

**CFMIP - ENSEMBLES Workshop, April 11-13 2007**  
**Bâtiment Esclançon, Université Pierre et Marie Curie**  
**LMD/IPSL, Paris, France**  
**PROGRAMME**

**Wednesday 11 April 2007 :**

09:00-09:30: REGISTRATION AND COFFEE

***Opening / Overview : (Chair: Rob Colman)***

09:30-09:55: Jean-Louis Dufresne (LMD/IPSL) : Welcome and objectives of the workshop.

09:55-10:20: Chris Hewitt (Met Office): the ENSEMBLES project.

10:20-10:45: Sandrine Bony (LMD/IPSL): Cloud feedbacks in GCMs: Progress and prospects.

10:45-11:10: Mark Webb (Met Office): From CFMIP-1 to CFMIP-2.

11:10-11:30: BREAK

***Definition / Estimate forcings and feedbacks : (Chair: Mark Webb)***

11:30-11:50: Rob Colman (BMRC): Feedbacks under transient and equilibrium climate change.

11:50-12:10: Tokuta Yokohata (NIES): Climate feedback analysis by an approximate PRP method.

12:10-12:30: Karl Taylor (PCMDI): Comprehensive feedback analysis in Earth System Models.

12:30-14:00: LUNCH (13:45 Coffee)

***Understanding feedbacks : (Chair: Sandrine Bony)***

14:00-14:20: William Ingram (Oxford): A physical explanation for the size of the water vapour feedback and a new way of quantifying & attributing GCMs' water vapour feedback.

14:20-14:40: Tomoo Ogura (NIES): Response of cloud condensate budget to CO<sub>2</sub> increase in GCMs.

14:40-15:00: Brian Soden (RSMAS): Cloud feedback and the weakening of the tropical circulation.

15:00-15:20: Brian Medeiros (UCLA): Using aquaplanets to understand GCM climate sensitivity.

15:20-15:40: Minghua Zhang (SONY): Stratus and stratocumulus clouds over the Eastern Pacific in GCMs, SCMs and Satellite Data.

15:40-16:00: BREAK

***What do CRMs/MMF tell us ? (Chair: Pier Siebesma)***

16:00-16:20: Wojtek Grabowski (NCAR): Moisture-convection and convection-SST feedbacks in the tropics.

16:20-16:40: Marat Khairoutdinov (CSU): Cloud feedbacks as simulated by the CSU MMF.

16:40-17:00: Hirofumi Tomita (JAMSTEC): The global cloud resolving model NICAM : model introduction and cloud-feedback tests from the view point of the radiation-convection equilibrium.

17:00-17:20: Shin-ichi Iga (JAMSTEC): A perpetual July experiment by NICAM : preliminary results from the global CRM.

17:20-17:40: Yoko Tsushima (JAMSTEC): Toward improvement of GCM's cloud feedback through the comparative analysis with global cloud resolving model NICAM.

18:00 : COCKTAIL

## **Thursday 12 April 2007 :**

### ***Use of satellites to evaluate models : (Chair: Brian Soden)***

09:00-09:20: Kuan-Man Xu (NASA Langley): Overview of CERES data products for model evaluation.

09:20-09:40: Tony Del Genio (NASA GISS): Cloud object constraints on cloud feedback processes.

09:40-10:00: George Tselioudis (NASA GISS): Using dynamic regime composites to examine midlatitude cloud, radiation and precipitation feedbacks in observations and climate model simulations.

10:00-10:20: Keith Williams (Met Office): Constraining the range of climate sensitivity through the diagnosis of cloud regimes .

10:20-10:40: Alejandro Bodas-Salcedo (MetOffice): The CFMIP CloudSat/CALIPSO simulator.

10:40-11:00: BREAK

### ***Other strategies of validation : (Chair: Yoko Tsushima)***

11:00-11:20: Jason Cole (Univ. Brit. Columbia): Evaluation of clouds and radiative fluxes in the CCCma GCM.

11:20-11:40: Leo Donner (GFDL): Strategies for Evaluating Aerosol-Cloud Interactions in GCMs.

11:40-12:00: Keith Williams (Met Office): Initial tendencies of cloud regimes in the Met Office Unified Model.

12:00-12:20: Mark Rodwell (ECMWF): The use of NWP in climate model assessment.

12:20-13:30: LUNCH (13:15 Coffee)

### ***Future / Ongoing collaborative projects : (Chair: George Tselioudis)***

13:30-13:50: Pier Siebesma: GCSS and its future link with CFMIP.

13:50-14:10: Robert Pincus (NOAA CDC): GCSS metrics efforts.

14:10-14:30: Joao Teixeira (NRL): GEWEX Pacific Cross-Section Intercomparison (GPCI).

14:30-14:50: Adrian Lock (Met Office): The GCSS PBL working group.

14:50-15:10: Bjorn Stevens (UCLA): An LES perspective on cloud feedback.

15:10-15:30: BREAK

### ***15:30-17:10 : Plenary discussion of scientific issues***

- What particular aspects of cloud and water feedbacks need to be understood/evaluated ?

Chairs: Tony Del Genio & Joao Teixeira

- What role for CRMs and LES in the cloud feedback problem ?

Chairs: Bjorn Stevens & Adrian Lock (to be confirmed)

- How can cloud and water vapor performance metrics be used to constrain climate sensitivity estimates?

Chairs: Karl Taylor and Robert Pincus

19:30 DINNER (optional)

## **Friday 13 April 2007 :**

### ***CFMIP2 sub-projects : (Chair: Keith Williams)***

09:00-09:20: Mark Webb (Met Office): CFMIP-2 plans and experiments.

09:20-09:40: Brian Soden (RSMAS): CFMIP -2 CO2 forcing experiments.

09:40-10:00: Mark Ringer (Met Office): CFMIP-2: options for SST-forced and slab experiments .

10:00-10:20: Mark Webb (Met Office): CFMIP-2 sensitivity experiments.

10:20-10:40: BREAK

### ***Ensembles – CFMIP – AR5 : (Chair: Jean-Louis Dufresne)***

10:40-11:00: Heike Huebener (Berlin Univ): Presentation of ENSEMBLES climate simulations.

11:00-11:20: Matthew Collins (Met Office): Probabilities and observational constraints: Results from the ENSEMBLES project.

11:20-11:40: Karl Taylor (PCMDI): CMIP4/AR5 time lines, experiments and output.

### ***Project Planning :***

11:40-12:15: Working group discussions start :

WG1: Experimental design for CFMIP-2.

WG2: Diagnostics studies and diagnostic requirements for CFMIP-2, AR5/CMIP4 and ENSEMBLES.

WG3: GCSS-CFMIP interactions.

12:15-13:30: LUNCH (13:15 Coffee)

### ***Project Planning :***

13:30-15:30 : Working group discussions continue.

15:30-15:50 : BREAK

### ***Conclusions :***

15:50-16:20 : Report from the Working Groups to the Plenary.

16:20-17:00 : Discussion / concluding remarks.

17:00 : End of the workshop

Bon Voyage !