WCRP Workshop on CMIP5 Climate Model Analyses

5-9 March, 2012
University of Hawaii, Honolulu, Hawaii

Convened by WCRP/WGCM - Hosted by IPRC

Agenda

Monday, March 5, 2012

9:00AM – 9:15AM: Welcoming addresses (5 minutes each by representatives from IPRC, WCRP/WGCM, IPCC WG1)

9:15AM – 9:30AM: Purpose/objectives of workshop (15 minutes, Gerald Meehl)

9:30AM: ***Session 1 - Historical simulations and projections*** **(session chair Gerald Meehl)**

9:30AM – 10:30AM: Short presentations (each presenter gets 3 minutes and one powerpoint slide to present main conclusions)

Warming holes: Can CMIP5 climate models represent the variability and sources of regional temperature trends in the Continental United States?	Kenneth Kunkel	NOAA Cooperative Institute for Climate and Satellites North Carolina State University and National Climatic Data Center
Some preliminary analysis on super-ensemble projection of climate change based on CMIP5 (SEAP-CMIP5 Atlas)	Wenjie Dong	State Key Laboratory of Earth Surface Processes and Resource Ecology, College of Global Change

		and Earth System Science, Beijing Normal University
Evaluation of 20th Century Simulations of Western Atlantic Winter Storms in CMIP5 and other Regional Climate Ensembles	Brian Colle	Stony Brook University - SUNY
Analysis CMIP5 model performances in detecting global “warming holes” in the 20th century and future climates	Zaitao Pan	Saint Louis University
Consistency of observed and simulated regional trends in temperature, precipitation, and sea level pressure in CMIP3 and CMIP5	Jonas Bhend	CSIRO Climate Adaptation National Research Flagship, Melbourne, Victoria, Australia
CMIP5 evaluation of key climate variables for the 20th century	Florian Rauser	Max Planck Institute for Meteorology
Global Temperature Trends in IPCC Multiple CMIP5 Models: Intercomparison with Satellite Observations, Radiosondes, Reanalyses and CMIP3 Simulations	Jianjun Xu	Environmental Science and Technological Center College of Science, George Mason University
Atmospheric Temperature Changes in CMIP-3 and CMIP-5 Simulations of Forced and Unforced Climate Change	Benjamin Santer	Lawrence Livermore National Lab
Overestimation of CMIP5 and CMIP3 Summer Temperature Projections due to Model Deficiencies	Jens H. Christensen	Danish Meteorological Institute
Evaluating CMIP5 models using the AIRS observations	Baijun Tian	Jet Propulsion Laboratory, California Institute of Technology
Correspondence between Forecast and Climate Errors Explored in Transpose-AMIP and CMIP5-AMIP Simulations	Shaocheng Xie	PCMDI/Lawrence Livermore National Laboratory/USA
Importance of structural diversity of climate model ensembles	Tokuta Yokohata	National Institute for Environmental Studies
A New Look at the Double ITCZ Problem in GCMs: Connections to Heat Flux Biases at TOA and the Surface	Yen-Ting Hwang	University of Washington
Evaluating CMIP-3, CMIP-5 and perturbed physics ensemble simulations using optimal-detection diagnostics	Daniel Rowlands	Atmospheric, Oceanic and Planetary Physics, University of Oxford
Evaluation of Cloud and Water Vapor Simulations in IPCC AR5 Climate Models Using NASA “A-Train” Satellite Observations	Jonathan Jiang	Jet Propulsion Laboratory California Institute of Technology
Model robustness and uncertainty in projections of CMIP3 and CMIP5	Reto Knutti	ETH Zurich
A Methodology for Quantifying Uncertainty in Projecting Atmospheric Chemistry and Greenhouse Gases: Comparison with the CMIP5/ACCMIP Ensembles	Michael Prather	UC Irvine

10:30AM – 12:30PM: View/discuss posters (with coffee/refreshments provided)

12:30PM – 2:00PM: Lunch

2:00PM – 2:30PM: Invited talk: *Climate Change 2013: The Physical Science Basis, Status of the Working Group I Contribution to the IPCC 5th Assessment Report* - Thomas Stocker

2:30PM: ***Session 2 - Regional simulations and decadal prediction*** **(session chair Sandrine Bony)**

2:30PM – 3:30PM: Short presentations (each presenter gets 3 minutes and one powerpoint slide to present main conclusions)

Drought and Persistent Wet Spells over the United States Projected by the CMIP 5 Experiments	Lindsey Long	Climate Prediction Center, NCEP/NWS/NOAA
Seasonal and extreme precipitation over North America: A comparison of CMIP5 and CMIP3 projections	Don Wuebbles	University of Illinois
Understanding future projections of drying over Meso-America	Sara Rauscher	T-3 Fluid Dynamics Los Alamos National Laboratory
Precipitation response under global warming: The tropics and western North America in CMIP5	David Neelin	University of California, Los Angeles
CMIP5 Task Force Overview	Annarita Mariotti	NOAA
A process-based evaluation of the changes of summer rainfall and extreme temperature over southern United States projected by CMIP5	Rong Fu	Department of Geological Sciences, Jackson School of Geosciences, The University of Texas at Austin
Assessment of Changes in Summer Rainfall Variability over the Southeastern United States as simulated by CMIP5 models	Wenhong Li	Earth and Ocean Sciences, Nicholas School of Environment and Earth Sciences, Duke University
Climate Change over North America in CMIP5 Model Climate Simulations of the 20th Century: Hydroclimate Assessment	Alfredo Ruiz-Barradas	University of Maryland
Identifying causes of precipitation changes in the latter half of the twentieth century using multi-model fingerprints	Debbie Polson	University of Edinburgh
Decadal potential predictability and forecast skill	George Boer	Canadian Centre for Climate Modelling and Analysis
Likelihood-based comparison of CMIP5 decadal experiment runs and AIRS specific humidity observations	Amy Braverman	Jet Propulsion Laboratory, California Institute of Technology
Predictability of Atlantic SST Indices in CMIP5 Decadal Retrospective Forecasts	Edwin K. Schneider	George Mason University/COLA
Decadal Predictability of European Summer Temperature Indices for Heatwave Impact research using CMIP5 models	Helen Hanlon	University of Edinburgh

Using initialized decadal forecasts to identify model uncertainties in the response to external forcing in the tropical Indo-Pacific Ocean	Amy Solomon	CIRES/University of Colorado
Predictability of a stepwise shift in Pacifc climate during the late 1990s in CMIP5 decadal hindcast experiments	Masahide Kimoto	Atmosphere and Ocean Research Institute, the University of Tokyo
An empirical benchmark for initialized decadal forecasts in CMIP5	Matthew Newman	CIRES/CDC, University of Colorado and NOAA/ESRL/PSD
Multi-model decadal predictions in CMIP5 decadal hindcast experiment	Hyemi Kim	Georgia Tech.

3:30PM – 5:30PM: View/discuss posters (with coffee/refreshments provided)

Tuesday, March 6, 2012

9:00AM: ***Session 3 - Bio-geochemical processes and feedbacks*** **(session chair Karl Taylor)**

9:00AM – 10:00AM: Short presentations (each presenter gets 3 minutes and one powerpoint slide to present main conclusions)

21st Century Compatible CO2 emissions and simulated for the RCP scenarios by multiple ESMs	Chris Jones	Met Office Hadley Centre
Where is the climate-carbon cycle feedback in the CMIP5 ESMs simulations?	Pierre Friedlingstein	University of Exeter
CMIP5 Multi-Model Analysis of Global Carbon Cycle Sensitivities and Feedbacks	Forrest Hoffman	University of California-Irvine and Oak Ridge National Laboratory
Effects of increased CO2 on land water balance during 1850 to 1989	Jing Peng	College of Global Change and Earth System Science, Beijing Normal University
Koeppen Bioclimatic Evaluation of CMIP Historical Simulations	Thomas Phillips	Program for Climate Model Diagnosis and Intercomparison (PCMDI), Lawrence Livermore National Laboratory
Analysis of Land-Use Changes and Carbon Cycling Dynamics in CMIP5 ESM experiments	Elena Shevliakova	Princeton University

Seasonal and Interannual Variability of Terrestrial Ecosystem Net Carbon Exchange: Comparison of Multi-Earth System Models Simulations from CMIP5	Mingquan Mu	Department of Earth System Sciences, University of California Irvine
The eastern edge of the western equatorial Pacific warm pool: Model simulations and future projections.	Jaclyn Brown	CSIRO, Hobart, Australia
Intercomparison of the latitudinal variations of the Southern Ocean Sea Water pCO2 in CMIP5 ESMs	ChuanLi Jiang	Earth & Space Research
Assessing CMIP5 simulations of Southern Hemisphere tropospheric jet, meridional overturning circulation of the Southern Ocean and carbon uptake	Thomas Bracegirdle	British Antarctic Survey
Evaluation of Modern Ocean Biogeochemical Cycling in CMIP5 Earth System Models	Andreas Schmittner	Oregon State University
Comparison of ocean acidification in the CMIP5 Earth System Models	Patricia Cadule	Laboratoire des Sciences du Climat et de l'Environnement / Institut Pierre Simon Laplace (LSCE/IPSL), Lab. CEA-CNRS-UVSQ
Anthropogenic heat and carbon uptake by the Southern Ocean in CMIP5 Earth System Models: The role of systematic and random uncertainty	Thomas Froelicher	AOS Program, Princeton University
Evaluation of multidecadal variability in CMIP5 surface solar radiation and inferred aerosol emission history	Robert Allen	UC Riverside
Forced 20th century variation of the Tropical Atlantic Interhemispheric Gradient in the CMIP5 multimodel ensemble	John Chiang	University of California, Berkeley
The Role of Sulfate Aerosols and Heating Asymmetries in Shifting Tropical Precipitation Southward in the late 20th century	Dargan Frierson	University of Washington, Department of Atmospheric Sciences
Effects of Natural and Anthropogenic Aerosols on Historical Climate Simulations	William Collins	Lawrence Berkeley Lab and UC Berkeley

10:00AM – noon: View/discuss posters (coffee/refreshments provided)

Noon – 1:30PM: Lunch

1:30PM – 2:00PM: Invited talk: *Status of the CMIP5 archive* - Karl Taylor

2:00PM: ***Session 4 - Cryosphere and paleoclimate*** **(session chair Peter Gleckler)**

2:00PM – 3:00PM: Short presentations (each presenter gets 3 minutes and one powerpoint slide to present main conclusions)

Evaluation of CMIP5 Model Simulations of Arctic Climate Warming and Sea Ice Decline	Wieslaw Maslowski	Naval Postgraduate School
Cryosphere in CMIP5 simulations: an improvement over CMIP3?	Vladimir Kattsov	Voeikov Main Geophysical Observatory, Roshydromet
Linking Atmospheric State to Arctic Cloud Cover and Radiative Budget	Gijs de Boer	Cooperative Institute for Research in Environmental Sciences NOAA Earth System Research Laboratory
Why are models losing Antarctic sea ice?	Irina Mahlstein	NOAA ESRL
The representation of the Arctic atmosphere in CMIP5, has it improved since CMIP3?	Gunilla Svensson	Department of Meteorology and Bert Bolin Centre for Climate Research, Stockholm University, Stockholm, Sweden
The 21st century changes in the Arctic sea ice cover as a function of its present state : what can we learn from CMIP5 models ?	Thierry Fichefet	Georges Lemaître Centre for Earth and Climate Research, Earth and Life Institute, Université catholique de Louvain
Arctic sea ice reduction and its impact on European winter climate in CMIP5 simulations	Shuting Yang	Danish Meteorological Institute
Arctic sea-ice sensitivity: CMIP1 to CMIP5	Gregory Flato	Canadian Centre for Climate Modelling and Analysis
The natural vs forced variability of Arctic Sea ice seen from the CMIP5 simulations	Muyin Wang	Joint Institute for the Study of Atmosphere and Ocean, University of Washington
Sensitivity Analysis of Arctic and Antarctic Sea Ice in CMIP5 Climate Model Simulations and Projections	Xiangdong Zhang	International Arctic Research Center, University of Alaska Fairbanks
Role of Southern Ocean in simulating the Atlantic Meridional Overturning Circulation (AMOC) with PMIP/CMIP climate models at the Last Glacial Maximum	Ayako Abe-Ouchi	Atmosphere and Ocean Research Institute (AORI), University of Tokyo
Attempt to evaluate simulated changes in monsoon and ENSO from different time periods	Pascale Braconnot	IPSL/Laboratoire des Sciences du Climat et de l'Environnement
Land-sea contrasts and polar amplification in past and future climates	Masa Kageyama	Laboratoire des Sciences du Climat et de l'Environnement
Analysis of the Asian Monsoon system during mid-Holocene in PMIP3 coupled model simulations	Weipeng Zheng	LASG, Institute of Atmospheric Physics, Chinese Academy of Sciences
Diverging response of the meridional overturning circulation in mid-Holocene simulations	Nils Fischer	Max Planck Institute for Meteorology

Evaluation of the structure of the monsoon over West Africa in the CMIP5 simulations for past, present, and future	Bette Otto-Bliesner	National Center for Atmospheric Research
Using Paleo-Climate Model/Data Comparisons to Constrain Future Projections: Workshop summary	Gavin Schmidt	NASA Goddard Institute for Space Studies

3:00PM – 5:00PM: View/discuss posters (coffee/refreshments provided)

Wednesday, March 7, 2012

9:00AM: ***Session 5 - Radiative forcing, climate sensitivity and clouds*** **(session chair Sandrine Bony)**

9:00AM – 10:00AM: Short presentations (each presenter gets 3 minutes and one powerpoint slide to present main conclusions)

Radiative forcing and energy budget changes in CMIP5 models	Piers Forster	University of Leeds
Surface and TOA Earth Radiation Budget Evaluation of CMIP3 and CMIP5 Simulations: Implications for Neglecting Precipitating Hydrometeors on Radiation	Jui-Lin (Frank) Li	Jet Propulsion Laboratory/NASA, CalTech
Cloud Climate Feedback and Tropical Biases in Climate Simulations: Further Analysis Based on CMIP5	Yongqiang Yu	Institute of Atmospheric Physics
Estimates of forcing, feedback and dynamical characteristics of the CMIP5 models using the abrupt and the 1pctCO2 experiments.	Jean-Louis Dufresne	LMD/IPSL
Clouds and their response to climate change: Progress and improvements in CMIP5	Axel Lauer	University of Hawaii
Are cloud simulations improving in CMIP models? Evaluation with ISCCP simulator output	Stephen Klein	PCMDI/LLNL
A Robust Observation-Based Evaluation of Cloud Ice Water Content in CMIP3 and CMIP5	Duane Waliser	California Institute of Technology/JPL
Intercomparison of Cloud Amount, Altitude, and Optical Depth Feedbacks in the CMIP5 Models	Mark Zelinka	Lawrence Livermore National Laboratory
Relationships between precipitation, clouds, radiation and large-scale tropical dynamics: observational analysis and evaluation of CMIP3/CMIP5 models	Romain Roehrig	CNRM-GAME, Meteo-France/CNRS
Evaluation of Cloud Liquid Water Content Simulations in CMIP3 and CMIP5 GCMs and Analyses Using A-Train Satellite Observations	Seungwon Lee	Jet Propulsion Laboratory
Evaluation of marine stratiform cloud simulation in CMIP5 models: Feedbacks, Trends, and Model Fidelity	Timothy Myers	Scripps Institution of Oceanography

Relations of Clouds with Large-scale Circulation, Precipitation and Radiation: Comparison of IPCC AR5 Simulations with A-Train Observations	Hui Su	Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California, U.S.A.
Forcing, Feedbacks and Climate Sensitivity in CMIP5 Models	Mark Webb	Met Office Hadley Centre
On the structural and parametric uncertainties of climate sensitivity based on CMIP3/5 and MIROC ensembles	Hideo Shiogama	National Institute for Environmental Studies
Physical Constraints on Thermodynamic and Hydrological Feedbacks in CMIP5 Models	Mat Collins	College of Engineering, Mathematics and Physical Sciences,
Climate Sensitivity as Constrained by Tropospheric Vertical Structure	John Fasullo	NCAR

10:00AM – noon: View/discuss posters (coffee/refreshments provided)

Noon – 1:30PM: Lunch

1:30PM – 2:00PM: Invited talk: *The CMIP5 Atlas for the IPCC AR5* - Kasper Plattner

2:00PM: ***Session 6 - Ocean and sea level rise*** **(session chair Gerald Meehl)**

2:00PM – 3:00PM: Short presentations (each presenter gets 3 minutes and one powerpoint slide to present main conclusions)

Climate change and its impact on the Indian Ocean dipole: a CMIP5 model perspective.	Tim Cowan	CSIRO Marine and Atmospheric Research, Aspendale, Australia Climate Change Research Centre, University of New South Wales, Australia
Indian Ocean response to global warming in the CMIP5 multi-model ensemble	Xiao-Tong Zheng	Physical Oceanography Laboratory, Ocean–Atmosphere Interaction and Climate Laboratory, Ocean University of China
Indian Ocean variability in the CMIP5 multi-model ensemble: The basin mode	Yan Du	State Key Laboratory of Tropical Oceanography, South China Sea Institute of Oceanology, Chinese Academy of Sciences
Future Change of the Indian Ocean Basin-Wide and Dipole Mode	June-Eun Chu	Pusan National University
Uncertainties of North Atlantic atmosphere-ocean interaction in future climate projections	Thomas Martin	GEOMAR | Helmholtz Centre for Ocean Research Kiel, Germany

Footprint of the AMOC in future temperature change as simulated by CMIP3 and CMIP5 model ensembles.	Sybren Drijfhout	Royal Netherlands meteorological Institute
Atlantic Meridional Overturning Circulation (AMOC) in CMIP5 models	Wei Cheng	JISAO, University of Washington
Global Ocean Salinity: Comparisons of Observational 20th Century Change versus CMIP3 and CMIP5 historical realisations	Paul J. Durack	Program for Climate Model Diagnosis and Intercomparison (PCMDI), Lawrence Livermore National Laboratory
Inter-model uncertainty of future projection of sea level in the western North Pacific	Tamaki Yasuda	Meteorological Research Institute
Future Projections of the Greenland Ice Sheet Surface Mass Balance Diagnosed from the CMIP3 and CMIP5 Multimodel Dataset with Implications to Sea Level Change	Masakazu Yoshimori	Atmosphere and Ocean Research Institute, The University of Tokyo
Sea Level Change inferred from CMIP5 Runs	Detlef Stammer	Institut für Meereskunde Centrum für Erdsystemforschung und Nachhaltigkeit Universität Hamburg, Germany
How well do CMIP3 and CMIP5 models simulate the mean and seasonal sea level patterns?	Peter Gleckler	PCMDI, Lawrence Livermore National Laboratories
Ocean Warming Projections with CMIP5 Models	Jianjun Yin	Department of Geosciences University of Arizona USA
Coupled atmosphere-ocean internal variability: is the ocean integrating the surface response, or driving it?	Jan Sedlacek	ETH Zurich
A three-dimensional detection and attribution study of ocean warming in the CMIP-5 models	David Pierce	Scripps Institution of Oceanography
Global ocean wave projections using multi-model CMIP5 simulations	Xiaolan Wang	Climate Research Division, Science & Technology Branch, Environment Canada

3:00PM – 5:00PM: View/discuss posters (coffee/refreshments provided)

Thursday, March 8, 2012

9:00AM: ***Session 7 - Monsoons and extremes*** **(session chair Peter Gleckler)**

9:00AM – 10:00AM: Short presentations (each presenter gets 3 minutes and one powerpoint slide to present main conclusions)

Changes in Global Monsoon Precipitation in 11 CMIP5 Simulations	Pang-chi Hsu	International Pacific Research Center, University of Hawaii, USA
Future Change of Global Monsoon	Bin Wang	Department of Meteorology and International Pacific Research Center
Springtime Drying in Monsoon Regions in a Warmer World: A CMIP5 Analysis of ESMs and CMs	Anji Seth	University of Connecticut
Diagnostics and Metrics for Evaluating GCM Simulations of the Asian-Australian Monsoon	Kenneth Sperber	Lawrence Livermore National Laboratory
Projected 21st century changes in temperature and precipitation Over East Asia by CMIP5	Ying Xu	National Climate center, China Meteorological Administration
An Improved Assessment of Future Climatic Changes of the East Asian Summer Monsoon Using AR5 CMIP5 Models	Kyong-Hwan Seo	Dept of Atmospheric Sciences, Pusan National University
Comparison and attribution analyses on the Asian-Australian monsoon simulated by the CMIP5 models	Yinhuan Ao	Cold and Arid Regions Environmental and Engineering Research Institute
The Response of the South Pacific Convergence Zone to Global Warming	Wenju Cai	CSIRO Marine and Atmospheric Research, Australia
Interannual variability in East Asian climate and its association with tropical Indian Ocean conditions in CMIP5 models	Gang Huang	Institute of Atmospheric Physics
Evaluation of climate extremes in the CMIP5 model simulations	Jana Sillmann	Canadian Centre for Climate Modelling and Analysis
Detectability in Seasonal Changes of Temperature Extremes	Simone Morak	School of Geosciences, University of Edinburgh, Edinburgh, UK
Removing the spatial scale dependence of simulated high-impact weather and climate extremes in the CMIP5 climate models	Cheng-Ta Chen	National Taiwan Normal University, Department of Earth Sciences and Institute of Marine Environmental Science and Technology
Attribution of Extreme Weather Events using CMIP5 and Large Ensemble Regional Climate Modelling	Cameron Rye	University of Oxford
Joint probability in humidity and temperature extremes – do we know more than we think?	Erich Fischer	ETH Zurich
Physical Behavior of Precipitation Extremes in CMIP5 GCMs and Observations	William Gutowski	Iowa State University

Long-term trends and climate effects by Asian dust aerosols using an integrated microphysical-climate-radiation model and comparison with CMIP5 AMIP ensembles	Lin Su	University of Colorado
Use of CMIP3/CMIP5 Data for High Resolution Time-Slice Simulations	Akio Kitoh	Meteorological Research Institute

10:00AM – Noon: View/discuss posters (coffee/refreshments provided)

Noon – 1:30PM: Lunch

1:30PM – 2:00PM: Invited talk: *CMIP5 climate model metrics* - Peter Gleckler

2:00PM: ***Session 8 - Precipitation projections*** **(session chair Karl Taylor)**

2:00PM – 3:00PM: Short presentations (each presenter gets 3 minutes and one powerpoint slide to present main conclusions)

21st-century CMIP5 and CMIP3 robust precipitation declines mainly reflect the poleward expansion of model subtropical dry zones	Jacob Scheff	Department of Atmospheric Sciences University of Washington
Global and regional drought from CMIP5: Evaluations of contemporary climate simulations and uncertainty in future projections	Justin Sheffield	Princeton University
Uncertainty of Future Precipitation Change associated with the Tropical Pacific Sea Surface Temperature Change	Tomoaki Ose	Meteorological Research Institute
The simulation of Pacific climate and 21st century projections in CMIP5 models	Scott Power	Pacific Australia Climate Change and Adaptation Program Centre for Australian Weather and Climate Research Bureau of Meteorology and CSIRO, Australia
Sensitivity of projected regional precipitation trends to inter-model differences in the forced response of the global oceans	Bruce Anderson	Boston University
Reproducibility of precipitation distribution over the tropical oceans in CMIP5 multi climate models and a comparison to CMIP3 results	Yukari Takayabu	AORI, the University of Tokyo
The role of large-scale dynamics in simulating temperature and precipitation in the Caribbean: A comparison of CMIP3 and CMIP5 simulations	Katharine Hayhoe	Texas Tech University
Projected Changes in Mean and Extreme Precipitation in Africa under Global Warming: Implications for Terrestrial Water Resources	Mxolisi Shongwe	South African Weather Service (SAWS)
Climate change projections in Asia for 2011-2100 by CMIP5 models	Zong-Ci Zhao	National Climate Center
Projection of drought for 21st Century using CMIP5 model data	Jozef Syktus	Queensland Climate Change Centre of Excellence

Analysis of the contributions of parameterisation schemes and SST biases to the inter-model spread in CMIP5 projections of future precipitation	Rob Chadwick	Met Office Hadley Centre
Global warming induced changes in rainfall characteristics in CMIP5 models	William K. M. Lau	Division of Earth Science NASA/GSFC
Atmospheric rivers in the CMIP5 historical and projection simulations.	Michael Wehner	Lawrence Berkeley National Laboratory
Estimation on the performance of models from CMIP5 in simulating the climate of the Northern Hemisphere and Tibet Plateau	Zhen-chao Li	Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences
Evaluation of the CMIP5 models over China: compared with CMIP3 models	Weilin Chen	Nanjing University of Information Science and Technology, Key Laboratory of Meteorological Disaster of Ministry of Education, Nanjing, 210044, China
Multimodel ensemble prediction of North American monsoon based on CMIP5 and MERRA datasets	Vinay Kumar	FSU, Tallahassee, FL-32306
Consensus and Confidence: Measuring, communicating and interpreting model ensemble agreement	Carol McSweeney	Met office Hadley Centre

3:00PM – 5:00PM: View/discuss posters (coffee/refreshments provided)

Friday, March 9, 2012

9:00AM: ***Session 9 - Modes of variability*** **(session chair Gerald Meehl)**

9:00AM – 10:00AM: Short presentations (each presenter gets 3 minutes and one powerpoint slide to present main conclusions)

Variability of Extratropical Cyclones associated with NAO in CMIP5 Model Simulations	Yanjuan Guo	Jet Propulsion Laboratory Joint Institute for Regional Earth System Science and Engineering/UCLA USA
Mode Water Ventilation and North Pacific Subtropical Counter Current in CMIP5 models	Lixiao Xu	International Pacific Research Center, University of Hawaii at Manoa, Honolulu, Hawaii Physical Oceanography Laboratory, Ocean-Atmosphere Interaction and Climate Laboratory, Ocean University of China, Qingdao, China
ENSO assessment in CMIP5 using metrics and process-based analysis	Eric Guilyardi	LOCEAN/IPSL and NCAS CLimate, Univeristy of Reading
Analysis of feedbacks responsible for differences in CMIP5 models' ENSO simulations	Marianna Linz	Harvard University
A robust amplification of El Niño in a warmer climate	Masahiro Watanabe	Atmosphere and Ocean Research Institute, the University of Tokyo
How well do current climate models simulate two-types of El Nino? :CMIP3 vs CMIP5	Jong-Seong Kug	Korea Ocean Reaserch and Development Institute
ENSO simulation in the CMIP5 models.	Rajeev S Kurup	Indian Institute of Technology Delhi
The Two Types of ENSO in CMIP5 Models and Their Different Impacts on North America Climate	Jin-Yi Yu	University of California, Irvine
A recipe for diagnosing ENSO-monsoon association in CMIP5 models	H. Annamalai	IPRC/SOEST, University of Hawaii
ENSO teleconnections in CMIP5 AMIP runs as a measure of model fidelity in simulating precipitation	Baird Langenbrunner	UCLA
Future Change of Boreal Summer Tropical-Extratropical Teleconnection in the Northern Hemisphere	June-Yi Lee	International Pacific Research Center, University of Hawaii

Understanding the Causes of ENSO Asymmetry Using CMIP5 Runs	Tao Zhang	Cooperative Institute for Research in Environmental Sciences University of Colorado/NOAA Earth System Research Laboratory Physical Sciences Division Boulder, Colorado USA
Indian Ocean variability in the CMIP5 multi-model ensemble: The equatorial dipole mode	Lin Liu	Center for Ocean and Climate Research, First Institute of Oceanography, State Oceanic Administration, China
Atlantic Multidecadal Variability and its Hydroclimate and Surface Temperature Links in CMIP5 Simulations and Projections	Sumant Nigam	University of Maryland
Reproduction of 20th Century Inter- to Multi-decadal Surface Temperature Variability in CMIP5 historical simulations	Eugene Cordero	San Jose State University
An evaluation of unforced multidecadal surface temperature variability present in CMIP5 models	Patrick Brown	San Jose State University

10:00AM – Noon: View/discuss posters (coffee/refreshments provided)

Noon – 1:30PM: Lunch

1:30PM: ***Session 10 - Atmospheric circulation and dynamics*** **(session chair Sandrine Bony)**

1:30PM – 2:30PM: Short presentations (each presenter gets 3 minutes and one powerpoint slide to present main conclusions)

Tropical Changes in CMIP5 Historical and Projected Climate Experiments	Gabriel Vecchi	NOAA/GFDL
Detecting Changes in the Walker Circulation in Response to Global Warming	Pedro DiNezio	U. of Hawaii / IPRC
Robust response of the tropical atmospheric circulation to CO2 radiative forcing	Sandrine Bony	LMD/IPSL, CNRS
Performance of the CMIP5 models in representing the IOD precipitation teleconnection to Australia and its asymmetry	Evan Weller	CSIRO Marine and Atmospheric Research
A Comparison of Extratropical Cyclones in CMIP5 Models	Robert Lee	University of Reading
Future change in extratropical cyclones in CMIP5 models associated with change in the upper troposphere	Ryo Mizuta	Meteorological Research Institute

Comparing CMIP5 and CMIP3 multi-model projection of storm track changes under global warming	Edmund Chang	Stony Brook University
Evaluating Global Climate Responses to Different Forcings Using Simple Indices	David Karoly	University of Melbourne
Changes in the intensity and frequency of atmospheric blocking and associated heat waves during northern summer over Eurasia in the CMIP5 model simulations	Kyu-Myong Kim	Morgan State University
Extratropical stationary wave activity in a warming climate	Huang-Hsiung Hsu	Research Center for Environmental Changes Academia Sinica
A comparison of variability of atmospheric energy from historical simulations of CMIP5 and reanalysis data	Bo Han	Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences
The energy balance of the Earth's climate system: evaluation of observations, CMIP5 present day and 1%/year climate change energy budgets	Graeme Stephens	Jet Propulsion Laboratory California Institute of Technology
Surface Climate Change in the CMIP5 simulations: Role of Stratospheric Variability	Elisa Manzini	Max-Planck-Institut für Meteorologie
Tropospheric blocking and its connections to stratospheric variability in the CMIP5 multi-model ensemble	James Anstey	Atmospheric, Oceanic & Planetary Physics (AOPP), University of Oxford, Oxford, UK
Projected future summer drying of the South Pacific Convergence Zone in bias-corrected climate model experiments	Matthew Widlansky	International Pacific Research Center, University of Hawaii at Manoa
CMIP5 simulations of Australian rainfall with particular focus on the Australian monsoon system: convective regime-sorting of precipitation.	Aurel Moise	Centre for Australian Weather and Climate Research (CAWCR), Bureau of Meteorology

2:30PM – 4:30PM: View/discuss posters (coffee/refreshments provided)

4:30PM – 5:00PM: Workshop summary (organizing committee)

5:00PM End of workshop