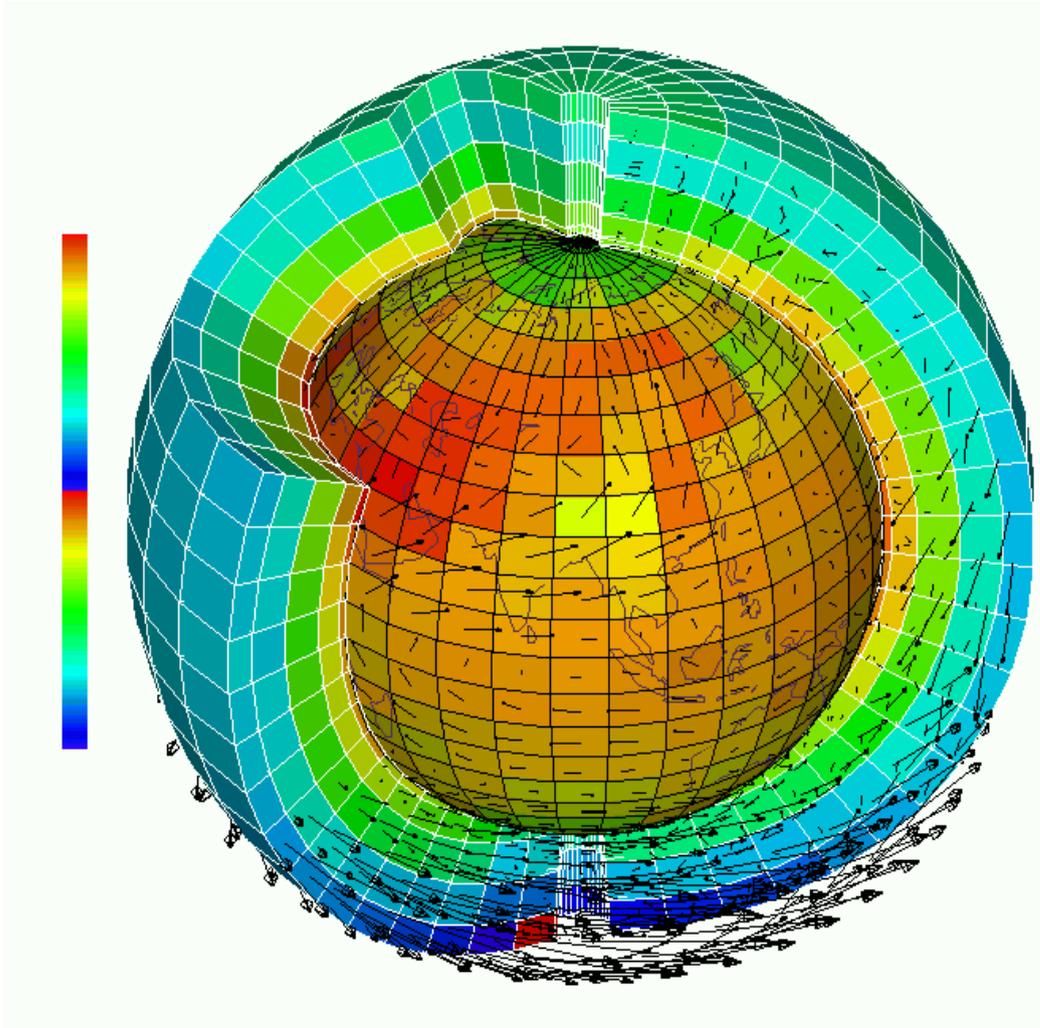


Working Group on Coupled Models (WGCM) activities

Report to the WMAC



Sandrine Bony & Catherine Senior

WGCM co-chairs

Summary of WGCM activities: 2015-2016

CMIP, CMIP, CMIP: (cf Veronika's talk)

- Status and implementation
- Infrastructure
- Forcings of CMIP6 simulations
- CMIP6-endorsed MIPs
- GMD special issue on CMIP6

Development of the WGCM-led Grand Challenge on Clouds, Circulation and Climate Sensitivity (cf clouds GC talk)

Workshop/meetings:

- 22-28 Mar 2015: Climate Sensitivity Workshop (Ringberg, Germany)
 - 8-11 Jun 2015: CFMIP (Monterey, California, USA)
 - 15-26 Jun 2015: Summer School on Climate Model Development (Hamburg, Germany)
 - 18-20 Oct 2015: WGCM-19 (Dubrovnik, Croatia) – will MIPs!
 - 20-23 Oct 2015: CMIP5 analysis workshop (Dubrovnik, Croatia)
- And soon:
- 31Oct -2Nov 2016: WGCM-20 (Princeton, NJ, USA)
 - 2-4 Nov 2016: Modeling Hierarchies Workshop (Princeton, NJ, USA)

WGCM / clouds GC Model Hierarchies Workshop

Princeton University, New Jersey, USA, 2-4 November 2016



- Tropical convection and radiative-convective equilibrium
- Mid-latitude dynamics and storm tracks
- Stratosphere-troposphere coupling
- Ocean dynamics
- ENSO and other coupled modes of variability
- Climate sensitivity and feedbacks
- Biospheres and the carbon cycle: from Gaia to full ecosystems



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Membership

Renewed for 2 years (2016-2017):

Detlef van Vuuren (Netherlands)

Michio Kawamiya (Japan)

Claudia Tebaldi (USA)

Bjorn Stevens (Germany)

Masa Kageyama (France)

Rotated off:

Bin Wang (China)

Jerry Meehl (USA) – remains part of the CMIP panel

New members (2016-):

- Swapna Panickal (Indian Institute of Tropical Meteorology, Pune, India):
ESM model development, monsoon forecasting, ocean-atmospheric dynamics
- Tianjun Zhou (LASG/IAP):
model development, climate variability, OA coupling, monsoons (co-chair AAMP and GMMIP)

Co-chair:

- Sandrine Bony extended for one year; will rotate off at the end of 2016.

Discussion topics

- **Understanding model results:**
Should “model hierarchy workshops” become more regular events?
- **Modeling of regional climate:**
Relative strengths and weaknesses of the different approaches?
(high-resolution global models, area-limited regional models, stretched grids..)
- **Model development:**
Regular summer schools: highly needed
Workshop on convective parameterization: strong support (WGCM+GC)
Model tuning (WGCM workshop in 2014, BAMS paper in press): what next?
Meetings on modeling infrastructure: a gap to be filled?
- **Model evaluation:**
Should this assessment be done by IPCC only?
Should WCRP organize its own assessment(s)? (own approach, timing, language)