

Speaker and Moderator Biographical Sketches

KRISTEN KURLAND is a Teaching Professor of Architecture, Information Systems, and Public Policy at Carnegie Mellon University's Heinz College of Information Systems and Public Policy and School of Architecture. She is also the president of a local consulting firm that has implemented computer technology programs in numerous organizations. She is a Past President of CMU's Andrew Carnegie Society and recently served as a Trustee of Carnegie Mellon University. Ms. Kurland's research focuses on interdisciplinary collaborations in health, the built environment, geospatial analysis, and 3D data visualization. Projects focus on addressing equity, health, urban design, economic development, sustainability, big data, and smart cities issues. She actively collaborates with healthcare, non-profit, and industry organizations in Pittsburgh and worldwide. Ms. Kurland is the co-author of a series of best-selling GIS workbooks that are used by universities, colleges, and self-learners. Her accomplishments were the focus of chapter in a recent book by Esri Press highlighting twenty-two global women of influence in GIS. She is the recipient of numerous awards, including the 2020 Carlow University Women of Spirit award; the 2012 Esri Health Communications Award; and the 2004 Esri Special Achievement in GIS Award. Ms. Kurland received a B.A. in architectural studies from the University of Pittsburgh.

KEVIN POMFRET represents a wide range of public and privately held companies in a variety of corporate matters. His experience includes entity selection and formation, raising funds from angel investors and venture capitalists, mergers and acquisitions and private equity transactions. In addition, he counsels companies on technology joint ventures and software and data licenses. Kevin serves as chair of Williams Mullen's Unmanned Systems and as co-chair of the Data Protection & Cybersecurity teams. He counsels companies on Federal Aviation Administration (FAA) regulations as well as state and local laws. He has advised businesses on privacy and data protection laws, including data breaches, and he has helped to establish corporate data security plans. As a former satellite imagery analyst, Kevin is also a thought leader in geospatial technology with almost 30 years of experience in the geospatial community. He has helped companies apply and receive commercial remote sensing licenses from the National Oceanic and Atmospheric Administration (NOAA), and he counsels companies in a variety of geospatial industries, including drones, mapping companies, sensor manufacturers and cloud and software providers. Many of his clients are also government contractors.

Since 2021, **KRISTINE HIRSCHKORN** has been the Co-Chair of the Working Group on Policy and Legal Frameworks for Geospatial Information Management under the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM). The Working Group has produced a range of publications and resources addressing policy and legal considerations, including exploring the notions of authoritative data, trust, and the public good. Kristine also leads a strategic policy and leadership team at the Canada Centre for Mapping and Earth Observation (CCMEO), Natural Resources Canada, Government of Canada. She holds a Masters in Political Science and a Doctorate in Sociology.

NICOLAUS HANOWSKI started as a researcher in the US and then transferred to Mission Operations at the German Space Operations Centre. In 2009 he became responsible for the development of Science Ground Segments for missions, such as Rosetta, Gaia, JWST, Solar Orbiter and Euclid at ESA. Since 2014

he is responsible for the Operations and Ground Segments of the ESA Earth Explorers and the Copernicus Sentinel satellites and the corresponding data management aspects at ESA.

ELISABETH D. ROOT is 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.

RAHUL RAMACHANDRAN is a senior Research Scientist at NASA's Marshall Space Flight Center (MSFC), where he also serves as the Senior Data Science Strategist for the Science Research and Projects Division. His expertise spans data science, informatics, and artificial intelligence/machine learning (AI/ML), with a focus on developing innovative methods to manage and analyze large geospatial datasets. His research has significantly advanced our ability to understand Earth's complex systems. His achievements have been recognized with numerous prestigious honors, including the Presidential Early Career Award for Scientists and Engineers (PECASE) and NASA's Exceptional Achievement Medal. In 2023, he was awarded the American Geophysical Union's Greg Leptoukh Lecture award, which highlights his contributions to informatics, computational science, and data science through research, education, and outreach.

ANDREW TURNER is the Director and CTO of Esri R&D in Washington, DC, developing new technology for open data, civic technology, and geospatial web collaboration. Andrew's work focuses on cross-domain collaboration and democratizing data-driven decisions by creating open tools for cartography and analysis. He wrote Introduction to Neogeography based on my experiences and vision for a collaborative world improved with open data sharing. His teams are developing new technologies for government and citizen collaboration to build communities. This includes the global ArcGIS Hub for open access to authoritative data, as well as open-source and interactive tools and applications to build and share insights and solutions. He is an active member in many organizations developing and supporting open standards such as the OpenStreetMap, Open Geospatial Consortium, Open Web Foundation, OSGeo, and World Wide Web Consortium. Andrew is also the co-founder of CrisisCommons, a global community of volunteers leveraging technology to assist in building solutions for disaster response, recovery and rebuilding.

GENGCHEN MAI is currently a Tenure-Track Assistant Professor at the Department of Geography and the Environment, University of Texas at Austin. He got his Ph.D. in GIScience from UCSB Geography. Before becoming a faculty, he was a Postdoc at Stanford Computer Science. Before joining UT, he was an

Assistant Professor at the University of Georgia. Dr. Mai's research is Spatially Explicit Artificial Intelligence, Geo-Foundation Models, Geographic Knowledge Graphs, etc. Dr. Mai's work has been published not only in many top geography/GIScience/Remote Sensing journals but also in many ML/AI conferences such as NeurIPS, ICML, ICLR, ACM SIGIR, ACM SIGSPATIAL, etc. He is the recipient of many prestigious awards including AAG 2021 Dissertation Research Grants, AAG 2022 William L. Garrison Award for Best Dissertation in Computational Geography, AAG 2023 J. Warren Nystrom Dissertation Award, Top 10 WGDC 2022 Global Young Scientist Award, the Jack and Laura Dangermond Graduate Fellowship, 2025 Geospatial Rising Star Award, etc. He is currently the registration chair of ACM SIGSPATIAL 2025, vice chair of AAG GISS Specialty Group, and PC member for NeurIPS, ICML, ICLR, WWW, AISTATS, ACM SIGIR, ACM SIGSPATIAL, GIScience, etc.

HENDRIK F. HAMANN is the IBM Chief Scientist and Global Strategy leader for Climate and Sustainability at the IBM T.J. Watson Research Center. Dr. Hamann has been leading the Physical Analytics program in IBM, which explores the intersection of big Internet of Things data, physical modeling, data analytics, machine-learning, and artificial intelligence. Since 2015 his focus has been as a Distinguished Researcher on developing advanced geospatial capabilities and technologies, for example, in precision agriculture and adjacent spaces and in applying advanced artificial intelligence and machine learning to a geospatial data at scale. Dr. Hamann is an IBM Master Inventor and holds more than 140 patents. His NASEM committee service is related to technology strategies and development. Dr. Hamann was awarded the 2016 AIP Prize for Industrial Applications of Physics. He is a fellow of the American Physical Society (APS) and a member of the New York Academy of Sciences. He earned his Ph.D. with summa cum laude from the University of Göttingen, Germany.

GEORGIOS TECHNITIS offers his services as a Head of the Geo-Data Modelling at SwissRes IT division and he specializes in geo-spatial solutions inside and outside of the corporate world. Focusing on a diverse spectrum of remote sensing products, he feels at home when installing wireless network setups, advancing Spatio-temporal products, or designing a full fledge geo-platform. With an interdisciplinary background in Geography, Geo-Informatics and Geo-Science he always aims for a fine balance between creative innovation and efficient realism.

BRUNO SÁNCHEZ-ANDRADE NUÑO is the Executive Director of Clay, the AI for Earth nonprofit, where he focuses on making AI learn Earth with open-source, open-data and open for business. He co-founded and leads the project. Previously, Bruno co-founded and directed the Planetary Computer at Microsoft. His past roles also include leading data projects at the World Bank and Chief Scientist at Mapbox, emphasizing his extensive experience in technology, and environmental and social impact. Bruno's authorship of "Impact Science: The science of getting to radical social and environmental breakthroughs" highlights his commitment to science for social good. Recognized as a Young Global Leader by the World Economic Forum, Bruno's contributions to science and policy have been widely acknowledged. Bruno also provides consulting services through ImpactScience.dev. His work spans multiple global locations. Originally from Asturias, Spain, Bruno currently resides in Copenhagen with his family.

SAMANTHA ARUNDEL is a research geographer in the Center of Excellence for Geospatial Information Science at the U.S. Geological Survey. Her research focuses on automating physical feature mapping and modeling using various techniques like traditional raster modeling, GEOBIA and machine learning. Arundel received her Ph.D. in geography from Arizona State University in 2000 and was an assistant and then associate professor at Northern Arizona University where her research focused on spatial modeling and automation of plant/climate relationships. In 2009, when she joined the USGS, she first served as raster specialist in the Ortho & Elevation section and as elevation and hydrography specialist for the Applied Research and Technology Branch. During this time, she led the contour generation development team in developing algorithms for automating contour production from 10-meter elevation data for the USTopo product; and served as the program manager for the automation of the National Elevation Dataset production, in its transition from Earth Resource Observation System (EROS) to the National Geospatial Technical Operations Center (NGTOC). In 2015, Sam moved to the Center of Excellence for Geospatial Information Science, the research section of the NGTOC, where she is a Research Geographer conducting research on automated terrain mapping and modeling using various techniques like traditional raster modeling, geographic object-based image analysis and machine learning.

MARGUERITE MADDEN is a professor in the Department of Geography and director of the Center for Geospatial Research (CGR) at the University of Georgia. Her research combines remote sensing and geospatial analyses with landscape ecology, particularly detailed vegetation mapping and human-animal-environment interactions. Recent projects include the use of uncrewed aerial systems, GPS tracking, and photogrammetry (Structure from Motion) analyses to assess animal movement behavior related to subsistence farming and human-wildlife conflict, and the incorporation of virtual and augmented reality technologies in teaching and research. Dr. Madden received the American Society of Photogrammetry and Remote Sensing (ASPRS) Lifetime Achievement Award in 2020 and NASA's Silver Achievement Medal in 2018. She is a fellow ASPRS and is a past president of that society. She is also a fellow of the International Society for Photogrammetry and Remote Sensing, and served as a technical president for its commission on digital mapping and geodatabases. She received a B.A. and M.A. in biology from the State University of New York, and a Ph.D. in ecology from the University of Georgia.

KEITH J. MASBACK is the Owner of Plum Run, LLC, which provides advisory and consulting services to startups, small companies, and government organizations working in geospatial intelligence and related fields. Previously, he spent more than 10 years as president and chief executive officer of the U.S. Geospatial Intelligence Foundation (USGIF), establishing a professional certification program and substantially increasing the number of its other accredited academic programs. Before joining USGIF, he more than 20 years as an officer in the U.S. Army and as a government civilian employee, culminating in the Senior Executive Service at the National Geospatial-Intelligence Agency. Many of his positions involved planning, acquiring, and tasking airborne and spaceborne remote sensing assets for military and intelligence purposes. Mr. Masback has served on numerous boards and advisory committees, and is the immediate past chair of the National Geospatial Advisory Committee and a current member of the Board of Advisors of the Global Special Operations Forces Foundation. He is a Councilor and Fellow of the American Geographical Society, and was recognized as the Geospatial Ambassador of the Year at the 2019 Geospatial World Forum. Mr. Masback holds a B.A. in political science from Gettysburg College and completed the Post-Graduate Intelligence Program at the National Intelligence University.