

CIROH 1st Annual Training and Developers Conference 2023

Salt Lake City, Utah

Draft Schedule [April 3, 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
9:00 AM	Welcome Community update	Sagy Cohen, <i>CIROH Deputy Director, University of Alabama</i> Steve Burian, <i>CIROH Executive Director, University of Alabama</i>	Introduction CIROH: Strengthening the water prediction research community
9:30 AM	Plenary Keynote	Sara Larsen, <i>Deputy Director, Upper Colorado River Commission</i>	Data, Modeling, and Partnerships for a Resilient Colorado River
9:50 AM	Plenary Keynote	Ed Clark, <i>Director, NOAA National Water Center</i>	Transforming NWS Hydrology Operations: Partnership with CIROH
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
10:30 AM	Coffee Break		
11:00 AM	Workshop (Nextgen Framework Track)	Arpita Patel, <i>University of Alabama</i>	NextGen for Beginners
	Workshop (Decision Support Track)	Fernando Aristizabal, Carson Pruitt, Fernando Salas, <i>NOAA National Water Center</i>	Applying the National Weather Service's Flood Inundation Mapping Capabilities for Applications in Research and Development
	Workshop (Data Science Track)	Chaopeng Shen, Tadd Bindas, <i>Penn State University</i>	ML basics: Linear Regression and Recurrent Deep Networks for Hydrologic Applications - 1
	Workshop (Hydroinformatics Track)	Nathan Swain, <i>Aquaveo</i>	Scientific Web App Development with Tethys Platform - 1
12:30 PM	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?
	Workshop (Decision Support Track)	Scott Merrill, <i>University of Vermont</i>	Flood Hazard Crisis and Risk Communication: A Use-Centered Approach
	Workshop (Data Science Track)	Chaopeng Shen, Tadd Bindas, <i>Penn State University</i>	ML basics: Linear Regression and Recurrent Deep Networks for Hydrologic Applications - 2
	Workshop (Hydroinformatics Track)	Nathan Swain, <i>Aquaveo</i>	Scientific Web App Development with Tethys Platform - 2
3:00 PM	Coffee Break		
3:30-4:30 PM	Lightning Talks	TBD	
4:30-6:00 PM	Poster Session	TBD	

Day 2 (Wednesday, May 17)

Time	Activity	Presenter(s)	Topic
9:00 AM	Welcome	Sagy Cohen, <i>University of Alabama</i>	

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
9:30 AM	Plenary Keynote	Martyn Clark, <i>University of Saskatchewan</i>	Grand Challenges in Process-Based Hydrologic Modeling
9:50 AM	Plenary Keynote	Grey Nearing, <i>Google</i>	Research-to-Operations for ML Flood Forecasting
10:10	Plenary Keynote	Fernando Salas, <i>NOAA National Water Center</i>	Office of Water Prediction Flood Inundation Mapping
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
	Workshop (Nextgen Framework Track)	Keith Jennings, <i>Lynker</i>	BMI Basics for Modeling with NextGen - 1
	Workshop (Data Science Track)	David Tarboton, <i>Utah State University</i>	HydroShare for CIROH
	Workshop (Hydroinformatics Track)	Ibrahim Demir, <i>University of Iowa</i>	HydroLang: A Web-based Framework for Hydrological Research
	Workshop (Beginner)	James Halgren, Ryan Johnson, Jeff Carver, <i>University of Alabama</i>	Software engineering for Hydrologic Science
12:30 PM	Lunch		
1:30 PM	Workshop (Nextgen Framework Track)	Keith Jennings, Lynker	BMI Basics for Modeling with NextGen - 2
	Workshop (Decision Support Track)	Matt Denno, Katie van Werkhoven, <i>RTI</i>	Hands-On Demo of the CIROH Integrated Evaluation System Prototype
	Workshop (Data Science Track)	Irene Garousi-Nejad, <i>CUAHSI</i> and James Halgren, <i>University of Alabama</i>	Preparing Data for NextGen-Based Simulations
	Workshop (Hydroinformatics Track)	Ibrahim Demir, <i>University of Iowa</i>	HydroCompute: A Web-Based Parallel Computation Framework for Hydrological Analysis
3:00 PM	Coffee Break	Group Photo	
3:30-4:15 PM	Big Data Session Introduction	<i>Google, AWS, Microsoft Azure</i>	Introduction of Big Data for Big Cloud Demos
4:15-5:30 PM	Big Data Session Demonstrations	<i>Google, AWS, Microsoft Azure</i>	Individual Demonstrations
5:30 PM (TBC)	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
9:00 AM	Welcome	Steve Burian, CIROH Executive Director, <i>University of Alabama</i>	
9:10 AM	Plenary Keynote	John Lhotak, <i>Colorado Basin River Forecast Center</i>	TBD
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
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
10:10 AM	Plenary Keynote	Student Developer Awardee	TBD
10:30 AM	Coffee Break		
11:00 AM	Workshop (Science Communication)	Joanna Krajewski and Witold Krajewski, <i>University of Iowa</i>	Presenting to the Press and Stakeholders - 1
	Workshop (Teaching and Learning)	Emad Habib, <i>University of Louisiana, Lafayette</i> , Melissa Gallagher, <i>University of Houston</i>	HydroLearn – Advancing the Development of Hydrologic Prediction Course Materials - 1
	Breakout	Louise Arnal, <i>University of Saskatchewan</i> and Ryan Johnson, <i>University of Alabama</i>	Forming the CIROH Early Career Scientists Group
	Breakout	Steve Burian, Jeff Carver, <i>University of Alabama</i>	Discussion of CIROH Training Needs for Students and Postdoctoral Researchers
12:30 PM	Lunch		
1:30 PM	Workshop (Science Communication)	Joanna Krajewski and Witold Krajewski, <i>University of Iowa</i>	Presenting to the Press and Stakeholders - 2
	Workshop (Teaching and Learning)	Emad Habib, <i>University of Louisiana, Lafayette</i> , Melissa Gallagher, <i>University of Houston</i>	HydroLearn – Advancing the Development of Hydrologic Prediction Course Materials - 2
	Breakout	Sagy Cohen, <i>University of Alabama</i>	Planning Brainstorm for CIROH Developers Conference 2024
	Breakout	Steve Burian, <i>University of Alabama</i>	Planning Brainstorm for future CIROH Student Activities
3:00 PM	Closing remarks	Sagy Cohen, Deputy Director, CIROH, <i>University of Alabama</i>	Distribute Certificates