

## **All-Hands Meeting**

August 15<sup>th</sup>, 2024 Silver Pavilion, UVM Alumni House, 61 Summit Street

8:30 am 9:00 am	Coffee and Registration Welcome and Opening Remarks
	Beverley Wemple, CIROH @ UVM institutional lead Kirk Dombrowski, UVM Vice President for Research
9:15am	Research overviews (12-minute presentations + 3-minute Q&A each)
	Applying Machine Learning to Address Water Forecasting Challenges and Opportunities – Kristen Underwood
	Operationalizing Impact Based Decision Support Services (IDSS) for Global Water Security – Asim Zia
	Behavioral dynamism and its implications for flood hazard response – Scott Merrill
	Understanding Differences Across Audiences to Improve Flood Communications – Anne Jefferson
	Scaling Cyberinfrastructure for Next Generation Water Prediction Systems - Patrick Clemins
	Using Open-Source Internet of Things Technologies to Improve Environmental Monitoring - Chris Skalka
10:45 am	Coffee, networking, and group photo
11:15am	Lightening talks (3 min each)
12:15 pm	Lunch and poster session
1:45 pm	Panel John Bumgarner, Director, USGS New England Water Science Center Alison Macneil, Development and Operations Hydrologist, NE River Forecast Center Jodi Ryder, Research Civil Engineer, US Army Corps of Engineers Max Kennedy, Planning Section Chief, Vermont Emergency Management
3:00 pm	Break
3:15 pm	Closing remarks Rebecca Ellis, Office of U.S. Senator Peter Welch
3:45-4:00 pm	Adjourn

## Lightening talks

- 1. Muhammad Adil
- 2. Rakshinda Bano
- 3. Panagiotis Oikonomou
- 4. Scott Turnbull
- 5. Mirce Morales-Velazquez
- 6. Ryan van der Heijden
- 7. Monireh Dehabadi
- 8. Scott Lawson
- 9. Stew Kabis
- 10. Thomas DiPietro
- 11. Garnet Williams
- 12. Tian Xia
- 13. Elizabeth Doran
- 14. Jessica Balerna
- 15. Ruth Quainoo
- 16. Masood Ali Khan
- 17. Chris Koliba

## Posters

1	AI Framework to Model Chlorophyll Concentrations Using Sentinel 2 Data in Inland Waters
	Across CONUS
	Muhammad Adil, Panagiotis D. Oikonomou, Donna M. Rizzo, Patrick J. Clemins, Andrew W.
	Schroth, Peter Isles, Safwan WShah, Asim Zia
2	3D Lake Model Calibration for HAB Forecasting
	Kareem I. Hannoun, Imad Hannoun, Asim Zia, Patrick J. Clemins, Scott Turnbull, Noah B. Beckage,
	Panagiotis Oikonomou, Muhammad Adil, Andrew W. Schroth, Donna M. Rizzo, Peter Isles
3	Forecast Skill Evaluation for a HABs Early Warning System in Lake Champlain
	Panagiotis D. Oikonomou, Patrick J. Clemins, Noah B. Beckage, Muhammad Adil, Scott Turnbull,
	Kareem Hannoun, Imad Hannoun, Andrew W. Schroth, Peter D. F. Isles, Rakhshinda Bano, Donna
	M. Rizzo, Asim Zia
4	Northeast Evaluation Testbed for National Water Model Applications
	Patrick Clemins, Asim Zia, Scott Turnbull, Noah Beckage, Mirce Morales-Velazquez, Scott Lawson,
	Panagiotis Olkonomou, Muhammad Adil, Andrew Schroth, Beverley Wemple, Rebecca Diehl, Eric
	Roy, Donna Rizzo
5	A Machine Learning Approach for Enhancing National Water Model Streamflow Forecasts in
	Montane Headwater Catchments
	Mirce Morales-Velazquez, Beverley Wemple, Donna M. Rizzo, John Kemper, Kristen Underwood,
	Jamie Shanley, Andrew Schroth
6	Forecasting Water Quality from National Water Model Output
	John Kemper, Kristen Underwood, Scott Hamshaw, Jamie Shanley, W. Dany Davis, Jason Siemion,
	Peter Isles, Andrew Schroth
7	Developing Novel Low-cost Spatially Distributed Sensors for Wireless and Real-time monitoring
	of nutrient loading in watersheds
	Monireh Dehabadi, Parmida Amngostar, Bazil Muhammed Sathar, Tian Xia, Carol Adair, Severin
	Schneebeli, Appala Raju Badireddy, Andrew Schroth

8	Incorporating Floodplain Topographic Features to Improve Channel Routing
	Scott Lawson, Juli Scamardo, Rebecca Diehl, Kristen Underwood, Pat Clemins, Beverley Wemple
9	Heterogeneous Channel Flow Routing and the Importance of Floodplain Morphology
	Stew Kabis, David Baude, Kehinde Ojasanya, Juli Scamardo, Scott Lawson, Kristen Underwood,
	Beverley Wemple, Rebecca Diehl
10	A National Public Survey on Flood Risk Perceptions, Mitigation Perceptions, and Disaster
	Response
	Jessica Balerna, Ruth Quainoo, Masood Ali Khan, Rodrigo Soares, Trisha Shrum, Scott Merrill,
	Asim Zia, Christopher Koliba, Molly Myers
11	Behavioral Dynamism: Examining How People Respond in Flood Hazard Emergencies
	Scott C. Merrill, Trisha Shrum, Chris Koliba, Rodrigo Soares, Ruth Quainoo, Jessica A. Balerna,
	Masood Ali Khan, Eric Clark, Molly Myers, Asim Zia, Brendan Fisher, Beverley Wemple
12	Audience Segmentation to Improve Flood Inundation Mapping: Engagement and Testing with
	Technical Users and Impacted Communities
	Anne Jefferson, Andrea Stumpf
13	Optimizing Flood Warning Information Sharing for Local Stakeholders through Science
	Communication Research
	Lakelyn Taylor, Elizabeth Doran, Anne Jefferson
14	Advancing Science to Better Characterize Drought and Groundwater-Driven Low-Flow Conditions
	in NOAA and USGS National-Scale Models
	Ryan van der Heijden, Ali Dadkhah, Amin Aghababaei, Xueyi Li, Eniola Webster-Esho, Patrick
	Clemins, Scott Hamshaw, Mandar Dewoolkar, Ehsan Ghazanfari, Prabhakar Clement, Norm
	Jones, Gustavious Williams, Donna M. Rizzo
15	Advancing CONUS-Scale Operational Snow Modeling Capabilities
	Thomas DiPietro, Katherine Hale, Beverley Wemple
16	Monitoring and Modeling Rain-Snow Dynamics Across an Elevational Gradient in a New England
	Montane Watershed
	Garnet Williams, Anna Grunes, Andrew Schroth, Carol Adair, Beverley Wemple, Arne Bomblies,
	Jamie Shanley
17	Detection of Rain on Snow Events and Precipitation Phase Partitioning using
	Environmental Audio Features
	Rachael Chertok, Julia Sober, Lars Jensen, Christian Skalka