

## **Publications du projet MISSTERRE (2006\_2009)**

Nous avons classé les publications suivant différentes thématiques, pour mieux faire ressortir les résultats acquis.

### **Scénarios globaux**

Boé J., L. Terray, C. Cassou and J. Najac, (2009), Uncertainties in European summer precipitation changes: role of large scale circulation *Clim. Dyn.*, **33**, 265-276, doi10.1007/s00382-008-0474-7.

Boé J. and L. Terray, (2008), Uncertainties in summer evapotranspiration changes over Europe and implications for regional climate change *Geophys.Res.Lett.*, **35**, L05702, doi:10.1029/2007GL032417.

Douville, H., D. Salas-Mélia and S. Tyteca, (2006), On the tropical origin of uncertainties in the global land precipitation response to global warming. *Clim. Dyn.*, **26**, 367-385, DOI 10.1007/s00382-005-0088-2.

Dufresne, J.-L., D. Salas y Mélia, S. Denvil, S. Tyceca, O. Arzel, S. Bony, P. Braconnot, P. Brockmann, P. Cadule, A. Caubel, F. Chauvin, M. Déqué, H. Douville, L. Fairhead, T. Fichefet, M.-A. Foujols, P. Friedlingstein, J.-Y. Grandpeix, J.-F. Gueremy, F. Hourdin, A. Idelkadi, G. Krinner, C. Levy, G. Madec, P. Marquet, O. Marti, I. Musat, S. Planton, and J.-F. Royer, (2006), Simulation de l'évolution récente et future du climat par les modèles du CNRM et de l'IPSL, *La Météorologie*, **55**, 45-59.

Dufresne, J-L and J.-F Royer, (2008), Simulations de l'évolution du climat aux échelles globales et régionales, *La Houille Blanche*, Avril 2008, pp. 33-37. DOI: 10.1051/lhb:2008014

Dufresne J-L, (2009), L'utilisation du potentiel de réchauffement global pour comparer les émissions de méthane et de CO<sub>2</sub>, *La Météorologie*, **64**, 54-58.

Friedlingstein P., (2008), A steep road toward climate stabilization, *Nature*, **451**, 297-298.

Gullison, R., P. Frumhoff, J. Canadell, C. Field, D. Nepstad, K. Hayhoe, R. Avissar, L. Curran, P. Friedlingstein, C. Jones, and C. Nobre, (2007) Tropical forests and climate policy, *Science*, **316**, 985-986.

Hibbard, K.A, G.A. Meehl, P.M. Cox, and P. Friedlingstein, (2007), A strategy for climate change stabilization experiments, *EOS*, **88**, 217-219.

Lowe J.A., C.D. Hewitt, D.P. van Vuuren, T.C. Johns, J.-F. Royer, and P.J. van Der Linden, (2009), New study for climate modeling, analyses, and scenarios. *EOS Trans. Geophys. Union*, **90**(21), 181-182

Royer, J.-F., J.-L. Dufresne and P. Braconnot, (2007) Les simulations réalisées pour le GIEC. *Livre blanc ESCRIME*, **14**(21).

Solomon, S. R. Knutti, G.K. Plattner and P. Friedlingstein, (2009), Irreversible climate change due to carbon dioxide emissions, *Proc. Natl. Acad. Sci. USA*, **106**, 1704-1709.

### **Sensibilité climatique**

Present-futur

Bony, S., R. Colman, V. M. Kattsov, R. P. Allan, C. S. Bretherton, J. L. Dufresne, A. Hall, S. Hallegatte, M. M. Holland, W. Ingram, D. A. Randall, B. J. Soden, G. Tselioudis, and M. J. Webb, (2006), How well do we understand and evaluate climate change feedback processes? *Journal of Climate*, **19**, 3445-3482

Bony, S. and J.-L. Dufresne, (2007), Processus Réglissant La Sensibilité Climatique, *La Météorologie*, **56**, 29-32, 2007.

Collins, W. D. V. Ramaswamy, M. D. Schwarzkopf, Y. Sun, R. W. Portmann, Q. Fu, S. E. B. Casanova, J.-L. Dufresne, D. W. Fillmore, P. M. D. Forster, V. Y. Galin, L. K. Gohar, W. J. Ingram, D. P. Kratz, M.-P. Lefebvre, J. Li, P. Marquet, V. Oinas, Y. Tsushima, T. Uchiyama and W. Y. Zhong. (2006), Radiative forcing by well-mixed green- house gases : Estimates from climate models in the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4), *J. Geophys. Res.-Atm.*, **111** :D14317, doi: 10.1029/2005JD006713.

Dufresne, J.-L. and S. Bony, (2008), An assessment of the primary sources of spread of global warming estimates from coupled atmosphere-ocean models, *J. Climate*, **21**(19) p. 5135-5144, doi :10.1175/2008JCLI2239.1.

Knutti, R., M. R. Allen, P. Friedlingstein, J.M. Gregory, G.A. Meehl, M. Meinshausen, J.M. Murphy, G.-K. Plattner, S.C.B. Raper, T.F. Stocker, P.A. Stott, H. Teng, and T.M.L Wigley, (2008), How uncertain are global temperature projections over the next century?, *J. Climate*, **21**, 2651-2663.

Webb, M. J., C. A. Senior, D. M. H. Sexton, W. J. Ingram, K. D. Williams, M. A. Ringer, B. J. McAvaney, R. Colman, B. J. Soden, R. Gudgel, T. Knutson, S. Emori, T. Ogura, Y. Tsushima, N. Andronova, B. Li, I. Musat, S. Bony and K. E. Taylor, (2006), On the contribution of local feedback mechanisms to the range of climate sensitivity in two GCM ensembles, *Climate Dynamics*, **27**, 17-38.

Williams, K. D., et al., (2006), Evaluation of a component of the cloud response to climate change in an intercomparison of climate models, *Climatic Dynamics*, **26** (2-3), 145{165, doi : 10.1007/s00382{005{0067{7.

#### Passé

Braconnot, P., B. Otto-Btiesner, S. Harrison, S. Joussaume, J.-Y. Peterchmitt, A. Abe-Ouchi, M. Crucifix, E. Driesschaert, T. Fichefet, C. D. Hewitt, M. Kageyama, A. Kitoh, M.-F. Loutre, O. Marti, U. Merkel, G. Ramstein, P. Valdes, L. Weber, Y. Yu and Y. Zhao, (2007), Results of PMIP2 coupled simulations of the Mid-Holocene and Last Glacial Maximum – Part 2: feedbacks with emphasis on the location of the ITCZ and mid- and high latitudes heat budget, *Climate of the Past*, **3**, 279–296.

#### Passé-futur

Laîné, A., M. Kageyama, P. Braconnot, R. Alkama, (2009), Impact of greenhouse gas concentration changes on the surface energetics in the IPSL-CM4 model: regional warming patterns, land/sea warming ratio, glacial/interglacial differences, accepté dans *Journal of Climate*

Masson-Delmotte, V., G. Dreyfus, S. Johnsen, J. Jouzel, M. Kageyama, A. Landais, J. Nouet, D. Raynaud, F. Parrenin, B. Stenni and E. Tuenter, (2006), Past temperature reconstructions from deep ice cores: relevance for future climate change, *Climate of the Past*, **2**, 145-165.

Masson-Delmotte, V., M. Kageyama, P. Braconnot, S. Charbit, G. Krinner, C. Ritz, E. Guilyardi, G. Hoffmann, J. Jouzel, Ayako Abe-Ouchi, M. Crucifix, R. M. Gladstone, C. D. Hewitt, A. Kitoh, A. Legrande, O. Marti, U. Merkel, T. Motoi, R. Ohgaito, B. Otto-Btiesner, W. R. Peltier, I. Ross, P. J. Valdes, G. Vettoretti, S. L. Weber and F. Wolk, (2006). Past and future polar amplification of climate change: climate model intercomparisons and ice-core constraints, *Climate Dynamics* **26**, 513–529, doi 10.1007/s00382-005-0081-9

Taylor, K. E., M. Crucifix, P. Braconnot, C. D. Hewitt, C. Doutriaux, A. J. Broccoli, J.F.B. Mitchell, and M. J. Webb, (2007), Estimating shortwave radiative forcing and response in climate models, *J. Clim.*, **20**, 2530-2543.

## Variabilité climatique

### Général

Cassou, C. and E. Guilyardi, (2007) Modes de variabilité et changement climatique, Synthèse du 4e rapport d'évaluation du Giec. *La Météorologie*, **59**.

Conil S., H. Douville and S. Tyteca, (2009), Contribution of realistic soil moisture initial conditions to boreal summer predictability, *Climate Dyn.*, **32**, 75-93, doi:10.1007/s00382-008-0375-9.

Douville H., S. Conil, S. Tyteca and A. Volodire, (2007), Soil moisture memory and West African monsoon predictability: artefact or reality ? *Climate Dyn.*, **28**, 723-742, doi:10.1007/s00382-006-0207-8.

Douville H., B. Decharme and S. Conil, Y. Peings, (2009), Land surface versus ocean influence on atmospheric variability and predictability at the seasonal time scale. Parametrization of Subgrid Physical Processes, 1-4 September 2008, ECMWF 2008 Seminar Proceedings, 16-pp.

Douville H., (2009), Relative contributions of soil and snow hydrology to seasonal climate predictability: a pilot study, *Climate Dyn.*, doi: 10.1007/s00382-008-0508-1.

SanchezGomez, E., C. Cassou, D. L. R. Hodson, N. Keenlyside, Y. Okumura and T. Zhou, (2008), North Atlantic weather regimes response to Indian-western Pacific Ocean warming: A multi-model study, *Geophys. Res. Lett.*, **35**, L15706, doi:10.1029/2008GL034345.

### Latitudes tropicales

Bielli S., H. Douville and B. Pohl, (2009), Understanding the West African monsoon interaction with the global atmospheric circulation. Soumis à *Clim. Dyn.*.

Caminade C. and L. Terray, (2009), Twentieth century Sahel rainfall variability as simulated by the ARPEGE AGCM, and future changes *Clim. Dyn.*, online, DOI 10.1007/s00382-009-0545-4

Caminade C., L. Terray and E. Maisonnave, (2006), West African Monsoon System response to greenhouse gas and sulfate aerosols forcing under two emissions scenarios *Clim. Dyn.*, **26**(5), 531-547.

Caminade C. and L. Terray, (2006), Influence of increased greenhouse gases and sulphate aerosols concentration upon diurnal temperature range over Africa at the end of the 20th century *Geophys. Res. Lett.*, **33**, L15703.

Douville H., (2006), Impact of regional SST anomalies on the Indian monsoon response to global warming in the CNRM climate model, *J Climate*, **19**, 2008-2024.

Guilyardi, E., (2006), El Niño-mean state-seasonal cycle interactions in a multi-model ensemble. *Climate Dynamics*, **26**, 329-348.

Guilyardi E., A. Wittenberg, A. Fedorov, M. Collins, C. Wang, A. Capotondi, G.J. van Oldenborgh and T. Stockdale, (2009), Understanding El Niño in Ocean-Atmosphere General Circulation Models : progress and challenges. *Bull. Amer. Met. Soc.*, published online, sous presse.

Joly M., A. Voldoire, H. Douville, P. Terray and J.-F. Royer, (2007), African monsoon teleconnections with tropical SSTs:validation and evolution in a set of IPCC4 simulations, *Climate Dynamics*, **29** (1), 1-20. DOI : 10.1007/s00382-006-0215-8.

Joly M., A. Voldoire, (2009), Influence of ENSO on the West African monsoon : temporal aspects and atmospheric processes. *J. of Climate*, **22**(12), 3193-3210.

Kucharski F., A. A. Scaife, J. H. Yoo, C. K. Folland, J. Kinter, J. Knight, D. Fereday, A. M. Fischer, E. K. Jin, J. Kröger, N.-C. Lau, T. Nakaegawa, M. J. Nath, P. Pégion, E. Rozanov, S. Schubert, P. V. Sporyshev, J. Syktus, A. Voldoire, J. H. Yoon, N. Zeng and T. Zhou, (2009): The CLIVAR C20C project : skill of simulating Indian monsoon rainfall on interannual to decadal timescales. Does GHG forcing play a role ? *Clim. Dyn.*, online DOI:10.1007/s00382-008-0462-y

Leloup, J., M. Lengaigne and J.-P. Boulanger, (2008) Twentieth Century ENSO characteristics in the IPCC database, *Clim. Dyn.*, **30**, 277-291, DOI 10.1007/s00382-007-0284-3.

Lin J..-L., Kiladis G.N., Mapes B.E., Weickmann K.M., Sperber K.R., Lin W., Wheeler M.C., Schubert S.D., Del Genio A., Donner L.J., Emori S., Gueremy J.-F., Hourdin F., Rasch P.J., Roeckner E. and Scinocca F., 2006 : Tropical Intraseasonal Variability in 14 IPCC AR4 Climate Models. Part I : Convective Signals. *J. Climate*, **19**, 2665-2690.

Marzin, C., and P. Braconnot , (2009), Variations of Indian and African monsoons induced by insolation changes at 6 kyr BP and 9.5 kyr BP, *Climate Dynamics*, sous presse.

Mohino Harris E., B. Rodríguez-Fonseca, S. Gervois, S. Janicot, T. Losada Doval, J. Bader, P. Ruti and F. Chauvin , (2009), SST-forced signals on West African rainfall from AGCM simulations-Part I: Intercomparison of models. Soumis à *Clim. Dyn.*.

Navarra A., S. Gualdi, S. Masina, S. Behera, J.-J. Luo, S. Masson, E. Guilyardi, P. Delecluse and T. Yamagata (2008), Atmospheric horizontal resolution affects tropical climate variability in coupled models. *J. Climate*, **21**, 730-750

Peings Y. and H. Douville, (2009), Influence of the Eurasian snow cover on the Indian summer monsoon variability in observations and CMIP3 simulations, *Climate Dyn.*, doi: 10.1007/s00382-009-05065-0.

Peings Y., H. Douville, and P. Terray, (2009), Extended winter Pacific North America Oscillation as a precursor of the Indian Summer monsoon rainfall, *Geophys. Res. Lett.*, **36**, L11710, doi: 10.1029/2009GL038453.

Terray P., Chauvin F. and Douville H., (2007), Impact of southeast Indian Ocean Sea Surface Temperature anomalies on monsoon-ENSO-dipole variability in a coupled ocean-atmosphere model, *Clim. Dyn.*, **28** (6), 553-580,doi: 10.1007/s00382-006-0192.

Zhao, Y., P. Braconnot, S. P. Harrison, P. Yiou and O. Marti, (2007), Simulated Changes in the Relationship between Tropical Ocean Temperatures and the Western African Monsoon During the Mid-Holocene, *Clim. Dyn.*, **28**, 533-551.

Zheng W., P. Braconnot, E. Guilyardi, U. Merkel and Y. Yu, (2008), ENSO at 6ka and 21ka from ocean-atmosphere coupled model simulations, *Clim. Dyn.*, **30**, 745-762

Zhou TJ, B. Wu, A. A. Scaife, S. Brönnimann, A. Cherchi, D. Fereday, A. M. Fischer, C. K. Folland, K. E. Jin, J. Kinter, J. R. Knight, F. Kucharski, S. Kusunoki, N.-C. Lau, Lijuan Li, M. J. Nath, T. Nakaegawa, A. Navarra, P. Pégion, E. Rozanov, S. Schubert, P. Sporyshev, A. Voldoire, Xinyu Wen, J. H. Yoon and N. Zeng, (2008), The CLIVAR C20C project : which components of the Asian–Australian monsoon circulation variations are forced and reproducible ? *Clim. Dyn.*, doi:10.1007/s00382-008-0501-8

#### Moyennes latitudes

Codron, F., (2007), Relation between Annular Modes and the Mean State: Southern Hemisphere Winter, *Journal of Atmospheric Sciences*, **64**, 3328-3339

Guemas, V. D. Salas-Mélia, M. Kageyama, H. Giordani, A. Voldoire and E. Sanchez-Gomez, (2008), Summer interactions between weather regimes and surface ocean in the North-Atlantic region, *Climate Dynamics*, DOI 10.1007/s00382-008-0491-6

Guemas, V., D. Salas-Mélia, M. Kageyama, H. Giordani, A. Voldoire, and E. Sanchez-Gomez, (2009), Winter interactions between weather regimes and marine surface in the North Atlantic European region, *Geophys. Res. Lett.*, **36**, L09816, doi:10.1029/2009GL037551

Laîné, A., M. Kageyama, D. Salas-Mélia, A. Voldoire, G. Rivière, G. Ramstein, S. Planton, S. Tyteca and J.Y. Peterschmitt, (2009), Northern hemisphere storm tracks during the Last Glacial Maximum in the PMIP2 Ocean-Atmosphere coupled models: energetic study, seasonal cycle, precipitation, *Climate Dynamics*, **32**(5), 593-614.

Laîné, A., M. Kageyama, D. Salas, G. Ramstein, S. Planton, S. Denvil, S. Tyteca. (2009) An energetics study of winter-time northern hemisphere storm tracks under 4xCO<sub>2</sub> conditions in two ocean-atmosphere coupled models, *Journal of Climate*, **22**(3), 819-839.

Rojas, M., P. Moreno, M. Kageyama, M. Crucifix, C. Hewitt, A. Abe-Ouchi, R. Ohgaito, E. C. Brady and P. Hope, (2009), The Southern Westerlies during the last glacial maximum in PMIP2 simulations, *Climate Dynamics*, **32**, 525-548, DOI 10.1007/s00382-008-0421-7.

#### Hautes latitudes

Arzel, O., T. Fichefet, H. Goosse, and J.-L. Dufresne, (2008), Causes and impacts of changes in the Arctic freshwater budget during the 20th and 21st centuries in an AOGCM, *Clim Dyn*, **30**(1):37-58, DOI 10.1007/s00382-007-0258-5.

Arzel, O., T. Fichefet and H. Goosse, (2006), Sea ice evolution over the 20<sup>th</sup> and 21<sup>st</sup> centuries as simulated by current AOGCMs. *Ocean Modell.*, **12**, 401–415

Charbit, S., C. Ritz, G. Philippon, V. Peyaud and M. Kageyama, (2007), Numerical reconstructions of the Northern Hemisphere ice sheets through the last glacial-interglacial cycle, *Clim. Past*, **3**, 15-37.

Dubois C. and D. Salas-Mélia, (2009), Changes of sea ice volume and its abrupt depletion in the Arctic region over the 21st century. Soumis à *Clim. Dyn.*.

Krinner, G., O. Magand, I. Simmonds, C. Genton and J.-L. Dufresne, (2006), Simulated antarctic precipitation and surface mass balance of the end of the 20 th and 21 st centuries, *Clim. Dyn.*, DOI :10.1007/s00382-006-0177-x.

Salas-Mélia, D., C. Genton, O. Arzel, C. Cassou, V. Guemas, G. Krinner, M. Minvielle et D. Swingedouw, (2007), Régions polaires, cryosphère et circulation thermohaline. Que nous ont appris les simulations du 4<sup>ème</sup> rapport d'évaluation du GIEC ?, *La Météorologie*, **56**, 33-39.

## Régionalisation et extrêmes

### Simulations régionales

Déqué M, Rowell D, Lüthi D, Giorgi F, Christensen JH, Rockel B, Jacob D, Kjellström E, de Castro M, van den Hurk B , (2007), An intercomparison of regional climate models for Europe: assessing uncertainties in model projections. *Climatic Change* **81**(1), 53-70, doi: 10.1007/s10584-006-9228-x

Déqué, M., Somot, S. , (2008), Extreme precipitation and high resolution with Aladin. *Időjarás Quaterly Journal of the Hungarian Meteorological Service*, **112**(3-4), 179-190

Fox-Rabinovitz, M., J. Côté, B Dugas, M. Déqué and J. L. McGregor, (2006), Variable resolution general circulation models : Stretched-grid model intercomparison project (SGMIP), *J. Geophys. Res.*, **111**, D16104, doi : 10.1029/2005JD006520.

Fox-Rabinovitz, M., Cote J, Dugas B, Deque M, McGregor JL and Belochitski A, (2008), Stretched-grid Model Intercomparison Project: decadal regional climate simulations with enhanced variable and uniform-resolution GCMs, *Meteorology and Atmospheric Physics*, **100** (1-4), 159-177.

Jacob D., Bärring L., Christensen O.B., Christensen J.H., de Castro M., Déqué M., Giorgi F., Hagemann S., Hirschi M., Jones R., Kjellström E., Lenderink G., Rockel B., Sánchez E.S., Schär C., Seneviratne S.I., Somot S., van Ulden A., van den Hurk B., (2007), An inter-comparison of regional climate models for Europe: Design of the experiments and model performance. *Climatic Change*, **81**, 31-52.

Kostopoulou E., K. Tolika, I. Tegoulias, C. Giannakopoulos, S. Somot, C. Anagnostopoulou and P. Maheras , (2009), Evaluation of a regional climate model using in-situ temperature observations over the Balkan Peninsula. *Tellus A*, doi: 10.1111/j.1600-0870.2009.00389.x, **61**(3), 357-370.

Sanchez-Gomez E. , Somot S. and Déqué M., (2008), Ability of an ensemble of regional climate models to reproduce weather regimes over Europe-Atlantic during the period 1961-2000 , *Clim. Dyn.*, 10.1007/s00382-008-0502-7.

### Extremes

Ballester J., H. Douville and F. Chauvin, (2009), Present-day climatology and projected changes of warm and cold days in the CNRM-CM3 global climate model, *Climate Dyn.*, **32**, 35-54, doi:10.1007/s00382-008-0371-0

Chauvin, F., J.-F. Royer and M. Dequé, (2006), Response of hurricane-type vortices to global warming as simulated by Arpege-Climat at high resolution. *Climate Dynamics*, doi : 10.1007 /s00382-006-0135-7.

Chauvin F. and S. Denvil, (2007), Changes in severe indices as simulated by two French coupled global climate models. *Global and Planetary Change*, **57** (1-2), 96-117

Chauvin F., J.-F. Royer, (2008), Des cyclones et des hommes. *La Météorologie*, **61**, 52-66.

Déqué M., (2007), Frequency of precipitation and temperature extremes over France in an anthropogenic scenario: model results and statistical correction according to observed values. *Global and Planetary Change* , **57**, 1-2 , 16-26.

Déqué, M. et L. Li, (2007), La prévision climatique - régionalisation et extrêmes, *La Météorologie*, **57**, 28-30.

Najac J., J. Boé and L. Terray, (2008), A multi-model ensemble approach for assessment of climate change impact on surface winds in France *Clim. Dyn.*, **32**, 615-634, doi: 10.1007/s00382-008-0440-4

Planton S., M. Déqué, F. Chauvin, and L. Terray, (2008), Expected impacts of climate change on extreme climate events. *C. R. Geoscience*, **340**, 564–574.

Royer JF, F Chauvin, (2009), Response of tropical cyclogenesis to global warming in an IPCC AR-4 scenario assessed by a modified yearly genesis parameter. “Hurricanes and Climate Change”, J. B. Elsner and T. H. Jagger (Eds.), Springer, ISBN : 978-0-387-09409-0, pp 213-234.

Yiou, P., K. Goubanova, Z.X. Li, and M. Nogaj, (2008), Weather regime dependence of extreme value statistics for summer temperature and precipitation, *Nonlin. Processes Geophys.*, **15**, 365-378

Sanchez-Gomez, E., L. Terray and B. Joly, (2008), Intraseasonal atmospheric variability and extreme precipitation events on the European-Mediterranean region *Geophys. Res. Letters*, **35**, L15708, doi:10.1029/2008GL034515

### Amérique du Sud

Boulanger, J.-P., F. Martinez and E. C. Segura, (2006), Projection of future climate change conditions using IPCC simulations, neural networks and bayesian statistics.Part 1: Temperature mean state and seasonal cycle in South America, *Clim. Dyn.*, **27**, 233-259, DOI 10.1007/s00382-006-0134-8.

Boulanger, J.-P., F. Martinez and E. C. Segura, (2007), Projection of future climate change conditions using IPCC simulations, neural networksand Bayesian statistics.Part 2: Precipitation mean state and seasonal cycle in South America, *Clim. Dyn.*, **28**, 255–271 , DOI 10.1007/s00382-006-0182-0.

Boulanger, J.-P., G. Brasseur, A. F. Carril, M. Castro, N. Degallier, C. Ereño, J. Marengo, H. Le Treut, C. Menendez, M. Nuñez, O. Penalba, A. Rolla, M. Rusticucci and R. Terra, The European CLARIS Project: A Europe-South America Network for Climate Change Assessment and Impact Studies, *Climatic Change*, CLARIS Special issue, in press

Menéndez, C. G., M. de Castro, J.-P. Boulanger, A. D'Onofrio, E. Sanchez, A.A. Sörensson, J. Blazquez, A. Elizalde, D. Jacob, H. Le Treut, Z.X. Li, M.N. Núñez, S. Pfeiffer, N. Pessacg, A. Rolla, M. Rojas, P. Samuelsson, S.A. Solman and C. Teichmann, (2009) Downscaling extreme month-long climate anomalies in southern South America, *Climatic Change*, CLARIS Special issue, in press

### Régions Méditerranéennes

Elguindi N., Somot S., Déqué M., Ludwig W. (2009), Climate change evolution of the hydrological balance of the Mediterranean, Black and Caspian Seas: impact of climate model resolution, soumis à *Clim. Dyn.*

Fontaine B., J. Garcia-Serrano, P. Roucou, B. Rodriguez-Fonseca, T. Losada, F. Chauvin, S. Gervois, S. Sijikumar, P. Ruti and S. Janicot, (2009), Impacts of warm and cold situations in the Mediterranean basins on the West African monsoon: observed connection patterns (1979–2006) and climate simulations. *Climate Dynamics* (Online), DOI:10.1007/s00382-009-0599-3

Goubanova, K. and L. Li, (2007), Extremes in temperature and precipitation around the Mediterranean basin in an ensemble of future climate scenario simulations, *Global and planetary change*, **57**, 27-42.

Herrmann, M., Estournel, C., Déqué, M., Marsaleix, P., Sevault, S., Somot, S., (2008), Dense water formation in the Gulf of Lion shelf: impact of atmospheric interannual variability and climate change. *Continental Shelf Research*, **28** (15), 2092-2112, doi:10.1016/j.csr.2008.03.003.

Herrmann, M. J., and S. Somot, (2008), Relevance of ERA40 dynamical downscaling for modeling deep convection in the Mediterranean Sea, *Geophys. Res. Lett.*, **35**, L04607, doi:10.1029/2007GL032442.

Li, Z.X., (2006), Atmospheric GCM response to an idealized anomaly of the Mediterranean sea surface temperature, *Climate Dynamics*, **27**, 543-552.

Li L., Bozec A., S. Somot, K. Béranger, P. Bouruet-Aubertot, F. Sevault, M. Crépon, (2006), Regional atmospheric, marine processes and climate modelling (chapter 7). In : Mediterranean Climate Variability, Lionello, P. and Malanotte, P. and Boscolo, R.(eds), Elsevier B.V., pp. 373-397.

Sanchez-Gomez E., Somot S., Mariotti A., (2009), Future changes in the Mediterranean water budget projected by an ensemble of Regional Climate Models, sous presse dans *Geophys. Res. Lett.*

Radu, R., Deque M., Somot S., (2008), Spectral nudging in a spectral regional climate model, *Tellus A- Dynamic Meteorology and Oceanography*, **60**, 5 , 898-910.

Somot, S., F. Sevault and M. Déqué, (2006), Transient climate change scenario simulation of the Mediterranean Sea for the twenty-first century using a high-resolution ocean circulation model. *Climate Dynamics*, **27** (7-8), 851-879.

Somot S. , Sevault F., Déqué M., Crépon M., (2008), 21st century climate change scenario for the Mediterranean using a coupled Atmosphere-Ocean Regional Climate Model. *Global and Planetary Change*, **63**, 112-126, doi:10.1016/j.gloplacha.2007.10.003.

Tsimplis M., Marcos M., Somot S., (2008), 21st century Mediterranean sea level rise. Regional model predictions. *Global and Planetary Change*, **63**(2-3): 105-111, doi:10.1016/j.gloplacha.2007.09.006.

Tsimplis M., Marcos M., Somot S., Pascual A. , (2009), On the causation of sea level rise in the Eastern Mediterranean during the 1990s. Soumis à *J. Mar. Syst..*

Ulbrich U., W. May, P. Lionello, J.G. Pinto, S. Somot, (2006), The Mediterranean Climate Change Under Global Warming (chapter 8). In : Mediterranean Climate Variability, Lionello, P. and Malanotte, P. and Boscolo, R.(eds), Elsevier B.V, pp. 399-415.

## Détection et attribution

Boé J. and L. Terray, (2008): A weather type approach to analysing winter precipitation in France: twentieth century trends and influence of anthropogenic forcing *J. Clim.*, **21**, 3118-3133.

Douville H., (2006) Detection-attribution of global warming at the regional scale: How to deal with precipitation variability? *Geophys. Res. Lett.*, **33**, L02701.

Planton, S. et L. Terray, (2007), Détection et attribution à l'échelle régionale : le cas de la France, *La Météorologie*, **58**, 25-29.

Ribes A., Azaïs J.-M., Planton S, (2009), Adaptation of the optimal fingerprint method for climate change detection using a well-conditioned covariance matrix estimate. *Clim. Dyn.*, doi : 10.1007/s00382-009-0561-4.

Ribes A, J.-M. Azaïs, and S. Planton, (2009), A method for regional climate change detection using smooth temporal patterns. Soumis à *Clim. Dyn.*.

## Cycle hydrologique continental

Boé J., L. Terray, E. Martin and F. Habets, 2009: Projected changes in components of the hydrological cycle in French river basins during the 21st century. *Water Resources Research*, VOL. 45, W08426, doi:10.1029/2008WR007437

Conil S., H. Douville and S. Tyteca, (2007), The relative roles of soil moisture and SST in climate variability explored within ensembles of AMIP-type simulations, *Climate Dyn.*, **28**, 125-145, doi:10.1007/s00382-006-0172-2.

Decharme B., H. Douville, C. Prigent, F. Papa and F. Aires, (2008), A new global river flooding scheme: Off-line validation over South America, *J. Geophys. Res.*, **113**, No. D11, D11110, doi:10.1029/2007JD009376.

Douville H., P. Terray (2007) Réponse du cycle hydrologique aux forçages anthropiques: Que nous disent les dernières simulations du GIEC ? *La Météorologie*, **57**, 31-36 (également Chap. 5 du livre blanc ESCRIME).

## Flux eau et circulation océanique

### Présent-futur

Guemas V., D. Salas-Mélia, (2008), Simulation of the Atlantic meridional overturning circulation in an atmosphere-ocean global coupled model. Part I: a mechanism governing the variability of ocean convection in a preindustrial experiment, *Climate Dynamics*, **31** (1), 29-48.

Guemas V., D. Salas-Mélia, (2008), Simulation of the Atlantic meridional overturning circulation in an atmosphere-ocean global coupled model. Part II : weakening in a climate change experiment: a feedback mechanism, *Climate Dynamics*, **30** (7-8), 831-844.

Mignot J. and C. Frankignoul (2009) Local and remote impacts of a tropical Atlantic salinity anomaly *Climate Dynamics*, published online. DOI 10.1007/s00382-009-0621-9

Swingedouw, D., J. Mignot, P. Braconnot, E. Mosquet, M. Kageyama and R. Alkama (2009) Impact of freshwater release in the North Atlantic under different climate conditions in an OAGCM *J. Clim.*, accepted.

Swingedouw, D., P. Braconnot, P. Delecluse, E. Guilyardi and O. Marti (2007), Quantifying the Amoc Feedbacks During a 2xco(2) Stabilization Experiment with Land-Ice Melting, *Clim. Dyn.*, **29**, 521-534.

Swingedouw, D., P. Braconnot, P. Delecluse, E. Guilyardi and O. Marti, (2007), The Impact of Global Freshwater Forcing on the Thermohaline Circulation: Adjustment of North Atlantic Convection Sites in a Cgcm, *Clim. Dyn.*, **28**, 291-305.

Swingedouw, D., P. Braconnot and O. Marti, (2006), Sensitivity of the Atlantic Meridional Overturning Circulation to the melting from northern glaciers in climate change experiments. *Geophysical Research Letters*, **33**, Art. No. L07711.

Timmermann A., Y. Okumura, S.-I. An, A. Clement, B. Dong, E. Guilyardi, A. Hu, J. Jungclaus, U. Krebs, M. Renold, T.F. Stocker, R.J. Stouffer, R. Sutton, S.-P. Xie and J. Yin (2007), The influence of a weakening of the Atlantic meridional overturning circulation on ENSO, *J. Climate*, **20**, 4899-4919

### Passé

Alkama, M.-R., M. Kageyama, and G. Ramstein, (2006), Impact of a realistic river routing in a simulation of the Last Glacial Maximum climate, *Geophysical Research Letters*, **33**, L21709, 10.1029/2006GL027746.

Alkama, R., M. Kageyama, G. Ramstein, O. Marti, P. Ribstein and D. Swingedouw, (2008), Impact of a realistic river routing in coupled ocean-atmosphere simulations of the Last Glacial Maximum climate, *Climate Dynamics*, **30**, 855-869, DOI 10.1007/s00382-007-0330-1.

M. Kageyama, J. Mignot, D. Swingedouw, C. Marzin, R. Alkama, and O. Marti (2009) Glacial climate sensitivity to different states of the Atlantic Meridional Overturning Circulation : results from the IPSL model *Climate of the past*, accepted

## **Cycle du carbone**

### Rétroaction climat carbone

Friedlingstein, P., P. Cox, R. Betts, L. Bopp, W. von Bloh, V. Brovkin, P. Cadule, S. Doney, M. Eby, I. Fung, B. Govindasamy, J. John, C. Jones, F. Joos, T. Kato, M. Kawamiya, W. Knorr, K. Lindsay, H. D. Matthews, T. Raddatz, P. Rayner, C. Reick, E. Roeckner, K.-G. Schnitzler, R. Schnur, K. Strassmann, A. J. Weaver, C. Yoshikawa and N. Zeng, (2006), Climate -carbon cycle feedback analysis, results from the C4MIP model intercomparison, *J. Climate*, **19**, 3337-3353.

Friedlingstein, P., P. Cadule, S. Piao, P. Ciais and S. Sitch, (2008), The African contribution to the global climate-carbon cycle feedback of the 21st century, *Biogeosciences Discussions*, **5**, 4847-4866

### Carbone continental

Calvet J.-C., Gibelin A., Roujean J., Martin E., Le Moigne P., Douville H., and Noilhan J., (2007), Past and future scenarios of the effect of carbon dioxide on plant growth and transpiration for three vegetation types of southwestern France, *Atmos. Chem. Phys. Discuss.*, **7**, 4761–4779.

Matthews, H.D., M. Eby, T. Ewen, P. Friedlingstein and B. Hawkins, (2007), What determines the magnitude of carbon cycle feedbacks, *Global Biogeochemical Cycles*, **21**, doi:10.1029/2006GB002733.

Piao S L, P., Friedlingstein P. Ciais, L. Zhou, and A. Chen, (2006), The effect of climate and CO<sub>2</sub> changes on the greening of the Northern Hemisphere over the past two decades, *Geophysical Research Letter*, **33**, L23402, doi:10.1029/2006GL028205.

Piao, S., P. Friedlingstein, P. Ciais, N. Viovy and J. Demarty, (2007), Growing season extension and its impact on terrestrial carbon cycle in the Northern Hemisphere over the past 2 decades, *Global Biogeochem. Cycles*, **21**, GB3018, doi:10.1029/2006GB002888.

Piao, S., P. Ciais, P. Friedlingstein, P. Peylin, M. Reichstein, S. Luyssaert, H. Margolis, J. Fang, A. Barr, A. Chen, A. Grell, D. Hollinger, T. Laurila, A. Lindroth, A. Richardson and T. Vesala, (2008), Net carbon dioxide losses of northern ecosystems in response to autumn warming, *Nature*, **451**, 49-52.

### Carbone océanique

Schneider, B., L. Bopp, M. Gehlen, J. Segschneider, T. L. Frölicher, F. Joos, P. Cadule, P. Friedlingstein, S. C. Doney and M. J. Behrenfeld, (2008), Spatio-temporal variability of marine primary and export production in three global coupled climate carbon cycle models, *Biogeoscience Discuss.*, **5**, 597-614.

Swingedouw, D., et al. (2007), Effect of land-ice melting and associated changes in the AMOC result in little overall impact on oceanic CO<sub>2</sub> uptake, *Geophysical Research Letters*, **34**(23), -.

### Evaluation

Sitch, S., C. Huntingford, N. Gedney, P. Levy, M. Lomas, S. Piao, R. Betts, P. Ciais, P. Cox, P. Friedlingstein, C. D. Jones, I. C. Prentice and F. I. Woodward, (2008), Evaluation of the terrestrial carbon cycle, future plant geography and climate-carbon cycle feedbacks using 5 Dynamic Global Vegetation Models (DGVMs), *Global Change Biology*, **14**, 2015-2039.

### **Utilisation des sols**

Davin, E.L., N. deNoblet-Ducoudré and P. Friedlingstein, (2007), Impact of land cover change on surface climate: relevance of the radiative forcing concept, *Geophys. Res. Lett.*, **34**, L13702, doi:10.1029/2007GL029678.

Piao S L, P. Friedlingstein, P. Ciais, N. Ducoudré, D. Labat and S. Zaehle, (2007), Climate and land use changes have a larger impact than rising CO<sub>2</sub> on global river runoff trends, *Proc. Natl. Acad. Sci. USA*, **104**, 15242-15247.

Voldoire, A., (2006), Quantifying the impact of future land-use changes against increases in GHG concentrations. *Geophys. Res. Lett.*, **33**, L04701, doi : 10.1029/2005GL024354.

Voldoire A., B. Heickhout, M. Schaeffer, J.-F. Royer, F. Chauvin, (2007), Climate simulation of the twenty-first century with interactive land-use changes. *Clim. Dyn.*, **29**(2-3), 177-193.

### **Chimie aérosols climat**

#### Ozone et stratosphère

Austin, J., K. Tourpali, E. Rozanov, H. Akiyoshi, S. Bekki, G. Bodeker, C. Brühl, N. Butchart,

M. Chipperfield, M. Deushi, V. I. Fomichev, M. A. Giorgi, L. Gray, K. Kodera, F. Lott, E. Manzini, D. Marsh, K. Matthes, T. Nagashima, K. Shibata, R. S. Stolarski, H. Struthers and W. Tian, (2008), Coupled chemistry climate model simulations of the solar cycle in ozone and temperature, *J. Geophys. Res.*, **113**, D11306, doi:10.1029/2007JD009391.

Austin J., Wilson R.J., Akiyoshi H., Bekki S., Butchart N., Claud C., Fomichev V.I., et al., (2009), Coupled chemistry climate model simulations of stratospheric temperatures and their trends for the recent past, *Geophysical Research Letters* **36**, L13809

Austin, S. Bekki, et al., (2006), Assessment of temperature, trace species, and ozone in chemistry-climate model simulations of the recent past, *J. Geophys. Res.*, **111**, D22308, doi:10.1029/2006JD007327

Cariolle, D. and H. Teyssèdre, (2007), a revised linear ozone photochemistry parameterization for use in transport and general circulation models : multi-annual simulations. *Atmospheric Chemistry and Physics*, **7**, 2183-2196. Eyring, V., N. Butchart, D. W Waugh, H. Akiyoshi, J..

Gettelman, A., T. Birner, V. Eyring, H. Akiyoshi, D. A. Plummer, M. Dameris, S. Bekki, F. Lefevre, F. Lott, C. Brühl, K. Shibata, E. Rozanov, E. Mancini, G. Pitari, H. Struthers, W. Tian and D. E. Kinnison, (2009), The Tropical Tropopause Layer 1960-2100, *Atmos. Chem. Phys.*, **9**, 1621-1637.

Haefele, A., A., K. Hocke, N. Kampfer, P. Keckhut, M. Marchand, S. Bekki, B. Morel, T. Egorova and E. Rozanov, (2008), Diurnal changes in middle atmospheric H<sub>2</sub>O and O<sub>3</sub>: Observations in the Alpine region and climate models, *J. Geophys. Res.*, **113**, D17303, doi:10.1029/2008JD009892.

### Aerosols

Balkanski, Y., M. Schulz, T. Claquin and OK Boucher, (2007), Reevaluation of mineral aerosol radiative forcings suggests a better agreement with satellite and AERONET data, *Atmos. Chem. Phys.*, **7** (1), pp. 81-95.

Deandreas, C., (2008), Impact des aérosols anthropiques sur le climat présent et futur. Thèse, Université Pierre et Marie Curie.

Haywood, J. and M. Schulz, (2007), Causes of the reduction in uncertainty in the anthropogenic radiative forcing of climate between IPCC (2001) and IPCC (2007), *Geophys. Res. Lett.*, **34**, L20701, doi:10.1029/2007GL030749.

Ménégoz, M., D. Salas y Melia, M. Legrand, H. Teyssèdre, M. Michou, V.-H. Peuch, M. Martet, B. Josse and I. Etchevers-Dombrowski, (2008), Equilibrium of sinks and sources of sulphate over Europe: comparison between a six-year simulation and EMEP observations *Atmos. Chem. Phys. Disc.*, **9**, 4381-4415.

Schulz, M. , C. Textor, S. Kinne, Y. Balkanski, S. Bauer, T. Berntsen, T. Berglen, O. Boucher, F. Dentener, S. Guibert, I. S. A. Isaksen, T. Iversen, D. Koch, A. Kirkevåg, X. Liu, V. Montanaro, G. Myhre, J. E. Penner, G. Pitari, S. Reddy, Ø. Selander, P. Stier and T. Takemura, (2006), Radiative forcing by aerosols as derived from the AeroCom present-day and pre-industrial simulations, *Atmospheric Chemistry and Physics* **6**, 5225-5246.

Textor, C., M. Schulz, S. Guibert, S. Kinne, Y. Balkanski, S. Bauer, T. Berntsen, T. Berglen, O. Boucher, M. Chin, F. Dentener, T. Diehl, J. Feichter, D. Fillmore, P. Ginoux, S. Gong, A. Grini,

J. Hendricks, L. Horowitz, P. Huang, I.S.A. Isaksen, T. Iversen, S. Kloster, D. Koch, A. Kirkevåg, J.E. Kristjansson, M. Krol, A. Lauer, J.F. Lamarque, X. Liu, V. Montanaro, G. Myhre, J.E. Penner, G. Pitari, S. Reddy, Ø. Seland, P. Stier, T. Takemura and X. Tie, (2007), The effect of harmonized emissions on aerosol properties in global models – an AeroCom experiment, *Atmos. Chem. Phys. Discuss.* **7**, 1699-1723.

Yu, H., Y.J. Kaufman, M. Chin, G. Feingold, L.A. Remer, T.L. Anderson, Y. Balkanski, N. Bellouin, O. Boucher, S. Christopher, P. DeCola, R. Kahn, D. Koch, N. Loeb, M.S. Reddy, M. Schulz, T. Takemura and M. Zhou, (2006) A review of measurement-based assessments of the aerosol direct radiative effect and forcing, *Atmospheric Chemistry and Physics*, **6**, 613-666. Publication de référence des modèles et évaluation

### **Publication de référence des modèles et évaluation**

Arsouze, T., J.-C. Dutay, M. Kageyama, F. Lacan, R. Alkama, O. Marti and C. Jeandel, (2008), A modeling sensitivity study of the influence of the Atlantic meridional overturning circulation on neodymium isotopic composition at the Last Glacial Maximum, *Climate of the Past*, **4**, 191-203.

Boone A., P. de Rosnay, G. Balsamo, A. Beljaars, F. Chopin,, B. Decharme, C. Delire, A. Ducharne, S. Gascoin, F. Guichard, Y. Gusev, P. Harris, L. Jarlan, L. Kergoat, E. Mougin, O. Nasonova, A. Norgaard, T. Orgeval, C. Ottlé, I. Poccard-Leclercq, J. Polcher, I. Sandholt, S. Sauz-Picart, C. M. Taylor, and Y. Xue, (2009), The AMMA Land Surface Model Intercomparison Project (ALMIP), Soumis à *BAMS*.

Chepfer, H., S. Bony, D. Winker, M. Chiriaco, J-L. Dufresne and G. Sèze., (2008), Use of CALIPSO lidar observations to evaluate the cloudiness simulated by a climate model. *Geophys. Res. Lett.*, L15704, doi:10.1029/2008GL034207.

Decharme B. and H. Douville, (2007), Global validation of the ISBA Sub-Grid Hydrology. *Climate Dyn.*, **29**, 21-37, doi:10.1007/s00382-006-0216-7.

Farda, A., Déqué, M., Somot, S., Horanyi, A., Spiridonov, V. and Toth, H., (2009), The Aladin Model as Regional Climate Model for Central and Eastern Europe. Soumis à *Studia Geophysica et Geodaetica*.

Gibelin, A., J. Calvet, J. Roujean, L. Jarlan, and S. O. Los, (2006 ), Ability of the land surface model ISBA-A-gs to simulate leaf area index at the global scale : Comparison with satellites products. *J. Geophys. Res.*, **111**, D18102, doi : 10.1029/2005JD006691.

Gibelin A.-L., Calvet J.-C., Viovy N., (2008), Modelling energy and CO<sub>2</sub> fluxes with an interactive vegetation land surface model - Evaluation at high and middle latitudes, *Agricultural and Forest Meteorology*, **148**, 1611-1628, 10.1016/j.agrformet.2008.05.013.

Hourdin, F., I. Musat, S. Bony, P. Braconnot, F. Codron, J. L. Dufresne, L. Fairhead, M. A. Filiberti, P. Friedlingstein, J. Y. Grandpeix, G. Krinner, P. Levan, Z. X. Li and F. Lott, (2006), The LMDZ4 general circulation model: climate performance and sensitivity to parametrized physics with emphasis on tropical convection, *Climate Dynamics*, **27**, 787-813.

Jourdain, L., S. Bekki, F. Lott, and F. Lefèvre, (2008), The coupled chemistry-climate model LMDz-REPROBUS: description and evaluation of a transient simulation of the period 1980–1999, *Annales Geophysicae*, **26**, 6, 1391-1413.

Kageyama, M., A. Laîné, A. Abe-Ouchi, P. Braconnot, E. Cortijo, M. Crucifix, A. de Vernal, J. Guiot, C. D. Hewitt, A. Kitoh, M. Kucera, O. Marti, R. Ohgaito, B. Otto-Bliesner, W. R. Peltier, A. Rosell-Melé, G. Vettoretti, S. L. Weber, Y. Yu and MARGO Project members, (2006), Last Glacial Maximum temperatures over the North Atlantic, Europe and western Siberia: a comparison between PMIP models, MARGO sea-surface temperatures and pollen-based reconstructions, *Quaternary Science Reviews*, **25**, 2082-2102.

Kinne, S., M. Schulz, C. Textor, S. Guibert, Y. Balkanski, S.E. Bauer, T. Berntsen, T.F. Berglen, O. Boucher, M. Chin, W. Collins, F. Dentener, T. Diehl, R. Easter, J. Feichter, D. Fillmore, S. Ghan, P. Ginoux, S. Gong, A. Grini, J. Hendricks, M. Herzog, L. Horowitz, I. Isaksen, T. Iversen, A. Kirkevåg, S. Kloster, D. Koch, J.E. Kristjansson, M. Krol, A. Lauer, J.F. Lamarque, G. Lesins, X. Liu, U. Lohmann, V. Montanaro, G. Myhre, J. Penner, G. Pitari, S. Reddy, O. Selander, P. Stier, T. Takemura and X. Tie, (2006) An AeroCom initial assessment optical properties in aerosol component modules of global models, *Atmos. Chem. Phys.*, **6**, 1815-1834.

Marti O, Braconnot P, Dufresne J-L, Bellier J, Benshila R, Bony S, Brockmann P, Cadule P, Caubel A, Codron F, de Noblet N, Denvil S, Fairhead L, Fichefet T, Foujols M-A, Friedlingstein P, Goosse H, Grandpeix J-Y, Guilyardi E, Hourdin F, Krinner G, Lévy C, Madec G, Mignot J, Musat I, Swingedouw D and Talandier C, (2009), Key features of the IPSL ocean atmosphere model and its sensitivity to atmospheric resolution, *Climate Dynamics*, in press

Otto-Bliesner, B. L., R. Schneider, E. C. Brady, M. Kucera, A. Abe-Ouchi, E. Bard, P. Braconnot, M. Crucifix, C. D. Hewitt, M. Kageyama, O. Marti, A. Paul, A. Rosell-Melé, C. Waelbroeck, S. L. Weber, M. Weinelt and Y. Yu, (2009), A comparison of PMIP2 model simulations and the MARGO proxy reconstruction for tropical sea surface temperatures at last glacial maximum, *Climate Dynamics*, in press.

Rutter N., R. Essery, J. Pomeroy, N. Altimir, K. Andreadis, I. Baker, A. Barr, P. Bartlett, A. Boone, H. Deng, H. Douville, E. Dutra, K. Elder, C. Ellis, X. Feng, A. Gelfan, A. Goodbody, Y. Gusev, D. Gustafsson, R. Hellstrom, Y. Hirabayashi, T. Hirota, T. Jonas, V. Koren, A. Kuragina, D. Lettenmaier, W.-P. Li, C. Luce, E. Martin, O. Nasonova, J. Pumpanen, R. D. Pyles, P. Samuelsson, M. Sandells, G. Schadler, A. Shmakin, T. G. Smirnova, M. Stahli, R. Stockli, U. Strasser, H. Su, K. Suzuki, K. Takata, K. Tanaka, E. Thompson, T. Vesala, P. Viterbo, A. Wiltshire, K. Xia, Y. Xue, and T. Yamazaki, (2009), Evaluation of forest snow processes models (SnowMIP2). *J. Geophys. Res.*, **114**, D06111, doi:10.1029/2008JD011063.

Risi C, S Bony, F Vimeux, L. Descroix, B. Ibrahim, E. Lebreton, I. Mamadou and B. Sultan, (2008), What controls the isotopic composition of the African monsoon on precipitation ? Insights from event-based precipitation collected during the 2006 AMMA field campaign?, *Geophys. Res. Lett.*, doi :10.1029/2008GL035920, **35**, L24808

Risi C, S Bony and F Vimeux, (2008), Influence of convective processes on the isotopic composition ( $^{18}\text{O}$  and D) of precipitation and water vapor in the tropics : Part 2. Physical interpretation of the Amount Effect, *J. Geophys. Res.*, **113**, D19306, doi :10.1029/2008JD009943.

Teyssèdre, H., M. Michou, H. Clark, B. Josse, F. Karcher, D. Olivié, V.-H. Peuch, D. Saint-Martin, D. Cariolle, J.-L. Attié, P. Nédélec, P. Ricaud, V. Thouret, R.J. van der A, A. Volz-Thomas et F. Chéroux, (2007) A new chemistry-climate tropospheric and stratospheric model MOCAGE-Climat: evaluation of the present-day climatology and sensitivity to surface processes, *Atmos. Chem. Phys.*, 5815-5860.

Valcke S., R. Budich, M. Carter, M.-A. Foujols, E. Guilyardi, M. Lautenschlager, R. Redler, L. Steenman-Clark and N. Wedi (2007), A European Network for Earth System Modeling. *EOS*, **28**(12).

## Processus physiques

Bernie, D., S. Woolnough, J. Slingo and E. Guilyardi, (2005), Modeling diurnal and intraseasonal variability of the ocean mixed layer. *J. Climate*, **18**, 1190-1202.

Bernie D. J., E. Guilyardi, G. Madec, J. M. Slingo and S. W. Woolnough, (2007), Impact of resolving the diurnal cycle in an ocean-atmosphere GCM. Part 1: A diurnally forced OGCM, *Clim. Dyn.*, **29**, 575-590

Bernie D. J., E. Guilyardi, G. Madec, J. M. Slingo, S. W. Woolnough and J. Cole, (2008), Impact of resolving the diurnal cycle in an ocean-atmosphere GCM. Part 2: A diurnally coupled CGCM, *Clim. Dyn.*, **31**, 909-925.

Bony S, C Risi and F Vimeux, (2008), Influence of convective processes on the isotopic composition ( $^{18}\text{O}$  and D) of precipitation and water vapor in the tropics : Part 1. Radiativeconvective equilibrium and TOGA-COARE simulations, *J. Geophys. Res.*, **113**, D19305, doi :10.1029/2008JD009942.

Braconnot, P., F. Hourdin, S. Bony, J.-L. Dufresne, J.-Y. Grandpeix and O. Marti, (2007) Impact of Different Convective Cloud Schemes on the Simulation of the Tropical Seasonal Cycle in a Coupled Ocean-Atmosphere Model, *Clim. Dyn.*, **29**, 501-520.

Rio C. and F. Hourdin, (2008), A thermal plume model for the convective boundary layer : Representation of cumulus clouds, *J. Atmos. Sci.* **65**, 407-425.