

CAPS Presentations and Posters at the AMS 101 Annual Meeting 2021

All Times Central Standard Time

Monday, January 11

1. 9:10-9:25 am
[20AI NSF AI Institute for Research on Trustworthy AI in Weather, Climate, and Coastal Oceanography \(Invited Presentation\)](#) – Amy McGovern
2. 12:30 – 12:35 pm
[16SOCIETY Vulnerability, Emotions, and Fidelity in Weather Experiments: How to Capture the Human Elements in Testbed Experiments](#) – Michelle Saunders (Daphne LaDue)
3. 12:50 – 12:55 pm
[16SOCIETY Vulnerability Knowledge among NWS Meteorologists and Core Partners in the Southeast: Implications for Improving Next-Generation Severe Weather Operations through the Brief Vulnerability Overview Tool \(BVOT\)](#) – Jack Friedman (Daphne LaDue)
4. 12:50 PM - 12:55 pm
11th R2O [Design, Implementation, and Evaluation of a SAR-FV3-Based Ensemble Forecasting System Targeting the RRFS and Run for the 2020 HMT FFaIR Experiment](#) - Tim Supinie
5. 1:00 – 2:30 pm (Poster 227)
[25IOAS Four-Dimensional EnKF Assimilation of High-Frequency Phased Array Radar Observations with a Real Convective Storm](#) – Tim Supinie
6. 1:00-2:30 pm (Poster 363)
[MESO Evaluating Rainfall and Hail Size Forecasts run at Convection-Resolving to Large-Eddy Resolving Resolutions for the 20 May 2013 Newcastle-Moore Supercell](#) – Jonathon Labriola (Nate Snook & Ming Xue)
7. 1:00-2:30 pm (Poster 242)
[25IOAS Use of Power Transform of Total Number Concentration as Control Variable for Direct Assimilation of Radar Reflectivity in GSI En3DVar for a Supercell Case](#) – Huiqi Li

Tuesday, January 12

1. 9:30 – 10:30 am
[Panel Discussion 4 Ninth Symposium on the Weather, Water, and Climate Enterprise - How We Decide: Tools and Approaches for Guiding Investments in Observations](#) – Fred Carr Panel Co-Chair
2. 10:00-10:05 am
[Improving WRF-VPRM terrestrial respiration parameterization to reproduce nighttime CO₂ peaks and daytime CO₂ band ahead of cold fronts](#), -Xiao-Ming Hu
3. 10:05 -10:10 am
[Local Greenhouse Gases \(GHGs\) mixing evaluation with single-column WRF-VPRM](#) – Q. Wang (Xiao-Ming Hu)
4. 10:05 - 10:10 am
11th R2O - [SAR FV3-Based Storm-Scale Ensemble Forecasts and Ensemble Consensus Products for the 2019/20 HMT Winter Weather Experiments](#) – Keith Brewster

5. 10:20 – 10:25 am
[25IOAS Direct Assimilation of Radar Reflectivity in GSI Hybrid En3DVar: Effects of Observation Operator Consistent with Two-Moment Thompson Microphysics](#) - Chengsi Liu
6. 10:20-10:25 pm
[11R2O Comparison of the Performance of WRF and FV3 on Strong Wind Cases during the 2018 HWT SFE](#) – Soengmook Kim (Keith Brewster and Youngsun Jung)
7. 12:45-12:50 pm
[20AI Improving Machine Learning–Based Probabilistic Hail Forecasts through Statistical Weighting](#) –Amanda Burke (& Nate Snook)
8. 1:00 – 2:30 pm (Poster 534)
[11R2O Challenges and Opportunities to Assist WFOs in Providing Timing Information for Severe Weather Decision Support](#) –Alexandra Marmo (Daphne LaDue)
9. 1:00 – 2:30 pm (Poster 535)
[11R2O Evaluating the Impact of Planetary Boundary Layer, Land Surface Model, and Microphysics Parameterization Schemes on Cold Cloud Objects in Simulated GOES-16 Brightness Temperatures](#) – Sarah Griffin (Tim Supinie & Ming Xue)

Wednesday, January 13

1. 1:00 – 2:30 pm (Poster 697)
[10LIGHTNING Impact of Assimilating GOES-R GLM Flash Extent Density in NSSL's Warn-on-Forecast System for Severe Weather Forecast](#) Yaping Wang (Rong Kong & Ming Xue)

Thursday, January 14

1. Noon – 12:05 pm
[16SOCIETY The Roles of Information Source and Social Context in Tornado Sheltering Actions](#) – Daphne LaDue
2. 3:15 – 3:20 pm [16SOCIETY Identifying Inequities and Cultural Biases within the Geosciences: An OU Case Study](#) –Cassandra Shivers-Williams (Daphne LaDue)
3. 3:40-3:45 pm
[11R2O Development and Evaluations of Optimized, Multiscale Radar Data Assimilation Capabilities within the GSI Hybrid EnKF–EnVar System Targeting the FV3-Based Rapid Refresh Forecasting System \(RRFS\)](#) – Ming Xue

Friday, January 15

1. 9:30-9:35 am
[30EDUCATION Taking the Pulse of Atmospheric Science Education Research in Undergraduate Contexts](#) –Wendilyn Flynn (Daphne LaDue)
2. 1:00-2:30 pm (Poster)
[9JCSDA Direct Assimilation of the GOES-R Lightning Data within GSI EnKF and En3DVar: Observation Operators and Impacts Together with Radar Data](#) – Rong Kong

NWC REU Posters and Talks

Sunday, January 10th from 5:30-7:30 pm

20th Annual Student Conference - Student Poster Session:

Audrey Brandon: Poster # 78 Simple Climate Models: Daisyworld and Potential for Classroom Instruction

Neil Crosby: Poster #165 Does Extratropical Transition Impact Tornado Production in Tropical Cyclones?

America Gaviria-Pabon: Poster # 98 Understanding the Correlation Between NWS Impact-Based Flash Flood Warning Categories and Various NWS Flash Flood Tools.

E'lysha Guerrero: Poster # 128 Near Surface Meteorological Impacts Resulting from a Total Solar Eclipse.

Michael Lavallee: Poster # 127 Radar Rainfall Estimates Versus Station Rainfall Data

Jordan Robinson: Poster #54 Decoding the Stable Boundary Layer: Comparing Stable Conditions in the Arctic Stable Boundary Layer over Finland and Alaska

Therese Lincheck: Poster # 55 Quantifying the Stable Boundary Layer Depth in the Arctic Region of Northern Finland using Unmanned Aircraft Systems

Wednesday, January 13th

1:00-3:30 pm CST (Poster)

Poster # 694 An Investigation into the Characteristics of Lightning as It Interacts with Towers – Hayden Webb

Thursday, January 14th

10:25-10:30 am

(10.10) Tornadoes in the Southeast United States: Investigating the Relationship between Radar-Measured Intensity, Damage, and Terrain – Melanie Zabron

11:20-11:25 am

Evaluation and Uncertainty of MRMS v12 Dual-Polarized Radar Quantitative Estimation Products –Henry Santer