



## SESSION 1

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### **Varun Rao Mallampalli, Dartmouth College, Hanover, New Hampshire**

Varun Rao Mallampalli is a PhD student under Professor Mark Borsuk. His primary research interest is in the field of climate negotiations and policy modelling. He works with energy-economic agent based models and game-theoretic/ heuristic climate negotiations models to identify bottom-up and top-down processes that enable or constrain climate policy agreements. The goal of his efforts is to develop a linked agent based and negotiations model of climate policy; and to determine what specific social or economic incentives can motive a climate policy consensus.

### **Georgia Mavrommati, Dartmouth College, Hanover, New Hampshire**

Georgia Mavrommati is a Postdoctoral Research Associate in Richard Howarth's lab in the Environmental Studies program at Dartmouth. Her primary research is defining operational conditions for achieving sustainable development in order to ensure intergenerational welfare. She employs system dynamics methodology to understand human-environment interactions and identify leverage points for policy making. She will be working with Dr. Howarth and Dr. Borsuk at the Ecosystems and Society EPSCoR project to relate scientific information about ecosystem services to preferences and decisions.

### **Eric Booth, University of Wisconsin, Madison**

Eric is a lead scientist on the [Yahara 2070 project](#), which is using stakeholder scenarios to examine potential futures for ecosystems and human well-being in Wisconsin's Yahara Watershed. He is currently an Assistant Research Scientist in the Departments of Agronomy and Civil & Environmental Engineering at the University of Wisconsin-Madison. He completed his PhD in 2011 in Limnology working within the [Hydroecology Research Group](#) in the Department of Civil & Environmental Engineering. Current research interests cut across many disciplines with water as a centerpiece; these include hydroecology, impacts of climate and land-use change, urban stormwater management, wetland/stream restoration, water quality, groundwater hydrology, fluvial geomorphology, environmental history, agroecology, remote sensing, and numerical modeling.

### **Dan Brown, University of Michigan, Ann Arbor**

Dan is a professor at the School of Natural Resources and Environment and Director of the Environmental Spatial Analysis Laboratory at the University of Michigan, as well as a Research Professor at the Survey Research Center, Institute for Social Research. His research is centered around linking landscape patterns with ecological and social processes. A particular area of focus is on land-use and land-cover dynamics and Dan makes use of multiple methods, including GIS, remote sensing, digital terrain analysis, ecological mapping, social surveys and statistics, and computer simulation. Specific projects explore the interacting social and ecological aspects of land use and cover change in rural and peri-urban environments, land use and vulnerability to flooding in China, and spatial and social effects on health. He recently chaired the National Research Council Committee, "Needs and Research Requirements for Land Change Modeling

## **PLENARY**

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### **Steve Peterson, Dartmouth College, Hanover, New Hampshire**

Steve has more than 25 years of experience in the application of systems thinking and system dynamics in a variety of contexts, including business, education, and government. He has extensive experience in the design and development of system dynamics-based simulation models, and has played a lead role in the development of models addressing a broad array of topics – including human resource dynamics, chronic disease, and energy.

## **SESSION 2**

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### **Caroline Gottschalk Druschke, University of Rhode Island, Kingston, Rhode Island**

Caroline uses her background in rhetoric and communication to study the human dimensions of natural resources management. Druschke takes a mixed-methods, place-based approach to ongoing research into watershed-based conservation outreach, the impact of climate change on commercial fishing policy, and public participation in freshwater restoration efforts. She has presented internationally on her work, published in communication and conservation journals, and received research fellowships from the United States Environmental Protection Agency, the National Science Foundation, and AAUW. She holds a joint appointment in the Department of Writing & Rhetoric and the Department of Natural Resources Science at the University of Rhode Island

### **Mark Borsuk, Dartmouth College, Hanover, New Hampshire**

Mark's research broadly concerns the use of scientific information in complex decision processes. More specifically, he develops methods and models that integrate knowledge and data across disciplines to generate probabilistic predictions for supporting environmental and human health policy and management. Mark is an assistant professor of Engineering at the Thayer School of Engineering at Dartmouth College where he teaches courses in modeling, decision analysis, systems analysis, and statistics at the undergraduate, professional, and graduate levels. He is a Steering Committee member for the S3 RCN.

## **SESSION 3**

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### **Arika Ligmann-Zielinska, Michigan State University, East Lansing, Michigan**

Arika uses broad range of modeling approaches that capture the dynamic relationship between human decision making and natural systems, with an emphasis on land use change. The philosophical approach she employs focuses on models as adaptable computational laboratories allowing for exploration, scenario building, and visualization of complex system characteristics such as the interrelationships between societies and their landscapes, the dependence of system trajectories on human decisions made in the past, and the acknowledgement of the decision making diversity. Arika is an assistant professor in the Department of Geography at Michigan State University. She has a PhD in Geography from San Diego State University and University of California Santa Barbara and an MS in Geography from Adam Mickiewicz University in Poznan, Poland.

### **Gil Pontius, Clark University, Worcester, Massachusetts**

Gil is an environmental statistician who creates quantitative methods for Land Change Science and Geographic Information Science (GIS). He notes that his most important intellectual creation is a conceptual philosophy to compare maps mathematically in ways that match visual intuition. These methods help investigators to analyze Coupled Human and Natural Systems. For example, in the Plum Island Ecosystems of Massachusetts, Gil examines why humans fertilize & water their lawns, and how this influences watering bans and river pollution. He is funded primarily by the National Science Foundation (NSF), through the Long Term Ecological Research (LTER) program, the Urban Long Term Research Areas (ULTRA) program, and the

Research Experiences for Undergraduates (REU) program. Gil is a professor in the Graduate School of Geography at Clark University.

**Nasser Olwero, World Wildlife Fund, Washington DC**

Nasser specializes in conservation GIS and spatial modeling, ecosystem services mapping, database management, programming and web development. He is developing a tool for generating conservation-related scenarios that can be used in InVEST. Nasser has been working with the Natural Capital Project, a partnership that develops tools for valuing natural resources. With an interest in investigating and mapping the value of nature, Nasser is also part of the InVEST (Integrated Valuation of Ecosystem Services and Tradeoffs) software development team, developing the software code in Python. He has participated in mapping ecosystem services in East Africa and Indonesia and is currently developing a tool for generating conservation-related scenarios. Nasser graduated from Moi University in Kenya with an MPhil. in environmental information systems.

**Emily McKenzie, World Wildlife Fund, London**

Emily specializes in ecological economics and environmental policy. Her current research interests include the use of ecosystem service information in decision-making, scenario development and understanding the links between ecosystem services and human wellbeing. Emily manages the Natural Capital Project at WWF and leads NatCap's work at the science-policy interface. She has applied environmental economics to important policy questions in more than sixteen countries in Asia, Europe, Africa, the Pacific, Caribbean and Latin America. Her research has led to nature's benefits being considered in decisions around spatial planning in Indonesia, black pearl farming in the Cook Islands, aggregates extraction in the Marshall Islands, coral reef protection in Bermuda, and forest biodiversity in Montserrat. Emily received Master's degrees in International Policy Studies from Stanford University and Economics from Cambridge University.

**S3 RCN PROJECT STAFF**

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**Kathy Fallon Lambert, Harvard Forest, Harvard University, Petersham, Massachusetts**

Kathy Fallon Lambert specializes in the development and communication of synthetic, policy-relevant research for environmental decision-making. She is a principal investigator of the Scenarios, Services, and Society RCN; co-author of *Wildlands and Woodlands: A Vision for the New England Landscape* and *Changes to the Land: Four Scenarios for the Future of the Massachusetts Landscape*; and director the Science Policy Exchange. Previously, Kathy was the first executive director of the Hubbard Brook Research Foundation and helped develop the Science Links program to span the boundaries between biogeochemical research and related public policy. Kathy holds a B.A. from Dartmouth College and an M.F.S. from the Yale F&ES. She is a Switzer Fellow, Leopold Schepp Scholar, and recipient of the U.S. EPA Environmental Merit Award. Kathy is the S3 RCN Project Director and Steering Committee Chair.

**Patrick Field, Consensus Building Institute, Cambridge, Massachusetts**

Patrick is the Managing Director at the Consensus Building Institute (CBI) and Associate Director of the MIT-Harvard Public Disputes Program. He has helped thousands of stakeholders reach agreement on water resources, land use, development, energy and natural resource management issues across the United States and Canada. As one of the country's most experienced group facilitators, Pat has helped to design and manage dozens of large and diverse working groups, scientific workshops, strategic planning efforts, and extensive public involvement strategies. In New England, he has worked on energy policy and siting issues in Vermont, Maine, New Hampshire and Massachusetts. Patrick is listed on the rosters of conflict resolution professionals of the U.S. Institute for Environmental Conflict Resolution, the U.S. Environmental Protection Agency, and the U.S. Department of Interior. He holds a Masters in

Urban Planning from the Massachusetts Institute of Technology and a BA from Carleton College, summa cum laude. Pat is the facilitator for the S3 RCN workshops and training sessions.

**Katie Theoharides, Theoharides Consulting, Grafton, Massachusetts**

Katie's work focuses on climate change adaptation, strategic conservation planning, incentive programs, and the translation of science into policy. Her portfolio includes white papers and policy briefs, GIS-based conservation plans, group facilitation, and climate change vulnerability assessments. Prior to her consulting work, Katie served as the executive director of a Massachusetts land trust, and spent several years working on conservation policy in Washington, D.C. Katie holds a B.A. in ecology from Dartmouth College and a M.S. in environmental biology from the University of Massachusetts-Boston. Katie is the coordinator for the S3 RCN project.

**Jonathan Thompson, Harvard Forest, Harvard University, Petersham, Massachusetts**

Jonathan Thompson is a Senior Ecologist at the Harvard Forest. He studies the ways that ecosystems change over large areas and long timeframes, with an emphasis on quantifying how land use--including harvest, conversion, and conservation--affect forest processes and services. Occasionally he'll sneak out and collect data in the field, but more often he relies on simulation models, remote sensing, and large databases to understand landscape dynamics. Thompson came to Harvard Forest in November 2013 after spending five years with a dual appointment as a Research Ecologist at the Smithsonian Institution and Research Assistant Professor at the University of Virginia. He received a PhD in Forest Ecology and an MS in Forest Policy from Oregon State University. He is the Science Coordinator for the S3 RCN project and on the Steering Committee.