

**Monday, January 24, 2022**

## **17th Symposium on Societal Applications: Policy, Research and Practice**

8:30a – 10a - Session 1A - Risk Communication in the Weather Forecast and Warning Process. Part I

[Makenzie Krocak](#) Center for Risk and Crisis Management

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60369>

8:45a - 1B.2 - Building a Social Science Team in a NOAA Cooperative Institute and Laboratory

[Kimberly E. Klockow McClain \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/400050>

9:15a - 1B.4 - Using Code to Reduce the Costs of Coding: The Development of a Broadcast Meteorologist Coverage Thematic Coding Algorithm

[Sean Robert Ernst \(Presenter\)](#) - Center for Risk and Crisis Management

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/396494>

11:15a - 2A.3 - ¿Aviso o Alerta? A National Survey on How U.S. Spanish Speakers Interpret Current and Proposed Weather Warning Terminology

[Joseph E. Trujillo-Falcón \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/393321>

1:30p – 3p - Keynote Speaker KS3 - Core Science Keynote: 17th Symposium on Societal Applications: Policy, Research, and Practice

[Makenzie Krocak](#) - Center for Risk and Crisis Management

[Richard Smith](#) – NWS

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60479>

3:45p – 5p Session 4B - Enhancing Environmental Security through Community-Driven and Societally Beneficial Research

[Randy A. Pepler](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59268>

4p - 4B.2 - The Economic Value of a Weather Decision Support System for Oklahoma Public Safety Officials

[Dolly Y Na-Yemeh \(Presenter\)](#) - University of Oklahoma

[Tiffany A. Legg](#) - University of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399417>

## 10th Symposium on Building a Weather-Ready Nation: Enhancing Our Nation's Readiness, Responsiveness, and Resilience to High Impact Weather Events

**10:45a – 12a Session 2 - 10 Years Later...Are We Weather Ready? Part II: NOAA Research**

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60720>

10:45a - 2.1 - Recent Progress and Developments in the Forecasting A Continuum of Environmental Threats (FACETs) Initiative

[Kodi L. Berry \(Presenter\)](#) – NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399137>

11a - 2.2 - Forecaster Creation and Evaluation of Probabilistic Hazard Information for Severe Weather

[Kristin M. Calhoun \(Presenter\)](#) – NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398543>

11:15a - 2.3 - Rethinking Complacency in Severe Weather Outcomes

[Justin Edward Sharpe \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394794>

11:30a - 2.4 - Commercial Building–Type Classification Using Convolutional Neural Network (CNN) for Predicting Community Risks from Severe Weather Threats

[Jooho Kim \(Presenter\)](#) – CIWRO x NOAA/NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/393644>

## 21st Conference on Artificial Intelligence for Environmental Science

9:15a - 1.4 - Challenges and Benefits of Machine Learning in an Operational Environment: Survey Results from the 2021 Hazardous Weather Testbed Spring Forecasting Experiment

[David Harrison \(Presenter\)](#) – CIWRO x NOAA/NWS/SPC

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394451>

11:15a - 2.2 - Ethical and Responsible AI and Trust for Weather and Climate

[Amy McGovern \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398584>

2p - 3.3 - Toward Operational Real-Time Identification of Frontal Boundaries Using Machine Learning: A 3D Model

[Andrew Douglas Justin \(Presenter\)](#) - Univ. of Oklahoma

[Colin Willingham](#) - Univ. of Oklahoma

[Amy McGovern](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395669>

2:45p - 3.6 - Using Deep Learning to Predict the Existence of Wildfires with Fuel Data

[Bethany Earnest \(Presenter\)](#) - NOAA/NWS/SPC x Univ. of Oklahoma

[Amy McGovern](#) - Univ. of Oklahoma

[Israel L. Jirak](#) – SPC

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395859>

5p – 6:30p - Remote Poster 11 - 21AI Monday Poster Session

[Amanda Burke](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60185>

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

8:30a – 10a - Session 1B - Model Development and Application. Part I: Modeling System Overviews

[Tsung-Han Li](#) – Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59367>

9:45a - 1A.6 - Sensitivity of the February 2021 U.S. Cold-Air Outbreak to Tropopause Polar Vortex Intensity

[Tomer Burg \(Presenter\)](#) - Univ. of Oklahoma

[Steven Cavallo](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399318>

10:45a - 2.1 - Examining the Relationship between Tropopause Polar Vortices and Tornado Outbreaks

[Matthew Bray \(Presenter\)](#) - Univ. of Oklahoma

[Steven Cavallo](#) - Univ. of Oklahoma

[Howard B. Bluestein](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394882>

11:15a - 2.3 - Characteristics and Life Cycles of Northern Hemisphere Anticyclonic Tropopause Polar Vortices

[Joseph Burzduk \(Presenter\)](#) - Univ. of Oklahoma

[Steven Cavallo](#) - Univ. of Oklahoma

[David B. Parsons](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395422>

## 36th Conference on Hydrology

9:30a - 1B.5 - Drivers of Excessive Springtime Precipitation Resulting in Extreme Stream Discharge

[Benjamin J. McIvor \(Presenter\)](#) - School of Civil Engineering and Environmental Science

[Noah S. Brauer](#) - ARRC x Univ. of Oklahoma

[Jordan I. Christian](#) - Univ. of Oklahoma

[Jeffrey B. Basara](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/396226>

11:45a - 2B.5 - Forecasting Subseasonal Extreme Precipitation in the Contiguous United States:  
Examining the Utility of Random Forests

[Ty Dickinson \(Presenter\)](#) - Univ. of Oklahoma

[Jason C. Furtado](#) - Univ. of Oklahoma

[Michael Richman](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399085>

4:30p - J4B.4 - Addressing Spatial Uncertainty in Quantitative Precipitation Forecasts with a  
Postprocessing Ensemble Technique for Hydrologic Forecasts

[Humberto Vergara \(Presenter\)](#) - CIWRO

[Jonathan J. Gourley](#) – NOAA x NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399964>

4:45p - J4A.5 - Toward Predicting Flood Event Lag Time, Flashiness, Peak Discharge in Ungauged  
Basins by Learning the Impact of Rainfall Spatial Variability, Geomorphology, and Climatology  
with Machine Learning

[Pierre-Emmanuel Kirstetter \(Presenter\)](#) - NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/400003>

## 38th Conference on Environmental Information Processing Technologies

1:30p - 3B.1 - Relationship between Adverse Weather and Traffic Conditions

[Ayman Elyoussoufi \(Presenter\)](#) - UCAR x Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/392567>

3:45p – 5p - Joint J4B - Radar Technologies and Applications. Part I

[Mark Yeary](#) - Univ. of Oklahoma

[Kurt D. Hondl](#) – NOAA x NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59472>

4p - J4B.2 - Transportable Phased Array Radar: Meeting Weather Community Needs

[Robert Dean Palmer \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/393087>

4:15p - J4B.3 - Polarimetric Radar Observations and Modeling of the Refreezing of Fully and Partially Melted Hydrometeors

[Dana Tobin \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/392185>

## 24th Conference on Atmospheric Chemistry

8:30a – 10a - Session 1A - Greenhouse Gases. Part I

[Sean Crowell](#) - Univ. of Oklahoma

[Berrien Moore](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60385>

9:15a - 1A.4 - GeoCarb: Monitoring CO<sub>2</sub>, CH<sub>4</sub>, CO, and SIF over the Americas

[Sean Crowell \(Presenter\)](#) - Univ. of Oklahoma

[Berrien Moore](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398250>

10:45a – 12p - Session 2A - Greenhouse Gases. Part II

[Sean Crowell](#) - Univ. of Oklahoma

[Berrien Moore](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60386>

1:30p - 3B.1 - Exploration of VPRM Parameterization Using CO<sub>2</sub> Source-Receptor Relationships

[Steven M. Jester \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/388849>

1:30p – 3p - Session 3B - Greenhouse Gases. Part III

[Sean Crowell](#) - Univ. of Oklahoma

[Berrien Moore](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60387>

## 10th Symposium on the Weather, Water, and Climate

9:30a - 1.5 - CHEESEHEAD 2019 Remotely Sensed Atmospheric Boundary Layer Characteristics and Comparisons across Regimes

[Nolan C. Meister \(Presenter\)](#) - CIWRO x Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395181>

1:30p – 3p - Joint J3 - Capturing Observations of Opportunity from Nonconventional Sensors

[Jonathan J. Gourley](#) – NOAA x NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59189>

1:45p - J3.2 - Remote Sensing of Streams Using Noncontact Radars

[Jonathan J. Gourley \(Presenter\)](#) – NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395816>

## Presidential Sessions

2:30p - J3.5 - Forecasting West Nile Virus with Arbovirus Monitoring and Prediction (ArboMAP) in Multiple U.S. States: A Comparison of Environmental Data Sources

[Dawn M. Nekorchuk \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397255>

## Posters 5p - 6:30p

Remote Poster 11 - 21AI Monday Poster Session

[Amanda Burke](#) - Univ. of Oklahoma

131 - Examining Relationships between Environmental Conditions and Supercell Motion in Time

[Matthew D. Flournoy \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394706>

17 - Incorporation of TAO Rainfall Data into the PACRAIN Database

[Werner Ethan Cook \(Presenter\)](#) - PACRAIN Project

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399525>

192 - Mobile Weather Applications – Uses, Features, & Preferences for Radar Displays

[Michelle E. Saunders \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/396438>

197 - Relationships Matter: Application of Social Exchange Theories and Uncertainty Reduction Theory to Understanding Communication among Forecasters, Emergency Managers, and Core Partners through the Brief Vulnerability Overview Tool (BVOT)

[Elizabeth H Hurst \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397233>

199 - A Spatial Analysis of Simulated Tornado Warning Decisions in the United States

[Taylor DeWinter \(Presenter\)](#) - CIWRO x Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399270>

201 - Numerical Simulation of a Warm Rain Event Using a New Lagrangian Cloud Microphysics Model: Comparison with Two X-Band Polarimetric Radars in Korea

[Logan Roy \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398154>

238 - The Impact of the Madden–Julian Oscillation on Extreme Winter Weather over the United States

[Stephen Robert Foskey \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/392356>

472 - Evaluation of S2S Model Performance for Forecasting U.S. Extreme Precipitation Events

[Devin Michael McAfee \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394639>