

Compound Flooding Virtual Convening

The State of Scientific and Engineering Research and Practice

Thursday, October 29, 2026



SPEAKERS

**As of 10/21/26*



Christopher J. Anderson | *National Service Line Program Manager, Climate Services EA Engineering, Science, and Technology, inc.*

Dr. Anderson is a climate scientist with 30 years of experience spanning climate adaptation, climate impacts research, and climate data tools development. He is an expert in the use of climate projection data and downscaled climate model data and is a member of the American Society of Civil Engineers Committee on Adaptation to a Changing Climate. He supports engineers and natural resource managers utilizing risk models based on historical weather data as well as selecting, translating, and using climate change projections within risk frameworks and engineering design. He has co-authored peer-reviewed research, reports, and Federal Highway Administration guidance documents on practices to incorporate climate projections into flood frequency and extremes analysis, rainfall frequency and extremes analysis, and roadway hydraulic engineering design.



Joel Asunskis | *MVD HH&C Technical Lead in Planning Studies (RTS), St. Louis District, U.S. Army Corps of Engineers*

Mr. Asunskis is a Registered Professional Engineer currently working in the Hydrologic Engineering Section at the St. Louis District. He holds a Bachelor and Master of Science in Civil Engineering from Missouri University of Science and Technology (Hydraulic Engineering emphasis). Mr. Asunskis has 27 years of experience working for USACE on design of hydraulic structures and numerical modeling. Joel is experienced with all current HEC software products as well as Storm Water Management Models. As the MVD RTS for Planning Studies, Mr. Asunskis leads the Planning Studies Sub-CoP. His responsibilities deal with MVD briefings on aspects of Planning Studies, addressing requirements of Planning Studies, and knowledge sharing. The Sub-CoP is also responsible for aspects of interior drainage analysis which includes storm sewer design.



Lisa Auermuller | *Executive Director – Megalopolitan Coastal Transformation Hub, Rutgers University, Department of Marine and Coastal Sciences*

Lisa Auermuller serves as the Executive Director of Rutgers' NSF-funded Megalopolitan Coastal Transformation Hub (MACH). In this role, Lisa serves as the central manager of the multi-institution effort's overall operations. Lisa establishes mechanisms for collaborative sharing of findings among project partners, conducts regular outreach to promote coordination and collaboration with government agencies and community leaders, and facilitates meaningful and routine collaboration and sharing among project partners.

Prior to 2023, Lisa was the Assistant Manager of the Jacques Cousteau National Estuarine Research Reserve (JC NERR) in Tuckerton, NJ, where she had been employed since 2002. Lisa oversaw the day-to-day management of JC NERR's Coastal Center as well as the Reserve's education, outreach, communications, and Coastal Training Program.

Lisa graduated from Long Island University's Southampton Campus as an undergraduate student with a B.S. in Marine Science and from UNC-Chapel Hill as a graduate student with an M.S. in Marine Chemical Ecology.



Christian Braneon | *Research Physical Scientist, NASA Goddard Institute for Space Studies*

Dr. Christian Braneon leads the Urban Pillar of the Impacts Group at NASA's Goddard Institute for Space Studies. He chairs the External Advisory Board of the City University of New York (CUNY) Remote Sensing Earth Systems Institute and sits on the New York City Panel on Climate Change as well as the Board of Directors of The Trust for Governors Island.

Dr. Braneon previously served on the leadership team of Carbon Direct, Inc (now Relae). Before moving to New York, he served as a physical scientist in Region IV of USEPA after practicing civil engineering as a water resources engineer at HDR, Inc. Dr. Braneon was selected as one of four international recipients of the AXA Award for Climate Science in 2021. He holds a B.S. in applied physics from Morehouse College as well as B.S., M.S., and PhD degrees in civil engineering from Georgia Tech.

Matt Chlebus | *Chief, Coastal Erosion Management Section, New York State Department of Environmental Conservation*

(Confirmed, bio pending)



Stephen Couch | *Acting Chief, Planning Division, U.S. Army Corps of Engineers, New York District*

Stephen A. Couch is the Acting Chief of the Planning Division for the U.S. Army Corps of Engineers, New York District. With more than 30 years of Civil Works planning experience, he has led complex water-resources studies and programs involving coastal storm risk management, flood risk management, navigation, ecosystem restoration, and floodplain management, and is a nationally recognized expert in water resources planning and coastal resilience. Previously, he served as Deputy Chief, Planning Division, and Chief of the Hurricane Sandy Planning Branch. Mr. Couch holds a B.S. in Ocean Engineering from the Florida Institute of Technology.



Sönke Dangendorf | *Assistant Professor, River-Coastal Science and Engineering, Tulane University*

Sönke Dangendorf is the David and Jane Flowerree Associate Professor of River-Coastal Science and Engineering at Tulane University and an internationally recognized expert on sea-level change, coastal flooding, and climate resilience. His research combines observational data, climate and ocean modeling, and advanced statistical methods to understand the causes of past sea-level variability and improve projections of future coastal risk. He has led and contributed to major international efforts to quantify the drivers of sea-level rise and extreme water levels, with a particular focus on translating scientific discoveries into actionable information for coastal communities.

A member of NASA's Sea Level Science Team and a contributor to assessments of the Intergovernmental Panel on Climate Change (IPCC) and state-level sea-level assessment reports in Maryland and New Jersey, Dr. Dangendorf's work spans global climate processes while maintaining a strong emphasis on the challenges facing the Gulf Coast and Louisiana's rapidly changing coastal landscape. His research supports decision-making on adaptation, resilience, and long-term planning in some of the world's most vulnerable coastal regions.



Martin (Marty) Durkin | *Planning Technical Lead, Jacksonville District, U.S. Army Corps of Engineers*

Marty Durkin is the Coastal Team Lead in the Coastal & Navigation Section of the US Army Corps of Engineers, Jacksonville District, Planning Division, Plan Formulation Branch working primarily on Coastal Storm Risk Management (CSRM) feasibility studies and projects. He has worked in the Jacksonville District for 18 years, with about 14 of those years in Planning Division, Coastal/Navigation Section and 4 years in Engineering Division, Coastal Design

section. He has a BS degree in Ocean Engineering from Florida Institute of Technology.



Laurian Farrell | *Deputy Commissioner, Bureau of Coastal Resilience New York City Department of Environmental Protection*

As Deputy Commissioner for the Bureau of Coastal Resilience, Laurian leads the coastal resilience planning, engineering and operations for New York City's 520-mile shoreline.

Laurian has worked in the private, public and philanthropic sectors for 24 years, is a water resources engineer, has a master's degree in landscape architecture, and centers equity in her practice.

She spent 12 years at Toronto and Region Conservation Authority (TRCA) leading the Flood Management & Infrastructure program and also led the City of Brampton's Environment department for three years.

Laurian moved to the United States in 2019 to join the Rockefeller Foundation's 100 Resilient Cities and subsequently, the Resilient Cities Network, where she developed a deep, international understanding of the challenges facing ultra-urban coastal cities.



Kathryn (Katy) Fechter | *Planner, Regional Planning and Environmental Division North – St. Louis, U.S. Army Corps of Engineers*

Kathryn (Katy) Fechter is a Lead Planner with the Regional Planning and Environmental Division North (RPEDN) of the U.S. Army Corps of Engineers (USACE), bringing 25 years of distinguished agency experience to flood risk management and water resources planning.

Katy began her career in USACE Operations with the Rivers Project Office, where she spent two decades building a foundational, hands-on understanding of river systems and project execution. This operational background uniquely informs her current planning methodologies.

Transitioning to RPEDN in 2021, she now leads complex civil works planning efforts across multiple USACE districts, including New Orleans, St. Louis, and Rock Island. Her diverse portfolio spans major feasibility flood risk management studies, including the Tangipahoa Parish Feasibility Study, as well as multiple Floodplain Management Services (FPMS) and Planning Assistance to States (PAS) initiatives. Katy specializes in bridging the gap between technical planning and operational execution to deliver resilient community solutions.



Paul Gallay | *Director, Resilient Coastal Communities Project, Columbia Climate School*

Paul directs the [Resilient Coastal Community Project](#), a partnership between the Columbia Climate School's Center for Sustainable Urban Development and the [New York City Environmental Justice Alliance](#) working to foster actionable, equitable solutions to climate-driven flood risks while advancing complementary goals like habitat restoration, community cohesion, and restorative justice. He is also a member of the faculty of Columbia's Undergraduate Program in Sustainable Development.

Prior to his appointments at Columbia, Paul held legal and/or leadership positions with the New York State Attorney General and Department of Environmental Conservation, Hudson Riverkeeper and land conservation organizations in New York and Maine. Paul is a graduate of Williams College, where he also served as a Visiting Professor of Environmental Law, and Columbia Law School.



Avantika Gori | *Assistant Professor, Civil and Environmental Engineering, Rice University*

Avantika Gori is an Assistant Professor in the Department of Civil and Environmental Engineering at Rice University, a core faculty in the Consortium for Enhancing Resilience and Catastrophe Modeling (CERCAT), and an affiliated faculty in the Severe Storm Prediction, Education, and Evacuation from Disasters (SSPEED) Center. She holds BS (2016) and MS (2018) degrees in Civil and Environmental Engineering from Rice University and a PhD (2023) in Civil and Environmental Engineering from Princeton University. Dr. Gori's research focuses on combining physics-based and data-driven methods for improved probabilistic multi-hazard assessment, with a focus on hurricanes and floods.



Marin Govorcina | *Research Scientist, RF Remote Sensing and Systems Technology, Active Microwave Science Group, Jet Propulsion Laboratory, NASA*

Dr. Marin Govorcina is a Research Scientist in the Active Microwave Science Group at NASA's Jet Propulsion Laboratory (JPL) and Algorithm Development Team Lead for the OPERA Surface Displacement and Vertical Land Motion Products.

Dr. Govorcina's research and expertise span the development and application of satellite radar interferometry (InSAR), large-scale time-series analysis, and geodetic methods to characterize land-surface deformation. His research focuses on integrating InSAR, GNSS, and other geodetic observations to study solid Earth deformation and geophysical processes, with an emphasis on natural

hazards, the seismic cycle, vertical land motion, and its implications for relative sea-level rise.

He leads the development of OPERA's Surface Displacement from NISAR (DISP-NI) and Vertical Land Motion (VLM) products, which integrate satellite radar observations with geodetic and geophysical models to provide spatially detailed estimates of land motion across North America. He is also a member of the NISAR Operations Science Team, where he contributes to the validation of NISAR products against Solid Earth science requirements, and NASA's Sea Level Change Science Team, where he studies the contribution of vertical land motion to present-day and future relative sea-level change.

His work supports applications in coastal resilience, infrastructure, and flood-risk assessment, with a focus on using high-resolution observations to better understand the combined effects of land-surface deformation and rising seas.



Liv Herdman | *Hydrologist, USGS New York Water Science Center*

Dr. Liv Herdman started working for the USGS in 2015 as a hydrodynamic modeler to develop and improve the Coastal Storm Modeling System which predicts storm driven flooding (from storm-surge, waves and fluvial discharges) along the west coast of the United States. Her primary focus has been on operationalizing the modeling system and allowing real time connections to National Weather Service products including the National Water Model and creating short term flood forecasting products for the San Francisco Bay Estuary.

Prior to this work Liv investigated circulation in Lake Champlain, temperature dynamics in the Sacramento River Delta, and circulation in coral reefs. In general, she is interested in problems where the environmental physics play an important role in shaping ecosystem health, including the human ecosystem and the necessary planning for preventing floods.



Charles M. Hess | *Adjunct Professor, River-Coastal Science and Engineering, Tulane University*

Charles M. Hess is a senior infrastructure executive, educator, and former federal civil works and emergency management leader with more than five decades of experience in infrastructure delivery, coastal flood risk reduction, disaster response, public works governance, and large-scale program implementation. He currently serves as President, Infrastructure and Coastal Restoration, Brown & Root Industrial Services, and is an Adjunct Professor at Tulane University's River-Coastal Science & Engineering program. His recent work has focused on coastal flood risk reduction, infrastructure adaptation, long-term resilience, governance, and the practical delivery of major public infrastructure systems. Mr. Hess

previously held senior leadership positions in the U.S. Army Corps of Engineers, FEMA, and the Iraq Project and Contracting Office. His federal service included assignments in civil works, military construction, chemical demilitarization, disaster response, post-conflict reconstruction, and national infrastructure program delivery.



Mohammad (Shahidul) Islam | *Professional Engineer, Galveston District, U.S. Army Corps of Engineers*

Dr. Mohammad Shahidul Islam, Ph.D. P.E., BCWRE, brings over 24 years of distinguished expertise in hydrologic, hydraulic, and coastal engineering, specializing in advanced numerical modeling, field monitoring, and the integration of environmental information systems to inform critical water resource management decisions. He is a Board-Certified Water Resources Engineer through the American Society of Civil Engineers and a licensed Professional Engineer in Connecticut.

Dr. Islam earned his Ph.D. from Texas A&M University and holds a Master's degree in Coastal Environmental Studies from the University of Tokyo. Early in his career, he served as a Research Assistant Professor at Clarkson University, advancing research in water resources engineering.

Prior to joining the U.S. Army Corps of Engineers' Galveston District, Dr. Islam was an Associate Scientist at NOAA's National Water Center, where he contributed to national-scale water modeling and forecasting initiatives. Currently, as a subject matter expert in the Hydrology & Hydraulics Section of the Galveston District, he leads the design and technical review of complex hydraulic, hydrologic, and coastal engineering components across Flood Risk Management, Coastal Storm Risk Management, and Deep-Draft Navigation projects. His leadership roles have also included serving as Acting Coastal Engineering Section Chief, where he guided critical projects and fostered innovation within the district.



Robert Jane | *Research Assistant Professor, Civil, Environmental and Construction Engineering, University of Central Florida*

Robert is concurrently a Research Assistant Professor of coastal risks and engineering in the Department of Civil, Environmental and Construction Engineering at the University of Central Florida, a position he has held for the past four years. He also holds a secondary joint appointment with the National Center for Integrated Coastal Research at UCF. Prior to this role, he spent three years at UCF as a postdoctoral scholar. Robert's research includes spans compound flooding, the fragility and performance of flood defense infrastructure and multidisciplinary research into water quality and the response of aquatic ecosystems to anthropogenic and climatic drivers.



Marjorie Kaplan | *Sr. Associate Director, Rutgers Climate and Energy Institute; Co-Director, New Jersey Climate Change Resource Center*

Marjorie Kaplan is Senior Associate Director of [Rutgers Climate and Energy Institute](#), a university-wide initiative bridging and expanding Rutgers scholarship across Earth systems science; renewable energy, technology and energy conservation; human dimensions of climate mitigation, adaptation, and resilience; and climate change communication and environmental humanities. Dr. Kaplan led and managed the full portfolio of activities of the Rutgers Climate Institute for a decade, the precursor initiative to RCEI.

She is Co-director of the [New Jersey Climate Change Resource Center](#), a statutorily created climate services center that creates and supports the development of applied research and tools, technical guidance, and delivery of that information to help policymakers, practitioners, communities, and citizens in New Jersey adapt to, and mitigate a changing climate. For more than a decade she co-facilitated the [New Jersey Climate Change Alliance](#) (a network of diverse statewide leaders that shared the goal of advancing evidence-based climate change strategies at the state and local levels in New Jersey) that has since reorganized into a consultative role to the NJ Climate Change Resource Center. Dr. Kaplan designs and conducts applied research and analyses related to natural and working lands, carbon sinks, climate and health/health equity, and climate and community resilience.

Her 40+ year career has included more than 20 years in government and 10 years in the private sector. She was the first Director of the New Jersey Department of Environmental Protection's Office of Climate and Energy where she oversaw regulatory programs under the Global Warming Response Act, the Global Warming Solutions Fund Law and regional initiatives to address climate change within various sectors, including the Regional Greenhouse Gas Initiative. Dr. Kaplan holds a B.S. in Natural Resources from Cornell University and a Masters and Doctorate of Public Health (with distinction) from Columbia University.



Robert Kopp | *Distinguished Professor, Earth and Planetary Sciences, Rutgers, The State University of New Jersey*

Robert Kopp is a climate scientist who serves at Rutgers University as a Distinguished Professor in the Department of Earth & Planetary Sciences. Professor Kopp's research focuses on past and future sea-level change, the interactions between physical climate change and the economy, the use of climate risk information to inform decision-making, and the role of higher education in supporting societal climate risk management.

He directs the Megalopolitan Coastal Transformation Hub, a Rutgers-led consortium that advances coastal climate adaptation and the scientific

understanding of natural and human coastal climate dynamics. He is a founding principal investigator of the Climate Impact Lab, a multi-institutional collaboration advancing data-driven approaches to estimating the social and human costs of climate change. He is also co-lead for engagement and applications for the NASA Sea-Level Change Team. He is a lead author of the Intergovernmental Panel on Climate Change's recent (2021) Sixth Assessment Report and its ongoing Seventh Assessment Report. Professor Kopp received his Ph.D. in Geobiology from the California Institute of Technology and his undergraduate degree in Geophysical Sciences from the University of Chicago. He is a fellow of the American Geophysical Union and the American Association for the Advancement of Science.



Ning Lin | *Professor, Civil and Environmental Engineering, Princeton University*

Ning Lin is a Professor of Civil and Environmental Engineering at Princeton University, with affiliate appointments in the School for Public and International Affairs, the Andlinger Center for Energy and the Environment, the High Meadows Environmental Institute, and the Department of Geosciences. Her research spans natural hazards and risk analysis, wind and coastal engineering, and climate change impact and adaptation, with a primary focus on hurricane risk analysis. Lin integrates science, engineering, and policy to study hurricane-related weather extremes—strong winds, heavy rainfall, coastal and compound flooding, and heatwaves—investigating how these hazards are evolving with climate change and how their societal impacts can be mitigated. Her work has been published in leading journals such as *Science*, *Nature Climate Change*, and *PNAS*. Lin has received prestigious honors, including the NSF CAREER Award; Early Career Awards from the American Geophysical Union; Huber Research Prize from the American Society of Civil Engineers; and Walter Orr Roberts Lectureship from the American Meteorological Society. Lin is the founding Editor-in-Chief of *npj Natural Hazards*, part of the Nature Portfolio.



Malgosia Madajewicz | *Associate Research Scientist, Center for Climate Systems Research, The Climate School, Columbia University*

Malgosia Madajewicz is an Associate Research Scientist at the Center for Climate Systems Research at the Climate School, Columbia University. Her research investigates climate risks, vulnerability, adaptation decisions, and effectiveness of climate adaptation programs and policies. She is a co-PI for the Consortium for Climate Risk in the Urban Northeast, a NOAA RISA. She is also a member of the global Agricultural Model Intercomparison and Improvement Project (AgMIP) team. She holds a PhD in economics from Harvard University.



Yuki Miura | *Assistant Professor, Mechanical and Aerospace Engineering and Center for Urban Science and Progress, New York University*

Yuki Miura is an Assistant Professor at the Department of Mechanical and Aerospace Engineering and the Center for Urban Science and Progress at NYU Tandon School of Engineering. She is also a faculty advisory board member at the Volatility and Risk Institute at NYU Stern School of Business. She is a member of New York City Panel on Climate Change (NPCC5). Previously, she worked at Morgan Stanley in climate risk management and quantitative strategy in the fixed income division.

Her research is at the intersection of engineering, climate science, finance, and social sciences. She develops data-driven strategies to mitigate natural hazards and build resilient cities. By coupling advanced modeling with in-depth understanding of socioeconomic factors, she provides actionable solutions for both public and private institutions. She has collaborated with the National Center of Atmospheric Research and the governments of New York State/City. Her work has been recognized through publications in leading journals and featured in The New Yorker.

Prior to NYU, she received a PhD, MPhil, and MS from Columbia University, advised by Dr. George Deodatis, Dr. Kyle Mandli, and Dr. Daniel Bienstock. She holds BE in System Design Engineering from Keio University, advised by Dr. Masayuki Kohiyama.



Franco Montalto | *Professor, Department of Civil, Architectural, and Environmental Engineering, Drexel University*

Dr. Franco Montalto is a licensed civil and environmental engineer with 30 years of research, planning, and design experience in the fields of ecological restoration, green infrastructure, and urban sustainability and resilience. He is a Professor at Drexel University, where he directs the Sustainable Water Resource Engineering Lab, and is also the Founder and President of eDesign Dynamics LLC, an environmental consulting firm based in New York City, with an international portfolio of projects. His research is applied, participatory, and interdisciplinary. He is a co-investigator on the Consortium for Climate Risks in the Urban Northeast, and co-chair of the Fifth NYC Panel on Climate Change.



David F. Muñoz | *Assistant Professor, Civil and Environmental Engineering, Virginia Tech*

David F. Muñoz is an Assistant Professor of Civil and Environmental Engineering at Virginia Tech. His research combines coastal hydrology, hydrodynamic modeling, machine learning (AI), and remote sensing to better understand and predict compound flooding and climate-driven coastal hazards. He leads the CoRAL Lab, where he develops hybrid modeling and digital twin approaches to support flood monitoring, prediction, risk assessment, and climate resilience.



Muthu Narayanaswamy | *Director, Coastal and Compound Flood Risk, The Water Institute*

Muthu Narayanaswamy, Ph.D., Director of Coastal and Compound Flood Risk at The Water Institute, specializes in computational modeling for coastal engineering challenges and for probabilistic and near real-time quantification of flood hazards. He currently leads projects quantifying probabilistic flood risk and deploying AI-driven situational awareness solutions along the Gulf and Atlantic coasts. Actively involved in shaping national standards, he serves on the Blue Ribbon Panel for the ASCE Compound Flooding Manual of Practice and the NIBS Scientific Resolution Panel reviewing FEMA flood analysis.

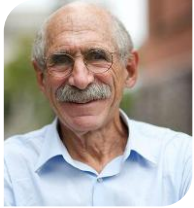


Jayantha Obeysekera | *Director and Research Professor, Sea Level Solutions Center, Institute of Environment, Florida International University (FIU), Miami*

Dr. Obeysekera served as a member of the federal advisory committee that directed the development of the National Climate Assessment in 2014. He was also a co-author of several sea level rise projection reports published by NOAA and served as a member of the Coastal Assessment Regional Scenario Working Group associated with the U.S. Department of Defense. Prior to joining FIU, he managed a large team of hydrologic and environmental modelers, directing modeling efforts related to the Greater Everglades Ecosystem Restoration at the South Florida Water Management District.

Dr. Obeysekera has served as a member of several committees of the United States National Academies of Sciences, Engineering, and Medicine (NASEM), addressing water resource issues in California, Oregon, and Texas. Most recently, he served as a member of the NASEM committee on Modernizing Probable Maximum Precipitation Estimation (PMP). Dr. Obeysekera is serving as a member of the California Bay Delta Independent Science Board (ISB). Dr. Obeysekera is one of the editors of the Manual of Practice (MOP) being developed by the American Society of Civil Engineers. He is a registered Professional Engineer and holds a bachelor's degree in civil engineering from the University of Sri Lanka, and a Ph.D. in civil engineering from Colorado State

University. Dr. Obeysekera has co-authored over 80 research articles in peer-reviewed journals and is the recipient of the 2015 Norman Medal from the American Society of Civil Engineers.



Michael Oppenheimer | *Professor of Geosciences, International Affairs, and the High Meadows Environmental Institute*

Michael Oppenheimer is the Albert G. Milbank Professor of Geosciences and International Affairs in the Princeton School of Public and International Affairs (SPIA), the Department of Geosciences, and the High Meadows Environmental Institute at Princeton University. He is the Director of the Center for Policy Research on Energy and the Environment (C-PREE) at SPIA and Faculty Associate of the Atmospheric and Ocean Sciences Program and the Princeton Institute for International and Regional Studies.

Oppenheimer joined the Princeton faculty after more than two decades with the Environmental Defense Fund (EDF), where he served as chief scientist and manager of the Climate and Air Program. He is the author of over 200 articles published in professional journals and is coauthor of *Dead Heat: The Race Against The Greenhouse Effect* (1990) and *Discerning Experts: The Practices of Scientific Assessment for Environmental Policy* (2020). He is also a long-time participant in the Intergovernmental Panel on Climate Change (IPCC) that won the Nobel Peace Prize in 2007, most recently serving as a Coordinating Lead Author on the IPCC's *Special Report on Oceans and Cryosphere in a Changing Climate* (2019) and as a Review Editor on the *Sixth Assessment Report*.

Prior to his position at EDF, Oppenheimer served as an Atomic and Molecular Astrophysicist at the Harvard-Smithsonian Center for Astrophysics and Lecturer on Astronomy at Harvard University. He received an S.B. in chemistry from M.I.T., a PhD in chemical physics from the University of Chicago, and pursued post-doctoral research at the Harvard-Smithsonian Center for Astrophysics.



Philip Orton | *Research Associate Professor, Civil, Environmental and Ocean Engineering, Stevens Institute of Technology*

Dr. Philip Orton is a Research Associate Professor of ocean engineering at the Stevens Institute of Technology in Hoboken, NJ. He earned his PhD in physical oceanography from Columbia University in 2010, and specializes in coastal physical oceanography, storm surges, flood risk assessment, atmosphere-ocean interaction, and coastal engineering. He has published over 70 peer-reviewed articles and several Op-Eds in newspapers such as the New York Times Sunday Edition. He has served as a member of the New York City Panel on Climate Change, the New Jersey Climate Adaptation Alliance Science and Technical Advisory Panel, and as a contributing author for the Intergovernmental Panel on

Climate Change (IPCC) Sixth Assessment Report. Professor Orton has been lead or co-author on over 40 funded research proposals worth about \$10 million. He has directed research projects funded by the National Science Foundation, NOAA, NASA, USGS and the National Parks Service, as well as state, city and NGO funding sources.



Ceyda Polatel | *Infrastructure and Installation Resilience Engineer, Jacksonville District, U.S. Army Corps of Engineers*

Ceyda Polatel, Ph.D., P.E., is a Hydraulic Engineer with the U.S. Army Corps of Engineers. She works on resilient infrastructure and installations and focuses on flood risk management under compounding extreme weather conditions, including sea level change and extreme precipitation. Her work integrates numerical modeling, statistical analysis, and development of decision support tools for risk-based decision making. She collaborates with federal, state, and academic partners to apply science and engineering to real-world projects, advancing the resilience of water infrastructure.



Dennis Reinknecht | *Director, Division of Resilience Engineering and Construction, New Jersey Department of Environmental Protection*

Dennis Reinknecht is the Director of Resilience Engineering and Construction (DREC) for the Watershed and Land Management Program within DEP.

He has 38 years of professional experience with the NJ Department of Environmental Protection primarily focused on project management, climate adaption and flood resilience, environmental remediation, infrastructure, and construction oversight.

Dennis holds a B.S. in Mechanical Engineering from the New Jersey Institute of Technology & M. S. in Environmental Science from the New Jersey Institute of Technology and Rutgers University.



Rachel Rhode | *Manager, Environmental Defense Fund*

As a manager for EDF's climate resilient coasts and watersheds strategic initiative, Rachel works to build resilience for coastal communities facing unprecedented threats from climate change. She seeks opportunities for innovation and collaboration that engage communities from the ground up and governments from the top down by using science-based solutions. Committed to developing and implementing locally-supported solutions, Rachel aims to help vulnerable communities bounce forward – rather than back – from disasters and other climate change impacts.

Previously, Rachel was a program assistant for EDF's Coastal Resilience team supporting the EDF team involved in the Restore the Mississippi River Delta coalition. She also led the coordination of the coalition's Projects and Science Committees dealing with grant reporting and tracking as well as project management. Rachel received both her BA and Master's Degree in Marine Science in Florida and did her thesis work on river diversions and wetland loss in the Mississippi River Delta and their associated effects on oysters.



Bernice Rosenzweig | *Professor, Environmental Science, Sarah Lawrence College or Naresh Devineni, Professor, Civil Engineering, The City College of New York*

Bernice Rosenzweig is the Osilas Endowed Chair of Environmental Science at Sarah Lawrence College. She studies climate change, extreme weather and water systems in cities and she is passionate about engaging urban communities in Earth science research. Her recent work has focused on flooding in ultra-urban environments and developing strategies to better manage flooding that also help address other urban environmental issues, such as providing access to natural ecosystems and clean and reliable energy for urban residents. Prior to beginning at Sarah Lawrence, Rosenzweig worked at the City University of New York (CUNY) on projects related to urban groundwater, the nexus of food, energy and water systems across urban-to-rural gradients, and as part of the Urban Resilience to Extremes-Sustainability Research Network (UREx-SRN) .

Along with her teaching and research, Rosenzweig has contributed to scientific assessment projects, including the New York City Panel on Climate Change (NPCC) and the United States National Climate Assessment (NCA). She earned her B.S. in Geology (Environmental Track) from Rutgers University and her Ph.D. in Environmental Engineering from Princeton University.

Brandon Schneider | *U.S. Army Corps of Engineers*

(Confirmed, bio pending)



Ashish Shrestha | *Postdoctoral Associate, Urban Systems Lab, New York University*

Ashish Shrestha is a Water and Environmental Engineer and a Postdoctoral Associate at the Urban Systems Lab at New York University. He holds a Ph.D. in Civil, Environmental, and Sustainable Engineering from Arizona State University. His research focuses on advancing urban flood modeling, computational methods, and decision support frameworks to address challenges in planning, managing, and adapting water and environmental systems under changing conditions. His broader research interests span interdisciplinary areas, including

urban and natural watershed hydrology, hydrodynamic modeling, hydroinformatics, sustainability and resilience, and systems science across water, environment, infrastructure, and human dimensions. His work aims to bridge science, policy, and practice to support more resilient and adaptable water systems.



Ahad Tanim | *Scientist III/Hydraulic Modeler, Gwinnett County Department of Water Resources*

Ahad Hasan Tanim is a Civil and Water Resources Engineer with more than 12 years of professional, research, and academic experience spanning hydrologic and hydraulic modeling, urban water infrastructure, flood-risk management, river and reservoir systems, coastal hazards, and hydroinformatics. He earned his Ph.D. in Civil and Environmental Engineering from the University of South Carolina, where his research focused on advancing flood-risk management through flood-inundation modeling, artificial intelligence, and data-driven coastal vulnerability analysis.

His career has progressed across academia, national laboratory research, and professional engineering practice. At Oak Ridge National Laboratory, he contributed to research on regulated river systems of the Tennessee River Basin, reservoir operations, stream-temperature dynamics, climate impacts, and large-scale water-resources modeling. His broader research has addressed compound flooding problems, urban stormwater management, coastal resilience, environmental flows management, developing geospatial technique for coastal risk management, and climate-related challenges to water systems. He has authored and co-authored more than 32 scholarly articles in these areas.

After more than a decade of building scientific and technical expertise, Dr. Tanim made a transition from research into professional practice to apply advanced water-resources knowledge directly to the infrastructure systems communities depend on every day. He currently serves as a Scientist III and Hydraulic Modeler with the Gwinnett County Department of Water Resources, where he translates modeling, data analysis, and systems understanding into practical decisions on capacity, wet-weather performance, rehabilitation, and long-term infrastructure planning. Through this role, he contributes to the reliability and resilience of critical water infrastructure that worth more than \$2B of the rapidly growing Atlanta metropolitan region, connecting research-driven insight with real-world engineering decisions, public service, and infrastructure investment.



Melissa Tier | *Postdoctoral Research Associate, Princeton University*

Melissa Oberon Tier is a Postdoctoral Research Associate at the Princeton School of Public & International Affairs (SPIA) at the Center for Policy Research on Energy & the Environment (C-PREE) directed by Dr. Michael Oppenheimer. She conducts collaborative, applied research on climate adaptation and environmental justice policy – interweaving topics in multi-level governance, urban planning, and decision sciences. She completed her PhD at Princeton SPIA in 2026 with her dissertation titled, “*Administrative Policy Pathways toward Equitable Climate Adaptation: Governance, Funding, & Policy Preferences*”. During her PhD, she regularly co-taught a Climate & Environmental Justice course with the NJ Prison Teaching Initiative, and interned as a Graduate Fellow at both the NYC Mayor's Office of Climate & Environmental Justice and the International Institute for Applied Systems Analysis (IIASA).

Before joining the Princeton community, Melissa served for 5 years as the first Sustainability Program Manager at Swarthmore College, PA, helping to launch the Office of Sustainability and to facilitate environmental and climate institutional decision-making while reporting to C-suite administrators. She spearheaded myriad initiatives related to zero waste and environmental justice, decarbonization of campus energy systems, climate science communication, engagement with international climate negotiations, and local community partnerships. She also holds an MSc in Sustainable Urban Development from the University of Oxford and a BA in Psychology from Swarthmore.



Michelle Vieira | *Senior Coastal Engineer, Jacksonville District, U.S. Army Corps of Engineers*

Michelle Vieira is an innovative Coastal Engineer who specializes in developing creative solutions for complex coastal problems. Leveraging seven years of professional experience, she focuses on bridging the gap between rigorous physical engineering and natural resource stewardship. Michelle's analytical, systems-level approach is anchored by a unique academic foundation, holding both a Bachelor's degree in Mechanical Engineering and a Master's degree in Coastal Engineering from the University of North Florida.

Her impactful work with the U.S. Army Corps of Engineers includes leading study and design efforts for the Coastal Storm Risk Management project protecting the historic city of St. Augustine. Beyond storm protection, she actively safeguards vital ecosystems by spearheading water quality monitoring and numerical modeling initiatives associated with the deepening of the St. Johns River. Recognized for her ability to integrate sustainable, nature-based design into modern civil works, Michelle has been invited to serve as an Engineering With Nature representative across multiple challenging projects.



Thomas Wahl | *Professor, Civil, Environmental and Construction Engineering, University of Central Florida*

Dr. Thomas Wahl is a Professor in the Department of Civil, Environmental and Construction Engineering and the Center for Integrated Coastal Research at the University of Central Florida. His research focuses on understanding and managing coastal flood risks by integrating engineering with different science disciplines such as oceanography, hydrology, or meteorology. He studies coastal sea level, ocean waves, and freshwater flows—and their interactions—to assess vulnerabilities of coastal communities, infrastructure, and ecosystems in support of developing resilient adaptation strategies. Dr. Wahl earned his Ph.D. in Civil Engineering from the University of Siegen, Germany, in 2012. He has held research positions internationally, including at the University of Southampton in the UK as a Marie Skłodowska-Curie Fellow and at the University of South Florida, before joining UCF in 2017.



Dan Walker | *Senior Geologist, EA Engineering, Science, and Technology, Inc. (PBC) and Faculty Assistant, Center for Technology and Systems Management, University of Maryland*

Dan is a Senior Geologist with EA Engineering, Science, and Technology, Inc. (PBC) and conducts research through the U. of Maryland's Department of Civil and Environmental Engineering. Dr. Walker has been involved with strategic planning and management of state and federal science for over 30 years, including senior positions at the National Academies of Science, Engineering and Medicine, the White House Office of Science and Technology Policy, NOAA's Climate Program Office, and the Computer Sciences Corporation. A former U.S. Delegate to the International Panel on Climate Change (IPCC) and a chapter author (Coastal Effects) of the Fifth National Climate assessment, Dan serves as Co-Chair of the ASCE NOAA Task Force on Climate Resilience in Engineering Practice and is a member of the NOAA's National Centers for Environmental Information (NCEI) Architecture & Engineering Sector Advisory Group.