

Please put in your information about your talks and posters for AMS 2024! ALL of this will go into our special edition January newsletter. If you want to be highlighted in the newsletter, please make a note so we can ask you more!

Saturday

- Time, Room, Author, Title, URL to abstract

Sunday

- Time, Room, Author, Title, URL to abstract
- 6:30 PM - 8:30 PM, Hall E (Poster), Eleanor Salm, Using Machine Learning Methods to Predict and Understand Severe Weather Over the United States, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/440476>.

Monday

- Time, Room, Author, Title, URL to abstract
- 9:30-9:45 am, 345/346, Dale Durran (NVIDIA), Improving Deep Learning Weather Prediction Using the HEALPix Mesh, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/436370>
- 9:45-10 am, 345,346 Bill Collins, Yair Cohen (NVIDIA), Huge Ensembles (HENS) of Weather Extremes using the Fourier Forecasting Neural Network (FourCastNet), <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/431224>
- 10:45-11:00, 345/346, Amy McGovern, 2A.1 - Update on the NSF AI Institute for Research on Trustworthy AI in Weather, Climate, and Coastal Oceanography (AI2ES), <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/436440>
- 10:45-11:00, 338, Ryan A. Lagerquist, D. D. Turner, J. Q. Stewart, and I. Ebert-Uphoff, Machine-Learned Uncertainty Quantification Is Not Magic: Lessons Learned from Emulating Radiative Transfer with ML, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/436073>
- 11:00-11:15, 345/346, David John Gagne, 2A.2 - Machine Integration and Learning for Earth Systems (MILES): Bridging Key Gaps in Machine Learning for Earth System Science, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/439702>
- 11:00-11:15, 338, Gabrielle Gantos, 2B.2 - Evidential Deep Learning: Enhancing Predictive Uncertainty Estimation for Earth System Science Applications, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/439080>
- 11:15-11:30, 338, Charlie Becker, 2B.3 - Explaining the Sources of Uncertainty in Machine Learning Winter Precipitation-Type Predictions, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/439865>
- 11:45 AM - 12:00 PM, 338, Miranda White, Uncertainty Quantifications of the Onset and Offset of Cold-Stunning Events Using AI Ensemble Methods, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/436611>
- 1:45 PM - 2:00 PM, 345/346, Waylon Collins, Meteorological Interpretation of XAI Output Applied to a 3D Convolutional Neural Network Fog Prediction Model, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/434441>

- 2:00 PM - 2:15 PM, 329, Beto Estrada, AEROSOL Are NASA Land Information System (LIS) Data Useful for Predicting Dust Storms?
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/430231>
- 3:00 - 3:40 pm, Hall E (ePoster), David Hall (NVIDIA), AI's Next Wave: Foundation Models, Generative Models, and Large Language Models for Weather and Climate Prediction <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/439403>
- 3:00 - 4:30 pm, Hall E (Poster), Jeff Adie (NVIDIA), GAIA-Chem: A Global AI-Accelerated Atmospheric Chemistry Framework,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/433671>
- 3:00 - 4:30 pm, Hall E (Poster), Marina Vicens-Miquel, Empowering Coastal Resilience: A Multi-Layer Perceptron Approach for Subseasonal-to-Seasonal Sea Level Predictions in the Gulf of Mexico,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/436008>
- 4.30 - 5pm, 345/346, Imme Ebert-Uphoff, J. Q. Stewart, K. A. Hilburn, J. T. Radford, R. T. DeMaria, R. Chase, R. A. Lagerquist, C. White, Y. Lee, J. Apke, K. D. Musgrave, L. Ver Hoef, C. E. Kumler, M. S. Wandishin, J. Duda, I. Jankov, and D. D. Turner, A Research Agenda for the Evaluation of AI-Based Weather Forecasting Models (**Core Science Keynote**), <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/436971>
- 4.45 - 5pm, 338, Charles White, I. Ebert-Uphoff, J. M. Haynes, and Y. J. Noh, Super-Resolution of GOES-16 ABI Channels to a Common High Resolution with a Convolutional Neural Network,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/430972>
- 5:00 PM - 5:15 PM, 345/346, Robert T. DeMaria, M. DeMaria, G. Chirokova, K. Musgrave, J. T. Radford, and I. Ebert-Uphoff, Evaluation of Tropical Cyclone Track and Intensity Forecasts from Purely ML-based Weather Prediction Models, Illustrated with FourCastNet, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/436711>
- 5:30-5:45pm, 345/346, Jaideep Pathak (NVIDIA), Towards Comprehensive Evaluation of Data-Driven Numerical Weather Prediction Models,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/435878>
- 3:00 PM - 4:30 PM, Hall E (Poster), Katie Colburn, The Use of Oblique Imagery and Ground Elevation Surveys to Generate a Time Series of Wet/Dry Shoreline Elevations,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/429702>
- 3:00 PM - 4:30 PM, Hall E (Poster), Mona Hajiesmaeeli, Digital Elevation Model Generation using Highly Oblique Stereo Imagery via Structure from Motion in a Coastal Area, <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/429752>
- 3:00 PM - 4:30 PM, Hall E (Poster), Savannah Stephenson, Integrating Web Cameras into NOAA's Coastal Inundation Dashboard,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/434208>
- 3:00 PM - 4:30 PM, Hall E (Poster), Cliff Ehrke, Estimation of Wave Height from Standard Deviation of Water Level Measured by a Low-Cost Water Level Sensor,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/433763>

Tuesday

- Time, Room, Author, Title, URL to abstract
- 8:30 AM - 8:45 AM, 338, Brian Colburn, A Variational Autoencoder for Coastal Visibility Predictions: Architecture, Performance and R2X Potential,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/433933>
- 12:15 PM - 1:15 PM, Holiday 6, Speaker: Thomas M. Hamill, IBM/Weather Company, Boulder, CO. Organizer: Mike Eilts, Weather and Nature, LLC, Norman, OK. Panelists: Sergey Frolov, NOAA, Boulder, CO; Matthew Chantry, ECMWF, Reading, OXF, United kingdom; David M. Hall, NVIDIA, Boulder, CO and Imme Ebert-Uphoff, CIRA, Fort Collins, CO. Facilitator: Luke T. Peffers, Longmont, CO. Town Hall Meeting - Forecasting Trends: The Balance between NWP and AI and How It Will Evolve in the Near or Distant Future,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Session/66096>
- 3:00 PM - 4:30 PM, Hall E (Poster), Chuyen Nguyen, Toward Prediction of Pyrocumulonimbus with Machine Learning,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/434484>
- 3:00 PM - 4:30 PM, Hall E (Poster), Andrew DeSimone and Anointiyae Beasley, Utilizing Neural Networks to Predict Water Temperatures in a Thermal Refuge,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/438719>
- 3:00 PM - 4:30 PM, Hall E (Poster), Evan Krell, Using Grouped Features to Improve Explainable AI Results for Atmospheric AI Models that use Gridded Spatial Data and Complex Machine Learning Techniques,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/435616>
- 3:00 PM - 4:30 PM, Hall E (Poster), Marie McGraw, K. Haynes, K. D. Musgrave, I. Ebert-Uphoff, C. Slocum, and J. Knaff,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/432633>
- 4:30-4:45, Johnson AB (First Floor, Hilton Baltimore Inner Harbor), Amy McGovern, J8.1 - The Key Role of AI in the Future of Weather Forecasting,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/437297>
- 4:30 PM - 4:45 PM, 338, Philippe Tissot, An Update on Coastal Artificial Intelligence and the AI2ES NSF AI Institute,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/440240>
- 4:45-5:00 pm, 345/346 (The Baltimore Convention Center), Bethany Earnest, Exploring the Role of Weather Forecasts in Predicting Wildfire Occurrence for CONUS Using the Unet3+ Deep Learning Model,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/433338>
- 5:00-5:15 pm, 338, Marina Vicens-Miquel, Performance and Comparison of Seq2Seq and Transformer Model Architectures for the Prediction of Water Levels from Hours to Days,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/436055>
- 5:30 PM - 5:45 PM, 338, Jacob Alonzo and Elisa Flores, Machine Learning Water Level Predictions for an Intermediate Location Using Connected Bodies of Water,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/438712>
- 5:45 PM - 6:00 PM, 338, Lindsay Abrams, AI for Quality Control of Water Level Observations,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/429579>

- 5:45 PM - 6:00 PM, Johnson AB, Hamid Kamangir, FogNet-V2: Multi-view Tensorized Transformer for Coastal Fog Forecasting,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/431416>

Wednesday

- Time, Room, Author, Title, URL to abstract
- 8:30-8:45 AM, 345/346, Maria Molina, 9A.1 - When machine learning objectives compete for improved subseasonal bias correction, who wins?
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/440143>
- 11:15-11:30, 338, Carly Sutter, J10B.3 - Improving Generalizability of Road Condition Classification Models for Department of Transportation Camera Images,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/438154>
- 11:15-11:30, 345/346, Maria Madsen, 10A.3 - A Deep Learning Approach to Severe Weather Subseasonal Forecasting over the United States,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/439218>
- 11:30-11:45, 338, Chris Wirz, J10B.4 - NWS Forecaster Perceptions of New AI Guidance for Coastal Fog Prediction,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/437150>
- 11:45-12:00, 338, Mariana Cains, J10B.5 Forecaster Perceptions of Trustworthiness, Explainability, and Interpretability in the Context of AI-Derived Guidance,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/432425>
- 2:00-2:15, 345/346, D. Aaron Evans, 11A.2 - Predicting Forecast Error of Numerical Weather Prediction Models using an LSTM,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/436416>
- 2:30 PM - 2:45 PM, 338, Waylon Collins, The Utility of Domain Knowledge When Developing Deep Learning Models to Predict Coastal Fog,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/434354>
- 3:00 PM - 4:30 PM, Hall E (Poster), Hector Marrero-Colominas, Estimating Uncertainty of Water Temperature Predictions for Cold-Stunning Events in the Laguna Madre,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/433139>

Thursday

- Time, Room, Author, Title, URL to abstract
- 8:30-10am, 308, Amy McGovern, Maria Molina. Robin Tanamachi, J. S. Perez-Carrasquilla. Joint Panel Discussion J13 - Using AI Creatively In the Classroom: Lessons Learned.
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Session/67137>
- 9:00 AM - 9:15 AMm, 338, Kristina Moen, N. J. Mitchell, Y. Lee, L. Ver Hoef, E. J. King, I. Ebert-Uphoff, K. A. Hilburn, and W. Line, Exploring Texture Analysis to Aid Classification of Meteorological Phenomena in Satellite Imagery,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/434656>
- 9:45 AM - 10:00 AM, Jacob T. Radford, I. Ebert-Uphoff, J. Q. Stewart, R. T. DeMaria, T. Wilson, J. L. Demuth, M. S. Wandishin, J. Duda, A. McGovern, C. D. Wirz, and M. G. Cains, Visualizing Data-Driven AI Models to Engage Operational Forecasters,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/437407>

- 2:00 PM - 2:15 PM, 338, Thursday, February 1, Jay Rothenberger, Eric Grit, Martin Murphy, Robinson Wallace, Explaining the Role of Lightning Data in Hail Nowcasting
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/437201>
- 2:15-2:30 pm, 316, Lynn Montogomert, John Stone(NVIDIA), Tom Kaye (NVIDIA), AI-Based Earth and Space Observing Digital Twin Prototype,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/432894>
- 2:30-2:45 pm, 327, Ashley Williamson (The Weather Company), J15C.4 - Using AI Generated Fronts to Improve Forecasting Efficiency,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/438877>
- 3:00 PM - 4:30 PM, Hall E (Poster), Jarett Woodall, Exploring Cross-Validation Techniques for ML Predictions of Rare Cold-Stunning Events,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/436577>
- 4:30 - 4:45 pm, 327, David John Gagne, J16C.1 - Lessons Learned from Building Real-Time Machine Learning Testbeds for AI2ES,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/439848>
- 5:00-5:15 pm, 327, Andrew Justin, J16C.3 - An Improved Deep Learning Algorithm for Operational Detection of Frontal Boundaries,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/440124>
- 5:00-5:15 pm, 338, Melissa Wilson Reyes, 16B.3 - Generalized Visibility Estimation from Camera Images Using Deep Learning,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/439749>
- 5:15 PM - 5:30 PM, 327, Matthew Kastl, Semi-Automating Research-to-Operation of AI Models with Python,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/434255>
- 5:30-5:45 pm , 345/346, Noah Brenowitz (NVIDIA), Regional Down-Scaling with Generative Diffusion Models,
<https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/439937>