Day	Time of Talk (EST)	Symposium	Session	Title	Author	Link to programs
Monday	9:30-9:45AM	12th Conference on Transition of Reaserch to Operations	1.B.1	NOAA's Investment and Vision for the Unified Forecast System Research to Operations (UFS-R2O) Project: A Programmatic Overview	Sims et. al	[Link to program]()
Monday	9:45-10:00AM	12th Conference on Transition of Reaserch to Operations	1.B.2	One Year into the Unified Forecast System Research to Operations (UFS-R2O) Project: Accelerating the Development of the Community-Based Earth-Modeling System for Research and Operations	Tallapragada et.. al	[Link to program]()
Monday	10:00-10:15AM	12th Conference on Transition of Reaserch to Operations	1.B.3	The Impact of SST Biases on the S2S Forecast Skill of the UFS Coupled Model	Stan et. al	[Link to program]()
Monday	10:15-10:30AM	12th Conference on Transition of Reaserch to Operations	1.B.4	Development of Fully Coupled UFS-Based Subseasonal-to-Seasonal Prototypes	Mehra et. al	[Link to program]()
Monday	10:30-10:45AM	31st conference on Weather Analysis and Forecasting (WAF) /27th Conference on NWP	1.B.5	Highlights from a Year of Continued Development of the Rapid Refresh Forecast System (RRFS)	Carley, Alexander	[Link to program]()
Monday	10:30-10:45AM	12th Conference on Transition of Reaserch to Operations	1.B.5	On the Development and Evaluation of Atmospheric Model Physics for the Unified Forecast System Applications across Scales	Yang et. al	[Link to program]()
Monday	10:45-11:00AM	12th Conference on Transition of Reaserch to Operations	1.B.6	Management and Governance of the Unified Forecast System Research to Operations (UFS-R2O) Project	Adimi et. al	[Link to program]()
Moday	11:45-12:00PM	12th Conference on Transition of Reaserch to Operations	J2B.1	The Next Steps in Developing the Innovation to Operations (I2O) Process for the Unified Forecast System (UFS)	Tolman et. al	[Link to program]()
Monday	12:00-12:15PM	12th Conference on Transition of Reaserch to Operations	J2B.2	The Earth Prediction Innovation Center: History, Present, and Future	Huang et. al	[Link to program]()
Monday	12:00-12:15PM	27th Conference on Probability and Statistics	J2.2	Development and Planning of the new Environmental Modeling Center Verification System (EVS)	Levit et. al	[Link to program]()
Monday	12:15-12:30PM	12th Conference on Transition of Reaserch to Operations	J2B.3	Unified Forecast System (UFS) Land Modeling Workshop	Upadhayay et. al	[Link to program]()
Moday	12:30-12:45PM	12th Conference on Transition of Reaserch to Operations	J2B.4	Transitioning WRF-SFIRE Fire Modeling and Data Assimilation to the Unified Forecast System	Hilburn et. al	[Link to program]()
Monday	12:45-1:00PM	12th Conference on Transition of Reaserch to Operations	J2B.5	Updates on Leveraging Community-Based Modeling for Operational Weather Prediction	Gross	[Link to program]()

Day	Time of Talk (EST)	Symposium	Session	Title	Author	Link to programs
Monday	12:45-1:00PM	10th Symposium on Building a Weather-Ready Nation	2.5	Hurricane Forecast Improvement Program (HFIP): Programmatic Updates	Jung et al.	Link to program
Monday	1:15-2:15PM	Town Hall Meeting: NOAA's Weather Program Office	TH	NOAA's Weather Program Office: Transitioning Weather Research into Operations to Save Lives, Reduce Property Damage, and Enhance the National Economy	Koch et al.	Link to program
Monday	2:30-4:00 PM	31st conference on Weather Analysis and Forecasting (WAF) /27th Conference on NWP	J3	Honoring the Life, Legacy and Accomplishments of William "Bill" Lapenta	Presentations by: Jediovec, Carlis, Farrar, Jacobs, Koch, Rabier	Link to program
Monday	2:30-2:45PM	12th Conference on Transition of Reaserch to Operations	3B.1	Model Infrastructure Development in UFS	Wang et. al	Link to program
Monday	2:45-3:00PM	12th Conference on Transition of Reaserch to Operations	3B.2	The Unified Forecast System (UFS) Short-Range Weather (SRW) Application and Workflow	Ketefian et. al	Link to program
Monday	3:00-3:15PM	12th Conference on Transition of Reaserch to Operations	3B.3	Near-Real-Time Global Aerosol Data Assimilation and Forecasting Using the JEDI-Based Data Assimilation System and the CCPP Version of the GEFS-Aerosols Model at NOAA/OAR/GSL	Haung et. al	Link to program
Monday	3:00-3:15PM	26th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS)	3.3	Doppler radial wind assimilation in the GFS with an observing system simulation experiment	Lippi et al.	Link to program
Monday	3:15-3:30PM	12th Conference on Transition of Reaserch to Operations	3B.4	RRFS Dynamic Downscaling in 3DRTMA	Gibbs et. al	Link to program
Monday	3:15-3:30PM	20th Symposium on the Coastal Environment	3.4	Wind analysis and validation challenges of land falling storms for NOAA's Coastal-Act Project	Shrestha et al.	Link to program
Monday	3:30-3:45PM	12th Conference on Transition of Reaserch to Operations	3B.5	Progress toward the Implementation of NOAA's 3D-RTMA in the UFS-R2O Project	Pondeca et. al	Link to program
Monday	3:30-3:45PM	20th Symposium on the Coastal Environment	3.5	The (Parcel-Scale) Wind Downscaling for NOAA's Coastal-Act Project: Hurricane Michael (2018) and Irma (2017)	Kumar et al.	Link to program
Monday	2:45-3:00PM	24th Conference on Atmospheric Chemistry	3A.2	Air quality and atmospheric composition development at NOAA for the Unified Forecast System	Stajner et al.	Link to program

Day	Time of Talk (EST)	Symposium	Session	Title	Author	Link to programs
Monday	3:30-3:45PM	10th Symposium on the Weather, Water, and Climate Enterprise	J3.5	The Assimilation of Web Camera Derived Estimates of Horizontal Visibility in NOAA's RTMA	Carley et al.	Link to program
Monday	3:45-4:00PM	12th Conference on Transition of Reaserch to Operations	3B.6	A New Approach to Building the Next-Generation Hurricane Analysis and Forecast System (HAFS)	Zhang et. al	Link to program
Monday	3:45-4:00PM	20th Symposium on the Coastal Environment	3.6	Coupled hurricane storm surge and wave hindcasts with blended wind forcing	van der Westhuysen	Link to program
Monday	5:30-5:45PM	14th Symposium on Aerosol–Cloud–Climate Interactions	4B.3	Direct Effect of Aerosols on Numerical Weather Forecast: A Comparison of Two Aerosol Datasets in the NCEP GFS	Cheng et al.	Link to program
Monday	6:00-7:30PM	Poster Session	44	Data assimilation cycling strategy for the Rapid Refresh Forecast System	Liu et al.	Link to program
Monday	6:00-7:30PM	Poster Session	224	Adjoint observation impact computations for aviation applications in the RTMA	Zhao et al.	Link to program
Tuesday	9:30-9:45AM	22nd Joint Conference on the Applications of Air Pollution Meteorology with the A&WMA	5.1	National Air Quality Forecast Capability operational updates: Air Quality model Version 6	Jung et al.	Link to program
Tuesday	9:45-10:00AM	22nd Joint Conference on the Applications of Air Pollution Meteorology with the A&WMA	5.2	Development and evaluation of the RRFS/CMAQ inline system at NOAA	Huang et al.	Link to program
Tuesday	9:45-10:00AM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	5B.2	Physics Development in the RRFS Using Extensive 3D Diagnostics	Aligo et al.	Link to program
Tuesday	9:45-10:00AM	Eighth Symposium on High Performance Computing for Weather, Water, and Climate	5.2	Optimization and Prototyping the Rapid Refresh Forecast System (RRFS) with Cloud HPC	Panda et al.	Link to program
Tuesday	10:15-10:30AM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	5A.4	Subseasonal Predictions in NCEP/EMC Coupled Modeling System: Impact of Updating Model Physics and Initial Conditions	Stefanova et al.	Link to program
Tuesday	12:30-12:45PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	6A.4	Neural Network–Based Postprocessing for GEFSv12 Reforecast Products and Intercomparision with Existing Calibration Methods	Nageswararao et al.	Link to program

Day	Time of Talk (EST)	Symposium	Session	Title	Author	Link to programs
Tuesday	12:45-1:00PM	21st Conference on Artificial Intelligence for Environmental Science	7A.2	Shallow Neural Network-based Emulator of Long Wave Radiative Transfer Parameterization in NCEP Global Ensemble Forecast System	Belochitski et al.	Link to program
Tuesday	3:15-3:30PM	27th Conference on Probability and Statistics	J7.4	Toward optimum stochastic perturbations for a fully coupled Global Ensemble Forecast System	Fu et al.	Link to program
Tuesday	3:30-3:45PM	12th Conference on Transition of Reaserch to Operations	JB.5	An evaluation of storm-relevant, subhourly 3D-RTMA analysis fields during the 2021 Hazardous Weather Testbed Spring Forecasting Experiment	Colon et al.	Link to program
Tuesday	4:45-5:00PM	26th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS)	8A.1	Evaluation of JEDI Unified Forward Operator for Use in NCEP's Global Data Assimilation System	Martin et al.	Link to program
Tuesday	5:00-5:15PM	12th Conference on Transition of Research to Operations	8B.2	Enhancing Community UFS Land Model Development Through Hierarchical Testing	Barlage et al.	Link to program
Tuesday	5:15-5:30PM	36th Conference on Hydrology	8B.3	JEDI application in Assimilation and Evaluation of GTS Synoptic Snow Depth Observations into NCEP Operational FV3GFS System	Dong et al.	Link to program
Wednesday	8:00-9:15AM	Town Hall Meeting	Town Hall Mtg	UFS Community Modeling Forum	Alves, Jacobs	Link to program
Wednesday	9:30-9:45AM	Eighth Symposium on High Performance Computing for Weather, Water, and Climate	J9.1	EPIC: Enabling and Accelerating Cloud Innovation	Kumar et. al	Link to program
Wednesday	9:30-9:45AM	26th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS)	9.1.	Future Plans for NCEP Global Data Assimilation: 2023 and Beyond	Thomas et al.	Link to program
Wednesday	9:45-10:00AM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J9.2	Migrating the UFS Graduate Student Tests to the Cloud	Ephraim et al.	Link to program
Wednesday	9:45-10:00AM	26th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS)	9.2	NCEP Operational Global Data Assimilation: Recent Upgrades and Future Plans	Liu et al.	Link to program

Day	Time of Talk (EST)	Symposium	Session	Title	Author	Link to programs
Wednesday	10:00-10:15AM	12th Conference on Transition of Reaserch to Operations	9B.2	Transitioning UFS Applications for short-range forecasts to NOAA operations	Tolman	[Link to program](#)
Wednesday	10:00-10:15AM	First Symposium on Earth Prediction Innovation and Community Modeling	J9.3	Porting the FV3GFS Global Workflow to Relatively Small and Legacy Clusters	Huber et. al	[Link to program](#)
Wednesday	10:00-10:15AM	36th Conference on Hydrology	9B.3	Development of IODA Converters in Support of JEDI Land Data Assimilation Activities	Xia et al.	[Link to program](#)
Wednesday	10:15-10:30AM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J9.4	Continuous Integration/Continuous Delivery and Related Enabling Technologies and Processes for EPIC	Miller et. al	[Link to program](#)
Wednesday	10:30-10:45AM	First Symposium on Earth Prediction Innovation and Community Modeling	J9.5	Progress Toward Accelerating the Unified Model on Hybrid Multicore Systems	Zhang et. al	[Link to program](#)
Wednesday	10:30-10:45AM	12th Conference on Transition of Reaserch to Operations	9B.4	Engaging Forecast Community in the Unified Forecast System (UFS) Research and Development	Sims et. al	[Link to program](#)
Wednesday	10:45-11:00AM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J9.6	Evolving the NOAA Production Suite on Available Compute Resources: A Tool to Assess What Is Feasible	Tolman et. al	[Link to program](#)
Wednesday	11:45-12:00PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J10.1	The NOAA Modeling Board: Advancing Coordination of NOAA Modeling for Improved Community Partnerships	Dubots et. al	[Link to program](#)
Wednesday	11:45-1:00PM	12th Conference on Transition of Reaserch to Operations	10B	Advances in R2O and O2R in Analysis and Short-Term Forecasting that Link Research and Operations to Forecasters' Needs. Part II: Modeling	Tolman et. al	[Link to program](#)
Wednesday	12:00-12:15PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J10.2	The EPIC Community Center and Research Community Engagement	Miller et. al	[Link to program](#)
Wednesday	12:15-12:30PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J10.3	An EPIC Dive into Social Science: An Analysis of the Community Aspects of Community Modeling	Michaud et. al	[Link to program](#)

Day	Time of Talk (EST)	Symposium	Session	Title	Author	Link to programs
Wednesday	12:15-12:30PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	10.3	NCEP Ensemble Sensitivity Tool for Atmospheric River Reconnaissance Flight Planning	Wu et al.	[Link to program](#)
Wednesday	12:30-12:45PM	12th Conference on Transition of Reaserch to Operations	10B.4	Continued Development and Testing of an Automated Quality Control Package for Surface Observations in 3D-RTMA	Morris et al.	[Link to program](#)
Wednesday	12:30-12:45PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J10.4	The Unified Forecast System: Designing a New Commons across Old Divides	Jasko	[Link to program](#)
Wednesday	12:45-1:00PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J10.5	Community Involvement in the Development of the Unified Forecast System for S2S Applications at NOAA EMC	Meixner et. al	[Link to program](#)
Wednesday	1:15-2:15PM	Town Hall Meeting	Town Hall Mtg	Linking the Field Forecasting Needs to the Solutions in the Analysis and Short-Term Forecast Range through the Requirements of the National Weather Service	Kim, Hendrik et al.	[Link to program](#)
Wednesday	2:30-2:45PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J11.1	Coordinating the Giant: The Earth Prediction Innovation Center	Haung et. al	[Link to program](#)
Wednesday	2:45-3:00PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J11.2	The Earth Prediction Innovation Center (EPIC) and Community Modeling: An Open-Innovation Framework to Improve Operational Weather Forecasting	Alves et. al	[Link to program](#)
Wednesday	3:00-3:15PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J11.3	Improving the Research-to-Operations and Operations-to-Research (R2O2R) Process for Earth System Model Development via Hierarchical System Development (HSD)	Ek et. al	[Link to program](#)
Wednesday	3:00-3:15PM	12th Conference on Transition of Research to Operations	11B.3	Evaluation of the prototype Rapid Refresh Forecast System (RRFS) ensemble forecasts with cloud high performance computing (HPC) at NOAA testbeds	Dong et al.	[Link to program](#)

Day	Time of Talk (EST)	Symposium	Session	Title	Author	Link to programs
Wednesday	3:15-3:30PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J11.4	The Common Community Physics Package: Enabling Atmospheric Physics Development for Research and Operations	Heinzeller et. al	[Link to program](#)
Wednesday	3:30-3:45PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J11.5	A Community Effort to Unify Verification and Validation Efforts: A Report on the DTC UFS Community Metrics Workshop	Jensen et. al	[Link to program](#)
Wednesday	3:45-4:00PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J11.6	Toward a Collaborative Unified Workflow Solution for UFS Applications	Cash et al.	[Link to program](#)
Wednesday	4:45-5:00PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J12.1	Importance of Community Modeling to Accelerate Innovation: Government Perspective (Core Science Keynote)	Erickson	[Link to program](#)
Wednesday	5:00-5:15PM	26th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS)	12.2	Comparison of two methods for generating multigrid beta filter covariance operators for data assimilation in the RTMA	Purser et al.	[Link to program](#)
Wednesday	5:30-5:45PM	12th Conference on Transition of Research to Operations	12A.4.	Improving NCEP GEFS for Subseasonal Forecasts	Zhu et al.	[Link to program](#)
Wednesday	5:30-5:45PM	26th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS)	12.4	Implementation and Performance of the Multigrid Beta Filter (MGBF) in GSI and JEDI	Rancic et al.	[Link to program](#)
Wednesday	6:00-7:30PM	Poster Session	465	Thompson Microphysics in the NOAA Unified Forecast System	Sun et al.	[Link to program](#)
Wednesday	6:00-7:30PM	Poster Session	466	Statistical Analysis for WAVEWATCH III Model Optimization Tools	Campbell et al.	[Link to program](#)
Wednesday	6:00-7:30PM	Poster Session	467	Operational Atmospheric Composition Modeling at NWS/NCEP	McQueen et al.	[Link to program](#)
Wednesday	6:00-7:30PM	Poster Session	477	Evaluation of vertical resolutions in the Rapid Refresh Forecast System (RRFS)	Dong et al.	[Link to program](#)

Day	Time of Talk (EST)	Symposium	Session	Title	Author	Link to programs
Wednesday	6:00-7:30PM	Poster Session	491	An Examination of Case Studies toward Refining RRFS Vertical Level Resolution	Aligo et al.	[Link to program](#)
Wednesday	6:00-7:30PM	Poster Session	492	Sensitivity of TC Simulations with Regional HAFS to Mixing Length in the GFS TKE-EDMF PBL Scheme	Wang et al.	[Link to program](#)
Thursday	11:45-12:00PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	14A.1	Atmospheric River Analysis and Forecast System (AR-AFS): A New High Resolution Regional Model for Northeast Pacific and Western North America	Wu et al.	[Link to program](#)
Thursday	12:00-12:15PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	14A.2	Impact of Atmospheric River Reconnaissance Observations on the NCEP Operational Global Forecast System	Tallapragada et al.	[Link to program](#)
Thursday	1:15-2:15 PM	Town Hall Meeting		UFS R2O Project	Xue, Sims et al.	[Link to program](#)
Thursday	2:45-3:00 PM	21st Conference on Artificial Intelligence for Environmental Science	15.2	Plans for Application of ML/AI within Real Time Mesoscale Analysis (RTMA) Project	Rancic et al.	[Link to program](#)
Thursday	3:15-3:30PM	12th Conference on Transition of Research to Operations	15B.4	Advancement of Hurricane Analysis and Forecast System: Plan, Configuration, and Real-time Experiments	Zhang et al.	[Link to program](#)
Thursday	3:30-3:45PM	12th Conference on Transition of Research to Operations	15B.5	A Regional Atmosphere-Ocean Coupled HAFS for Tropical Cyclone Forecasting	Liu et al.	[Link to program](#)
Thursday	5:45-6:00PM	31st Conference on Weather Analysis and Forecasting (WAF) /27th Conference on Numerical Weather Prediction (NWP)	J16A.5	A Statistical Analysis of High Frequency Track and Intensity Forecasts from NOAA's Operational Hurricane Weather Research and Forecast (HWRF) Modeling System	Zhang et al.	[Link to program](#)