

Speaker and Moderator Biographical Sketches

Budhendra “Budhu” Bhaduri is a member of the Geographical and Geospatial Sciences Committee and a Corporate Research Fellow and the director of the Geospatial Science and Human Security Division at Oak Ridge National Laboratory (ORNL). In that capacity he is responsible for a research portfolio focusing on novel implementation of geospatial science and technology across energy, environment, and national security missions across the U.S. government agencies, including the Department of Energy, the Department of Defense, and the Department of Homeland Security. Dr. Bhaduri is a fellow of the American Association for the Advancement of Science (AAAS) and the American Association of Geographers (AAG). Dr. Bhaduri is actively involved with academic collaborations and student engagement for research in geospatial science. He is a recipient of the 2017 Carolyn Merry Outstanding Mentor Award from the University Consortium of Geographic Information Science (UCGIS) and the Anderson Medal from the applied geography specialty group of the AAG in 2018. He is a founding member of the U.S. Department of Energy’s Geospatial Sciences Steering Committee and a recipient of the department’s Outstanding Mentor Award for his dedicated service for developing future workforce for the nation. Dr. Bhaduri received his Ph.D. in Earth & Atmospheric Sciences from Purdue University. He has a M.S. from Kent State University, and a M.Sc. and a B.Sc. in Geology from University of Calcutta, India.

Christian Braneon has a broad background in Earth science and civil engineering, with a further focus on climate and environmental justice. He recently joined Carbon Direct as Head of Climate Justice. Dr. Braneon co-leads the Environmental Justice and Climate Just Cities Network at Columbia University’s Earth Institute and serves as Co-Chair of the New York City Panel on Climate Change. He previously served as Co-Director of the United States Environmental Protection Agency’s inaugural Environmental Justice Academy for community leaders. With NASA, as part of its partnership with Microsoft, he developed novel applications of satellite data that aim to enhance resilience to urban heat stress. His work on urban heat islands and environmental justice has been featured in broadcast and print media outlets such as CNN, CNBC, and Science. In 2020 he co-authored America’s Zero-Carbon Action Plan (ZCAP), a comprehensive policy report by the Sustainable Development Solutions Network (SDSN) that presents a strategic plan to create a carbon-neutral economy for the United States by 2050. He received an AXA Award for Climate Science in 2021 for his contributions to the understanding of climate change and related adaptation strategies. He holds a B.S. in applied physics from Morehouse College as well as B.S., M.S., and Ph.D. degrees in civil engineering from Georgia Tech.

Susan Cutter is a Carolina Distinguished Professor of Geography at the University of South Carolina and director of the Hazards Vulnerability & Resilience Institute (HVRI). Her research focusses on hazard vulnerability and disaster resilience science. She has authored or edited 15 books, 150+ plus peer-reviewed articles and book chapters and mentored more than 60 masters and doctoral candidates. Her scientific contributions include the hazards of place model of vulnerability, the disaster resilience of place model, as well as tools for assessing spatial and

temporal variability in vulnerability (Social Vulnerability Index or SoVI®) and resilience (Baseline Resilience Indicators for Communities [BRIC] Index). Her policy-relevant work focuses on the evidentiary basis for hazard mitigation and disaster recovery policy and practice at local, state, national, and international levels. In particular, she continues to lead investigations of the disproportionate spatial and temporal impacts of disasters on vulnerable populations and the places where they live. Dr. Cutter is an elected fellow of American Association for the Advancement of Science (AAAS). She received an honorary doctorate from the Norwegian University of Science and Technology (2015) and elected as a foreign member of the Royal Norwegian Society of Sciences and Letters. She is also the recipient of her discipline's highest awards: American Association of Geographers (AAG) Lifetime Achievement, Presidential Achievement, and the Wilbanks Award for Transformation Research.

Matthias Garschagen holds the chair in human geography and heads the Teaching and Research Unit for Human Environment Relations at the Ludwig-Maximilians-University Munich (LMU). He further is an Honorary Professor at RMIT University, Melbourne, in the School of Global, Urban and Social Studies. Professor Garschagen's research focuses on risk, vulnerability, adaptation, and transformation in the context of environmental hazards and climate change, particularly in cities. He is most interested in the ways urbanization and other societal changes shape future trends in risk, exposure, and vulnerability in relation to environmental and climate hazards. Before joining LMU, Garschagen worked for the United Nations University–Institute for Environment and Human Security (UNU-EHS) in Bonn, where he led a section of around 20 researchers working on Vulnerability Assessment, Risk Management, and Adaptive Planning (VARMAP). He holds a Ph.D. in geography from the University of Cologne, Germany.

Luke Kemp is a Research Associate at the Centre for the Study of Existential Risk (CSER) and Darwin College at the University of Cambridge. He has advised the Australian Parliament on ratifying the 2015 Paris Agreement on climate change and has a decade of experience in international environmental negotiations. He is a regular contributor to the BBC and his work has been covered by media outlets such as the New York Times and the New Yorker. He holds both a Doctorate in International Relations and a Bachelor of Interdisciplinary Studies with first class honours from the Australian National University. Luke is currently writing a book on societal collapse and transformation which will be published with Penguin (Viking Books) in 2023.

Diana Liverman is Regents Professor of Geography, Development and Environment at the University of Arizona. Her research focuses on the human dimensions of global environmental change, especially climate vulnerability, adaptation and justice, climate governance, and the causes and consequences of earth systems change. She has authored more than 130 peer reviewed journal articles, several books, and supervised 75 graduate students. She has served as an IPCC Lead Author, chair of the US National Academies Committee on the Human Dimensions of Global Environmental Change, and an Earth Commissioner. She is an elected member of the US National Academy of Sciences, the British Academy, and the American

Academy of Arts and Sciences. She has been honored by the American Association of Geographers, the American Geographical Society, and the UK Royal Geographical Society for her contributions to understanding the human dimensions of global environmental change.

Glen M. MacDonald is a member of the National Academy of Sciences and the Endowed Chair of Geography of California and the American West, director of the White Mountain Research Center, and a University of California–Los Angeles Distinguished Professor. His research focuses on climate change, its causes, and its impact on the environment and society. He works with observational and other records in North America, Eurasia, and Africa. A particular focus of his research has been water resources and society in western North America and the global semi-arid regions.

Patricia McDowell is co-chair of the Geographical and Geospatial Sciences Committee and a physical geographer whose work has focused on fluvial geomorphology, particularly natural and human controls of river channel and floodplain morphology, response of river systems to environmental change, biogeomorphology, river restoration, and restoration monitoring. Her work has been conducted in Oregon, the Midwest US, New England, and Alaska. She teaches courses in geomorphology, fluvial geomorphology, and watershed science and policy. She is active in several organizations and committees charged with planning, implementing and monitoring river restoration in various river basins of Oregon. She has served on several National Research Council study committees on aspects of river management. The Geomorphology Specialty Group of the AAG awarded her its distinguished career award. She is professor emerita of the Department of Geography and the Environmental Studies Program at University of Oregon, where she has been a faculty member since 1982. She was department head of the Department of Geography for seven years and served as Associate Vice President of Research for two years. She holds a Bachelor's of Architecture and Master's degree in city and regional planning from Illinois Institute of Technology, and a Ph.D. from University of Wisconsin-Madison.

Harvey Miller is co-chair of the Geographical and Geospatial Sciences Committee and the Bob and Mary Reusche Chair in Geographic Information Science, director of the Center for Urban and Regional Analysis, and professor in the Department of Geography, The Ohio State University. He also a courtesy professor in the City and Regional Planning program in the Knowlton School of Architecture, a member of the advisory board of the Sustainability Institute, and an affiliated faculty of the Translational Data Analytics Institute at Ohio State University, and a faculty affiliate of the Center for Injury Research and Policy at Nationwide Children's Hospital in Columbus, Ohio. Dr. Miller's research and teaching interests are at the intersection between geographic information science and transportation, in particular, the analysis of human mobility within cities and regions. The main questions driving his research include sustainable transportation, livable cities, and the relationships between human mobility, health and social equity. Dr. Miller's awards and honors include the Edward L. Ullman Award for Outstanding Contributions to Transportation Geography from the Association of American Geographers (2009) and the Research Award for scholarly contributions to Geographic Information Science

from the University Consortium for Geographic Information Science (2015). He is also an elected Fellow of the American Association of Geographers and the American Association for the Advancement of Science. Dr. Miller received his B.A. and M.A. in geography from Kent State University, and his Ph.D. in geography from Ohio State University.

John O’Loughlin is College Professor of Distinction in Geography and Fellow, Institute of Behavioral Science at the University of Colorado-Boulder. He studies conflict from a political geographic perspective, including the use of spatial methods, surveys of peoples’ experiences and attitudes, and integrated environmental and social data. His current research is focused on climate change, food security and support for violence in Northern Kenya using a panel survey 2020-2022. Another project examines the geopolitical orientations of residents in the countries bordering Russia from 2018 and analyzes changes due to the Russian invasion of Ukraine in 2022.

Mark Pelling is Professor in Risk and Disaster Reduction at University College London. He previously was Professor of Geography in the Department of Geography at King’s College London and has also held positions in the departments of Geography at University of Liverpool and University of Guyana. He served as a coordinating lead author for the Intergovernmental Panel on Climate Change Sixth Assessment Report and Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX) and as lead author on its Fifth Assessment Report. He is a member of the Scientific Steering Committee of the Stockholm Environment Institute and the Development Team for the Future Earth Risk Knowledge Action Network. He earned his Ph.D. in geography from the University of Liverpool.

Siri R. is the Director for Climate and Migration in the National Intelligence Council’s Strategic Futures Group. She studied international relations with a focus on the Middle East, and has worked for over 20 years in the US government on a variety of national security issues related to the region.

Elisabeth Root is a member of the Geographical and Geospatial Sciences Committee and a Senior Research Manager at the Institute for Disease Modeling at the Bill & Melinda Gates Foundation, where she leads the Women’s, Reproductive, Infant and Child Health team. Prior to joining the Foundation, Dr. Root was a professor in the Geography Department and the Division of Epidemiology at The Ohio State University and affiliated with the Translational Data Analytics Program and the Institute for Population Research. Her current research focuses on using complex statistical modeling to examine: 1) social determinants of health and the ways in which population and environmental factors jointly impact women’s and children’s health and well-being, 2) community-level structural and policy factors that impact maternal and child health and family planning, and 3) complex evaluation of overlapping health interventions using dynamical models. She has extensive field-based experience in Bangladesh, Honduras, Philippines, and Indonesia, where she led major survey-based global health projects. She received her B.A. in anthropology and public policy analysis from Pomona College and her M.A.

and Ph.D. in geography from the University of Maryland and the University of North Carolina-Chapel Hill, respectively.

Kathleen Stewart is a member of the Geographical and Geospatial Sciences Committee and a professor in the Department of Geographical Sciences and director of the Center for Geospatial Information Science at the University of Maryland. Dr. Stewart is an expert in geographic information science with a particular interest in space-time GIS. Her research focuses on mobility and human dynamics using big geospatial data, where she is investigating movement and mobility for applications in both health and transportation. This research includes, for example, investigating the movements of local populations in the context of risk of exposure to infectious diseases and analyzing travel behavior patterns for urban transportation studies. Dr. Stewart's awards and honors include the Dean's Scholar Award from the University of Iowa (2010-2012) and the Dean's Award of Excellence from the University of Maine (2006). Dr. Stewart is also a member of the National Geospatial Advisory Committee (NGAC), and the steering committee for the International Conference on GIScience, as well as numerous other international expert panels. She received a B.A. (Hons.) in geography from McMaster University, Canada, an M.S. in geography from the University of British Columbia, Canada, and a Ph.D. in spatial information science and engineering from the University of Maine.

Nina von Uexkull is Associate Professor of Peace and Conflict Research at Uppsala University, Sweden, and an Associate Senior Researcher at the Peace Research Institute Oslo. She currently is a visiting scientist at the Swiss Federal Institute of Technology Zurich (ETH). She has contributed for over 10 years to research on the impacts of climate change and natural hazards on armed conflict and human security, combining advanced statistical methods with surveys and field interviews. Her work has been published in journals such as *Annual Review of Environment and Resources*, *Environmental Research Letters*, *Global Environmental Change*, *Journal of Politics*, *Journal of Conflict Resolution*, *Nature*, *PNAS*, and *Political Geography* and received the 2022 Oscar Prize awarded by Uppsala University. She currently leads the project 'Petroleum, prices and protests: The impact of climate change mitigation on social unrest', funded by the Swedish Research Council.