Climate Change Prediction Program (CCPP)
Science Team Meeting
Bethesda Hyatt

Tuesday April 7

8:00 am	Registration opens
8:30-8:45 am	Introductions & Welcome Anjuli Bamzai, DOE Program Manager CCPP Meeting Structure & Logistics Dave Bader Chief Scientist CCPP
8:45- 9:05am	Opening Remarks Anna Palmisano, Assoc Director Office of Biological & Environmental Research(BER) DOE Office of Science
9:05-9:20am	Update: Climate & Environmental Sciences Division Wanda Ferrell, Acting Director Climate & Environmental Sciences Division, BER, DOE Office of Science
9:20-9:30am	Update: CCPP Anjuli Bamzai
9:30- 10.00 am	Break
10:00-11:30 am	Multi-lab Consortium on Earth System Modeling John Drake, ORNL
11:30 am-12:00n	National Leadership Computing Facility at ORNL James Hack, Director, NCCS
12:00 n-1:30 pm	Lunch & Networking (on your own)
1:30-3:00pm	Projects on Earth System Modeling

Regional Climate Change Projections Through Next Generation Empirical and Dynamical Models. (Robertson, Kravtsov, Ghil and Smyth)

Towards Advanced Understanding and Predictive Capability of Climate Change in the Arctic using a High-Resolution Regional Arctic Climate System Model.
(Maslowski, Cassano, Gutowski and Lettenmaier)

Understanding annual-cycle ENSO Interactions in Climate Change Simulations (Stein, Schneider and Timmermann)

Robust climate projections and stochastic stability of dynamical systems (Ghil, McWilliams, Zaliapin, Chekroun, Kondrashov, and Simonnet)

Coupled Atmosphere-Ocean Models (Stone)

Improving Atmosphere-Ocean Coupled Models in the Tropics (Zhang)

Hierarchical Coupled Modeling and Prediction of Regional Climate Change in the Atlantic Sector (Saravanan)

Future Projections of the Asian Summer Monsoon and Indian Ocean Climate System (Annamalai)

Study of regional climate change (Wang)

Towards the Prediction of Decadal to Centennial Climate Processes in the Coupled Earth System Model (Liu)

Carbon Data Assimilation with a Coupled Ensemble Kalman Filter (Kalnay)

3:00-3:30pm Break

3:30-5:00 pm Climate Change Modeling, Simulation & Analysis
Warren Washington, NCAR

Wednesday April 8

8:00 am Registration opens

8:30-10:00 am Climate Ocean and Sea-Ice Modeling Project
Phil Jones, COSIM, LANL

10:00-10:30am Break

10:30-12:00n Projects on Ocean and Sea-Ice Modeling

An Integrated Physics and Numerics Based Mesoscale Eddy Capturing Approach to Modeling and Simulation of Global Ocean Circulation (Vasilyev)

Do Coupled Climate Models Correctly Simulate the Upward Branch of the Deep Ocean Global Conveyor (Bianchi and Kwon)

Incorporation of the Hybrid Coordinate Ocean Model (HYCOM) Into the Community Climate System Model (CCSM): Evaluation and Climate Application (Yin)

Influence of Sea Ice on Arctic Marine Sulfur Biogeochemistry in the Community Climate System Model (Deal)

New Grid and Discretization Technologies for Ocean and Ice Simulations (Gunzburger and Ju)

Towards a Fine-Resolution Global Coupled Climate System for Prediction on Decadal/Centennial Scales I (McClean)

Towards Improved Understanding and Prediction of Arctic Climate Change. (Maslowski)

Eddy-fluxes and Their Role in the Maintenance of the Thermocline(Cessi)

Deep Ocean Heat Uptake and the Influence of Sea Ice in the Southern Ocean (Kirkman and Bitz)

12-2:00 pm	Working Lunch in parallel with Poster session (lunch available for purchase)
2:00-3:00 pm	Global Cloud Resolving Modeling Project Dave Randall, Colorado State Univ
3:00-3:30 pm	Break
3:30-5:00 pm	Projects on Modeling of Climate Physics and Dynamics

A Modest Plan to Integrate Global Cloud Systems Resolving Climate Models (Wehner)

Continuous Dynamic Grid Adaptation in a Global Atmospheric Model: Application and Refinement (Gutowski)

Subgrid Mixing in Climate Models: A Novel Look at Diffusion, Accuracy, Stability, and Climate Sensitivity (Rood and Jablonowski)

The Influence of Cloud Microphysics and Radiation on the Response of Water Vapor and Clouds to Climate Change (Yang)

The Impact Of Primary Marine Aerosol On Atmospheric Chemistry, Radiation and Climate: A CCSM Model Development (Long)

Statistical approaches to Aerosol Dynamics for Climate (McGraw)

Development of a Climate Model with Self-Adapting Grid and Physics (Andronova and Penner)

Mechanistically Based Diagnostics and Parameterization for Climate Models (Choi and Lindzen)

Thursday April 9

8:00 am	Registration opens
8:30-10:00 am	Program for Climate Model Diagnosis and Intercomparison Dave Bader, PCMDI/LLNL
10:00-10:30am	Break
10:30-12:00	Projects related to Model Evaluation, Detection and Attribution, Multi-model Analysis, Data Archival and Access

Climate Data, Analysis and Models for the Study of Natural Variability and Variability and Anthropogenic Change (Jones –UEA)

International Detection and Attribution Group (Jones-UEA)

A Data Domain to Model Domain Conversion package for Sparse Climate Related Data Sets (Kotamarthi)

Detection and Attribution of Climate Change Using the Interactive Ensemble (Straus and Schneider)

Optimal Detection of Decadal Predictability (Del Sole)

North American Regional Climate Change Assessment Project (Leung)

Historical Climatological Network Update (Easterling)

The Earth System Grid Center for Enabling Technology (Strand and Bernholdt)

12:00 n-1:00pm	Lunch (on your own)
1:00-2.00 pm	Multi-lab Abrupt Climate Change Modeling Project Bill Collins, LBNL

Mega-Droughts in North America: The Role of Biosphere-Atmosphere Feedbacks (Leung)

Toward a coupled ice-sheet/ocean model for evaluating marine ice sheet instability (Lipscomb)

Consequences of Methane Hydrate Destabilization (Cameron-Smith, Reagan, Elliott, Maltrud and Bergmann)

Albedo and greenhouse gas feedbacks to warming from species range shifts in high latitude terrestrial ecosystems (Post)

Climate feedbacks to warming from changes in methane biogeochemistry and thermokarst lakes in the Arctic (Riley, Torn and Subin)

2.00-4:00 pm Projects related to Abrupt Climate Change Modeling

Simulating and Understanding Abrupt Climate-Ecosystem Changes During Holocene (Liu, Otto-Bliesner)

Stability of the Atlantic Meridional Overturning Circulation in a Zonally-Averaged Ocean Model: Implications for Abrupt Climate Change (Federov and Sevellec)

Quantifying climate feedbacks from abrupt changes in high-latitude trace-gas emissions (Gao, Schlosser, Kicklighter, Zhuang, Forest, Melillo and Prinn)

The Role of Vegetation, Surface, and Subsurface Processes on Mega Drought (Liang, Lu, and Xu)

Searching for Atlantic Thermohaline Circulation Strength Threshold Leading to Abrupt Change of the African Monsoon (Chang and Jackson)

The Interhemispheric Gradient in 20th century and future climate (Chiang, Chang and Fredman)

Modeling Abrupt Change in Global Sea Level Arising from Ocean – Ice-Sheet Interaction (Holland)

Fresh Water Pulses and Meridional Overturning Circulation - Forward and Adjoint Studies (Hill, Heimbach, Winsor and Condon)

Susceptibility of Colorado River Basin to Megadroughts in a Warming Climate (Lettenmaier)

Role of Atmosphere/Land Surface Interactions in Abrupt Climate Change (Cook and Vizy)

Dynamics of the West African Westerly Jet (Cook and Pu)

4:00 pm Meeting Ends