

Accelerating Climate Progress with AI: from Science to Action -- A Workshop

Committee

Stephan R. Sain

Chair

Stephan Sain is a Senior Principal Data Scientist and Senior Director at Jupiter Intelligence, where he heads the data sciences and is responsible for operational aspects of the broader Jupiter science organization. Jupiter provides data and analytics services to better predict and manage risks from weather and sea level rise, storm intensification and changing temperatures caused by medium- to long-term climate change. Steve is an experienced data science leader and applied statistician who has long worked at the intersection of climate research, applied statistics, and machine learning, including a focus on spatial methods for large datasets, extremes, uncertainty quantification, and climate risk analytics. From 2006 to 2014, he was the head of the Geophysical Statistics Project and a scientist in the Institute for Mathematics Applied to Geosciences at the National Center for Atmospheric Research in Boulder, Co. Steve is a Fellow of the American Statistical Association (ASA). He is a past recipient of the Distinguished Achievement Award from the American Statistical Association's Section on Statistics and the Environment. Steve also serves as chair for the ASA's newly formed Caucus of Industry Representatives, is a past member of the ASA's committee on climate change policy, is an affiliate faculty in the University of Colorado's Department of Applied Mathematics, and is a member of the advisory board for the Institute for Mathematical and Statistical innovation (IMSI) at the University of Chicago.

Katherine Dagon

Member

Dr. Katie Dagon is a research scientist at the NSF National Center for Atmospheric Research (NCAR) in Boulder, Colorado. Her research focuses on modeling the impacts of climate change on land-atmosphere interactions and climate variability. She applies machine learning approaches to climate data to detect extreme weather events, understand climate predictions, and quantify uncertainty in model projections of climate change. From 2017-2019 she was an Advanced Study Program postdoctoral fellow at NCAR. Katie obtained her Ph.D. in Earth and Planetary Sciences from Harvard University in 2017 and her B.S. in Mathematics-Physics from Brown University in 2010.

Leila Doty

Member

Leila Doty is an advocate for and architect of public policy that promotes the responsible design, development, and use of technology. Her work is motivated by a deep concern for the harmful consequences technology often inflicts on vulnerable communities, and she is critically hopeful that a more just technological future for all is within reach. Leila currently serves as a privacy and AI analyst with the City of San José. Since joining the City in 2022, Leila has made a lasting impact on how it procures and governs AI systems. Notably, she created the City's framework for governing AI systems via the public procurement process and wrote its landmark AI policy. Her work serves as the foundation for the GovAI Coalition, a growing collective of over 250 public agencies across the country established and led by her team at San José.

Kaiyu Guan

Member

Dr. Kaiyu Guan is a Levenick Endowed Professor and the Founding Director of Agroecosystem Sustainability Center at the University of Illinois Urbana-Champaign. He studies the underlying processes of plant-water-nutrient interactions for agricultural ecosystems in a changing climate. His team has developed revolutionary sensing, modeling, and AI technologies for monitoring and assessing field-level agricultural productivity and ecosystem service at scale, with the aim of increasing societal resilience and environmental sustainability.

Lynn H. Kaack

Member

Lynn Kaack is Assistant Professor of Computer Science and Public Policy at the Hertie School, where she leads the AI and Climate Technology Policy Group. Her research and teaching focuses on methods from statistics and machine learning to inform climate mitigation policy across the energy sector, and on climate-related AI policy. She is a co-founder and chair of Climate Change AI, which is an organization to facilitate work at the intersection of machine learning and climate action, and Associated Researcher at the Einstein Center Digital Future in Berlin. Previously she was Postdoctoral Researcher and Lecturer in the Energy Technology and Policy Group at ETH Zürich.

Amy L. Luers

Member

Dr. Amy Luers is the senior global director for sustainability science and innovation at Microsoft. In this role she leads Microsoft's artificial intelligence and sustainability work, and informs the company's sustainability strategies, investments, and policies. Previously, she served as executive director of Future Earth, assistant director for climate resilience and information at the White House Office of Science and Technology Policy during the Obama administration, director of climate at the Skoll Global Threats Fund, and senior environment manager at Google. Dr. Luers spent the first decade of her career working in Latin America, where she co-founded Agua Para La Vida, a nonprofit organization that works with rural communities to enhance access to potable water. Currently, she serves on the advisory board of Veolia Institute, the Stanford Woods Institute for the Environment, and the Gund Institute for Environment. Dr. Luers is a member of the Council on Foreign Relations. She has a Ph.D. in environmental science and an M.A. in international policy studies from Stanford University, B.S. and M.S. degrees in environmental systems engineering from Humboldt State University, and a B.A. in philosophy from Middlebury College. She has published widely on topics including societal vulnerability and resilience, climate impact and policy, science communication, and digitalization and sustainability.

Soheil Salehian

Member

Soheil is a machine learning engineer and forest conservationist who works at the intersection of technology and environmental protection. His focus centers on building tools that serve communities on the ground, particularly in areas involving environmental data, indigenous rights, and human rights. With a Computer Engineering and Computer Vision Engineering degree from the University of Calgary and graduate studies in Tropical Forest Conservation from Yale School of the Environment, he brings both technical and environmental expertise to his work. His career has spanned engineering roles at Intel and startup ventures, where he has collaborated with teams passionate about using technology to create meaningful impact.

Adrienne Wootten

Member

Dr. Adrienne Wootten is a research scientist who specializes in downscaling and climate modeling, the uncertainty and accuracy associated with the appropriate use of climate projections and data impact assessments and planning. Additionally, she helps stakeholders with technological assistance and the appropriate use of climate projections for decision making processes. She received her B.S. in Meteorology with a minor in statistics, M.S. and Ph.D. in Atmospheric Science from North Carolina State University.