

The Third Annual NYS Mesonet Symposium

13-14 September 2023

University at Albany, ETEC Building
1220 Washington Ave, Albany, NY 12226

Zoom: <https://albany.zoom.us/j/99949198972?pwd=WWc1WGJhNmVVb0dEODBrTCtDZUtZdz09>

13 September 2023 (Day 1)

Registration & Breakfast (7:30 – 8:30 AM)			
Time	Title	Speaker	Affiliation
8:30 AM	Welcome & Opening Remarks	Chris Thorncroft	ASRC, UAlbany
8:35 AM	Remarks by Vice President for Research and Economic Development	Thenkurussi (Kesh) Kesavadas	UAlbany
8:40 AM	Mesonet Introduction & Updates	June Wang	NYS Mesonet, UAlbany
8:55 AM	Symposium Overview	Bhupal Shrestha, Elizabeth McCabe	NYS Mesonet, ASRC, UAlbany
Session 1: NYSM Operation and Design (Chair: June Wang)			
9:00 AM	The NYS Mesonet: A Field Technician's Perspective	Nick Farruggio	NYS Mesonet, UAlbany
9:15 AM	NYS Mesonet Website Overview	Nathan Bain	NYS Mesonet, UAlbany
9:30 AM	The New York State Mesonet at Indian Ladder Farm: A Site Host Perspective	Peter Ten Eyck	Indian Ladder Farm
9:45 AM	An Assessment of Geographic Representativeness for the New York State Mesonet Stations	Aaron Evans	ASRC xCITE, UAlbany
10:00 AM	Content Analysis of Mesonet Websites	Savannah Olivas	CEHC, UAlbany
10:15 AM	Discussion		
Coffee Break (10:25 – 10:45 AM)			
Session 2: Coastal Weather and Modeling (Chair: Kristen Corbosiero)			
10:45 AM	WRF simulations of a NYC area heat wave and sea breeze event with a coupled WRF MYNN-EDMF PBL and multilayer urbanization	Jorge E Gonzalez-Cruz	ASRC, UAlbany
11:00 AM	Verification of Weather Research and Forecasting (WRF) model performance in simulating the New York Bight Sea Breeze and Low-Level Jet using the New York State Mesonet	Elizabeth McCabe	ASRC, UAlbany
11:15 AM	HPAC Data Assimilation Study Utilizing New York State Mesonet Data	Leann Anthony	Applied Research Associates, DTRA
11:30 AM	Evaluating HRRR Model Forecasts of Impactful Severe Weather Events in Upstate New York	Rachel A. Eldridge	DAES, UAlbany

11:45 AM	HRRR Wind Forecast Verification using NYSM and Other Observations	Robert Fovell	DAES, UAlbany
12:00 PM	The Development of a High-Resolution Environmental Modelling System for New York State	Anthony Praino	IBM Research
12:15 PM	Discussion		
Lunch (12:25 – 1:30 PM)			
Session 3: High Impact Weather (Chair: Jeff Freedman)			
1:30 PM	Predictability of the Precipitation from the Remnants of Hurricane Ida in New York City Using the New York State Mesonet	Lloyd Trenish	IBM Research
1:45 PM	Demonstrating the Utility of the New York State Mesonet during the 24 July 2022 Severe Weather Event	Sydney Boschulte	DAES, UAlbany
2:00 PM	Significant Hail Event across Eastern NY on May 15, 2018	Thomas A. Wasula	NOAA/NWS Albany
2:15 PM	Using WINTRE-MIX Observations to Evaluate New York State Mesonet Precipitation Type and Freezing Rain Diagnostics	Justin R. Minder	DAES, UAlbany
2:30 PM	Utilizing A High-Quality Network of Precipitation Observations to Improve Our Analysis and Forecasting of Peak Precipitation Rates	Nick Bassill	COE, UAlbany
2:45 PM	Discussion		
Poster Session (2:55 – 3:55 PM)			
Session 4: Air Quality (Chair: Scott Miller)			
4:00 PM	Unraveling the Interaction of Urban Emission Plumes and Marine Breezes Involved in the Formation of Summertime Coastal High Ozone on Long Island	Jie Zhang	ASRC, UAlbany
4:15 PM	Combining Low-cost Air Quality Sensors with a Micronet for Fine-scale Monitoring In NYC	Ellie Hojeily	ASRC, UAlbany
4:30 PM	Modeling and Forecasting Impacts of Urban Canopy on New York City Air Quality	Harold Gamarro	City College of New York
4:45 PM	Discussion		
NYS Mesonet Discussion and Feedback Session (4:55 – 5:30 PM) Chair: June Wang			
5:30 PM	Adjourn		

*******Poster Session*******

Day 1 (2:55 – 3:55 PM)

Title	Presenter	Affiliation
Machine Learning Classification of Anchor Ice Formation Utilizing Physical Condition Measurements	Gregory A. Pedrick	New York Power Authority
Weather Forecast Model Evaluation Using the New York State Mesonet	Matthew Friedkin	ASRC, UAlbany
Pilot Study of the Influence of Canadian Wildfire Smoke on NY Mesonet Observations of Heat, Moisture and CO ₂ Transport	David Fitzjarrald	ASRC, UAlbany
Modeling the Extreme July 2023 Precipitation Event in the Hudson Valley	Lloyd Treinish	IBM Research
Urban Influences on Thunderstorms in Coastal Houston, Texas	Jean Carlos Pena	ASRC, UAlbany
Using Surface Observation to Improve the Satellite Sounding Retrieval in the Boundary Layer	Chian-Yi Liu	Research Center for Environmental Changes, Academia Sinica

14 September 2023 (Day 2)

Breakfast (8:00 – 9:00 AM)			
Session 5: Instrumentation (Chair: Justin Minder)			
9:00 AM	NYS Mesonet Profiler Network: Empire State Vertical Sensing Evaluation Regional Testbed Experiment	June Wang	NYS Mesonet, UAlbany
9:15 AM	Radiometer Upgrades and Applications	Kim Dill	Radiometrics Corporation
9:30 AM	A Supplemental High-Resolution Weather Radar Network for New York State	Micheal Simpson	Climavision
9:45 AM	Discussion		
Session 6: Utilities (Chair: Nick Bassill)			
9:50 AM	NYS Mesonet’s Benefit to the Utility Industry: Avangrid’s Story	Deborah Lucia	Avangrid
10:05 AM	Quantification of Additional Humidity-induced Stress for Floating Photovoltaics Compared to Ground Mounted Photovoltaics: High-Frequency Data Set Pairing Between NYSM Springfield Station and a Global Lake Ecological Observatory Network Data Buoy on Otsego Lake, NY	Kiyoko Yokota	SUNY Oneonta

10:20 AM	Underground Power Cable Ampacity Dynamic Setting with Soil Temperature Monitor Through Application Programming Interface (API)	An T Le	CHA Consulting, Inc.
10:35 AM	Discussion		
Coffee Break (10:40 – 11:00 AM)			
Session 7: AI and Other Applications (Chair: Kara Sulia)			
11:00 AM	Visibility Estimation from Camera Images Using Deep Learning	Melissa Wilson Reyes	AI2ES, University of Oklahoma
11:15 AM	A Codebook for Selecting Reference Images for Camera-Based Visibility Measurements	Max Sasser	AI2ES, University of Oklahoma
11:30 AM	Winter Weather & NYSM Data: A Forensic Weather Case Study	John Lombardo	Forensic Weather Consultants
11:45 AM	Isaias & NYSM Data: A Forensic Weather Case Study	Kyle Gravlin	Forensic Weather Consultants
12:00 PM	Enhancing Farming Decisions: The NEWA-Mesonet Collaboration for Advanced Weather Data Integration	Daniel Olmstead	Cornell University
12:15 PM	Examining the Potential of Sub-Daily Weather Observations to Predict Tick Population Density	Alexander Keyel	DAES, UAlbany
12:30 PM	Discussion, Closing Remarks, and Adjourn		
Lunch (12:45 – 2 PM)			
Optional Side Meetings and Site Tour (After 2 PM) Available rooms are 103, 107, 276 and 279 at ETEC Building			