepping toward NWS Warning Operations in the FACETs Era via Threats-in-Motion (TIM) Testing within Virtual NOAA Hazardous Weather Testbed (HWT) Experiments

[Alyssa V. Bates \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399356>

1:45p - 15A.2 - The Many Facets of R2O and O2R at the National Severe Storms Laboratory

[John S. Kain \(Presenter\)](#) – NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395240>

2:45p - 15B.6 - Assimilating *GOES-16* ABI All-Sky Radiance Observations Using the HAFS Dual-Resolution EnVar DA System for Hurricane Predictions

[Xu Lu \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/396752>

# 18th Annual Symposium on Operational Environmental Satellite Systems

1:30p – 3p - Joint J15B - Using Artificial Intelligence to Exploit Satellite Earth Observations

[Shruti Ashok Upadhyaya](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59479>

1:45p - J15B.2 - Using Convolutional Neural Networks to Incorporate Temporal Information into Precipitation Estimates from GEO Sensors

[Shruti Ashok Upadhyaya \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/392354>

2:30p - 15A.5 - Tales from a Virtual Testbed: The 2021 GOES-R/JPSS Proving Ground Experiment

[Kevin Thiel \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/392571>

# 22nd Symposium on Meteorological Observation and Instrumentation

1:30p - 15.1 - Improving High-Wind Damage Documentation in the Southeast United States and UAS Data-Sharing Workflows

[Melissa A. Wagner \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399566>

1:45p - 15.2 - Initial Results of a Distributed Flight Formation Management Framework for Integration of Heterogeneous Weather UAS into a Collaborative Wireless Sensor Network

[Gustavo Britto Hupsel de Azevedo \(Presenter\)](#) – ARRC

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399840>

2:45p - 15.6 - CopterSonde UAS Feature Update: 3D Wind Estimation Using a Linear Extended State Observer Model Approach

[Antonio R. Ricardo Segales \(Presenter\)](#) – ARRC

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397676>

## **26th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS)**

9:15a - J13.4 - Using Machine Learning to Implement Heterogeneous Convective-Scale Static Background Error Covariances in Hybrid EnVar to Improve Supercell Predictions

[Yongming Wang \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399925>

10:45a – 12p - Joint J14 - Data Assimilation Methodology Advancement for Numerical Weather Prediction. Part V

[Samuel K. Degelia](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60482>

1:30p – 3p - Joint J15 - Data Assimilation Methodology Advancement for Numerical Weather Prediction. Part VI (joint between IOAS-AOLS, WAF/NWP, and the 21st Conference on Artificial Intelligence for Environmental Science)

[Yongming Wang](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60487>

2p - J15.3 - Using High-Resolution Nature Run Ensembles to Quantify Representativeness Errors and Covariance Localization for Observation Simulation System Experiments

[Jonathan D. Labriola \(Presenter\)](#) – NOAA x NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397390>

3:45p – 5p - Joint J16 - Data Assimilation Methodology Advancement for Numerical Weather Prediction. Part VII (joint between IOAS-AOLS, WAF/NWP, and the 21st Conference on Artificial Intelligence for Environmental Science)

[Yue Yang](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60489>

4p - J16.2 - Development and Evaluation of Radar Data Assimilation Capabilities within the JEDI: A Comparison of JEDI LETKF and LGETKF with GSI EnSRF Coupled with the FV3-LAM

[Jun Park \(Presenter\)](#) – CAPS

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397012>

## **31st Conference on Weather Analysis and Forecasting (WAF)/27th Conference on Numerical Weather Prediction (NWP)**

9a - 13A.3 - Operational Model Performance for Fire Weather Forecasting

[Israel L. Jirak \(Presenter\)](#) – SPC

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397213>

9a - 13C.3 - Predictability of the 13 April 2020 Central Savannah River Area Tornado Outbreak Using the Warn-on-Forecast System

[Christopher A. Kerr \(Presenter\)](#) – CIWRO x NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395763>

9:15a - 13C.4 - A Vortex Relocation Method for Improving Numerical Predictions of Tornadic Mesocyclones

[Qin Xu \(Presenter\)](#) – NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/391964>

11:15a - 14B.3 - Ensemble and Algorithmic Uncertainty with Four Commonly Used Snow Ratios

[Andrew A. Rosenow \(Presenter\)](#) – CIWRO x NOAA/OAR/NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394892>

1:30p - J15B.1 - The Virtual 2021 Warn-on-Forecast Testbed Experiment

[Patrick C. Burke \(Presenter\)](#) – NOAA x NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/393718>

1:45p - J15A.2 - Quantification of NSSL Warn-On-Forecast System Skill by Storm Age Using Object-Based Verification

[Jorge Eduardo Guerra \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398843>

1:45p - J15B.2 - Lessons from Two Years of Virtual Experiments "in" NOAA's Hazardous Weather Testbed

[Burkely Twiest Gallo \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395577>

2p - J15C.3 - Diabatic Lagrangian Analysis of the 26 June 2015 MCS Observed during PECAN

[Rachel L. Miller \(Presenter\)](#) – NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398609>

2:15p - J15B.4 - The 2021 Hazardous Weather Testbed Experimental Warning Program Radar Convective Applications Experiment: Evaluating the Tornado Potential Algorithm and the AzShear Rotation Detection Algorithm

[Thea Sandmael \(Presenter\)](#) – NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/393261>

## 35th Conference on Climate Variability and Change

1:45p - 15B.2 - A Heat Wave Definition Trend Analysis from 1979 through 2019 in the Southern Great Plains

[Taylor Morgan Grace \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/39763>

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2p - 15D.3 - Spatiotemporal Flood Characteristics in the United States: Current Status and Future Projections

[Zhi Li \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/39492>

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## 36th Conference on Hydrology

11a - 14B.2 - Hurricane Laura (2020): A Comparison of Drop Size Distribution Moments Using Ground and Radar Remote Sensing Retrievals

[Noah S. Brauer \(Presenter\)](#) – ARRC

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/393354>

11:15a - 14B.3 - Characterizing Errors in MRMS Quantitative Precipitation Estimates over Alaska, Hawaii, and Puerto Rico

[Emilia Thedens \(Presenter\)](#) – NWC REU

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394513>

11:30a - 14B.4 - Impacts of NEXRAD Supplemental Lower-Elevation Angles on MRMS Quality Control and QPE

[Stephen B. Cocks \(Presenter\)](#) – CIWRO x NOAA/NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395576>

11:45a - 14B.5 - Comparison of Operational Quantitative Precipitation Estimates from the U.S. National Weather Service and Environment Canada over the Great Lakes Region

[Heather M. Grams \(Presenter\)](#) – NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399292>

2p - 15A.3 - Interseasonal Relationships of Land Surface Variables across Europe

[Daniel Mesheske \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398915>

4:30p - 16B.4 - MRMS Radar QPE Updates: 2020–21

[Jian Zhang \(Presenter\)](#) – NOAA x NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/393817>

4:45p - 16B.5 - A Temporal Quality Control of Gauges to Improve Precipitation Processes for MRMS

[Steven M. Martinaitis \(Presenter\)](#) – CIWRO x NOAA/NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395020>

**POSTERS 5p – 6:30p**



600 - Projected Changes to Streamflow in Central Texas: How Much Will the River Flow?

[Adrienne Wooten \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397325>

643 - Comparing the Forecasting Performance of the UFS and WRF Models during High-Impact Severe Weather Events

[Juan Pablo Mangual-Pagán \(Presenter\)](#) – NWC REU

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/396101>

648 - 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

[Angela Mose \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397457>

649 - Climatological Study of Tornado Initiation Locations Relative to Land Characteristic Heterogeneities

[Robert W Moore \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399421>

652 - 14 April 2018 Shreveport–Bossier City, Louisiana, QLCS Tornado: A Study of a Tornadic Mesovortex and Its Life Cycle

[Alec Prosser \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397654>

654 - Examining the Impacts of Assimilating Vertically Integrated Ice in WRF on Two Mesoscale Convective Systems from PECAN

[Rachel L. Miller \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398855>

680 - Simulated WSR-88D Observations of the Streamwise Vorticity Current

**[Austin W. Dixon \(Presenter\)](#)** - Univ. of Oklahoma

**<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/400096>**

700 - Climatology of Linear Mesoscale Convective System Morphology in the United States Based on the Random Forests Method

**[Wenjun Cui \(Presenter\)](#)** – CIWRO

**<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/392689>**

702 - A Comparison of WoFS Output to CHEESEHEAD 2019 Observations near the 19 July MCS

**[Nolan C Meister \(Presenter\)](#)** – CIWRO

**<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395257>**

729 - Updates to the *GOES-16* Split-Window Precipitable Water Satellite Product

**[Emily Wynne Luschen \(Presenter\)](#)** - Univ. of Oklahoma

**<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/392891>**

