

Monday, July 4

8am-9:30am - Registration

9:30am – 10am - Meeting Introduction

9:30-9:45 - Adrian Tompkins- Welcome and meeting logistics

9:45-10:00 – Chris Bretherton - Introduction to CFMIP activities

10:00-10:15 – Bjorn Stevens - Developments of the WCRP Grand Challenge on Clouds, Circulation and Climate Sensitivity.

10:15am-12:30pm - Observational constraints and model evaluation

10:15-10:30- Stephen Klein – Critically evaluating the many ECs on ECS

10:30-11 – Coffee Break

11-11:15 - Phil Rasch - Revisiting Aerosol Effects on Clouds and Precipitation with Satellite Simulators

11:15-11:30 - Lena Frey - Aerosol effects on the cloud albedo in CMIP5 models

11:30 – 11:45 - Gregory Cesana - How clouds affect the vertical structure of radiative heating rates: A multi-model evaluation using A-Train observations

11:45 – 12 - Kate Marvel - Observed and predicted changes in the seasonal cycle of precipitation

12- 12:30 – Morning session discussion

12:30pm – 2:30pm LUNCH and Poster Session I

Poster Presentations

Adrian Tompkins - An Interpretation of Cloud Overlap Statistics

Akira Noda - Relation between cloud feedback and circulation in decadal-scale NICAM simulations, and their dependency of high cloud change to cloud size

Chen Zhou - How and why does the spatial pattern of SST warming affect the magnitude of cloud feedback?

Christine Nam - Origins of 'too bright' clouds

Dustin Swales - COSP Version 2: An Overview

Gregory Cesana - Using In-Situ Airborne Measurements To Evaluate Three Cloud Phase Products Derived From CALIPSO

Hsi-Yen Ma - A multi-year hindcast experiment for cloud and precipitation studies

Inna M. Gubenko - Numerical simulation of the electrical characteristics of the atmosphere during a thunderstorm

Jean JOUHAUD - Impact of the vertical subgrid-scale variability of clouds on the amount and radiative properties of low-level clouds in the LMDz GCM

Johannes Muelmenstaedt - Satellite-derived warm rain fraction as constraint on cloud processes in GCMs

Kristen Rasmussen - The variable nature of convection in the tropics and subtropics: A legacy of 16 years of the Tropical Rainfall Measuring Mission satellite

Levi Silvers - Sea Surface Temperature Patterns and Cloud Feedbacks in an Atmospheric General Circulation Model

Marston S. Johnston - Simulating Passive, All-Sky Microwave Emissions in the Climate Model EC-Earth using COSP 2.0

Matt Hawcroft - Using satellite and reanalysis data to evaluate the representation of latent heating in extra-tropical cyclones in a climate model.

Ming Zhao - Rain re-evaporation, strength of eastern Pacific ITCZ, and the equatorial eastern Pacific SST cold bias in a global climate model

Mohammad Hossein Shoushtari - The effect of ionization on the nucleation of smoke aerosols and warm cloud formation

Rita Nogherotto - Numerical framework and performance of the new multiple phase cloud microphysics scheme in RegCM4.5 evaluated using the satellite simulator package COSP

Tamoffo Tchao Alain - Daily characteristics of Central Africa rainfall in REMO model

Traute Crueger - Tropical Latent Heating from TRMM Data and as Simulated by the MPI-ESM

Tsuyoshi Koshiro - Evaluation of relationship between subtropical marine low stratiform cloudiness and estimated inversion strength in CMIP5 AMIP experiments

Veronika Wolf - Balloon-borne in situ measurements of high latitude cirrus clouds

Yi Zhang - Comparing CAM5 and Superparameterized CAM5 Simulations of Summer Precipitation Characteristics over Continental East Asia: Mean State, Frequency-Intensity Relationship, Diurnal Cycle, and Influencing Factors

Yi-Chi Wang - Impacts of macrophysical assumptions on cloud feedbacks

Yoko Tsushima - CFMIP Diagnostic Codes Catalogue

Yuying Zhang - Using satellite- and ground-based simulators to evaluate the US DOE climate model (ACME) simulated clouds

FOTSO NGUEMO Thierry Christian - Assessment of simulated rainfall and temperature from the regional climate model REMO and future changes over Central Africa

2:30pm-5:15pm - Coupling of clouds and the atmospheric circulation

2:30-2:45 - Adrian Tompkins - Bimodal distribution of tropical water vapor based on feedbacks between convection, radiation and coldpool dynamics

2:45-3 - George Tselioudis - Relationships between Hadley Cell shifts and cloud radiative effects in CMIP5 models and their impact on model climate sensitivity

3-3:15 Yen-Ting Hwang - Connecting Tropical Circulation and Cloud Feedbacks with Southern Ocean Heat Uptake

3:15-3:30 - Brian Medeiros - Resolution versus physics in representing trade-wind cloud regimes with the Community Atmosphere Model

3:30-4 - Coffee Break

4-4:15 - Kuan-Man Xu - Tropical Cloud Feedback in Terms of the Circulation and Stability Regimes Simulated from an Upgraded Multiscale Modeling Framework

4:14-4:30 - Matt Hawcroft - Southern Ocean albedo, inter-hemispheric energy transports and the double ITCZ: global impacts of biases in a coupled model

4:30-4:45 - Robert Colman - Climate feedbacks from variability: what can they teach us about climate change?

4:45 - 5:00 - Simona Bordoni - Monsoons over an idealized zonally symmetric continent

5:00-5:30 - Afternoon session discussion

6:30 – Ice-breaker reception

Tuesday, July 5

9:00am-12:00pm - Tropical and Subtropical cloud processes and feedbacks

9-9:15 - Florent Brient - Process-oriented analysis of what controls the vertical structure of low clouds and their warming response in CMIP5 models

9:15-9:30 - Mark Webb - Why are low cloud feedbacks positive in climate models?

9:30-9:45 - Sandrine Bony - Thermodynamic control of anvil-cloud amount

9:45-10 - Masahiro Watanabe - Robust cloud feedback over tropical land in a warming climate

10-10:30 - Coffee Break

10:30-10:45 - Tapio Schneider - Energetic constraints on the low-cloud response to climate change

10:45-11 - Hideaki Kawai - Indexes and Parameters Related to Low Cloud Cover, and Low Cloud Feedback

11-11:15 - Dimitra Konsta - Shallow cumulus to fair weather transition: cloud radiative effects and relation to atmospheric conditions

11:15-11:30 - Olivier Geoffroy - On the role of low-level mixing in tropical low cloud feedback

11:30-11:45 - Wojciech W. Grabowski - Separating dynamical and microphysical impacts of aerosols on deep convection applying piggybacking methodology

11:45-12:15 Morning session discussion

12:15pm-2:30pm LUNCH and Poster session II

Poster presentations

Abdou Lahat DIENG - Train of African Easterly wave and its relationship to Tropical Cyclone genesis in the Eastern Atlantic

Angelika - Using the automatic system of cloud detection based on satellite information for the problem of the synoptic conditions analysis

Axel Lauer - Process-level improvements in CMIP5 models and their impact on Southern Ocean, Monsoon, and cloud climatology performance

Ayumu Miyamoto - Impacts of temperature advection fluctuations on the properties of low-level clouds over the South Indian Ocean

Boutheina Oueslati - Physical drivers of Heat Waves in the Sahel: Role of water vapour feedback, cloud processes and atmospheric circulation

Chihiro Kodama - Future projection of extratropical cyclone simulated by a 14 km mesh global atmospheric model

Gurunath Ramaswamy Chinthalu - Understanding microphysics of non raining and raining clouds observed during Indian summer monsoon using Caipeex data

Harikishan - Cloud Radiative forcing over a rain shadow region in Indian subcontinent: Role of Solar Zenith Angle and Large scale meteorology

Ibtissam Marsli - Cloud optical depths and aerosol PSD for temperate areas

IGRI MOUDI Pascal - Sensitivity of WRF Rainfall Distribution to cloud effect over Cameroon and relationship with ITCZ position.

John Wanjala Makokha - Optical Characterization of Atmospheric Aerosols via Airborne Spectral Data for Climate Change Predictions

Lazaros Oreopoulos - Observed Aerosol-Cloud-Precipitation coupling at near global scales from a cloud regime perspective

Levi Silvers - Cloud Radiative Effects on Single and Double ITCZs

Masahiro Watanabe - Two regimes of convective self-aggregation in RCE experiments using the MIROC GCM

Najmeh Kaffashzadeh - The assessment of uncertainties of implementation of second indirect aerosol effect in climate model

Nivian Quintana Rodríguez - Sensitivity studies of the atmospheric model WRF-ARW for very short-term forecast in Cuba

OGOUWALE Romaric - CLIMATE CHANGE AND SURFACE WATER RESOURCE MOBILIZATION FOR AGRICULTURAL PURPOSES IN THE OKPARA BASIN (WEST AFRICA)

Paulo Ceppi - Clouds and the atmospheric circulation response to warming

Peter Good - Nonlinear regional climate change (why abrupt2xCO2?)

Protopapadaki Sofia - Mesoscale high-altitude cloud systems determined from IR Sounders and their influence on the atmospheric environment

Salomon Eliasson - The Cloud cci satellite dataset simulator

Rodrigo Guzman - Atmosphere opacity observed by CALIPSO

Stubenrauch Claudia - The role of upper tropospheric cloud systems in climate : building observational metric for Process Evaluation Studies

SUDARSAN BERA - Influence of Environmental Thermodynamics and Entrainment on the Microphysics of Convective Clouds over India

Taguela Ndetatsin Thierry - Evaluation of CORDEX Regional Climate Models over Central Africa

Tatsuya Seiki - Advanced modeling of cloud-aerosol interaction for global cloud resolving simulation

Thibault Vaillant de Guélis - Testing the lidar penetration depth observations for constraining cloud longwave feedbacks

William Ingram - Changes in cloud and water vapour under climate change: the real physical constraints

Yi Zhang - Simulations of Stratus Clouds over Eastern China in CAM5: Sensitivity to Horizontal Resolution and Sources of errors

2:30pm-5:15pm - Extratropical cloud processes and feedbacks

2:30-2:45 - Ivy Tan - The climatic impact of thermodynamic phase partitioning in mixed-phase clouds

2:45-3 - Steven Sherwood - A link between low-cloud amount and shallow overturning circulations in the tropics and midlatitudes.

3-3:15 - Kevin Grise - Understanding the varied influence of the mid-latitude jet on clouds and cloud-radiative effects in observations and global climate models

3:15-3:30 - Paulo Ceppi - The negative shortwave cloud feedback at high latitudes: mechanisms and observational constraints

3:30-4 - Coffee Break

4-4:15 - Nicole Feldl - Coupled high-latitude climate feedbacks and their impact on atmospheric heat transport

4:15-4:30 - Sarah Kang - Dependence of climate response to Arctic warming on the latitudinal position of stationary waves

4:30-4:45 - William Frey - How does "fixing" the Southern Ocean absorbed shortwave radiation bias impact climate sensitivity?

4:45-5:15 Afternoon session discussion

Wednesday, July 6

9:00am-12pm - Convective organization and precipitation

9-9:15 - David Coppin - Convective aggregation in a GCM: triggering mechanisms and impacts on climate sensitivity

9:15-9:30 - Minghua Zhang - What Controls the Interannual Variability of the Double ITCZ in the Pacific?

9:30-9:45 - Pier Siebesma - Stochastic Scale aware convection parameterization using conditional Markov Chains

9:45-10 - Michela Biasutti - TRAC-MIP: Tropical Rain bands with an Annual cycle and Continent - Model Intercomparison Project.

10-10:30 - Coffee Break

10:30-10:45 - Jackson Tan - The Fundamental Inability of Climate Models to Represent Organized Convection

10:45-11:00 - Addisu Gezahegn Semie - Impact of sub-grid mixing on spontaneous organisation of convection

11:00-11:15 - Jason Cole - The response of cloud feedbacks in CanAM to parameterized convection

11:15 - 11:30 - Brian Soden - What Drives Projections of Subtropical Precipitation Decline?

11:30-12:00 Morning session discussion

12:00pm-2:30pm LUNCH and Poster session III

Poster presentations

Alessia Nicosia - The Dynamic Filter Processing Chamber: a measurement technique for the detection of ice nuclei particles

Angus Ferraro - Classification of land-sea shifts in tropical precipitation using temperature and moisture change

Camilo Fernando Rodríguez Genó - Comparison between WRF single moment microphysic parametrizations: Simulation results in four hailstorm events in Central Mexico

Chaitri Roy - Influence of increasing trend of NOX emissions on the chemistry of the Upper Troposphere and Lower Stratosphere (UTLS)

CHIMENE LAURE DALEU - Intercomparison of methods of coupling between convection and large-scale circulation

Claudia Acquistapace - Comparing cloud radar Doppler observations with 1D cloud microphysical model simulations using different autoconversion schemes

Florent Brient - Sensitivity of tropical boundary layer clouds to surface perturbations in large-eddy simulations

FOTSO NGUEMO Thierry Christian - Added value in rainfall and temperature simulated by the regional climate model REMO in present and in the climate change signal over Central Africa

Gharibzadeh Markieh Maryam - Aerosol-Cloud Interaction Over Zanjan, Iran

GUOQIANG XU - The Construction of Super-Parameterization-GRAPES and Associated Preliminary Results

John Wanjala Makokha - Trend Analysis of Aerosol Optical Depth and Ångström Exponent Anomaly over East Africa Using MODIS Observations (2000-2013)

Kahraman OGUZ - Investigation of Dust-Precipitation Relation with Satellite Data

Lorenzo Tomassini - The interaction of convection, clouds, and atmospheric dynamics in African Easterly Wave propagation

Mark Richardson - Changes in super-greenhouse effect regions in CMIP5

Philip Austin - Dilution of quasi-conserved tracers in shallow and deep convection

Roger Marchand - Reducing Errors in COSP Simulators due to the Subcolumn Generator

Sahadat Sarkar - Possible mechanism behind organization of Boreal Summer Intraseasonal Oscillation (BSISO) based on TRMM and reanalyses data

Salomon Eliasson - The CMSAF CLARA-A2 satellite dataset simulator

STELI Hanae - Cloud Optical Depths and Aerosol in the Equatorial area

Stephanie Fiedler - On the sensitivity of anthropogenic aerosol forcing to specified cloud brightening

Wei-Chyung Wang - Vertical distribution of cloud fraction and microphysics over Eastern China and their association with meteorology: Observational analyses and model simulations

Wei-Ting Chen - Evaluation of the bias of East Asia summer monsoon precipitation in a global climate model using the hindcast approach

William Ingram - GCM simulations with 10-m vertical resolution in the boundary layer

Ying-Wen CHEN - High Cloud Responses to Global Warming Simulated by Two Different Cloud Microphysics Schemes Implemented in the Nonhydrostatic Icosahedral Atmospheric Model (NICAM)

2:30pm-5:15:pm - Cloud feedbacks in simple, high-resolution, and perturbed physics models

2:30-2:45 - Chris Bretherton - Cloud and circulation feedbacks in a near-global aquaplaned CRM

2:45-3 - Sara Dal Gesso - Can we use Single-Column Models for cloud feedback studies?

3-3:15 - Richard Millar - Examining low climate sensitivity general circulation models through very large perturbed physics ensembles

3:15-3:30 - Thorsten Mauritsen - Tropical cloud feedback with explicit convection

3:30-4 - Coffee Break

4-4:15 - Yoko Tsushima - Use of a Perturbed Parameter Ensembles to Understand Model Errors in Clouds

4:15 – 4:30 - Kristen Rasmussen - High-resolution regional climate simulations of warm season convection in the United States

4:30-4:45 - Rob Chadwick - A simple moisture advection model of specific humidity change over land in response to SST warming

4:45-5:15 Afternoon session discussion

Conference dinner – Details to be announced

Thursday, July 7

9:00am-10:30am - Forcings, Climate Sensitivity, and Global Cloud Feedback

9-9:15 - Mark Zelinka - Insights from a Refined Decomposition of Cloud Feedbacks

9:15-9:30 – Jonathan Gregory - Variation in climate sensitivity and feedback during the historical period

9:30-9:45 - Tomoo Ogura - Radiative heating effect of SST increase in climate feedback

9:45-10 - Jessica Vial - How does multidecadal variability affect radiative forcing, feedbacks and climate sensitivity?

10-10:15 - Chen Zhou - Recent decadal cloud variations contribute to the global warming hiatus

10:15-10:30 - Hideo Shiogama - How much does the energy budget approach underestimate the climate sensitivity?

10:30-11 - Coffee Break

11am-12:15am – CFMIP-related programmatic activities

11-11:15 - Hsi-Yen Ma - The CAUSES Model Intercomparison Project: Using hindcast approach to study the U.S. summertime surface warm temperature bias

11:15-11:30 - Claudia Stubenrauch – The GEWEX PROES project

11:30-11:45 – Mark Webb - Future CFMIP Experiments in CMIP6 and beyond

11:45-12:15 – Concluding discussion