

MISTERRE : Journées des 22 et 23 juin 2011

Visio conférence Paris-Toulouse

Paris Jussieu: Grande salle de visio conférence située au rdc du bâtiment Atrium dans le couloir jaune "Porte 2". <http://www.cpm.upmc.fr/fr/campus.html>

Toulouse : Salle de visioconférence du CNRM

Mercredi 22 juin

9h30 accueil (mise en place des présentations sur le PC central)

9h45 – 10 h :

- Braconnot P. et al. MISTERRE, CMIP5 et « issue spéciale climate dynamics »

10h-10h30 : Synthèses simulations long terme en cours (simulations, difficultés, 1^{er} résultats)

- Voltaire A. et al. The CNRM-CM5 global climate model: description and basic evaluation?
- Dufresne J.L. et al : The IPSL-CM5A Earth System Model: general description and climate change projections

10h30 – 10h45 : Simulation décennales

Cassou C. : synthèse exercice en cours dans les 2 groupes + premiers résultats CERFACS

- 10h45-11h Denvil S : diffusion des données (cmore, base données, accès etc..)

11h-11h20 pause

11h20-12h30: Model description and evaluation (4 – 5 slides max = < 10 mn pour grader du temps pour discussions)

• Madec G., O. Marti, C. Tallandier, J. Mignot, D. Swingedouw et al. evolution of the oceanic module in the IPSL coupled model

- Salas y Méria D. and M. Chevallier, The impact of the inclusion of new sea ice processes on the simulation of sea ice by CNRM-CM5 global coupled model".
- Cheruy F., J-C Dupont, A. Campoy, A. Ducharne, F. Hourdin, L. Fairhead et al. Day-to-day evaluation with respect Sirta measurements of the various physics of the LMDZ model with a stretched grid and nudging
 - Gainusa-Bogdan et al. : Model-data comparison of Heat and momentum fluxes over tropical oceans
 - S. Fermepin, S. Bony and L. Fairhead Evaluation of the LMDZ/IPSL climate model in a weather prediction mode; Comparison with single column model evaluations"

Pause déjeuner

14h -15h50 (4 – 5 slides max = < 10 mn pour grader du temps pour discussions)

Model description and evaluation (suite) :

- Rio C., J.-Y. Grandpeix, F. Hourdin, N. Rochetin, S. Bony + CNRM + GISS et al. On the control of deep convection by subcloud processes in the LMDZNP model through the Available Lifting Power
- Hourdin F., J-Y Grandpeix, C. Rio, S. Bony, A. Jam, N. Rochetin, L. Fairhead, A. Idelkadi, I. Musat, J-L Dufresne, et al. LMDZ5 "New Physics" : principles and impact on the climate of the IPSL coupled model of a complete refoundation of the boundary layer/convection/cloud parameterization.

Forçages CMIP5 (simulations réalisées, difficultés, principaux résultats)

- Szopa S. A. Cozic, M. Shulz, Y. Balkanski, D. Hauglustaine. al. Changes in tropospheric aerosol and reactive gases burdens and concentrations under IPCC-AR5 emission scenarios for 1850-2100

Climate variability and dynamical studies :

- F. Brient, S. Bony, I Musat, J-L Dufresne Analysis of the physical mechanisms controlling tropical low-cloud feedbacks in the IPSL climate model through a hierarchy of model configurations
- Kamala K., Y. Peings, P. Terray, H. Douville ENSO-Indian monsoon teleconnection in the CNRM and IPSL historical simulations
- Maury P., F. Lott, L. Guez, et J.-P. Duvel Tropical variability and stratospheric equatorial waves in the IPSL-CM5 model
- Cattiaux J., B. Quesada, F. Codron, C. Déandreis, R. Vautard P? Yiou et al. North-Atlantic weather regimes and European temperatures in the IPSL model: sensitivity to atmospheric resolution.
- Codron F., A. Arakelian, V. Guémas. Impact of horizontal resolution on the eddy-driven jets: mean state and variability
- Escudier R., J. Mignot and D. Swingedouw Multidecadal variability and air-sea interactions in the subpolar North Atlantic

Pause

16h10 – 17h50 Climate variability and dynamical studies (suite) :

- Persechini A., Mignot J., Swingedouw D., Labetoulle, S. and Guilyardi E., Decadal predictability in the thermohaline circulation and climate in the IPSL-CM5 model
 - Swingedouw D, Mignot J. Labetoulle S, Guilyardi E: Initialisation and predictability of the AMOC in the IPSL-CM5 model over the last 60 years
 - Gastineau G., F. D'Andrea, C. Frankignoul Atmospheric response to the North Atlantic oceanic variability on seasonal to decadal time scale
 - Parouty S., C. Genthon, G. Krinner, C. Brutel High southern latitudes and Antarctic atmospheric circulation / climate in the IPSL-CM5 model
- Présentations rapides de résultats de stages concernant les simulations CMIP5

17h50-18h30 Discussions

Jeudi 23 juin

9h-11h

Analysis of the climate response to external forcings (anthropogenic, paleo, volcanic..):

- Geoffroy, O., A. Voltaire, D. Saint-Martin, D. Salas-Mélia Climate sensitivity and radiative feedbacks in the CNRM-CM5 climate model..
- Bony S. Analysis of the tropical precipitation response to climate change predicted by the IPSL climate model
- Kageyama M. et al Mid-Holocene and Last Glacial Maximum climate simulations with the IPSL model: new features with the IPSL_CM5 version.
- J Cattiaux, H Douville, F Chauvin, C Planté Present-day biases and future changes in European temperatures: a pilot study with CNRM and IPSL models.

Earth-System interactions (chemistry, bio-geochemistry):

- P. Cadule, L. Bopp et al. Carbon-climate feedbacks: comparison between IPSL-CM4-LOOP and IPSL-CM5A-C
- Seferian et al Simulating marine biogeochemistry in coupled climate models: evaluation and intercomparison of IPSL-CM and CNRM-CM
- Orr J.C. , R. Seferian, L. Bopp, et al. Differences between anthropogenic perturbations in heat, CO₂, and CFC in the IPSL-CM and CNRM-CM earth system models
 - Guenet B, Cadule P, Zaehle, Piao, Peylin, Maignan, Ciais, Friedlingstein Does the integration of dynamic N cycle in land surface model improve the long-term trend of LAI and the land surface CO₂ exchange with atmosphere?

Discussion

11h-11h20 : Pause café

11h20 – 12h15

Régional climate

- Tripathi O., R. Vautard, et al. Performance of LMDz global CMIP5 historical climate simulations versus downscaled regional simulations using WRF
- Ribes A., Mounier F. ad Planton S.: Détection attribution in the mediteranean basin.

Simulations CORDEX

- simulations CORDEX CNRM : S. Somot
- simulations CORDEX IPSL

12h15-13h30 Discussion

- Bilan “spéciale issue” :
- Liens global/decennal/regional :
- Organisation : point de blocage, collaborations etc...
- Prochaine étape pour MISSTERRE

Fin