



**Center for
Sustainability Science
and Strategy**

Global Change Forum 47

**27-28 March, 2025
MIT Samberg Conference Center**

**50 Memorial Drive, 7th Floor, Building E52
The Morris and Sophie Chang Building
Sloan School of Management, Cambridge, MA USA**

A WORD FROM THE DIRECTOR:

As critical challenges such as climate, health, energy, and food security increasingly affect people's lives around the world, decision-makers need a better understanding of the Earth in its full complexity – and that includes people, technologies and institutions as well as environmental processes. Better knowledge of these systems and how they interact can lead to more effective strategies that avoid unintended consequences and ensure an improved quality of life for all.

To that end, the MIT School of Science launched the **MIT Center for Sustainability Science and Strategy** (CS3) on July 1, 2024. The new Center aims to advance knowledge and computational capabilities in the field of sustainability science, and support decision-makers in government, industry and civil society to achieve sustainability goals. CS3 incorporates and succeeds both MIT's Center for Global Change Science and Joint Program on the Science and Policy of Global Change, while adding new capabilities. Our researchers are developing and applying expertise from across the Institute to improve understanding of sustainability challenges, and thereby provide actionable knowledge and insight to inform strategies for improving human well-being for current and future generations. We also are contributing to MIT's new **Climate Project**, an Institute-wide effort to respond to the multifaceted challenges posed by climate change.

Our Center is continuing the tradition of hosting Global Change Forums previously organized by the MIT Joint Program on the Science and Policy of Global Change. Now hosted by MIT CS3, the 47th Global Change Forum will explore emerging research in the field of sustainability science and opportunities for decision-makers to apply that knowledge to advance sustainability goals. We are delighted to welcome speakers and attendees from across the globe to discuss the following topics:

- Sustainability Science: Integrated Modeling of Nature-Society Systems
- Sustainability Science: Institutions, Markets, and Incentives
- Feedbacks, Nonlinearities, and Tipping Points
- Climate Missions of the MIT Climate Project
- Integrating Equity in Addressing Global Change
- Sustainability Strategy at Global Scale

We hope that this Forum will provide you with knowledge that you can use to help meet sustainability challenges at your organization and beyond.

-Noelle Selin, MIT CS3 Director



AGENDA

THURSDAY 27 MARCH 2025

8:30A CHECK-IN (PRE-REGISTRATION REQUIRED) AND LIGHT BREAKFAST

**9:00A Opening Remarks: Center for Sustainability
Science & Strategy (CS3) Leadership**

**9:15A Session 1: Sustainability Science: Integrated
Modeling of Nature-Society Systems**

Moderator: Anne Slinn • MIT CS3 • *Executive Director*

Noelle Selin • MIT CS3 • *Director; Professor, MIT Institute for Data, Systems, and Society and
MIT Earth, Atmospheric & Planetary Sciences*

Rebecca Saari • University of Waterloo • *Associate Professor, Civil and Environmental
Engineering*

Brent Boehlert • Industrial Economics, Incorporated • *Principal*

10:45A COFFEE BREAK

11:15A Session 2: Sustainability Science: Institutions, Markets, and Incentives

Moderator: Adam Schlosser • MIT CS3 • *Deputy Director; Senior Research Scientist*

Jennifer Morris • MIT CS3 • *Principal Research Scientist*

Gregory Characklis • University of North Carolina at Chapel Hill • *William R. Kenan Jr.
Distinguished Professor, Department of Environmental Sciences and Engineering; Director,
Institute for Risk Management and Insurance Innovation*

Michael Davidson • UC San Diego • *Assistant Professor, Mechanical and Aerospace Engineering
and School of Global Policy and Strategy; Director, Power Transformation Lab*

12:45P LUNCH

2:00P Session 3: Feedbacks, Nonlinearities, and “Tipping Points”

Moderator: Angelo Gurgel • MIT CS3 • *Principal Research Scientist*

Adam Schlosser • MIT CS3 • *Deputy Director; Senior Research Scientist*

Robert Kopp • Rutgers University • *Professor, Earth and Planetary Sciences*

Chris Bauch • University of Waterloo • *Professor, Department of Applied Mathematics*

3:30P COFFEE BREAK



THURSDAY 27 MARCH 2025

4:00P **Climate Missions of the Climate Project at MIT**

Moderator: [Sergey Paltsev](#) • MIT CS3 • *Deputy Director; Senior Research Scientist*

Decarbonizing energy and industry: [Elsa Olivetti](#) • MIT • *Professor, Materials Science and Engineering*

Restoring the atmosphere, protecting the land and oceans: [Jesse Kroll](#) • MIT • *Professor, Civil and Environmental Engineering*

Inventing new policy approaches: [Christopher Knittel](#) • MIT • *Professor; Associate Dean for Climate and Sustainability, Sloan School of Management*

Wild Cards: [Sarah McGrath](#) • MIT • *Managing Director, The Climate Project at MIT*

Designing resilient and prosperous cities: [Christopher Reinhart](#) • MIT • *Professor, Architecture*

5:00P RECEPTION & POSTER SESSION

6:30P **Dinner and Keynote: Susan Solomon**

Professor, MIT Earth, Atmospheric & Planetary Sciences; Chair, EAPS Program in Oceans, Atmospheres and Climate; Lee and Geraldine Martin Professor of Environmental Studies

FRIDAY 28 MARCH 2025

8:30A CHECK-IN AND LIGHT BREAKFAST

9:00A **Session 4: Integrating Equity in Addressing Global Change**

Moderator: [Jennifer Morris](#) • MIT CS3 • *Principal Research Scientist*

[Sergey Paltsev](#) • MIT CS3 • *Deputy Director; Senior Research Scientist*

[Jan Kwakkel](#) • Delft University of Technology • *Professor, Decision-Making under Deep Uncertainty*

[Amanda Giang](#) • University of British Columbia • *Assistant Professor and Canada Research Chair, Mechanical Engineering; Institute for Resources, Environment and Sustainability*

10:30A COFFEE BREAK

11:00A **Session 5: Sustainability Strategy at Global Scale**

Moderator: [Noelle Selin](#) • MIT CS3 • *Director*

[Amy Luers](#) • Microsoft • *Global Director, Sustainability Science and Innovation*

[Edward Wack](#) • MIT Lincoln Laboratory • *Division Head, Biotechnology and Human Systems*

[Poushali Maji](#) • Schmidt Sciences • *Program Scientist*

12:30P **Closing Remarks: Noelle Selin • Director, MIT CS3**

12:45P LUNCH

BIOGRAPHIES

Opening Remarks

Center for Sustainability Science & Strategy (CS3) Leadership

Session 1

Moderator: Anne Slinn



MIT CS3 • Executive Director

Ms. Slinn has over three decades of experience at MIT facilitating interdisciplinary research and multi-institutional collaborations to improve understanding of sustainability challenges and help guide societal transitions toward a more sustainable future. A scientist and engineer by training, she leads the operation of the MIT CS3 as executive director of research. She oversees a diverse portfolio of research supported by consortia sponsors and other contributors, including the U.S. federal government, industry and industrial organizations, foreign

government agencies and ministries, foundations and philanthropic donors. Her roles involve alignment of priorities and resources, the direction of finances, administration, communication, and engagement, and coordination of cooperative efforts. She received BS and MS degrees in Mechanical Engineering from Washington State University, and a SM in Civil Engineering from MIT.

Noelle Selin



MIT CS3 • Director; Professor, MIT Institute for Data, Systems, and Society and MIT Earth, Atmospheric & Planetary Sciences

Prof. Selin's research uses modeling and analysis to inform sustainability decision-making, focusing on issues involving air pollution, climate change and hazardous substances such as mercury. Her work has also addressed interactions between science and policy in international environmental negotiations. She is the recipient of a U.S. National Science Foundation (NSF) CAREER award, a Leopold Leadership Fellow, a Kavli Fellow, an American Association for the

Advancement of Science Leshner Leadership Institute Fellow, and a Hans Fischer Senior Fellow at the Technical University of Munich Institute for Advanced Study, and was awarded a Carl Friedrich von Siemens Research Award by the Alexander von Humboldt Foundation. She received her PhD and MA (Earth and Planetary Sciences) and BA (Environmental Science and Public Policy) from Harvard University.



Rebecca Saari



University of Waterloo • Associate Professor, Civil and Environmental Engineering

Prof. Saari is a Tier 2 Canada Research Chair in Global Change, Atmosphere and Health. Her research advances the field of health impact assessment by using coupled human-natural systems models to identify policies – for mitigation and adaptation – that robustly and equitably protect health from air pollution under a changing climate. Her work appears in top journals such as *Nature Climate Change* and *PNAS*. Saari has been invited by the World Health Organization, Health

Canada, U.S. Environmental Protection Agency (EPA) and Department of Energy (DOE) to set guidelines for climate impacts research. Her findings have been requested by White House staff, quoted by the head of the U.S. EPA in the press (including *CBC*, *NBC*, and the *New York Times*), cited in over 80 policy documents, and used to support major climate legislation in U.S. federal court. She holds a BAsC in Engineering Science and MASc in Mechanical and Environmental Engineering from the University of Toronto, and a PhD in Engineering Systems from MIT.

Brent Boehlert



Industrial Economics, Incorporated • Principal

Dr. Boehlert specializes in water resources engineering and economics with a focus on climate change impact and adaptation analyses, river basin planning, and natural resources valuation. He has led studies in over 40 countries for the World Bank, United Nations, Millennium Challenge Corporation and other international development agencies, and has served as an advisor to the Ugandan Government on strategic infrastructure planning and to the Zimbabwean Government on their Water Master Plan. With over 15 years of experience on food and

water security issues, he led development of Zimbabwe's *Climate Smart Agricultural Investment Plan* and water security action plans for Indonesia, Poland, the Zambezi River Basin and Vietnam. Dr. Boehlert has also conducted dozens of analyses for U.S. federal agencies focused on climate change impacts and adaptation in the water, energy, agriculture and transport sectors, and has published over 20 peer-reviewed journal articles on these topics. He holds an AB in engineering from Dartmouth College, a MS in Natural Resource Economics from Oregon State University and a PhD in Water Resources Engineering from Tufts University.



Session 2

Moderator: Adam Schlosser



MIT CS3 • Deputy Director and Senior Research Scientist

Dr. Schlosser was previously an Associate Research Scientist at the National Aeronautics and Space Administration (NASA) Goddard Space Flight Center and a research scientist at the Center for Ocean Land Atmosphere Studies. He conducted his postdoctoral work at National Oceanic and Atmospheric Administration (NOAA)'s Geophysical Fluid Dynamics Laboratory. His primary interests are the modeling, prediction and risk assessment of natural, managed and built water-energy-land systems using the MIT **IGSM** framework, which includes model development of the Global Land System and Water Resource System. Dr. Schlosser has also undertaken studies of hydrology, weather and climate and their predictability and limits-to-prediction, and participated in and led international experiments aimed at assessing the performance of Earth-system model simulations and predictions. His current research activities also include: extreme events and associating their potential changes and risks for natural, managed and built environments; water-resource assessments to inform mitigation and adaptation strategies; renewable energy resource and intermittency assessments; and assessing compounding physical risks in the insurance/reinsurance industry.

Jennifer Morris



MIT CS3 • Principal Research Scientist

Dr. Morris' research focuses on energy-economic modeling and linkages between human and natural systems to explore multi-sector feedbacks and implications of different development, decarbonization and investment pathways. She also focuses on uncertainty, risk analysis and decision-making in energy and environmental systems. This work involves quantifying key uncertainties (e.g. population growth, technology costs, resource availability, etc.), and applying different methodological approaches to models to formally represent such uncertainties and explore how they impact near-term decisions. Morris also works on the assessment of energy technologies and energy/climate policies, and contributes to the development of CS3's global economy-wide model, the **EPPA** model. She holds a PhD in Engineering Systems and a SM in Technology and Policy from MIT, and a BA in Public Policy Analysis and History from the University of North Carolina at Chapel Hill.



Gregory W. Characklis



University of North Carolina at Chapel Hill • William R. Kenan Jr. Distinguished Professor, Department of Environmental Sciences and Engineering; Director, Institute for Risk Management and Insurance Innovation

Prof. Characklis' primary research interests involve the evaluation of financial risk arising from a range of natural hazards, including flood, drought, extreme temperatures/wind, and infectious disease outbreaks, and developing new tools and strategies for managing these risks. This research involves systems-based modeling that integrates

consideration of scientific, engineering and economic principles, with increasing attention to the use of advanced data analytics and machine learning. As director of UNC's newly formed Institute for Risk Management and Insurance Innovation, he oversees research on projects funded by the NSF, DOE and the state of North Carolina, including efforts to quantify and manage the financial risks of variable environmental conditions on multiple economic sectors. He serves on the editorial board of *Water Security*, and has previously held editorial positions with the journals *Water Resources Research* and *Hydrology and Earth System Sciences*. His awards include selection as a National Academy of Sciences' Kavli Frontiers of Science Fellow, Aldo Leopold Leadership Fellow, and National Academy of Engineering Fellow. Previously, he served as Director of Resource Development and Management at Azurix Corp. He holds a PhD and MS in Environmental Science and Engineering from Rice University and a BS in Materials Science and Engineering from Johns Hopkins University.

Michael Davidson



UC San Diego • Assistant Professor, Mechanical and Aerospace Engineering; School of Global Policy and Strategy • Director, Power Transformation Lab

Prof. Davidson's teaching and research focus on the engineering implications and institutional conflicts inherent in deploying low-carbon energy at scale to mitigate environmental harms. Davidson has held fellowships at the Harvard Kennedy School and Tsinghua University and worked on U.S.-China climate policy for the Natural Resources Defense Council. He received his PhD in Engineering Systems and a

SM in Technology and Policy from MIT, where he was a researcher with the MIT Joint Program on the Science and Policy of Global Change. He holds a BS in Mathematics and Physics and a BA in Japanese Studies from Case Western Reserve University.



Session 3

Moderator: Angelo Gurgel



MIT CS3 • Principal Research Scientist

Dr. Gurgel develops economic modeling and applied research on climate policy, climate change, land-use change, bioenergy, agricultural and environmental economics. In Brazil he served as Professor at the Sao Paulo School of Economics, Fundacao Getulio Vargas (FGV), and the University of Sao Paulo. He coordinated the FGV master's program on Agribusiness and the FGV Observatory of the Plan on Low-Carbon Emissions in Agriculture, and was a recipient of the Best Policy Analysis Paper of 2012 in *Environmental Science and Technology*. He

has served as consultant or advisor in projects for institutions as the World Bank, the Climate and Land Use Alliance, the California Air Resource Board, the Research Association of the Large-Scale Experiment of Biosphere-Atmosphere in the Amazon, the Brazilian Development Bank, and the National Industry Confederation of Brazil, among others. He holds a BS in Agricultural Engineering and PhD in Applied Economics from University of Viçosa–Brazil.

Adam Schlosser - See Session Two for bio.

Robert Kopp



Rutgers University • Professor, Earth and Planetary Sciences

Prof. 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 PI 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 was a lead author of the Intergovernmental Panel on Climate Change (IPCC)'s recent (2021) Sixth Assessment Report and a chapter lead for the ongoing U.S. Sixth National Climate Assessment. Kopp received his PhD in Geobiology from the California Institute of Technology and undergraduate degree in Geophysical Sciences from the University of Chicago. He is a fellow of the American Geophysical Union (AGU) and American Association for the Advancement of Science (AAAS), and a 2024 Guggenheim Fellow.



Chris Bauch



University of Waterloo • Professor, Department of Applied Mathematics

Prof. Bauch's research group develops mathematical and computational models of the dynamics of natural systems, such as ecosystems or infectious diseases. The particular emphasis is on understanding how human systems and natural systems interact with one another, and how this understanding can be used to improve ecosystem health and human health. His study systems include forest-grassland ecosystem mosaics, forest pest infestations, childhood vaccine scares,

and influenza vaccination, among others. His work has reached a wide public audience through the media, having been covered in *The New York Times*, *Scientific American*, *USA Today*, *BBC News* and other sources. His research has also been published in top journals such as *Science* and *PNAS*. His research partners have included the World Health Organization, the U.S. Food and Drug Administration and the Bill and Melinda Gates Foundation. He is also a recipient of a CIHR New Investigator Salary Award, an MRI Early Researcher Award and a Marshall Scholarship.

Climate Missions of the Climate Project at MIT

Moderator: Sergey Paltsev



MIT CS3 • Deputy Director and Senior Research Scientist

Dr. Paltsev is the lead modeler in charge of the MIT Economic Projection and Policy Analysis (**EPPA**) model of the world economy. He is an author of more than 100 peer-reviewed publications in scientific journals and books in the area of energy economics, climate policy, transport, advanced energy technologies, and international trade. He was a Lead Author of the Fifth Assessment Report (AR5) of the IPCC, and a recipient of the 2012 Pyke Johnson Award (by the Transportation Research Board of the National Academies, USA, for

the best paper in the area of planning and environment).

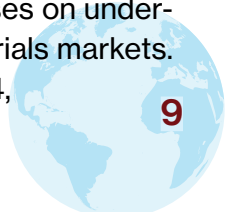
Decarbonizing energy and industry: Elsa Olivetti



MIT • Professor, Materials Science and Engineering

Prof. Olivetti's research focuses on improving the environmental and economic sustainability of materials. Specifically, she develops analytical and computational models to provide early-stage information on the cost and environmental impact of materials. She and her research-group colleagues work toward improving sustainability through increased use of recycled and renewable materials, addressing the carbon footprint of computing, recycling-friendly material design, and intelligent waste disposition. The Olivetti group also focuses on understanding the implications of substitution, dematerialization, and waste mining on materials markets.

A member of the Department of Materials Science and Engineering faculty since 2014,



Olivetti is the strategic advisor for the MIT Climate & Sustainability Consortium, and leads PAIA, an electronics-sector consortium on streamlined methods for carbon footprinting. She received a BS in Engineering Science from the University of Virginia, and a PhD in Materials Science and Engineering from MIT. She spent her PhD program studying the electrochemistry of polymer and inorganic materials for electrodes in lithium-ion batteries.

Restoring the atmosphere, protecting the land and oceans: Jesse Kroll



MIT • Professor, Civil and Environmental Engineering

Prof. Kroll is Peter de Florez Professor in MIT's Departments of Civil and Environmental Engineering and Chemical Engineering. His research centers on the chemistry of the atmosphere, specifically the reactions that control atmospheric organic compounds and particulate matter, and their influence on air quality and climate. He has received an NSF CAREER award, AAAR's Kenneth T. Whitby Award, and AGU's James B. Macelwane Medal. Since 2018 he has served as the Director of the Ralph M. Parsons Laboratory for

Environmental Science and Engineering.

Inventing new policy approaches: Christopher Knittel



MIT • Professor; Associate Dean for Climate and Sustainability, Sloan School of Management

Prof. Knittel's research focuses on industrial organization, environmental economics, and applied econometrics – including understanding how consumers and firms respond to changes in the energy environment. He directs MIT's Center for Energy and Environmental Policy Research and MIT's new Climate Policy Center which works directly with policy makers to analyze existing, proposed and potential policy measures. He is also a Research Associate at the National Bureau

of Economic Research in the Productivity, Industrial Organization, and Energy and Environmental Economics groups. He is the former co-editor of the *Journal of Public Economics*, and an associate editor of the *Journal of Transportation Economics and Policy*, and *Journal of Energy Markets*. His research has appeared in *The American Economic Review*, *The Review of Economics and Statistics*, *The Journal of Industrial Economics*, *The Energy Journal* and other academic journals. He joined the MIT faculty in 2011, having taught previously at University of California – Davis and Boston University. He received his BA in Economics and Political Science from the California State University, Stanislaus, MA in Economics from UC Davis, and PhD in Economics from UC Berkeley.



Wild Cards: Sarah McGrath



MIT • Managing Director, The Climate Project at MIT

Dr. McGrath is a climate scientist advancing climate solutions. She has worked with federal and state agencies to plan and implement programs to increase community climate resilience and mitigate climate risks. For the Climate Project at MIT – a new, institute-wide initiative aimed at addressing the multifaceted challenges of global climate change – McGrath manages two climate missions: *Restoring the Atmosphere*, *Protecting the Land and Oceans*; and *Wild Cards*. She has a BA in Geology from the College of Wooster, and a MS and PhD in Earth, Environmental and Planetary Sciences from Brown University.

Designing resilient and prosperous cities: Christoph Reinhart



MIT • Professor, Architecture

Prof. Reinhart is a building scientist and architectural educator working in the field of sustainable building design and environmental modeling. At MIT, he is the inaugural Alan and Terri Spoon Professor of Architecture and Climate and Director of the Institute's new Climate Mission on Resilient and Prosperous Cities. He also heads the Sustainable Design Lab, an inter-disciplinary group with a grounding in architecture that develops design workflows, planning tools and metrics to evaluate the environmental performance of buildings and neighborhoods. Outside of MIT, he is a managing member at Solemma and served as strategic development advisor for MIT spinoff mapdwell until it joined Palmetto Clean Technology in 2021. Planning tools originating from SDL and Solemma are used in practice and education in over 90 countries. He holds a Dipl. Phys. from Albert-Ludwigs Universität, a MS in Physics from Simon Fraser University, and a Dr. Ing. in Architecture from the Technical University of Karlsruhe.

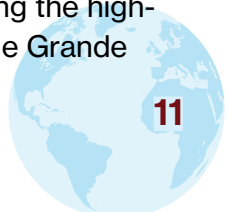
Dinner and Keynote

Susan Solomon



Professor, MIT Earth, Atmospheric & Planetary Sciences; Chair, EAPS Program in Oceans, Atmospheres and Climate; Lee and Geraldine Martin Professor of Environmental Studies

Prof. Solomon is a leader in atmospheric science with published papers that provided both key measurements and theoretical understanding regarding ozone destruction. In 1986-1987, she made some of the first measurements indicating chlorofluorocarbons as the cause of the Antarctic ozone hole. In March 2000, she received the National Medal of Science for “key insights in explaining the cause of the Antarctic ozone hole.” She has received many other honors and awards, including the highest awards of the AGU, American Meteorological Society, the Geochemical Society, the Grande Medaille of the Academy of Sciences in Paris, and the Crafoord Prize of the Swedish



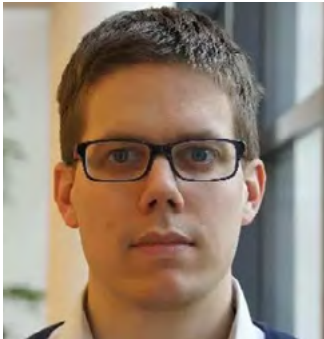
Academy of Sciences; and more than 20 honorary doctoral degrees from universities worldwide. She is a member of the U. S. National Academy of Sciences, American Philosophical Society, and Pontifical Academy of Sciences, and is a Foreign Associate of the French Academy of Sciences and the Royal Society. She served as co-chair of the Fourth Assessment of the IPCC climate science report (2007). She was named one of the year's 100 most influential people in *Time* magazine (2008). Finally, her favorite honor is a glacier in the Antarctic that has been named after her.

Session 4

Moderator: Jennifer Morris - See Session Two for bio.

Sergey Paltsev - See Climate Missions of the Climate Project at MIT for bio.

Jan Kwakkel



Delft University of Technology • Professor, Decision-Making under Deep Uncertainty

Prof. Kwakkel's research interest is model-based support for decision-making under deep uncertainty. His research focuses on developing and testing innovative model-based techniques for the design of dynamic adaptive policy pathways. Within this, he is particularly interested in how to bring moral considerations into the quantitative analyses. He has applied his research in various domains including climate adaptation, flood risk management, transport and logistics,

resource economics, and national safety and security. He is the lead developer of an open-source workbench for exploratory modeling, scenario discovery, and multi-objective robust optimization. Next to his research on decision-making under deep uncertainty, he also has an interest in text mining with a focus on analyzing scientific publications and patents.

Amanda Giang



University of British Columbia • Assistant Professor and Canada Research Chair, Mechanical Engineering; Institute for Resources, Environment and Sustainability

Prof. Giang's research addresses environmental policy analysis challenges through an interdisciplinary lens, with a focus on developing better modeling tools and methods for assessing and addressing pollution and environmental injustice, and understanding the links between air quality, decarbonization, and equity to inform planning decisions. She holds a BSc in Engineering Science from the

University of Toronto, and a SM in Technology Policy and PhD in Engineering Systems from MIT.



Session 5

Moderator: Noelle Selin - See Session 1 for bio.

Amy Luers



Microsoft • Global Director, Sustainability Science and Innovation

Dr. Luers leads Microsoft's AI 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. 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. She is a member of the National Academy of Science Roundtable on AI and Climate Change and a member of the Council on Foreign Relations. She has published widely on topics including societal vulnerability and resilience, climate impact and policy, science communication, AI/digitalization and sustainability. She has a PhD in Environmental Science and an MA in International Policy Studies from Stanford University, BS and MS degrees in Environmental Systems Engineering from Humboldt State University, and a BA in Philosophy from Middlebury College.

Edward Wack



MIT Lincoln Laboratory • Division Head, Biotechnology and Human Systems

Mr. Wack shares responsibility for research, development, evaluation and technology transfer of advanced technologies and systems for chemical and biological defense, human health and performance, and global resilience to climate, conflict and disaster threats. Wack previously served as assistant head of MIT Lincoln Laboratory's Homeland Protection and Air Traffic Control Division and leader of its Bioengineering Systems and Technologies Group, which focuses

on innovative advanced technology programs in biodefense, forensics, and biomedical research; Director of Future Acquisition at the Joint Program Executive Office for Chemical and Biological Defense within the Department of Defense; and assistant leader of Lincoln Lab's Sensor Systems and Applications Group. He has also been involved in various aspects of satellite remote sensing programs, including system architectures, sensor designs, sensor calibration, and requirements analysis and definition. Wack earned a BA degree in Mathematics from the College of the Holy Cross and a MS degree in Bioinformatics from Brandeis University.



Poushali Maji



Schmidt Sciences • Program Scientist

Dr. Maji leads the energy program (DEVI) and the earth systems program (VESRI) at Schmidt Sciences, focusing on supporting transformative research on computational modeling of decarbonization and climate. Informed by expertise in energy systems and systems analysis, her doctoral and postdoctoral research focused on using statistical analysis, atmospheric transport models and systems models to evaluate strategies that address rising carbon emissions along with other pressing challenges such as air pollution and resource depletion.

Prior to joining Schmidt Sciences, she was an Impact Fellow at MIT's Climate & Sustainability Consortium where she led the circular economy workstream. Additionally, as a postdoc at MIT's Institute for Data, Systems and Society, she co-led the Research to Policy Engagement Initiative which aimed to bridge scientific research with on-the-ground action and communities of practice. She has worked with public stakeholders through the Sustainability Scholars program at the City of Vancouver, and in the private sector as a wind energy consultant in Scotland. She holds a BSc in Physics from the University of Delhi, a MSc in Sustainable Energy Systems from University of Edinburgh and a PhD in Resource Management, Environment & Sustainability from University of British Columbia.



SAVE THE DATE: 26–27 MARCH, 2026

Global Change Forum 48

Location: MIT Samberg Conference Center
50 Memorial Drive, Cambridge MA

GLOBAL CHANGE FORUM COORDINATOR:

Dimonika Bray

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Available to answer questions, assist with conference materials,
and receive post-Forum feedback.



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