



# Northeast Regional Operations Workshop (NROW) XXV

## Conference Agenda



Day 1: Wednesday November 13 2024

7:30 AM - 8:30 AM: Conference Check-in  
Coffee & Refreshments sold by the University at Albany Capital Region AMS Chapter

8:30 AM - 8:35 AM: **Opening Remarks**

Christina Speciale, NROW Chair, NOAA/NWS/WFO Albany, New York

Christopher Gitro, Meteorologist-in-Charge, NOAA/NWS/WFO Albany, New York

8:35 AM - 8:45 AM: **Student Map Discussion**

Alex Kramer, Department of Atmospheric and Environmental Sciences

University at Albany, State University of New York

**Session A: Celebrating CSTAR (Collaborative Science, Technology, and Applied Research) and the 25-Year Partnership Between the NWS and Academia**

(8:45 AM - 10:40 AM)

8:45 AM - 8:55 AM: **25 Years of CSTAR - Operations and Research Collaborations Saves Lives**

Jeff Waldstreicher

NOAA/NWS Scientific Services Division, Eastern Region Headquarters, Bohemia, NY

8:55 AM - 9:05 AM: **CSTAR at UAlbany: How Gene Auciello and Daniel Keyser Conspired to Create this Collaborative UAlbany-NWS Research Program that is Overseen by Professor Kristen Corbosiero**

Lance Bosart

Department of Atmospheric and Environmental Sciences

University at Albany, State University of New York

9:05 AM - 9:20 AM: **The UAlbany-NWS CSTAR Partnership 2014-2024: High-impact Weather in Complex Terrain**

Kristen Corbosiero

Department of Atmospheric and Environmental Sciences

University at Albany, State University of New York



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#### 9:20 AM - 9:35 AM: **Stony Brook CSTAR Efforts: From Ensemble Tools to Stakeholder Communication**

Brian Colle

School of Marine and Atmospheric Sciences

Stony Brook University, Stony Brook, New York

#### 9:35 AM - 9:55 AM: **The UAibany-NWS CSTAR Collaborative Partnership 2001-2024**

Thomas A. Wasula, Neil A. Stuart, and Michael S. Evans

NOAA/NWS/WFO Albany, New York

STM Weather Cropseyville, New York

#### *Perspective from Past CSTAR Graduate Students (9:55 AM - 10:30 AM)*

<p><u>In-Person</u> (9:55 AM - 10:15 AM)  Alicia Wasula, Ph. D, CCM  STM Weather  COMET Student (Master's 1998-2001,  Ph.D 2001-2005)</p> <p>Daniel Thompson  NOAA/NWS/WFO Marquette, MI  CSTAR Student (2010–2012)</p> <p>Matt Vaughan  16th Weather Squadron, U.S. Air Force  CSTAR Student (2013-2015)</p> <p>Brian Filipiak  Department of Civil and Environmental  Engineering  University of Connecticut  CSTAR Student (2020-2022)</p>	<p><u>Virtual Attendees</u> (10:15 AM - 10:30 AM)  Tomer Burg  NOAA/WPC/CIRES  CSTAR Student (2016-2019)</p> <p>Heather Archambault  Citadel  CSTAR Student (2002–2005)</p> <p>Dr. David Novak  NOAA/NWS Weather Prediction Center  CSTAR Student (2000-2002)</p>
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#### **Q & A for Session A** (10:30 AM - 10:40 AM)

All presenters plus Dr. Daniel Keyser (Department of Environmental and Atmospheric Science, University at Albany, State University of New York) and Warren Snyder (Retired ALY SOO - virtual)



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Day 1: Wednesday November 13, 2024

**10:40 AM - 10:55 AM: Break**

Coffee and Refreshments sold by the UAlbany Capital Region AMS Chapter

## **Session B: NROW XXIV Keynote Presentation (10:55 AM - 11:45 AM)**

Mic Runner: Christina Speciale

**Introduction:** Christopher Gitro

Meteorologist-in-Charge

NOAA/NWS/WFO Albany, New York

**National Weather Service Transformation Update**

**Keynote Speaker:** Ken Harding

Chief Operating Officer

NOAA/NWS Headquarters, Silver Spring, Maryland

**Q & A for Keynote Speaker (11:35 AM - 11:45 AM)**

**11:45 AM - 1:00 PM: Lunch Sponsored by UAlbany Auxiliary Services and the  
New York State Mesonet**

**Pre-Function Space Outside Shared Training Room 149/151**

**Open to all NROW XXV Attendees**



AUXILIARY  
SERVICES



[Area Restaurant Documents](#) for Other Lunch Recommendations



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### **Session C: 1:00 PM - 2:30 PM: The National Weather Association (NWA) Research to Operations Nexus (RON) at NROW**

All In-Person NROW XXV Attendees Welcome to Participate  
Pre-Function Space Outside Shared Training Room 149/151

#### ***Group 1: Academia & National Weather Service Partnership***

Subject Matter Experts: Dr. Lance Bosart<sup>1</sup>, Dr. Kristen Corbosiero<sup>1</sup>, Dr. Daniel Keyser<sup>1</sup>, Gene Auciello<sup>2</sup>

Department of Atmospheric and Environmental Sciences  
University at Albany, State University of New York<sup>1</sup>

Retired NOAA/NWS/WFO Albany, New York<sup>2</sup>

Note Taker: Thomas A. Wasula NOAA/NWS/WFO Albany, New York

#### ***Group 2: Weather and Decision Making***

Subject Matter Experts: Jonathan Pease<sup>1</sup>, Peter Cichetti<sup>2</sup>, Melissa Nussbaum<sup>2</sup>, Madison McGuire<sup>2</sup>

National Grid<sup>1</sup>, NYS Division of Homeland Security and Emergency Services<sup>2</sup>

Note Taker: Peter Speck, NOAA/NWS/WFO Albany, New York

#### ***Group 3: AI/Machine Learning***

Subject Matter Experts: Dr. Christopher Thorncroft  
Atmospheric Sciences Research Center

University at Albany, State University of New York

Note Taker: Neil Stuart, NOAA/NWS/WFO Albany, New York

#### ***Group 4: Reaching Underserved & Vulnerable Communities***

Subject Matter Experts: Leticia Williams, Jarrod Loerzel  
NOAA/NWS Office of Science, Technology, and Integration

Social, Behavioral, Economic Science

Note Taker: Abigail Gant, NOAA/NWS/WFO Albany, New York

### **Session D: Winter Weather I (2:30 PM - 3:50 PM)**

2:30 PM - 2:45 PM: **The Evolution of Snow Squall Science and Forecasting**

Greg DeVoir

NOAA/NWS/WFO State College, Pennsylvania



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2:45 PM - 3:00 PM: **Decades of Snow Squall Research Leads to Successful Warnings at WFO Mount Holly**

Michael Lee and Cameron Wunderlin (Virtual)  
NOAA/NWS/WFO Mount Holly, New Jersey

3:00 PM - 3:15 PM: **Applications of Winter Mesoanalysis: Lessons Learned From The February 16-17, 2024 Winter Storm**

Paul Fitzsimmons (Virtual)  
NOAA/NWS/WFO Mount Holly, New Jersey


3:15 PM - 3:30 PM: **Evolving The Weather Prediction Center's Winter Weather Desk**

Tony Fracasso  
NOAA/NWS Weather Prediction Center, College Park, Maryland

3:30 PM - 3:45PM: **Snow-to-Liquid Ratio Prediction Over the Northeast United States Using Machine Learning**

Michael Pletcher (Virtual)  
University of Utah

**Q & A for Session D (3:45 PM - 3:50 PM)**

 3:50 PM - 4:05 PM: **Break Session** 

Coffee and Refreshments sold by the UAlbany Capital Region AMS Chapter

**Session E: Severe Weather, Heat, and Fire Weather** (4:05 PM - 5:25 PM)

4:05 PM - 4:20 PM: **The 16 July 2024 Significant Severe and Tornadoic Event across New York and New England Part I: Synoptic and Mesoscale Overview**

Thomas A. Wasula  
NOAA/NWS/WFO Albany, New York

4:20 PM - 4:35 PM: **The 16 July 2024 Significant Severe and Tornadoic Event across New York and New England Part II: Radar Analysis, Warnings, and IDSS**

Thomas A. Wasula  
NOAA/NWS/WFO Albany, New York



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4:35 PM - 4:50 PM: **A Probabilistic Look at Forecasting the June 2024 Northeast Heat Wave**

Todd Foisy

NOAA/NWS/WFO Caribou, Maine

4:50 PM - 5:05 PM: **Fire Weather in New York and New England**

Robert Fovell

Department of Atmospheric and Environmental Sciences

University at Albany, State University of New York

5:05 PM - 5:20 PM: **New York State Mesonet-Based Fire Danger Rating System**

DJ McGuinness

New York State Mesonet

**Q & A for Session E (5:20 PM - 5:25 PM)**

5:25 PM - 5:30 PM: Closing Remarks/Adjourn

Christina Speciale, NROW Chair

NOAA/NWS/WFO Albany, New York

**Meeting Adjourned**



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Day 2: Thursday November 14 2024

7:30 AM - 8:30 AM: Conference Check-in.  
Coffee and Refreshments sold by the UAlbany Capital Region AMS Chapter

### **8:30 AM - 8:35 AM: Opening Remarks**

Christina Speciale, NROW Chair, NOAA/NWS/WFO Albany, New York

### **Session F: Flooding & Improved Hydrologic Forecasting Tools/Services** (8:35 AM - 10:10 AM)

#### **8:35 AM - 8:50 AM: The Influence of Atmospheric Rivers on the Northeast United States**

Evan Belkin

NOAA/NWS Northeast River Forecast Center

University at Albany, State University of New York

#### **8:50 AM - 9:05 AM: Factors Contributing to Catastrophic Flash Flooding in Vermont's Northeast Kingdom on 30 July 2024**

Peter Banacos

NOAA/NWS/WFO Burlington, Vermont

#### **9:05 AM - 9:20 AM: Heavy Precipitation Object Tracking and Forecast Tools**

Matthew Green

NOAA/NWS Weather Prediction Center & Cooperative Institute for Research in Environmental Science

#### **9:20 AM - 9:35 AM: Flood Inundation Mapping (FIM) & National Water Prediction Service (NWPS): Training & Outreach**

Greg DeVoir

NOAA/NWS/WFO State College, Pennsylvania

#### **9:35 AM - 9:50 AM: How NWS Flood Inundation Mapping (FIM) Performed During the April 2024 Ohio Valley Floods**

Alicia Miller (Virtual)

NOAA/NWS/WFO Pittsburgh, Pennsylvania



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9:50 AM - 10:05 AM: **A Summary National Precipitation Forecast Skill and the National Forecast Informed Reservoir Operations Expansion Pathfinder Effort**

Jason Cordeira

Center for Western Weather and Water Extremes

University of California, San Diego

**Q & A for Session F (10:05 AM - 10:10 AM)**

 10:10 AM - 10:25 AM: **Break & Poster Session** 

Coffee and Refreshments sold by the UAlbany Capital Region AMS Chapter

**Session G: Decision Support Services & Improving Communication/Messaging**

(10:25 AM - 12:00 PM)

10:25 AM - 10:40 AM: **Impact-Based Decision Support Services by NWS Baltimore/Washington Following the Collapse of the Francis Scott Key Bridge in Baltimore, Maryland**

Kevin Rodriguez (Virtual)

NOAA/NWS/WFO Sterling, Virginia

10:40 AM - 10:55 AM: **Improving Operational Decision-Making with Insights from Weather Partners**

Peter Cichetti

New York State Division of Homeland Security and Emergency Services

10:55 AM - 11:10 AM: **Clear Communication, Safer Communities: Refining Heat Messaging in the Northeast**

Micki Olson and Bruce Pollock

College of Emergency Preparedness, Homeland Security, and Cybersecurity

University at Albany, State University of New York

11:10 AM - 11:25 AM: **Challenges Communicating Severe Weather Risk in Spanish**

Jase Bernhardt

Hofstra University

11:25 AM - 11:40 AM: **Snowed Under by Jargon: Erie County Residents' Views on Cold Weather Terms**

Savannah Olivas

College of Emergency Preparedness, Homeland Security, and Cybersecurity

University at Albany, State University of New York





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Day 2: Thursday November 14, 2024

**11:40 AM - 11:55 AM: Riding Through a Floodscape: Studying the Intersection of Buses and Rainfall in Queens**

Nicholas Lucchetto  
Hofstra University

**Q & A for Session G (11:55 AM - 12:00 PM)**

**12:00 PM - 1:15 PM: Lunch Break**

See [Area Restaurant Documents](#) for Lunch Recommendations

**Session I: New York Mesonet Applications I (1:15 PM - 2:50 PM)**

**1:15 PM - 1:30 PM: Characterizing the Impacts of 2024 Total Solar Eclipse Using New York State Mesonet Data**

June Wang  
New York State Mesonet

**1:30 PM - 1:45 PM: Creating Convolutional Neural Networks to Monitor New York State Mesonet Daytime Precipitation from Camera Images**

Brian Horan  
Atmospheric Science Research Center  
University at Albany, State University of New York

**1:45 PM - 2:00 PM: Surface Energy Balance Across the 18-site New York State Mesonet Flux Network**

Anna Glodzik  
Atmospheric Science Research Center  
University at Albany, State University of New York

**2:00 PM - 2:15 PM: A 200-year-old database for climate change study from archives of the New York Academy System, New York State's (and the World's) first mesonet, 1826-1872**

Anna Duhon and Anton Seimon  
Bard College

**2:15 PM - 2:30 PM: Exploring Autumnal Heatwaves in Buffalo, NY using NYS Mesonet Data**

Hannah Attard  
Daemen University



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**2:30 PM - 2:45 PM: Systematic evaluation of assimilating ground-based remote-sensing profiling observations of the New York State Mesonet for forecasting of convection initiation events in New York State**

Junkyung Kay

NSF NCAR/Earth Observing Laboratory

**Q & A for Session I (2:45 PM - 2:50 PM)**

**2:50 PM - 3:05 PM: Break & Poster Session**

Coffee and Refreshments sold by the UAlbany Capital Region AMS Chapter

**Session J: Winter Weather II (3:05 PM - 4:40 PM)**

**3:05 PM - 3:20 PM: Leaning Into Partnerships for Future Snow Squall Innovations**

Greg DeVoir

NOAA/NWS/WFO State College, Pennsylvania

**3:20 PM - 3:35 PM: Improving the Understanding of Risk Perception and Communication in the New York City Area Through Surveys, New Partnerships, and Workshops**

Josef Moses

Stony Brook University

**3:35 PM - 3:50 PM: The 22-23 March 2024 Snow and Ice Storm across the NWS Albany County Warning Area**

Lee Picard

NOAA/NWS/WFO Albany, New York

**3:50 PM - 4:05 PM: National Grid – Planning Preparation, and Response to Icing Events**

Jonathan Pease

National Grid

**4:05 PM - 4:20 PM: Evaluating Tools for Diagnosis and Nowcasting Precipitation Type and Freezing Rain: Results from the 3–4 February 2022 Winter Storm in the Hudson Valley**

Justin Minder

University at Albany, State University of New York



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4:20 PM - 4:35 PM: **Climatology of Precipitation Features within the Cyclone Comma Head and Some Comparisons with WRF**

Phillip Yeh

Stony Brook University

**Q & A for Session J (4:35 PM - 4:40 PM)**

4:40 PM - 4:45 PM: **Closing Remarks/Adjourn**

Christina Speciale, NROW Chair

NOAA/NWS/WFO Albany, New York



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Day 3: Friday November 15, 2024

7:00 AM - 7:45 AM: Conference Check-in (**Report to ETEC Basement Room B010**)

### **7:45 AM - 7:50 AM: Opening Remarks**

Christina Speciale, NROW Chair, NOAA/NWS/WFO Albany, New York

### **Session K: NYS Mesonet Applications II** (7:50 AM - 9:10 PM)

#### **7:50 AM - 8:05 AM: Evaluation of WRF precipitation simulations for Storm Ida Over NYC Using NY/NJ Mesonet**

Jorge Bravo

Stevens Institute of Technology

#### **8:05 AM - 8:20 AM: Improving the Quality of the NYS Mesonet Microwave Radiometer Data with a Novel Bias Correction Scheme**

Chau-Lam (Chris) Yu

New York State Mesonet

#### **8:20 AM - 8:35 AM: The Southern Ontario Lidar (SOLID) Mesonet: Impacts on Aviation and Severe Weather Nowcasting**

Zen Mariani (Virtual)

Environment and Climate Change Canada

#### **8:35 AM - 8:50 AM: Combining Low-Cost Air Quality Sensors with the New York State Mesonet for Fine-Scale Monitoring in New York City**

Ellie Hojeily

Atmospheric Science Research Center



University at Albany, State University of New York

#### **8:50 AM - 9:05 AM: Improving Mesoscale Model Forecasts for Daily Weather Analysis in New York City**

Madhusmita Swain

University at Albany, State University of New York

### **Q & A for Session K** (9:05 AM - 9:10 AM)

 9:10 AM - 9:20 AM: **Break** 



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### **Session L: Artificial Intelligence and Social Science** (9:20 AM - 10:25 AM)

#### **9:20 AM - 9:35 AM: Innovative Geospatial Tools and Technologies To Empower NWS Service Equity Success**

Jarrold Loerzel

NOAA/NWS Office of Science, Technology, and Integration  
Social, Behavioral, Economic Science

#### **9:35 AM - 9:50 AM: Language Program in the NWS: How It Started and Where It Is Going**

Krizia Negrón (Virtual)

NOAA/NWS Office of Science, Technology, and Integration  
Social, Behavioral, Economic Science

#### **9:50 AM - 10:05 AM: Weather in More Languages: The NWS Translation Project at WFO New York, NY**

Faye Morrone



NOAA/NWS/WFO New York, New York

#### **10:05 AM - 10:20 AM: The Potential to Improve Efficiency in Operational Meteorology With Generative AI**

David Radell

NOAA/NWS/WFO New York, New York

**Q & A for Session L** (10:20 AM - 10:25 AM)

 10:25 AM - 10:35 AM: **Break Session** 

### **Session M: Severe/Tropical Weather & Hydrology** (10:35 AM - 11:55 AM)

#### **10:35 AM - 10:50 AM: Understanding Frequent Lightning Environments over the NWS Albany, NY County Warning Area**

Amari Woods and John Farash

Department of Atmospheric and Environmental Sciences  
University at Albany, State University of New York



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**10:50 AM - 11:05 AM: Multiple Tropical Cyclone-Baroclinic Trough Interactions over the North Atlantic Ocean during September 2023**

Lance Bosart

Department of Atmospheric and Environmental Sciences

University at Albany, State University of New York

**11:05 AM - 11:20 AM: An Evaluation of Precipitation Estimates Associated with Ida in the Northern Mid-Atlantic for a Forensic Case**

Michael Evans

STM Weather

**11:20 AM - 11:35 AM: The Destructive Flooding Events of August 18-19th, 2024**

Matthew Wunsch

NOAA/NWS/WFO New York, New York

**11:35 AM - 11:50 AM: Model Review of the Historic Flash Flood Events of August 18-19, 2024**

David Stark

NOAA/NWS/WFO New York, New York

**Q & A for Session M (11:50 AM - 11:55 AM)**

**11:55 AM - 12:00 PM: Closing Remarks/Adjourn**

Christina Speciale, NROW Chair

NOAA/NWS/WFO Albany, New York

**Meeting Adjourned  
NROW XXVI - November 2025**