

# Cascading Failures, Compounding Risks, and Social Instability

Exploring the Geographical Dimensions of Extreme Climate Change



**THURSDAY, DECEMBER 8, 2022**

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Droughts, storms, floods, wildfires, heatwaves, and similar weather-related events have been increasing in recent years. These billion-dollar disasters are expected to continue to increase over the next few decades due to climate change, putting stress on infrastructure, institutions, communities, and people. Predictions of future climate change are critical to preparing for impacts. Most planning for future impacts has been based on mid- and lower-end predictions from earth system models, but impacts and implications for society could be much worse under extreme climate change scenarios.

This meeting of the Geographical and Geospatial Sciences Committee will address the implications of these scenarios and the role novel geospatial data sources and analytics can play to improve understanding for basic research, policy, and responses.

## **EASTERN STANDARD TIME**

**11:00–11:10**

### **Welcome**

**Harvey Miller** and **Pat McDowell**, Co-Chairs, Geographical and Geospatial Sciences Committee

**11:10–12:30**

### **Extreme Climate Change Scenarios**

**Luke Kemp**, Research Associate, Centre for the Study of Existential Risk, University of Cambridge

*Discussants:*

- **Susan Cutter**, Carolina Distinguished Professor and Co-Director of Hazards Vulnerability & Resilience Institute, University of South Carolina
- **Diana Liverman**, Emeritus Professor of Geography, Development and Environment, University of Arizona

*Moderator:* **Kathleen Stewart**, Member, Geographical and Geospatial Sciences Committee

**12:30–1:00**

### **Lunch Break**

**1:00–2:15**

### **Social Vulnerability and Infrastructure Concerns under Extreme Climate Change**

*Panelists:*

- **Christian Braneon**, Head of Climate Justice, Carbon Direct
- **Matthias Garschagen**, Chair in Human Geography, Ludwig Maximilian University of Munich
- **Mark Pelling**, Professor in Risk and Disaster Reduction, Institute of Risk and Disaster Reduction, University College London

*Moderator:* **Elisabeth Root**, Member, Geographical and Geospatial Sciences Committee

**2:15–2:30**      **Break**

**2:30–3:45**      **Security Concerns under Extreme Climate Change**

*Panelists:*

- **Siri Renier**, Director for Climate & Migration, National Intelligence Council
- **John O’Loughlin**, College Professor of Distinction, University of Colorado, Boulder
- **Nina von Uexkull**, Associate Professor, Department of Peace and Conflict Research, Uppsala University

*Moderator:* **Budhu Bhaduri**, Member, Geographical and Geospatial Sciences Committee

**3:45–4:00**      **Wrap-up**

- **Glen MacDonald**, Member, Geographical and Geospatial Sciences Committee