

Conference on Innovations in Climate Resilience

March 29-30, 2022 | Columbus, Ohio

CALL FOR ABSTRACTS

Join the community working to address changes in our climate. Share your innovations during our curated technical program featuring poster presentations and platform and lightning talks.

[Submit Your Abstract Today](#)



battelle.org/climateconf
#Climate22

Technical Program Overview

The curated technical program will explore breakthroughs in technology, policy and infrastructure that will help mitigate the existential threats that climate change poses to our environment, health, communities, national security and economic well-being. Climate resilience is focused on developing solutions to climate change. This includes innovations that reduce the impacts of climate change by restoring our ecosystems, by enabling adaptation of our built infrastructure and societies or by dramatically reducing the trajectory of causative factors.

The technical program will be conducted Tuesday, March 29, through Wednesday, March 30, with invited keynote presentations, platform talks and lightning talks during the day and a poster reception Tuesday evening.

Submit an Abstract

Due to the enthusiastic response to our initial Call for Abstracts, we are allowing people to submit additional abstracts for this important conference. However, there is limited capacity so please submit as soon as possible.

The program will emphasize field applications, case studies, technology solutions and test beds, but submissions on fundamental research and modeling studies are also encouraged. The technical program will be organized around the following major themes:

- International Climate Risk Analysis and National Security
- Resilient Infrastructure: Energy, Water, Communications, Transportation, and Building
- Nexus of Resilience and Ecosystem Restoration: Carbon Capture, Circular Economy, Water, and Land
- Health Resilience, Risks, and Interventions
- Innovations in Climate Resilient Food and Agriculture

See page 4 for the anticipated scope of the technical program and page 5 for information on preparing and submitting an abstract.

Technical Program Committee

Conference Chairs

Amy Heintz
Technical Fellow, Battelle

Justin Sanchez
Technical Fellow, Battelle

Steering Committee

Andrew Bochman
Senior Grid Strategist, Idaho National Lab

Jill Brandenberger
Climate Security Program Manager, Pacific Northwest National Lab

George Crabtree
Senior Scientist and Distinguished Fellow, Argonne National Lab

Jill Engel-Cox
Director of the Joint Institute for Strategic Energy Analysis, National Renewable Energy Lab

Marti Head
Director of the Joint Institute for Biological Sciences, Oak Ridge National Lab

Eliza Hotchkiss
Senior Resilience Analyst, National Renewable Energy Lab

Cristina Negri
Director of the Environmental Science (EVS) Division, Argonne National Lab

Seth Snyder
Director of the Clean Energy & Transportation Division, Idaho National Lab

Dawn Wellman
Director of the Earth Systems Science Division, Pacific Northwest National Lab

Stan Wullschleger
Associate Lab Director, Oak Ridge National Lab

Confirmed Speakers



Brent Constantz
Founder and CEO, Blue Planet



Sherri Goodman
Former Deputy Undersecretary of Defense (Environmental Security)



Alice Hill
Senior Fellow for Energy and the Environment, Council on Foreign Relations



Eric Hoek
Professor, UCLA, Department of Civil & Environmental Engineering and the Institute of the Environment & Sustainability



Alexandra Isern
Assistant Director, Directorate for Geosciences, National Science Foundation



Richard Kidd
Deputy Assistant Secretary of Defense (Environment & Energy Resilience),
Office of the Assistant Secretary of Defense (Sustainment)

Other Invited Speakers

Sally Benson
Family Professor, Stanford University, Department of Energy Resources Engineering in the School of Earth, Energy & Environmental Sciences

Katharine Hayhoe
Professor, Texas Tech University and Chief Scientist, The Nature Conservancy

Gina McCarthy
White House National Climate Advisor

Eric Lander
Director, Office of Science and Technology Policy

Melanie Nakagawa
Senior Director for Climate and Energy, National Security Council

Kathleen White
Federal Co-Chair, U.S. Army Corps of Engineers

Technical Program Scope

Examples of anticipated presentation topics are listed below. The list is numbered to provide an easy means of referencing these topics when submitting your abstract through the online submittal form; see the “Abstract Submission” paragraph on page 5.

This is not a list of sessions, nor is it a comprehensive list of topics. Abstracts are welcome on all relevant topics within the focus of climate change.

International Climate Risk Analysis and National Security

Risk assessment models and their translation into decision making and policy.

- 1a. Translation of climate and multi-sector models into decision making.
- 1b. Geopolitical impacts of climate risk including change in population centroid due to migration and impact on supply chain, energy and communication infrastructure, and economic security.
- 1c. Geoengineering approaches to reduce uncertainty in ecological and security risks.
- 1d. Novel approaches for supply chain resilience to counter extreme weather and climate-related events.
- 1e. Case studies that prioritize infrastructure resilience policies and actions based on consequence.

Resilient Infrastructure: Energy, Water, Communications, Transportation, and Building

Resilience strategies for assessing risk; supporting decisions; or adapting, hardening, or reducing the impact of built infrastructure.

- 2a. Integrated, multi-scale energy-climate-water modeling for mid- and long-term planning, including real-time and near-term operational predictions of extreme events.
- 2b. Approaches that co-optimize decarbonization and climate resilience, including in industrial processes.
- 2c. New societal solutions for mobility.
- 2d. Novel designs, materials, and integration for adaptive or hardened buildings and infrastructure.
- 2e. Case studies and test beds for monitoring vulnerability and the cascading impacts of sequential and multiple events on resilience.

Nexus of Resilience and Ecosystem Restoration: Carbon Capture, Circular Economy, Water, and Land

Strategies to adapt to climate change by developing technologies that restore air, water and land and co-optimize the impact of built environment.

- 3a. Lifecycle and economic analyses of carbon capture, water purification, and ecosystem restoration.
- 3b. Technologies to enable circular economy and efficient recovery of materials including CO₂.
- 3c. New approaches to solid waste management infrastructure to address emission issues caused by open dumps and open burning.
- 3d. Testbeds to monitor ecosystem health and response to disturbances.
- 3e. Case studies of large-scale CO₂ capture and storage projects.

Health Resilience, Risks, and Interventions

Strategies to quantify, reduce, and counteract the effects of climate change, such as drought, flooding, and movement, or to address the underlying health inequities created by climate change.

- 4a. Models to assess the risk and drive policy related to climate, health, and equity.
- 4b. Solutions to address heat stress, particularly in urban environments.
- 4c. Climate refugees and migration of populations and impact on infectious disease response.
- 4d. Role of climate effects on emergence of antibiotic resistant organisms and interventions.
- 4e. Geo-designing of built environment or “Design Cities of Tomorrow.”

Innovations in Climate Resilient Food and Agriculture

New approaches to farming and food production, as well as innovations in agriculture to adapt to change.

- 5a. Testbeds, laboratory methods, or high throughput approaches to promote or validate innovations.
- 5b. Treatments and formulations to improve soil health.
- 5c. Drought-resistant plants and/or flood-resistant plants and advanced water efficiency and water reuse systems.
- 5d. Protein-based meats and/or low energy utilization systems for food production—alternative meat production—cellular agriculture, or non-meat alternatives.
- 5e. Approaches to vertical farming and controlled environment agriculture or farming and soil management practices to increase carbon capture, retention, and utilization.

Abstract Preparation and Submission

The program will be finalized after a multilevel review by the Technical Program Committee beginning in mid-December 2021.

To ensure full opportunity for placement in the program, abstracts should be submitted no later than December 6, 2021. Abstracts must be well-written to clearly and concisely outline the material being proposed for presentation. Abstracts with a pronounced commercial slant will not be accepted. Abstracts must convey the information reviewers will need to assess the scope of the work and the data likely to be available at the time of the presentation, determine its relevance, compare it with other proposed presentations, and, if accepted for the program, assign it to an appropriate session.

Format, Content & Required Subheadings. Abstracts must be in English and cannot exceed one standard-size page. Format requirements and an example abstract are available on the Abstract Specifications and Submittal page.

NOTE: Abstracts must be organized under the following required subheadings: 1) Background/Objectives, 2) Approach/Activities, and 3) Results/Lessons Learned.

Abstract Submission. Abstracts are to be submitted online only via the link on the **Abstract Specifications and Submittal** page. Abstracts submitted by email will not be accepted or reviewed. The submittal form will require complete contact information (postal mailing address, phone number, and email) for the corresponding/presenting author and for all co-authors. **Session placement suggestions may be entered on the submittal form.** However, acceptance, final placement, and format preference cannot be guaranteed. Final decisions will be based on the best overall design of the Conference program.

Notification of Acceptance/Placement. In late January 2022, the corresponding/presenting author of each abstract will be notified by email of the placement decision. If the abstract is accepted, this email will state the session and format to which it has been assigned and provide information on preparing the presentation.

No financial assistance is available to support registration or other costs of attending the Conference. All presenters and speakers are expected to register and pay the applicable technical-program registration fees. This policy is necessary because registration fees are the major source of funding for the Conference and a significant percentage of registrants will make presentations.

Live Demonstrations and Lightning Talk Proposals

Live Demonstration and Lightning Talk Proposals will be presented in a staged area separate from the session rooms. Selection decisions will be based on the best overall design of the Conference program. Final presentation length will be communicated to the submitter upon acceptance.

Live Demonstrations. Anyone may submit a live demonstration proposal. Generate exposure, demonstrate use, or solicit feedback for a technology, software, prototype, or tool in hands-on demonstration, or user experience. In general, live demonstration presenters should plan for approximately 20-minute presentations.

Click here to submit a Live Demonstration Proposal >

Lightning Talk Proposals. Young professionals (5 years or less since highest degree conferred) are encouraged to submit a lightning talk proposal. Any cutting-edge, breakthrough technology, relevant to the overall technical scope of the Conference, is welcome. A panel of experts will judge the applicable talks and the winner will present their talk in the main session room on Tuesday afternoon and be awarded the **Emerging Innovator Award**. Review criteria will include originality of the research, thoroughness of the technical approach, validity of data interpretation, and relevance to the overall scope of the Conference. In general, lightning talk presenters should plan for no more than 5-7 minute presentations and one PowerPoint® slide.

Click here to submit a Lightning Talk Proposal >

Registration

By December 30, 2021, a link to online registration will be available on the **Registration** page. The following technical program registration fees cover admission to all technical sessions and keynote presentations, daily continental breakfasts, beverage breaks, group lunches, and the Tuesday evening poster reception.

| | Paid by January 24, 2022 | Paid after January 24, 2022 |
|-------------------|-----------------------------|--------------------------------|
| Industry | \$900 | \$950 |
| Govt/Univ* | \$850 | \$900 |
| Student** | \$400 | \$450 |

Registration discounts apply only to payments received by the specified dates.

** The university fee applies to full-time faculty and other teaching and research staff, including post-doctoral students.*

*** The student fee is reserved for full-time students through PhD candidates whose fees will be paid by their universities or who will not be reimbursed for out-of-pocket payment. Documentation of current college or university enrollment is required.*

Registration terms and conditions are subject to change without notice and are applicable to all levels of registration. No one under 18 years of age will be admitted to any Conference event unless registered as a student; valid college or university student ID required at check-in.

Payment. Payment is required to confirm registration and registration discounts apply only to payments received by the specified dates. Checks will be accepted for registrations made through January 24, 2022. Beginning January 25, 2022, payment can only be made by major credit card. Purchase orders will not be accepted. Fees are not transferable to other Battelle Conferences. Conference information meant for attendees only (e.g., Conference-specific links, abstracts, etc.) will be sent only to individuals that have paid in full.

Conference Venue & Hotel

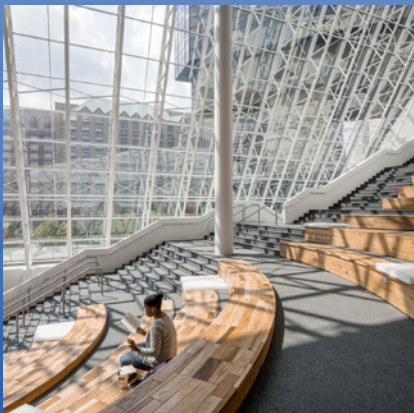
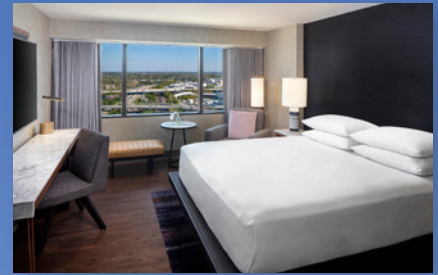
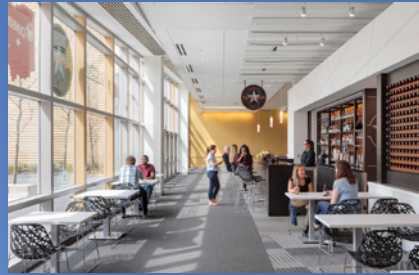
The Conference will be held at the Greater Columbus Convention Center (400 N. High St., Columbus, OH, 43215) and adjoining Hyatt Regency Columbus (350 N. High St, Columbus, OH, 43215). Information on room rates and reservation options will be available on the **Venue: Hotel and City** page in December 2021. The Hyatt Regency Columbus is conveniently connected to the Greater Columbus Convention Center and offers easy access to the Conference session rooms.



Conference Room Block. A block of rooms has been set aside at the Hyatt Regency Columbus for Conference attendees. The rates below are in effect for reservations made by March 14, 2022, unless rooms in the block sell out before that date.

The group rate at the Hyatt is \$178 per night (single/double) plus applicable taxes, fees, and assessments. A percentage of rooms will be available at the prevailing U.S. Government per diem rate (plus tax) for U.S. federal, state, and local government employees, not applicable to government contractors. Government ID will be required at check-in for verification for rooms reserved at the government rate. Subject to availability of rooms at the time reservations are made, the Conference group rate can be used for check-in as early as March 25, 2022, and check-out as late as April 2, 2022.

The Climate Conference has a group rate agreement with only the Hyatt Regency Columbus. We have not partnered with any travel agency or third-party for travel/hotel discounts. If you receive a call or an email offering assistance in making hotel reservations or changing existing reservations, we advise caution. The Conference has no agreement with any organization to contact participants and offer reservation assistance, nor have we provided attendee contact information to anyone for that purpose. Please use only the reservation links provided on the “Venue: Hotel and City” page on the Conference website to make hotel reservations.



The Conference is Organized and Presented by Battelle with collaboration from DOE National Laboratories

Battelle's environmental engineers, scientists and professionals offer focused expertise to government and industrial clients in the U.S. and abroad. Combining sound science and engineering solutions with creative management strategies, Battelle works with clients to develop innovative, sustainable, and cost-effective solutions to complex problems in site characterization, assessment, monitoring, remediation, restoration, and management.

Every day, the people of Battelle apply science and technology to solving what matters most. At major technology centers and national laboratories around the world, Battelle conducts research and development, designs and manufactures products and delivers critical services for government and commercial customers. Headquartered in Columbus, Ohio, since its founding in 1929, Battelle serves the national security, health and life sciences and energy and environmental industries.

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