

OWP IS AT AGU24

2024 FALL MEETING

December 9–13

Washington, D.C. & Everywhere Online

TOWN HALL

December 11, 2024
6:00–7:00 pm EST

NOAA's National Water Center: Programmatic Update and Opportunities for Collaboration

Tom Graziano, Ed Clark, and Trey Flowers

<https://agu.confex.com/agu/agu24/meetingapp.cgi/Session/224661>

DECEMBER 9

H11N-0873 NOAA Efforts to Improve Predictions for Water Management in the Western U.S. in Response to Hydroclimatic Change

Fred Ogden • 8:30 am–12:20 pm EST • Poster •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1747726>

NH13C-2299 Enhancing Social Vulnerability Assessments to Wildfires Using the Built Environment Asset Registry (BEAR): Integrating Open Data for High-Resolution Analysis

Arash Rad • 1:40–5:40 pm EST • Poster •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1712322>

H13Q-07 NOAA Atlas 15 - Generating National Climate-Informed Precipitation Frequency Estimates

Janel Hanrahan • 3:12–3:22 pm EST • Oral •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1635141>

DECEMBER 10

H21C-01 Advancing NOAA National Water Model Operations with the NextGen Framework

Brian Cosgrove • 8:32–8:42 am EST • Oral •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1589741>

H21H-03 Locating and Developing Freshwater Inflows and Outflows for use in Coastal Modeling under the NextGen Water Resources Framework

Richard Gibbs • 8:36–8:39 am EST • e-Poster •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1648233>

H21H-06 Designing the NextGen Framework to Support Community Engagement

Donald Johnson • 8:45–8:48 am EST • e-Poster •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1676473>

H22C-05 Evaluating the Representation of NextGen Hydrofabric Sub-Basin Forcings Using NextGen Forcings Engine Regridding Methods

Jason Ducker • 11:02–11:12 am EST • Oral •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1735728>

H21C-05 Assessment of Calibration Model Performance within the NextGen Framework

Xia Feng • 9:12–9:22 am EST • Oral •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1598725>

H21H-04 Data and Compute Architecture for Effective Use of Cloud Computing to Perform Benchmark Applications of the NextGen Framework

Nels Frazier • 8:39–8:42 am EST • e-Poster •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1602056>

H21H-08 Leveraging the Distributed Model on Demand Platform to Work With Community Models in the Next Generation Water Resources Modeling Framework

Robert Bartel • 8:51–8:54 am EST • e-Poster •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1700414>

H21H-01 Improving Near Real-Time Operational Flood Inundation Mapping Capabilities through the use of Replace and Route

Tadd Bindas • 8:30–8:33 am EST • e-Poster •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1699282>

H21H-05 Integrating River Basins in the Multi-Agency HARBOR Collection with the NextGen Hydrofabric

Scott Peckham • 8:42–8:45 am EST • e-Poster •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1684625>

H22C-03 Recent Advances in Channel Routing for River Networks for the Next Generation National Water Model

Dong Ha Kim • 10:42–10:52 am EST • Oral •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1724554>

H23E-1042 Evaluating the Effectiveness of OSM Data in Enhancing HAND-Based Flood Inundation Mapping for Bridge Risk Assessment

Zahra Ghahremani • 1:40–5:30 pm EST • Poster •
<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1644738>



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PREDICTION

H23E-1045 High Resolution Flood Inundation Mapping Performance Evaluation and Impact Assessment
Emma Kaufman (LaPenta Intern) • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1569892>

H23Q-02 Coastal Model Integration in NWM NextGen Framework for Total Water Level Forecasting
Phillip Miller • 2:22–2:32 pm EST • Oral • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1604767>

H23Q-04 Optimizing Total Water Level Forecast Capability for the Great Lakes and Lake Champlain within the NextGen Water Resources Modeling Framework
Qi Shi • 2:42–2:52 pm EST • Oral • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1539672>

DECEMBER 11

H31L-0754 Optimizing D-Flow FM into the NextGen Framework for Improved Coastal Water Level Predictions: Lake Champlain Case Study
Soroush Sorourian • 8:30 am–12:20 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1632742>

H31L-0760 Evaluating Performance of A Multi-model Mosaic Calibrated in the Next Generation Water Resources Framework Against National Water Model Version 2.1
Benjamin Choat • 8:30am–12:20pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1677080>

H31L-0770 Evaluation of Hydrological Models in Low Runoff Ratio Regions: Next Generation Water Resources Modeling Framework vs National Water Model v3.0
Ahmad Jan Khattak • 8:30 am–12:20 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1625646>

H31L-0776 Implementing the Ensemble Streamflow PostProcessor (EnsPost) at U.S. National Weather Service River Forecast Centers to account for hydrologic uncertainty
David Dziubanski • 8:30 am–12:20 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1675637>

H32D-06 Depicting Probabilistic Flood Maps Using Ensemble Forecasts and Flood Inundation Model Uncertainty
Gregory Petrochenkov • 11:10–11:20 am EST • Oral • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1699433>

IN33B-2072 Establishing an Approach for A National Cross Section Database
Jim (James) Coll • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1734316>

H31L-0755 Evaluation of Alaska's Coastal Zone Total Water Level Modeling System Developed for the NextGen Water Resources Framework
Hassan Mashriqui • 8:30 am–12:20 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1542136>

H31L-0764 Enabling Community Contributions in Formulation Selection Decision Support for Continental Hydrologic Modeling
Guy Litt • 8:30 am–12:20 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1652661>

H31L-0771 Layered Green and Ampt Infiltration with Redistribution, with Talbot - Ogden Groundwater Bi-Directional Coupling
Peter La Follette • 8:30 am–12:20 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1596155>

H31L-0777 An Evaluation of the Conditional Bias-Penalized Regression (CBPR)-aided Meteorological Ensemble Forecast Processor (MEFP) for Hydrologic Ensemble Forecast Service (HEFS)
HakSu Lee • 8:30 am–12:20 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1670389>

IN33B Breaking Down Silos: Advancing Interoperability in Computational Hydrosciences Through Standardization Poster
Fred Ogden • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Session/229477>

IN33B-2073 Using Coding, Coupling and Data Standards to Speed Discovery in Computational Hydrosciences
Fred Ogden • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1734726>

H31L-0759 Exploring Calibration of NextGen Formulations Using Various Objective Functions and Optimization Algorithms
Yuqiong Liu • 8:30 am–12:20 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1642106>

H31L-0768 Quantifying and Communicating the Uncertainty of National Water Model Evaluation Metrics
Jason Regina • 8:30 am–12:20 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1567983>

H31L-0773 Migrating the Operational National Water Model to a Cloud Environment – Approaches and Lessons Learned
Zhengtao Cui • 8:30 am–12:20 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1672692>

H32D-03 Enhancing Flood Inundation Predictions: Integrating AI-Driven Bathymetric Data and Manning's Roughness Coefficients
Zahra Ghahremani • 10:40–10:50 am EST • Oral • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1637652>

IN33B-2066 Challenges in Establishing Evaluation Standards for R20 Decision-Making in Hydrology
Katie van Werkhoven • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1624874>

IN33B-2075 Hydrofabric Solutions for Operational Water Prediction: Improving Findability, Accessibility, Interoperability and Reuse for Varying Model Applications
Mike Johnson • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1742501>

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H53M-1275 Estimation of River Channel Shape Using Regression and Machine Learning Approaches
Riley McDermott (Pathways) • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1591883>

H54D-08 Machine Learning Techniques for Estimating River Channel Properties Nationwide
Arash Rad • 5:10–5:20 pm EST • Oral • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1710920>

H53M-1264 Comparative Analysis of Low-Complexity Flood Inundation Models for Dam Failure Scenarios: OWP HAND-FIM vs FLDPLN
Reza Saleh Alipour • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1746321>

H53M-1291 Sensitivity of Flood Inundation Mapping to Digital Elevation Data, Building Footprints, and Land Use/Land Cover
Reza Saleh Alipour • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1726900>

A536-2160 Identifying Atmospheric Rivers on the West Coast of the United States with Geostationary Operational Environmental Satellite Imagery
Anshul Yadav • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1683559>

Summer Institute Presentation Schedule

DECEMBER 9

H13F-1081 Probabilistic Streamflow Prediction Using the Model-Agnostic NextGen Framework
Reza Morovati • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1722018>

H13B-1030 Quantifying Snow Water Equivalent Predictive Capability Using GOES Visual and Infrared Imagery
Savalan Naser Neisary • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1596635>

DECEMBER 10

H21D-04 Integrating HLS and ICESat-2 Altimetry for High Temporal Reservoir Surface Area, Elevation and Storage Monitoring in the CONUS
Anshul Yadav • 9:05–9:15 am EST • Oral • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1682584>

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H51S-0978 Machine Learning Post-Processing Enhances National Water Model Accuracy in Watersheds with Extensive Water Infrastructure
Savalan Naser Neisary • 8:30 am–12:20 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1685651>

H51T-0993 Bankfull and Mean-flow Channel Geometry Estimation through a Hybrid Multi-Regression and Machine Learning Algorithms across the CONTiguous United States (CONUS)
Reihaneh Zarrabi • 8:30 am–12:20 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1623961>

H53M-1281 Rapid Inundation Mapping for Catastrophic Floods Due to Dam Failures and Operations
Shivakumar Balachandran • 1:40–5:30 pm EST • Poster • <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1682892>

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