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