

CIROH 1st Annual Training and Developers Conference 2023

Salt Lake City, Utah

Schedule [updated on May 10, 2023]

Pre-conference Field Trip (Monday, May 15)

Evening (5:30 pm to 8:30 pm) visit to Great Salt Lake educational activity and interactive points or hike to a scenic view spot, depending on weather and bug conditions.

Day 1 (Tuesday, May 16)

Time	Activity	Presenter(s)	Topic	Room
9:00 AM	Welcome Community update	Sagy Cohen, <i>CIROH Deputy Director</i> Steve Burian, <i>CIROH Executive Director</i> , <i>University of Alabama</i>	Introduction CIROH: Strengthening the water prediction research community	6200
9:30 AM	Plenary Keynote	Sara Larsen, <i>Deputy Director, Upper Colorado River Commission</i>	Data, Modeling, and Partnerships for a Resilient Colorado River	6200
9:50 AM	Plenary Keynote	Ed Clark, <i>Director, NOAA National Water Center</i>	Transforming NWS Hydrology Operations: Partnership with CIROH	6200
10:10 AM	Plenary Keynote	Katie Skalak, <i>Program Manager, USGS Integrated Water Prediction</i>	Advancing Multiscale Integrated Modeling for Prediction and Assessment of Water Availability: USGS Working with Community Partners	6200
10:30 AM	Coffee Break			
11:00 AM	Workshop (Nextgen Track)	Arpita Patel, <i>University of Alabama</i> Zach Wills, <i>Lynker</i>	NextGen for Beginners	6613
	Workshop (Decision Support Track)	Fernando Aristizabal, Carson Pruitt, <i>NOAA National Water Center</i>	Applying the National Weather Service's Flood Inundation Mapping Capabilities for Applications in Research and Development	6619
	Workshop (Data Science Track)	Tadd Bindas, Yalan Song, Chaopeng Shen, <i>Penn State University</i>	ML basics: Linear Regression and Recurrent Deep Networks for Hydrologic Applications – 1	6623*
	Workshop (Hydroinformatics Track)	Nathan Swain, <i>Aquaveo</i>	Scientific Web App Development with Tethys Platform – 1	6500
12:30 PM	Lunch		Buffet Lunch	
1:30 PM	Workshop (Nextgen Framework Track)	Mike Johnson, <i>NOAA National Water Center</i>	The NextGen Hydrofabric: What Is It, How to Get It, and How to Make Your Own?	6613*
	Workshop (Decision Support Track)	Scott Merrill, <i>University of Vermont</i>	Flood Hazard Crisis and Risk Communication: A Use-Centered Approach	6619
	Workshop (Data Science Track)	Tadd Bindas, Yalan Song, Chaopeng Shen, <i>Penn State University</i>	ML basics: Linear Regression and Recurrent Deep Networks for Hydrologic Applications – 2	6623
	Workshop (Hydroinformatics Track)	Nathan Swain, <i>Aquaveo</i>	Scientific Web App Development with Tethys Platform – 2	6500
3:00 PM	Coffee Break			
3:30 PM	Lightning Talks		2-minutes/1-slide presentations	6200
5:00-6:30 PM	Poster Session		Light refreshments	

Day 2 (Wednesday, May 17)

Time	Activity	Presenter(s)	Topic	Room
9:00 AM	Welcome	Sagy Cohen, <i>University of Alabama</i>		6200
9:10 AM	Plenary Keynote	Fred Ogden, Chief Scientist, <i>NOAA Office of Water Prediction</i>	Standards-Based Hydrologic and Hydraulic Model Interoperability Using the Next Generation Water Resources Modeling Framework	6200
9:30 AM	Plenary Keynote	Martyn Clark, <i>University of Saskatchewan</i>	Grand Challenges in Process-Based Hydrologic Modeling	6200
9:50 AM	Plenary Keynote	Grey Nearing, <i>Google</i>	Research-to-Operations for ML Flood Forecasting	6200
10:10	Plenary Keynote	Carson Pruitt, <i>NOAA National Water Center</i>	Office of Water Prediction Flood Inundation Mapping	6200
10:30 AM	Coffee Break			
11:00 AM	Workshop (Decision Support Track)	Louise Arnal, <i>University of Saskatchewan</i>	Science Communication: Draw Your Water Science	6500
	Workshop (Data Science Track)	David Tarboton, Jeff Horsburgh <i>Utah State University</i> Irene Garousi-Nejad, <i>CUAHSI</i>	HydroShare for CIROH	6613
	Workshop (Hydroinformatics Track)	Ibrahim Demir, <i>University of Iowa</i>	HydroLang: A Web-based Framework for Hydrological Research	6619
	Workshop (Beginner)	James Halgren, Ryan Johnson, Jeff Carver, <i>University of Alabama</i>	Software engineering for Hydrologic Science	6623
12:30 PM	Lunch		Buffet Lunch	
1:30 PM	Workshop (Nextgen Track)	Keith Jennings, <i>Lynker</i>	BMI Basics for Modeling with NextGen	6613
	Workshop (Decision Support Track)	Matt Denno, Katie van Werkhoven, <i>RTI</i>	Hands-On Demo of the CIROH Integrated Evaluation System Prototype	6619
	Workshop (Data Science Track)	Irene Garousi-Nejad, <i>CUAHSI</i> James Halgren, <i>U. of Alabama</i>	Preparing Data for NextGen-Based Simulations	6623*
	Breakout	Steve Burian, Jeff Carver, <i>University of Alabama</i>	Discussion of CIROH Training Needs for Students and Postdoctoral Researchers	6500
3:00 PM	Coffee Break	Group Photo		
3:30-4:15 PM	Big Data Session Introduction	<i>Google, AWS, Microsoft Azure</i>	Introduction of NWM Big Data for Big Cloud Demos	6200
4:15-5:30 PM	Big Data Session Demonstrations	<i>Google, AWS, Microsoft Azure</i>	Individual Demonstrations	TBD
5:30 PM (TBD)	Mixer for PIs and teams of CIROH's USGS Funded Projects		USGS-funded CIROH project PIs and teams meet with USGS personnel. Location TBD.	

Day 3 (Thursday, May 18)

Time	Activity	Presenter(s)	Topic	Room
9:00 AM	Welcome	Steve Burian, CIROH Executive Director, <i>University of Alabama</i>		6200
9:10 AM	Plenary Keynote	John Lhotak, <i>Colorado Basin River Forecast Center</i>	Operational water supply forecasting in the western U.S.	6200
9:30 AM	Plenary Keynote	Wanyun (Abby) Shao, <i>University of Alabama</i>	Research at the Intersection of Flood Hazards, Community Vulnerability and Risk Decision Making	6200
9:50 AM	Plenary Keynote	Kristin Raub, <i>CUAHSI</i>	The Power of Talking to People: Catalyzing the Role of Hydrology in Resilience Planning Through Community Engagement	6200
10:10 AM	Student Developer Awardee	Tadd Bindas, <i>Penn State University</i>	Improving large-basin river routing using a differentiable Muskingum-Cunge model and physics-informed machine learning.	6200
10:30 AM	Coffee Break			
11:00 AM	Workshop (Nextgen Track)	Arpita Patel, <i>University of Alabama</i> Zach Wills, <i>Lynker</i>	NextGen for Beginners (Repeat from Day 1)	6613*
	Workshop (Teaching and Learning)	Emad Habib, <i>University of Louisiana</i> Melissa Gallagher, <i>University of Houston</i>	HydroLearn – Advancing the Development of Hydrologic Prediction Course Materials – 1	6623
	Workshop (Hydroinformatics Track)	Ibrahim Demir, <i>University of Iowa</i>	HydroCompute: A Web-Based Parallel Computation Framework for Hydrological Analysis	6619
12:30 PM	Lunch		Box Lunch	
1:30 PM	Workshop (Decision Support Track)	Fernando Aristizabal, Carson Pruitt, <i>NOAA National Water Center</i>	Applying the National Weather Service's Flood Inundation Mapping Capabilities for Applications in Research and Development (Repeat from Day 1)	6619*
	Workshop (Science Communication)	Joanna Krajewski and Witold Krajewski, <i>University of Iowa</i>	Presenting to the Press and Stakeholders	6500
	Workshop (Teaching and Learning)	Emad Habib, <i>University of Louisiana</i> , Melissa Gallagher, <i>University of Houston</i>	HydroLearn – Advancing the Development of Hydrologic Prediction Course Materials – 2	6623
	Workshop (Nextgen Framework Track)	Mike Johnson, <i>NOAA National Water Center</i>	The NextGen Hydrofabric: What Is It, How to Get It, and How to Make Your Own? (Repeat from Day 1)	6613
3:00 PM	Short Coffee Break			
3:15–4 PM	Roundtable	Louise Arnal, <i>University of Saskatchewan</i> and Ryan Johnson, <i>University of Alabama</i>	Forming the CIROH Early Career Scientists Group	6613
	Roundtable	Steve Burian, Sagy Cohen, <i>University of Alabama</i>	Planning Brainstorm for future Developers Conference and other Training Opportunities	6623
4-4:15 PM	Closing remarks	Sagy Cohen, <i>University of Alabama</i>		