



Meeting of the  
President's Council of Advisors on Science and Technology (PCAST)

November 9, 2022

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## Invited Speaker Biographies

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*(in order of presentation)*

### **SOLOMON HSIANG, PHD**

Solomon Hsiang directs the Global Policy Laboratory at Berkeley, where his team is integrating econometrics, spatial data science, and machine learning to answer questions that are central to rationally managing planetary resources--such as the economic value of the global climate, how the UN can fight wildlife poaching, the effectiveness of treaties governing the oceans, and whether satellites and AI can be combined to monitor the entire planet in real time. Hsiang earned a BS in Earth, Atmospheric and Planetary Science and a BS in Urban Studies and Planning from the Massachusetts Institute of Technology, and he received a PhD in Sustainable Development from Columbia University. He was a Post-Doctoral Fellow in Applied Econometrics at the National Bureau of Economic Research (NBER) and a Post-Doctoral Fellow in Science, Technology and Environmental Policy at Princeton University. Hsiang is currently the Chancellor's Professor of Public Policy at the University of California, Berkeley, a Co-Director at the Climate Impact Lab, Research Associate at the NBER, a National Geographic Explorer, and an Andrew Carnegie Fellow. Hsiang is currently the Lead Author of the Economics chapter for the Fifth National Climate Assessment. In 2020, he was awarded the President's Medal by the Geological Society of America.

### **ALICE C. HILL, JD**

Alice C. Hill is an expert on building resilience to catastrophic risks. She previously served as Special Assistant to President Barack Obama and Senior Director for Resilience Policy on the National Security Council staff where she led the development of national policy, including executive orders related to natural disasters, national security, and climate change. Prior to this, Hill served as senior counselor to the Secretary of the U.S. Department of Homeland Security (DHS). At DHS, she led the formulation of the department's first-ever climate adaptation plan and the development of strategic plans regarding

catastrophic biological and chemical threats, including pandemics. Hill currently serves as the David M. Rubenstein Senior Fellow for Energy and the Environment at the Council on Foreign Relations and was a Research Fellow at Stanford University's Hoover Institution. She is the author of *The Fight for Climate After COVID-19* and co-author of *Building a Resilient Tomorrow*. She currently serves on the boards of the Environmental Defense Fund and Munich Re Group's U.S.-based companies. In 2020, Yale University and the Op-Ed Project awarded her the Public Voices Fellowship on the Climate Crisis. Earlier in her career, Hill was a supervising judge on both the Los Angeles Municipal and Superior Courts as well as a federal prosecutor and chief of the white-collar crime unit at the United States Attorney's Office in Los Angeles, California.

### **CARLOS MARTÍN, PHD, MENG**

Carlos Martín is Project Director of the Remodeling Futures Program, and has over 25 years of experience researching housing technology and the physical quality of existing homes. Martín's research on green housing, disaster mitigation and recovery, substandard housing, construction innovation, and the construction workforce connects the bricks-and-mortar of existing housing to its social outcomes. Martín came to the Center from the Urban Institute, where he was a senior fellow. Previously, he was an assistant staff vice president for construction codes and standards at the National Association of Home Builders, SRP professor for energy and the environment at Arizona State University, and coordinator for the US Department of Housing and Urban Development's Partnership for Advancing Technology in Housing. Martín is currently serving as a David M. Rubenstein Fellow at the Brookings Institution's Metropolitan Policy Program and also serves on several National Academy of Science committees. He has previously served on advisory boards for HUD, EPA, and FEMA. Martín received his BSAD in architecture from the Massachusetts Institute of Technology and his MENG and PhD degrees in civil and environmental engineering from Stanford University.

### **DEB BODEAU**

Deb Bodeau is a Senior Principal Engineer in the Cyber Solutions Innovation Center at The MITRE Corporation. For more than 30 years, she has investigated challenges and solutions related to risks arising from our increasing and evolving dependence on information technology. She has published in such areas as risk assessment and risk modeling methods, security policy, mission assurance, and cyber resiliency. Deb is a co-author of NIST SP 800-160 Vol. 2, *Developing Cyber Resilient Systems*.

### **THERESE P. McALLISTER, PHD, MENG**

Therese McAllister is the Community Resilience Group Leader and Program Manager at the National Institute of Standards and Technology (NIST) and the NIST Liaison for the NIST-funded Center for Risk-Based Community Resilience Planning, led by Colorado State University. McAllister conducts research on community resilience, focusing on the integrated performance of physical infrastructure and social and economic systems and their recovery after disruptive events. She has expertise in structural reliability, risk assessment, failure analysis, and the performance of structures in fire. She co-led structural failure analyses of the WTC towers and WTC 7 for the NIST WTC Investigation, conducted reliability studies of New Orleans levee systems for the USACE following Hurricane Katrina, and evaluated Hurricane Sandy

flood effects on infrastructure as part of the FEMA MAT. She recently was recognized with the 2021 ASCE Walter P Moore, Jr award and 2018 ASCE Ernest E Howard Award for her research on structural codes and standards and on resilience. McAllister is an ASCE Distinguished Member and Structural Engineering Institute Fellow and serves on the ASCE/SEI 7 standard committee, Infrastructure Resilience Division, the Technical Council on Life-Cycle Performance, Safety, Reliability and Risk of Structural Systems, and the SEI Board Level Resilience Committee.

### **JIM PLATT, MA, MBA**

Jim Platt is Acting Associate Director of the Plans and Coordination division in the National Risk Management Center. He previously served as the Chief of DHS's Strategic Defense Initiatives. Since 2016 he has led DHS' efforts to define Position, Navigation and Timing requirements for critical infrastructure with the objective of reducing the risk to the nation's infrastructure created by over dependence on GPS. He was a major contributor in developing the concepts and requirements in Presidential Executive Order 13905, *Strengthening National Resilience through Responsible Use of Positioning, Navigation, and Timing Services*. In 2019 Jim assumed responsibilities for Electromagnetic Pulse Defense, Space Weather Operations and Space Risks. He currently serves as a co-Chair of the space weather mitigation group, Executive Office of the President, Office of Science and Technology Office. Education includes: a master's degree in leadership from Georgetown University; a Master of Business Administration from Virginia Commonwealth University and a Management and Computer Science degree from California University of Pennsylvania. He retired from the Army in 2007 as a Lieutenant Colonel in the Military Police.

### **DAVID MUSSINGTON, PHD**

David Mussington serves as the Executive Assistant Director for Infrastructure Security at the Cybersecurity and Infrastructure Security Agency (CISA) as of February 2021. As Executive Assistant Director, he helps lead CISA's efforts to secure the nation's critical infrastructure in coordination with government and the private sector. Key areas of focus include vulnerability and risk assessments; securing soft targets and crowded places; training and exercises; and securing high-risk chemical facilities. Prior to joining CISA, Mussington was Professor of the Practice and Director for the Center for Public Policy and Private Enterprise at the School of Public Policy for the University of Maryland. His research and teaching activities focused on cyber-physical system risk management, election cybersecurity, and critical infrastructure security risk management. In 2010, he was senior adviser for cyber policy in the U.S. Department of Defense (DOD), later serving on the Obama administration's National Security Council staff as Director for surface transportation security policy. In the former role, he led preparation and release of the 2011 Defense Strategy for Operating in Cyberspace, which was DOD's first enterprise-wide cyber strategy document. Mussington has a Doctorate in Political Science from Canada's Carleton University. He also received a Bachelor of Arts and a Master of Arts degree in Economics and Political Science from the University of Toronto. He undertook post-doctoral work at Harvard's Belfer Center where he was a MacArthur Scholar, and at the U.K.'s International Institute for Strategic Studies (IISS).

**KATHLEEN FISHER, DCS**

Kathleen Fisher assumed the role of office director for DARPA's Information Innovation Office (I2O) in May 2022. In this position, she leads program managers in the development of programs, technologies, and capabilities to ensure information advantage for the United States and its allies, and coordinates this work across the Department of Defense and U.S. government. Fisher was previously the deputy office director for I2O from October 2021 to April 2022. This is Fisher's second tour at DARPA, having previously served as a program manager in I2O from 2011 to 2014. As a program manager, she conceptualized, created, and executed programs in high-assurance computing and machine learning. Her High-Assurance Cyber Military Systems (HACMS) and Probabilistic Programming for Advancing Machine Learning (PPAML) programs continue to benefit the Department of Defense and U.S. commercial industry. Fisher joined DARPA from Tufts University, where she was a professor in the Department of Computer Science, and served as chair of the department from 2016 to 2021. Earlier in her career, she was a principal member of the technical staff at AT&T Labs Research. She is a AAAS fellow, an ACM fellow, and a Hertz Foundation fellow. Fisher has served as chair of the ACM Special Interest Group in Programming Languages (SIGPLAN) and as program chair for three of SIGPLAN's marquee conferences: PLDI, OOPSLA, ICFP. She has also served as an associate editor for TOPLAS and as an editor of the Journal of Functional Programming. Fisher has long been a leader in the effort to increase diversity and inclusion in computer science. She was co-chair of the Computing Research Association's Committee on the Status of Women (CRA-W) for three years, and she co-founded SIGPLAN's Programming Language Mentoring Workshop (PLMW) series. Fisher is a recipient of the SIGPLAN Distinguished Service Award. She is a past chair of DARPA's Information Science and Technology (ISAT) Study Group and a member of the Board of Trustees of Harvey Mudd College. Fisher holds a doctorate in computer science from Stanford University.