

## 2011 NSF EaSM Awards

Mary C. Barth

National Center for Atmospheric Research

[Chemistry and Climate over Asia: Understanding the Impact of Changing Climate and Emissions on Atmospheric Composition](#)

L.M. Berliner

Ohio State University

[Collaborative Research: Bayesian Hierarchical Climate Prediction](#)

Michela Biasutti

Columbia University

[Use of Climate Information in International Negotiation for Adaptation Resources](#)

Gordon Bonan

University Corporation for Atmospheric Research

[Assessing and Improving the Scale Dependence of Ecosystem Processes in Earth System Models](#)

David H. Bromwich

Ohio State University

[Atmosphere-Ocean Coupling Causing Ice Shelf Melt in Antarctica \(ACCIMA\)](#)

Enrique N. Curchitser

Rutgers University

[Climate-to-humans: A study of urbanized coastal environments, their economics and vulnerability to climate change](#)

Clara Deser

National Center for Atmospheric Research

[An Informed Guide to Climate Data Sets with Relevance to Earth System Model Evaluation](#)

William Dewar

Florida State University

[Topographic Control of the Gulf Stream](#)

Benjamin S. Giese

Texas A&M University

[Developing and Implementing Ocean-Atmosphere Reanalyses for Climate Applications \(OARCA\)](#)

Co-funded by the Department of Energy, Office of Science

Michael Ghil

UCLA

[Climate Sensitivity, Stochastic Models and GCM-EaSM Optimization](#)

Lisa Goddard  
Columbia University  
[Multi-scale climate information for agricultural planning in southeastern South America for coming decades](#)

Gregory J. Holland  
National Center for Atmospheric Research  
[Assessing High-Impact Weather Response to Climate Variability and Change Utilizing Extreme Value Theory](#)

Gregory J. Holland  
University Corporation for Atmospheric Research  
[Developing a Next-Generation Approach to Regional Climate Prediction at High Resolution](#)  
Co-funded by the Department of Energy, Office of Science

Daniel J. Jacob  
Harvard University  
[Arctic Climate Response to Decadal Changes in Radiative Forcing from Aerosols and Ozone](#)

Robert J. Lempert  
RAND  
[Informing Climate-Related Decisions with Earth Systems Models](#)

Natalie M. Mahowald  
Cornell University  
[Improved Regional and Decadal Predictions of the Carbon Cycle](#)

John C. Marshall  
MIT  
[MOBY: Modeling Ocean Variability and Biogeochemical Cycles](#)

John B. Marston  
Brown University  
[Direct Statistical Approaches to Large-Scale Dynamics, Low Cloud Dynamics, and their Interaction](#)

Guillermo P. Podesta  
University of Miami – RSMAS  
[Integration of decadal climate predictions, ecological models and human decision-making models to support climate-resilient agriculture in the Argentine Pampas](#)

Thomas M. Powell  
University of California – Berkeley  
[The Dynamic Watershed and Coastal Ocean: Predicting Their Biogeochemical Linkages and Variability over Decadal Time Scales](#)

David A. Randall  
Colorado State University  
[Simulations of Anthropogenic Climate Change Using a Multi-Scale Modeling Framework](#)  
Co-funded by the Department of Energy, Office of Science

Benjamin L. Ruddell  
Arizona State University  
[Assessing decadal climate change impacts on urban populations in the Southwestern USA](#)

Lynn M. Russell  
University of California - San Diego  
[Multiscale Modeling of Aerosol Indirect Effects on Decadal Timescales](#)  
Co-funded by the Department of Energy, Office of Science

Gennady Samorodnitsky  
Cornell University  
[Decadal predictability of extreme events: Impact of a model error representation and numerical resolution](#)

Andrew G. Slater  
University of Colorado – Boulder  
[Improved Cold Region Hydrology Process Representation as a Cornerstone of Arctic Biogeochemical Modeling](#)

Charles J. Vorosmarty  
CUNY City College  
[Regional Earth System Model of the Northeast Corridor: Analyzing 21st Century Climate and Environment](#)  
Co-funded by the Department of Energy, Office of Science

John E. Walsh  
University of Alaska – Fairbanks  
[Ecosystem Impacts of Variability and Extreme Events in the Arctic](#)

Guiling Wang  
University of Connecticut  
[A Pilot Project on Interactive Land Use and Climate Predictions](#)

Yang Zhang  
North Carolina State University  
[Climate Mitigation and Earth System Management from Local to Global Scale: Modeling Technology-Driven Futures](#)  
Co-funded by the Department of Agriculture, NIFA