



Curriculum vitae of Professor Thierry Fichet

Université catholique de Louvain

Faculty of Sciences
Earth and Life Institute

Georges Lemaître Centre for Earth and Climate Research

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2. Personal data

Belgian citizen, born in Charleroi on 2 December 1961, married, two children.

3. Education

- Ph.D. in Sciences, UCL (1988), with highest honours.
- Special Master degree (DEA) in Physics, UCL (1985), with highest honours.
- Agrégation de l'enseignement secondaire supérieur, UCL (1984), with honours.
- Master degree in Physics, UCL (1983), with highest honours.

4. Current and past positions

- 2008–present : Full Professor (Professeur ordinaire) at UCL.
- 2010–2012 : Head of TECLIM and of the Research Division Earth & Climate (ELIC) of ELI.
- 2004–2008 : Associate Professor (Professeur) at UCL.
- 2004–2010 : Head of the Georges Lemaître Institute of Astronomy and Geophysics (ASTR) of the Department of Physics of UCL.
- 2004–present : Honorary Research Associate of the Fonds de la Recherche Scientifique (FRS) - FNRS at TECLIM.

- 2003–2004 : Part-time Associate Professor (Professeur à temps partiel) at UCL.
- 1998–2003 : Part-time Lecturer (Chargé de cours à temps partiel) at UCL.
- 1995–1998 : Invited Part-time Lecturer at UCL.
- 1989–2004 : Research Associate of the FRS-FNRS at ASTR.
- 1989 : Senior Research Assistant of the French National Centre for Scientific Research at Météo-France, Toulouse.
- 1988–1989 : Research Assistant at ASTR.
- 1984–1988 : Research Assistant of the FRS-FNRS at ASTR.

5. Research areas

Large-scale sea ice–ocean modelling (leader of the Louvain-la-Neuve sea ice modelling - LIM - group) ; modelling climate variability and changes (past and future) at the global scale, with focus on polar regions ; study of climate-cryosphere interactions.

Main current collaborations outside UCL

- Alfred Wegener Institute, Bremerhaven, Germany (T. Yung).
- Atmospheric Sciences Department, University of Washington, Seattle, U.S.A. (C. Bitz).
- Barcelona Supercomputing Centre, Barcelona, Spain (F.J. Doblas Reyes, N. Fuckar, V. Guemas).
- Centre Européen de Recherche et de Formation Avancée en Calcul Scientifique, Toulouse, France (L. Terray, S. Valcke).
- Departement Geografie, Vrije Universiteit Brussel, Brussels, Belgium (P. Huybrechts).
- Laboratoire de Climatologie, Université de Liège, Liège, Belgium (X. Fettweis).
- Laboratoire de Glaciologie, Université libre de Bruxelles, Brussels, Belgium (F. Pattyn, J.-L. Tison).
- Laboratoire de Glaciologie et de Géophysique de l'Environnement, Université Joseph Fourier, Grenoble, France (V. Dansereau, H. Gallée, N. Jourdain, J.-M. Molines, J. Weiss).
- Laboratoire d'Océanographie et du Climat, Université Pierre et Marie Curie, Paris, France (G. Madec, C. Rousset, M. Vancoppenolle).
- Laboratoire des Sciences du Climat et de l'Environnement, Gif sur Yvette, France (P. Braconnot, M. Kageyama, O. Marti).
- Marine Science and Technology, Newcastle University, Newcastle, U.K. (M.A. Morales Maqueda).
- Max Planck Institute for Meteorology, Hamburg, Germany (D. Notz).
- MERCATOR Océan, Ramonville, France (G. Garric).
- National Oceanography Centre, Southampton, United Kingdom (Y. Aksenov, G. Madec).
- Swedish Meteorological and Hydrological Institute, Norrköping, Sweden (T. Koenig).
- University Corporation for Atmospheric Research, National Center for Atmospheric Research, Boulder, U.S.A. (M. Holland).

6. Research contracts

- [1] Study of the atmosphere-ocean-biosphere system intended for climate studies (credit to researchers, FRS-FNRS, budget : ~20,000 EUR, 1990–1991, in collaboration with G. Schayes and J.-P. van Ypersele).
- [2] Supercomputer credit FRS-FNRS (20 hours of CPU time on the ULB-VUB CRAY-XMP, 1990–1991, in collaboration with J.-P. van Ypersele).
- [3] Variability of the glacial and interglacial climates and abrupt climatic changes (contract ENV4-CT95-0131, Climate and Environment Programme, European Commission, budget : ~171,000 EUR, 1996–1997).
- [4] Modelling the climate and its evolution at the global scale - CLIMOD (Contract CG/DD/09A, First Scientific Support Plan for a Sustainable Development Policy, Belgian Federal Office for Scientific, Technical and Cultural Affairs, Prime Minister's Services, budget : ~377,000 EUR, 1996–2001). Within this project, I have coordinated a network of 4 Belgian research teams (total budget : ~1,244,000 EUR).

- [5] Influence of the air-sea-ice interactions in the polar regions on the global climate : A study with a new coupled atmosphere-ocean general circulation model (contract ERBFMBICT972359, Programme for Training and Mobility of Researchers, European Commission, budget : ~178,000 EUR, 1998–2000).
- [6] Climate variability : How unusual is the Holocene? (contract ENV4-CT97-0643, Climate and Environment Programme, European Commission, budget : ~192,000 EUR, 1998–2000).
- [7] Modelling the climate and its evolution at the global and regional scales (Special Project SPBECL, European Center for Medium Range Weather Forecasts, Reading, CPU time on the FUJITSU, 1998–2003, in collaboration with J.-P. van Ypersele).
- [8] Financement des Fonds Spéciaux de Recherche (FSR) de l'UCL destiné à l'accueil d'un chercheur postdoctoral étranger à ASTR (1999).
- [9] Optimisation of a model of the coupled ocean-sea ice system (Group Mission MERCATOR, CERFACS-CNRS-INSU-IFREMER-IRD-Météo-France-SHOM, budget : ~7000 EUR, 2000–2001).
- [10] Modelling the evolution of climate and sea level over the third millennium - MILMO (contract EV/10/9A, Second Scientific Support Plan for a Sustainable Development Policy, Belgian Federal Office for Scientific, Technical and Cultural Affairs, Prime Minister's Services, budget : ~327,000 EUR, 2000–2005). Within this project, I have coordinated a network of 3 Belgian research teams (total budget : ~972,000 EUR).
- [11] Modelling the climate with LMDZ : Application to regional studies (International Scientific Cooperation Programme, French National Centre for Scientific Research and FRS-FNRS, budget : ~31,000 EUR, 2000–2003, in collaboration with H. Le Treut).
- [12] Programme for integrated Earth system modelling - PRISM : An infrastructure project for climate research in Europe (contract EVR1-CT-2001-40012, Energy, Environment and Sustainable Development Programme, European Commission, budget : ~47,000 EUR, 2001–2004).
- [13] Sea ice : Observations and high-resolution modelling (Group Mission MERCATOR, CERFACS-CNRS-CNRS/INSU-IFREMER-IRD-Météo-France-SHOM, budget : ~12,000 EUR, 2001–2003).
- [14] Contribution of the assimilation of satellite data to sea ice modelling (FSR, budget : ~45,000 EUR, 2002–2004, in collaboration with E. Deleersnijder).
- [15] Models and observations to test climate feedbacks - MOTIF (Fifth Framework Programme, Energy, Environment and Sustainable Development Programme, European Commission, budget : ~104,000 EUR, 2003–2005).
- [16] Climate Change and Cryosphere - C3 (ACI-FNS French National Programme on Natural Risk and Climate Change, budget : ~24,000 EUR, 2003–2005, in collaboration with H. Goosse and J.-P. van Ypersele).
- [17] Ensemble-based predictions of climate changes and their impacts - ENSEMBLES (contract 505539, Sixth Framework Programme, Global Change and Ecosystems Programme, European Commission, budget : ~75,000 EUR, 2004–2009).
- [18] A second-generation model of the ocean system - SLIM (Concerted Research Actions, French Community of Belgium, budget : ~725,000 EUR, 2004–2009, in collaboration with E. Deleersnijder, V. Legat and J.-F. Remacle).
- [19] Contributing as Lead Author to Chapter 8 of the Intergovernmental Panel on Climate Change (IPCC) Working Group 1 Fourth Assessment Report (contract IO/10/004, Belgian Science Policy Office, budget : ~35,000 EUR, 2004–2007).
- [20] Assessment of modelling uncertainties in long-term climate and sea level change projections - ASTER : Phase 1 (contract SD/CS/01A, Programme on Science for a Sustainable Development, Belgian Science Policy Office, budget : ~200,000 EUR, 2006–2008). Within this project, I have coordinated a network of 3 Belgian research teams (total budget : ~534,000 EUR).
- [21] Financement des FSR de l'UCL destiné à l'accueil d'un chercheur postdoctoral étranger à ASTR (2006, in collaboration with A. Berger et H. Goosse).

- [22] Sea ice biogeochemistry in polar oceans : Implications on fluxes of climatically significant gases and for climate changes of natural or anthropogenic origin – A contribution to the International Polar Year (Fund for Collective Fundamental Research, FRS-FNRS, budget : ~5000 EUR, 2007–2009, in collaboration with A. Borges, L. Chou, C. Lancelot and J.-L. Tison).
- [23] Network for ice sheet and climate evolution - NICE (contract MRTN-CT-2006-036127, Human Resources and Mobility Activity, Marie Curie Actions, Marie Curie Research Training Networks, European Commission, budget : ~282,000 EUR, 2007–2010).
- [24] Analyse comparée des forçages externes et des rétroactions internes au système climatique lors de trois périodes chaudes observées dans l'Arctique au cours des 10.000 dernières années (Fund for Collective Fundamental Research, FRS-FNRS, budget : ~10,000 EUR, 2008, in collaboration with M. Crucifix and H. Goosse).
- [25] Assessment of modelling uncertainties in long-term climate and sea level change projections - ASTER : Phase 2 (contract SD/CS/01B, Programme on Science for a Sustainable Development, Belgian Science Policy Office, budget : ~263,000 EUR, 2008–2010). Within this project, I have coordinated a network of 3 Belgian research teams (total budget : ~620,000 EUR).
- [26] Financement des FSR de l'UCL destiné à l'accueil d'un chercheur postdoctoral étranger à ASTR (2009, in collaboration with E. Lambin).
- [27] Comprehensive modelling of the Earth system for better climate prediction and projection - COMBINE (grant agreement 226520, Seventh Framework Programme, Theme 6 : Environment, European Commission, budget : ~310,000 EUR, 2009–2013).
- [28] Taking up the challenges of multi-scale marine modelling (convention 10/15-028, Concerted Research Actions, French Community of Belgium, budget : 485,000 EUR, 2010–2015, in collaboration with E. Deleersnijder, E. Hanert, V. Legat, J.-F. Remacle and S. Soares Frazao).
- [29] Contributing as Lead Author to Chapter 12 of the IPCC Working Group 1 Fifth Assessment Report (contract SD/XX/822, Belgian Science Policy Office, budget : 120,000 EUR, 2010–2013).
- [30] Year-round ocean–sea ice–atmosphere exchanges – YROSIAE (Fund for Collective Fundamental Research, FRS-FNRS, budget : ~10,500 EUR, 2011–2013, in collaboration with B. Delille, B. Heinesch and J.-L. Tison).
- [31] Constraining long-term climate and sea level projections using the Last Interglacial - iCLIPS (contract SD/CS/06A, Programme on Science for a Sustainable Development, Belgian Science Policy Office, budget : ~542,000 EUR, 2010–2015).
- [32] Towards a new model of sea ice rheology for climate simulation (PHC Tournesol 2011, Wallonie-Bruxelles International, 2011–2012, in collaboration with J. Weiss).
- [33] Earth system model bias reduction and assessing abrupt climate change - EMBRACE (grant agreement 282672, Seventh Framework Programme, ENV.2011.1.1.1-1 Improvement of the representation of critical climate processes in climate and Earth system models, European Commission, budget : ~107,500 EUR, 2011–2016).
- [34] Improving the representation of Antarctic sea ice in climate models thanks to a better understanding of the processes governing its mean state and variability (Research project, FRS-FNRS, budget : 318,000 EUR, 2014–2018, in collaboration with H. Goosse).
- [35] Projections of climate and sea level change for northern Belgium in the next 10,000 years (contract 2014-0086/00/00, Belgian Agency for Radioactive and Enriched Fissile Materials, budget : 75,000 EUR, 2014–2015).
- [36] Process-based climate simulation : Advances in high resolution modelling and European climate risk assessment - PRIMAVERA (contract 641727, Horizon 2020 Programme, SC5-01-2014, European Commission, budget : 738,000 EUR, 2015–2019).
- [37] Influence of small-scale processes on the dynamics of the coupled atmosphere-cryosphere-ocean system on daily to seasonal timescales in the region of Adélie Land, Antarctica (Research project, FRS-FNRS, budget : 180,500 EUR, 2016–2020). Within this project, I have coordinated a network of 2 Belgian research teams (total budget : ~350,000 EUR).

[38] Advanced prediction in polar regions and beyond : Modelling, observing system design and linkages associated with Arctic climate change - APPLICATE (contract 727862, Horizon 2020 Programme, BG-10-2016, European Commission, budget : 764,000 EUR, 2016–2020).

7. Honours and awards

- Member of the Academia Europaea since 2002.
- Adolphe Wetrems Prize (Mathematical and Physical Sciences) of the Classe des Sciences de l'Académie Royale des Sciences, des Lettres et des Beaux-arts de Belgique (79th annual period, 1st February 2004–31 January 2005).
- Nobel Peace Prize 2007, awarded to the IPCC (I was Lead Author of the IPCC Fourth and Fifth Assessment Reports).
- Gérard Mégie Prize 2008 of the Académies des Sciences of the Institut de France.
- Louis Agassiz Medal 2016 of the Division on Cryospheric Sciences of the European Geophysical Union.

8. Membership in scientific societies

- Société Royale Belge d'Astronomie, de Météorologie et de Physique du Globe (member since 1988).
- European Geosciences Union (member since 1990).
- American Geophysical Union (member since 1990).
- International Glaciological Society (member since 2000).
- International Association for the Physical Sciences of the Oceans (Belgian representative since 2006).
- American Meteorological Society (member from 2008 to 2011).

9. Membership in academic and scientific committees

- Comité National Belge de Géodésie et de Géophysique (associated member from 1990 to 2003 ; full member since 2004).
- Comité National Belge pour les Recherches en Antarctique (associated member from 1993 to 2002 ; full member since 2003).
- Collège des Alumni of the Académie Royale des Sciences, des Lettres et des Beaux-arts de Belgique (member since 2008).
- Scientific Committee of the French National Programme on the Study of Climate Dynamics (member from 2002 to 2005).
- Advisory Scientific Committee of the International Polar Foundation (member since 2003).
- Scientific Committee of the Pôle de Modélisation de l'Institut Pierre Simon Laplace (Paris) (member from 2005 to 2009).
- Commission d'Astrophysique, de Géophysique et de Dynamique du Climat of the FRS-FNRS (member from 2005 to 2009).
- Commission des Sciences de la Terre et de l'Environnement du Fonds pour la Formation à la Recherche dans l'Industrie et dans l'Agriculture (FRIA) (member from 2005 to 2015).
- Louis Agassiz Medal Committee of the European Geosciences Union (member since 2016).

10. Participation to working groups

- Invited expert in the Working Group for Extracting Environmental Data from the Past of the International Geosphere-Biosphere Programme (1988).
- Member of the Belgian National Advice Research Council on Climate Change (1991–1993).
- Member of the Euroclivar Committee, concerted research action funded by the European Commission (1996–1999).

- Participation in the development of the implementation plan of the Research Programme on Climate Variability and Predictability (CLIVAR) of the World Climate Research Programme (WCRP) (1996–1998).
- Belgian representative at the International CLIVAR Conference (1998).
- Belgian representative in CLIVAR (since 1999).
- Invited expert at the IPCC Workshop on Rapid Non-Linear Climate Change (1998).
- Invited expert in the Numerical Experimentation Group of the Research Programme on Arctic Climate System Study/Climate and Cryosphere (ACSYS/CliC) of the WCRP (1998–2005).
- Invited expert at the Eight Session of the WCRP ACSYS Scientific Steering Group (1999).
- Member of the ACSYS/CliC Scientific Steering Group (1999–2007).
- Chairman of the working group in charge of updating the sea ice model of the French climate modelling community (1999–2003).
- Contributing Author of the IPCC Working Group 1 Third Assessment Report - Chapter 8. Model evaluation (2000).
- Member of the PRISM Scientific Steering Group and System Specification Work Group (2001–2005).
- Member of the European Network for Earth System Modelling (ENES) (since 2001).
- Member of the SCOR/IMAGES Working Group on Past Ocean Circulation (2003–2007).
- Member of the Developers Committee of the Nucleus for European Modelling of the Ocean (NEMO) System (2004–2016).
- Lead Author of the IPCC Working Group 1 Fourth Assessment Report - Chapter 8. Climate models and their evaluation (2004–2007).
- Member of the COMBINE (Comprehensive modelling of the Earth system for better climate prediction and projection) Governing Board (2009–2013).
- Lead Author of the IPCC Working Group 1 Fifth Assessment Report - Chapter 12. Long-term climate change : Projections, commitments and irreversibility (2010–2013).
- Contributing Author of the IPCC Working Group 1 Fifth Assessment Report - Summary for Policymakers - Technical Summary - Chapter 9 : Evaluation of climate models - Chapter 11 : Near-term climate change : Projections and predictability (2010–2013).
- Member of the EMBRACE (Earth system model bias reduction and assessing abrupt climate change) Governing Board (2011–2016).
- Member of the PRIMAVERA (Process-based climate simulation : Advances in high resolution modelling and European climate risk assessment) Executive Board (since 2015).
- Member of the APPLICATE (Advanced prediction in polar regions and beyond : Modelling, observing system design and linkages associated with Arctic climate change) Executive Board (since 2016).

11. Evaluation of research projects and manuscripts

- Reviewer of research projects submitted to the International Association for the Promotion of Cooperation with Scientists from the Independent States of the Former Soviet Union in 1994, 1996 and 1999.
- Reviewer of research projects submitted to the French National Programme on the Study of Climate Dynamics, the French National Agency of Research, the AXA Research Fund, the U.K. Natural Environment Research Council, the European Research Council, the European Commission, the National Science Foundation and the National Sciences and Engineering Research Council of Canada.
- Topic Editor of Ocean Science (since 2009).
- Referee for *Annales Geophysicae*, *Atmosphere–Ocean*, *Climate Dynamics*, *Climate of the Past*, *Comptes-rendus de l'Académie des Sciences*, *Geophysical Research Letters*, *Journal of Geophysical Research*, *Journal of Climate*, *Journal of Physical Oceanography*, *Journal of Marine Systems*, *Nature*, *Ocean Modelling*, *Paleoceanography*, *Polar Research and Theoretical and Applied Climatology*.

12. Organization of scientific symposia, workshops and meetings

- Member of the local organizing committee of the *NATO Advanced Research Workshop on Climate and Geosciences : A Challenge for Science and Society in the 21st Century* (Louvain-la-Neuve, Belgium, 22–27 May 1988).
- Co-organizer of the *International Workshop on Supercomputers in Climatology–Meteorology and Fluid Dynamics* (UCL, Louvain-la-Neuve, Belgium, 21–23 May 1990).
- Member of the scientific committee of the *NATO Advanced Research Workshop on Paleoclimate Modelling* (Centre d'Etudes Atomiques, Saclay, France, 27–31 May 1991).
- Organizer of the *1998 Fall Meeting of the GASTON (Glacé, Atmosphère sur Terre et Océan Numériques) Group* (UCL, Louvain-la-Neuve, Belgium, 15–16 December 1998).
- Organizer of the *Eight Session of the WCRP ACSYS Scientific Steering Group* (UCL, Louvain-la-Neuve, Belgium, 15–19 November 1999).
- Organizer of the *Second EC Workshop on Holocene Ocean Instability* (UCL, Louvain-la-Neuve, Belgium, 27–29 June 2000).
- Member of the scientific committee of the *CLIVAR Southern Ocean Workshop* (Perth, Australia, 17–20 November 2000).
- Organizer of the *2002 Spring Meeting of the GASTON Group* (UCL, Louvain-la-Neuve, Belgium, 11–12 March 2002).
- Co-organizer of the *Workshop on Sea Ice Extent and the Global Climate System* (Météo-France, Toulouse, France, 15–17 April 2002).
- Co-director of the conference *The ACSYS Decade and Beyond, ACSYS Final Science Conference* (Arctic and Antarctic Research Institute, Saint-Petersburg, Russia, 11–14 November 2003).
- Co-organizer of the *Final Workshop of the MILMO Network* (Vrije Universiteit Brussel, Brussels, Belgium, 16–17 November 2004).
- Co-convenor of the session *Ice Sheet–Climate Interactions* of the *European Geosciences Union General Assembly* (Vienna, Austria, 2–7 April 2006, 16–20 April 2007, 13–18 April 2008, 2–7 May 2010, 3–8 April 2011, 22–27 April 2012).
- Co-organizer of the *Workshop on the WCRP/CliC Global Prediction of the Cryosphere (GPC) Project* (British Antarctic Survey, Cambridge, U. K., 8–9 October 2007).
- Member of the scientific committee of the *NATO-Russian Advanced Research Workshop and 40th International Liège Colloquium on Ocean Dynamics on Influence of Climatic Change on Arctic and Sub-Arctic Changing Conditions* (Université de Liège, Liège, Belgium, 5–10 May 2008).
- Member of the local organizing committee of the symposium *Climate Change : From the Geologic Past to the Uncertain Future, a Tribute to André Berger* (UCL, Louvain-la-Neuve, Belgium, 26–29 May 2008).
- Co-convenor of the session *The Contribution of Greenland and Antarctica to Freshwater Input to the Ocean and Sea Level Change of the IAMAS-IAPSO-IACS Joint General Assembly MOCA-09* (Montreal, Canada, 20–24 July 2009).
- Member of the scientific committee of the *Workshop on Unstructured Mesh Numerical Modelling of Coastal, Shelf and Ocean Flows* (UCL, Louvain-la-Neuve, Belgium, 16–18 September 2009).
- Member of the international scientific committee of the *42th International Liège Colloquium on Multiparametric Observation and Analysis of the Sea* (Université de Liège, Liège, Belgium, 26–30 April 2010).
- Member of the scientific committee of the *WCRP Workshop on Polar Predictability on Seasonal to Multi-decadal Timescales* (Bergen, Norway, 25–29 October 2010).
- Co-organizer of the workshop *Harmony on Ice* (UCL, Louvain-la-Neuve, Belgium, 13–14 September 2010).
- Co-convenor of the session *Earth System Observations and Integration* of the *XXV IUGG General Assembly – Earth on the Edge : Science for a Sustainable Planet* (Melbourne, Australia, 28 June – 7 July 2011).

13. Teaching

- Holder or co-holder of the following courses at UCL in 2016–2017 :
LPHY 1121 General physics [30h + 41h30],

LPHY 1212 Integrated exercises and data processing [0h + 20h],
 LBIR 1338 Bioclimatology [11h15 + 3h45],
 LPHY 1365 Meteorology [27h30 + 16h30],
 LPHY 2150 Physics and dynamics of the atmosphere and ocean 1 [35h + 6h],
 LPHY 2151 Physics and dynamics of atmosphere and ocean 2 [15h + 0h],
 LPHY 2252 Advanced climate system modelling [11h15 + 2h],
 LPHY 2504 Seminar of physical climatology and geophysics [0h + 15h],
 LPHY2998 Thesis tutorial [13h + 0h].

- Supervisor or co-supervisor of 21 Ph.D. theses in sciences (S. Hovine, 1993 ; M.A. Morales Maqueda, thesis defended at the Universidad Complutense, Madrid in 1995 ; J.-M. Campin, 1997 ; P. Tulkens, 1998 ; L. Delobbe, 1999 ; A. de Montety, 2003 ; C. Poncin, 2003 ; E. Driesschaert, 2005 ; V. Dulière, 2007 ; M. Vancoppenolle, 2008 ; J.I. Jongma, thesis defended at the Vrije Universiteit Amsterdam, Amsterdam in May 2012 ; S. Bouillon, 2013 ; E. Crespín , 2014 ; O. Lecomte, 2014 ; F. Massonnet, 2014 ; A. Pestiaux, 2015 ; A. Barthélemy, 2016 ; S. Marchi, under way ; J. Raulier, under way ; P.-Y. Huot, under way ; K. Worou, under way). Co-supervisor of 2 Ph.D. theses in applied sciences (H. Goose, 1997 ; O. Lietaer, 2011).
- Supervisor of 15 postdoctoral researchers since 1989 (J. Cuny, D. Docquier, P. Hezel, C. König-Beatty, M.-F. Loutre, P. Mathiot, L. Ponsoni, G. Philippon-Berthier, L. Ponsoni, H. Renssen, R. Stevens, D. Swingedouw, B. Tartinville, R. Timmermann, G. Vergé-Dépré).
- Supervisor of 8 DEA theses in physics (C. Cossement, 1990–1991 ; M.-O. Kieffer, 1990–1991 ; I. Smits, 1991–1992 ; A. Cheymol, 1998–1999 ; E. Driesschaert, 2001–2002 ; V. Dulière, 2001–2002 ; M. Vancoppenolle, 2002–2003 ; S. Bouillon, 2006–2007).
- Supervisor or co-supervisor of 18 Master theses in physics (A. Libens, 1999–2000 ; E. Driesschaert, 2000–2001 ; J. Ferrière, 2000–2001 ; M. Vancoppenolle, 2001–2002 ; A. De Decker, 2004–2005 ; A. Gosselin, 2004–2005 ; C. Timmermans, 2005–2006 ; E. Crespín, 2006–2007 ; C. Plapied, 2006–2007 ; R. Vandenberghe, 2006–2007 ; D. Henrard, 2009–2010 ; F. Marciano, 2009–2010 ; N. Corsyn, 2010–2011 ; J. Raulier, 2012–2013 ; K. Worou, 2014–2015 ; F. Coster, 2015–2016 ; B. Opacka, 2015–2016 ; F. Meunier, 2016–2017), of 2 Master theses in mathematics (N. Leblanc, 2002–2003 ; C. Pattyn, 2002–2003), of 18 Master theses in geography (A. Galmart, 2004–2005 ; C. Martin, 2006–2007 ; C. Noon, 2008–2009 ; S. Laschet, 2009–2010 ; N. Leurident, 2009–2010 ; P. Loicq, 2009–2010 ; A. Mairesse, 2009–2010 ; G. Van Roy, 2010–2011 ; C. Guérin, 2011–2012 ; S. Trigalet, 2011–2012 ; V. Demarbaix, 2013–2014 ; F. Vander Linden, 2013–2014 ; G. Bossuroy, 2014–2015 ; A. Thonner, 2015–2016 ; F. Cosaert, 2016–2017 ; J. Chrétien, 2016–2017 ; C. Floriot, 2016–2017 ; F. Tournay, 2016–2017) and of 18 Master theses in applied sciences (C. Poncin, 1994–1995 ; B. Martin, 1999–2000 ; E. Scariot, 2000–2001 ; O. Feys, 2004–2005 ; O. Lietaer, 2004–2005 ; S. Bouillon, 2005–2006 ; B. Decerf, 2006–2007 ; V. Goublomme, 2006–2007 ; F.-X. Orban de Xivry, 2006–2007 ; M. Dubois, 2007–2008 ; H. Gattelier , 2007–2008 ; M. Jasienski , 2007–2008 ; P.-N. Renson, 2007–2008 ; J. Coppe, 2008–2009 ; E. Fichers, 2010–2011 ; S. Goublomme, 2010–2011 ; G. Duré, 2012–2013 ; J. Berthe, 2015–2016).
- Reviewer of 7 DEA theses and of 45 Master theses (in addition to those I have (co-)supervised).
- Tutor of a number of undergraduate students of the Faculty of Sciences of UCL (1994–2003).
- Coordinator of the first year of Bachelor studies in physics and mathematics (1997–2000).

14. Participation to Ph.D. thesis review committees

At UCL

H. Gallée (1992 ; Secretary), C. Tricot (1992 ; Secretary), I. Marsiat (1992 ; Secretary), M.-F. Loutre (1993 ; Secretary), S. Hovine (1993), M. El Mohajir (1997), H. Grenier (1997 ; Secretary), J.-M. Campin (1997), H. Goose (1997), X. Li (1997), C. Bertrand (1998), P. Tulkens (1998), L. Delobbe (1999), F. Lefebvre (2002 ; Secretary), H. Zhang (2002), A. de Montety (2003), C. Poncin (2003), E. Driesschaert, 2005), S. Legrand (2006), X. Fettweis (2006 ; Secretary), L. White (2007), V. Dulière (2007), W. Lefebvre (2007 ; Secretary), M. Vancoppenolle (2008), A. Ferrone (2011 ; Secretary), O. Lietaer (2011), B. de Brye (2011 ; Secretary), O. Gourgue (2011 ; Secretary), S. Bouillon (2013), E. Crespín (2014), O. Lecomte (2014), A. Mairesse (2014), F. Massonnet (2014), V. Zunz (2014), A. Pestiaux (2015), A. Barthélemy (2016), F. Klein (2016).

Outside UCL

E. Cohen-Solal (Université de Paris VI, Paris, 1994 ; Rapporteur), M.A. Morales Maqueda (Universidad Complutense, Madrid, 1995), G. Garric (Université Paul Sabatier, Toulouse, 1996 ; Rapporteur), I. Musat (Université de Paris VI, Paris, 1998 ; Rapporteur), D. Salas y Méliá (Université Paul Sabatier, Toulouse, 2000 ; Rapporteur), A. Khazendar (Université Libre de Bruxelles, 2000), D. Swingedouw (Université de Paris VI, Paris, 2006 ; Rapporteur), J.I. Jongma (Vrije Universiteit Amsterdam, Amsterdam, 2012).

15. Vulgarization activities

- Organizer of several study days on meteorology and climatology at UCL.
- Participation to the design of several exhibitions on climate and climate change with the Belgian Science Policy Office and the International Polar Foundation.
- Participation to several information and vulgarization activities organized by UCL ("Journée des Rhétos", "Festival des Sciences", "Science Infuse", ...).
- Popular conferences on climate and climate change at UCL and in schools and societies (3 per year, on average).
- Numerous interviews on the issue of climate change given to the printed press, radio and television.

16. Involvement in UCL administration

- Head of ASTR (2004–2009).
- Head of TECLIM and ELIC (2010–2012).
- Member of the Bureau (2010–2012) and Council (since 2010) of ELI.
- President of the Council of the Earth and Life Institute (since 2015).
- Secretary of the Department of Physics (1990–1993).
- Member of the Council of the Faculty of Sciences (since 1989).
- Member of the Bureau of the Faculty of Sciences (since 2016).
- Member of the Council of the Department of Physics (1989–2009).
- Member of the Bureau of the Department of Physics (2004–2009).
- Member of the Bureau and Council of the School of Physics (since 2010).
- Coordinator of the first year of Bachelor studies in physics and mathematics (1997–2000).
- Member of the Teaching Commission of the Faculty of Sciences (1997–2004).
- Member of the Teaching Commission of the Department of Physics (2000–2009).
- Member of the Commission of the Master degree in Geography (2004–2009).
- Member of the Council of the School of Geography (since 2010).
- Member of the Commission of the Doctoral School in Geosciences (2004–2006)
- Member of the Computing Commission of the Faculty of Sciences (2002).
- Member of the Council of the Academic Staff (2010–2013).
- President of the Jury of the Master of Physics (2014–2016).
- Member of the Restricted Jury of the Master of Geography (since 2015)
- Member of the Restricted Jury of the Master of Physics (since 2016)
- President of the School of Physics (since 2016).
- President of the Council and Bureau of the School of Physics (since 2016).
- Member of several ad hoc commissions and working groups dealing with research policy, appointments/promotions and teaching.

Some important missions/actions

- Member of the commission set up by the Rector to implement the recommendations made by the experts who have participated to the audit of the Department of Physics (1999).
- Member of the commission in charge of developing the 2002–2007 Strategic Plan of the Department of Physics.
- Participation to the reform of the teaching of physics in the framework of the Bologna Process (2002–2006).

- Participation to the creation of a Doctoral School in Geosciences (2002–2004).
- Participation to the creation of an inter-university Doctoral School in Universe, Space, Earth and Climate Sciences (2005).
- Participation to the creation of a Master in Geography–Climatology (2007).
- Leading role in the project of creation of the ELI and TECLIM (2007–2009).
- Participation to the reform of the programme of the Master degree in physics (2010–2011).

17. Presentations in scientific symposia, workshops, schools and meetings

- [1] FNRS Paleoclimatology Contact Group, UCL, Louvain-la-Neuve, Belgium, 1–3 May 1985. **Contributed talk** : *A thermodynamic sea-ice model : Description, results and coupling with a 2-D atmospheric model.*
- [2] General Scientific Meeting of the Belgian Physical Society, University of Antwerpen, Antwerpen, Belgium, 6–7 June 1985. **Poster** : *A thermodynamic sea-ice model.*
- [3] General Scientific Meeting of the Belgian Physical Society, Université Libre de Bruxelles, Brussels, Belgium, 8 June 1986. **Poster** : *Océan, glace marine et climat.*
- [4] General Scientific Meeting of the Belgian Physical Society, University of Limburg, Hasselt, Belgium, 4 June 1987. **Poster** : *A model study of upper ocean–sea ice interactions.*
- [5] Working Group on Techniques for Extracting Environmental Data from the Past, University of Bern, Bern, Switzerland, 6–8 July 1988. **Invited talk** : *Modelling of paleoclimates.*
- [6] NATO Advanced Research Workshop on Climate–Ocean Interaction, Oxford University, Oxford, U.K., 26–30 September 1988. **Invited talk** : *A one-dimensional coupled ocean–sea ice model.*
- [7] Atelier de Modélisation de l'Atmosphère : Interactions Océan–Atmosphère, Centre National de Recherches Météorologiques, Toulouse, France, 15–16 November 1988. **Contributed talk** : *Etude numérique des interactions océan–glace marine.*
- [8] The Global Carbon Cycle and its Importance for Climate : Modelling and Observations, Louvain-la-Neuve, Belgium, 28–29 November 1988. **Invited talk** : *Modelling the transient response to CO₂ forcing.*
- [9] American Geophysical Union Fall Meeting, San Francisco, U.S.A., 5–9 December 1988. **Invited talk** : *Testing the astronomical theory with a time-dependent climate–ice sheets model.*
- [10] The Royal Society Discussion Meeting on the Dynamics of the Coupled Atmosphere and Ocean, London, U.K., 13–14 December 1988. **Keynote lecture** : *A coupled atmosphere–ocean–ice-sheet model for transient response of the climate system.*
- [11] 21st International Liège Colloquium on Ocean Hydrodynamics, Université de Liège, Liège, Belgium, 8–12 May 1989. **Contributed talk** : *The transient response of a 2.5-D coupled atmosphere–ocean model to an increase of atmospheric trace gas concentration.*
- [12] The SPECMAP Workshop on Late Pleistocene Climate, Edimburg, Scotland, 28–July 1989. **Invited talk** : *Astronomical forcing of the last glacial-interglacial cycle : A test with a 2.5-D climate model.*
- [13] International Conference on Modelling of Global Climate Change and Variability, Hamburg University, Hamburg, Germany, 11–15 September 1989. **Contributed talk** : *Sensitivity of a coupled upper ocean–sea ice model to atmospheric temperature increases.*
- [14] XV General Assembly of the European Geophysical Society, Copenhagen, Denmark, 23–27 April 1990. **Keynote lecture at the Panel Discussion on Different Scientific Points of View on Global Change** : *Influence of the ocean on the time needed for the temperature increase.*
- [15] International Workshop on Supercomputers in Climatology–Meteorology and Fluid Dynamics, UCL, Louvain-la-Neuve, Belgium, 21–23 May 1990. **Invited talk** : *2- and 3-dimensional coupled atmosphere/ocean/sea-ice/ice-sheet modelling* (in collaboration with J.-P. van Ypersele).
- [16] International Symposium CLIMA LOCARNO 90 on Past and Present Climate Dynamics : Reconstruction of Rates of Changes, Locarno, Switzerland, 24–28 September 1990. **Invited talk**

- : *The last interglacial-glacial cycle: A study with a two-dimensional coupled climate–ice-sheet model.*
- [17] EC Meeting on Global Changes over the Last 30,000 Years, Bordeaux, France, 25–26 October 1990. **Contributed talk** : *Entering the glaciation with a 2-D coupled climate model.*
- [18] NATO Advanced Research Workshop on Paleoclimate Modeling, Centre d'Etudes Atomiques, Saclay, France, 27–31 May 1991. **Invited talk** : *Using a two-dimensional coupled climate–ice sheet model to simulate the last glacial-interglacial cycle.*
- [19] EC Second Workshop on Climate of the 21st Century, Centre National de Recherches Météorologiques, Toulouse, France, 8–10 October 1991. **Contributed talk** : *Transient response of climate to greenhouse-gas forcing.*
- [20] ESF Research Conference on Natural and Anthropogenically Induced Hazards, Davos, Switzerland, 8–12 December 1991. **Invited talk** : *Sea ice and climate change.*
- [21] NATO Advanced Research Workshop on Ice in the Climate System, Aussois, France, 6–12 September 1992. **Contributed talk** : *A zonally averaged dynamical ocean model for paleoclimate studies.*
- [22] NATO Advanced Study Institute on Long-Term Climatic Variations : Data and Modelling, Sienna, Italy, 27 September 1992 – 11 October 1992. **Contributed talk** : *A model study of the glacial ocean.*
- [23] Belgian Oceanography Days, Académie Royale de Belgique, Brussels, Belgium, 21–22 January 1993. **Poster** : *Modelling the glacial oceanic circulation.*
- [24] ESF Workshop on Solar Output and Climate during the Holocene, Bologna, Italy, 1–3 April 1993. **Invited talk** : *Influence of the solar forcing on climate at the secular time scale.*
- [25] Nansen Centennial Symposium, Solstrand, Norway, 21–25 June 1993. **Poster** : *A coupled upper-ocean/sea-ice model for climate studies.*
- [26] Beijing 93's International Symposium on Sea Ice, Beijing, China, 19–22 October 1993. **Keynote lecture** : *A global coupled upper-ocean/sea-ice model.*
- [27] XIX General Assembly of the European Geophysical Society, Grenoble, France, 25–29 April 1994. **Poster** : *A large-scale sea-ice–upper-ocean model for climate studies.* **Invited talk** : *World ocean's circulation during the last glacial maximum.*
- [28] WCRP Conference on the Dynamics of the Arctic Climate System, Göteborg, Sweden, 7–10 November 1994. **Poster** : *Sensitivity studies with a large-scale sea-ice–upper-ocean model.*
- [29] CEA–EDF–INRIA School on Coupled Modelling in Climatology, Clamart, France, 9–12 mai 1995. **Invited lecture** : *On modelling the sea-ice–ocean system.*
- [30] IAPSO XXI General Assembly, Honolulu, Hawaii, 5–12 August 1995. **Posters** : *On the importance of white ice formation in large-scale sea-ice simulations ; Sensitivity of a large-scale sea-ice model to uncertainties in the atmospheric forcing ; On the dynamical coupling of large-scale ocean and sea-ice models.*
- [31] 1996 Fall Meeting of the GASTON (Glace, Atmosphère sur Terre et Océan Numériques) Group, Centre National de Recherches Météorologiques, Toulouse, France, 18–19 January 1996. **Contributed talk** : *Le modèle couplé atmosphère–océan–glace de Louvain-la-Neuve : état d'avancement.*
- [32] XXI General Assembly of the European Geophysical Society, The Hague, The Netherlands, 6–10 May 1996. **Contributed talk** : *Influence of the Bering Strait on the thermohaline circulation of the World Ocean.*
- [33] International Symposium on Representation of the Cryosphere in Climate and Hydrological Models, University of Victoria, Victoria, Canada, 12–15 August 1996. **Poster** : *On the importance of snow-ice formation in large-scale sea-ice simulations.* **Invited talk** : *Sensitivity of a global sea-ice model to the treatment of ice thermodynamics and dynamics.*
- [34] Second Euroclivar Meeting, Centre de Port Royal, St. Lambert des Bois, France, 30 September – 2 October 1996. **Invited talk** : *The UCL coupled atmosphere–ocean general circulation model.*

- [35] Third Meeting on the Variability of the Glacial and Interglacial Climates and Abrupt Climatic Changes, Sa Coma, Majorque, 16–19 January 1997. **Contributed talk** : *Influence of the Bering Strait on the thermohaline circulation of the World Ocean.*
- [36] XXII General Assembly of the European Geophysical Society, Vienna, Austria, 21–25 April 1997. **Contributed talk** : *A coupled atmosphere-ocean general circulation model for climate studies.*
- [37] Third Euroclivar Meeting, Vienna, Austria, 24 April 1997. **Invited talk** : *A catalogue on European coupled climate models'.*
- [38] NATO Advanced Study Institute on Ocean Modeling and Parameterization, Les Houches, France, 20–30 January 1998. **Invited lecture** : *Modeling the large-scale behavior of the coupled sea-ice–ocean system.*
- [39] XXIII General Assembly of the European Geophysical Society, Nice, France, 20–24 April 1998. **Contributed talk** : *A numerical investigation of the Ross Sea polynya.* **Poster** : *Influence of sea-ice–ocean interactions on the ocean general circulation.*
- [40] 30th International Liège Colloquium on Ocean Hydrodynamics, Université de Liège, Liège, Belgium, 4–8 May 1998. **Poster** : *Modelling the influence of snow accumulation and snow-ice formation on the seasonal cycle of the Antarctic sea-ice cover.*
- [41] Belgica, Antarctic Expedition, Centennial Symposium, Palais des Académies, Brussels, Belgium, 14–16 May 1998. **Keynote lecture** : *The drift of the Belgica* (in collaboration with H. Goosse).
- [42] 1998 Conference of the World Ocean Circulation Experiment : Ocean Circulation and Climate, Halifax, Canada, 24–29 May 1998. **Poster** : *Influence of sea-ice–ocean interactions on the ocean general circulation.*
- [43] First Session of the ACSYS Numerical Experimentation Group, Kiel, Germany, 16–19 November 1998. **Invited talk** : *A numerical investigation of large-scale sea-ice processes and sea-ice–ocean interactions.*
- [44] First EC Workshop on Holocene Ocean Instability, Kiel University, Kiel, Germany, 6–8 May 1999. **Contributed talk** : *ECBILT-CLIO, a new Earth system of intermediate complexity for paleoclimate studies.*
- [45] IUGG99, University of Birmingham, Birmingham, U.K., 19–30 July 1999. **Contributed talks** : *Sensitivity of a global sea-ice model to the treatment of ice thermodynamics ; Open-ocean convection and polynya formation in a large-scale ice-ocean model.*
- [46] LDEO NOAA/CORC II Annual Workshop 1999 on the Role of Sea Ice in Present and Past Southern Ocean Climate Variability, Lamont-Doherty Earth Observatory, Palisades, U.S.A, 22–24 September 1999. **Invited talk** : *On the formation of offshore polynyas in a large-scale ice-ocean model.*
- [47] 1999 Fall Meeting of the GASTON (Glace, Atmosphère sur Terre et Océan Numériques) Group, Centre Européen de Recherche et de Formation Avancée en Calcul Scientifique, Toulouse, France, 9–10 November 1999. **Contributed talk** : *Le point sur l'intercomparaison des modèles de glace de mer.*
- [48] Réunion Prospectives OPA, Laboratoire d'Océanographie Dynamique et de Climatologie, Paris, France, 29–30 May 2000. **Invited talk** : *Le modèle de glace de mer de l'UCL et son couplage avec ORCA.*
- [49] International Glaciological Society Symposium on Sea Ice and its Interactions with the Ocean, Atmosphere and Biosphere, University of Alaska Fairbanks, Fairbanks, U.S.A, 19–23 June 2000. **Contributed talk** : *Sensitivity of the Antarctic sea ice to the thermal conductivity of snow.*
- [50] Réunion Prospectives LMD, Gurçy, France, 12 December 2000. **Invited talk** : *Le point sur la collaboration LMD–ASTR.*
- [51] Kick-off Meeting of the Second Multiannual Scientific Support Plan for a Sustainable Development Policy of the SSTC, Palais des Académies, Brussels, Belgium, 27 February 2001. **Invited talk** : *Modélisation du climat et du niveau des mers durant le troisième millénaire.*
- [52] XXVI General Assembly of the European Geophysical Society, Nice, France, 25–30 March 2001. **Contributed talk** : *Modelling the interannual variability of the Antarctic sea-ice cover during 1958–1999.*

- [53] 2001 Spring Meeting of the GASTON (Glacé, Atmosphère sur Terre et Océan Numériques) Group, Institut Pierre-Simon Laplace, Paris, France, 3–4 May 2001. **Contributed talks** : *Une simulation de contrôle de 100 ans réalisée avec le modèle LMDZ–CLIO ; LIM : développements en cours et validation ; Interface des modèles de glace.*
- [54] Meeting of the Group Mission MERCATOR/CORIOLIS, Météo-France, Toulouse, France, 26–28 September 2001. **Invited talk** : *Optimisation d'un modèle du système couplé océan–glace de mer.*
- [55] 2002 Spring Meeting of the GASTON (Glacé, Atmosphère sur Terre et Océan Numériques) Group, UCL, Louvain-la-Neuve, Belgium, 11–12 March 2002. **Contributed talk** : *Le modèle LIM : développements en cours.*
- [56] Workshop on Sea-Ice Extent and the Global Climate System, Météo-France, Toulouse, France, 15–17 April 2002. **Invited talk** : *A numerical simulation of the Antarctic sea-ice variability, 1958–1999".*
- [57] Third Session of the WCRP ACSYS/CliC Scientific Steering Group, China Meteorological Administration, Beijing, China, 21–25 October 2002. **Invited talk** : *The International Polar Foundation.*
- [58] MOTIF Kick-off Meeting, Saint Lambert-des-Bois, France, 17–18 March 2003. **Contributed talk** : *Modelling climate variability during the Holocene.*
- [59] European Geophysical Society–American Geophysical Union–European Union of Geophysics Joint Assembly, Nice, France, 6–11 April 2003. **Poster** : *Implications of changes in freshwater flux from the Greenland ice sheet for the climate of the 21st century.*
- [60] The ACSYS Decade and Beyond, ACSYS Final Science Conference, Arctic and Antarctic Research Institute, Saint-Petersburg, Russia, 11–14 November 2003. **Plenary lecture** : *The ACSYS decade and beyond.* **Posters** : *Arctic and Antarctic sea ice variability during 1955–2001 : A model study ; Modeling the interactions between the Greenland ice sheet and the climate of the 21st century.*
- [61] Fourth Session of the WCRP ACSYS/CliC Scientific Steering Group, Arctic and Antarctic Research Institute, Saint-Petersburg, Russia, 15 and 17–18 November 2003. **Invited talk** : *Summary of the ACSYS Final Science Conference.*
- [62] PRISM Second Project Meeting, Brussels, Belgium, 24–25 November 2003. **Contributed talk** : *Interfacing sea-ice models with the PRISM system (with E. Guilyardi).*
- [63] First Session of the WCRP CliC Scientific Steering Group, Antarctic Division, Hobart, Australia, 25–30 October 2004. **Invited talk** : *The ACSYS decade and beyond.*
- [64] Final Workshop of the MILMO Network, Vrije Universiteit Brussel, Brussels, Belgium, 16–17 November 2004. **Invited talk** : *Overview of the MILMO project.*
- [65] First CliC International Science Conference, Beijing, China, 11–15 April 2005. **Keynote lecture** : *The cryosphere and abrupt climate changes.* **Posters** : *Testing the impact of data assimilation within a toy sea ice model ; Influence of the Southern Annular Mode on the sea ice–ocean system ; A simulated reduction in Antarctic sea-ice area since 1750 : Implications of the long memory of the ocean.*
- [66] Geodesy and Geophysics for the Third Millennium in Belgium, Palais des Académies, Brussels, Belgium, 13 October 2005. **Posters** : *Arctic and Antarctic sea ice variability during 1955–2001 : A model study ; Towards the second-generation Louvain-la-Neuve ice-ocean model (SLIM) ; Climate change during the third millennium : A study with LOVECLIM, an Earth system model of intermediate complexity.*
- [67] Meeting of the Scientific Committee of the Pôle de Modélisation de l'Institut Pierre Simon Laplace, Paris, France, 3 November 2005. **Invited talk** : *Représentation de la glace de mer dans le modèle couplé de l'IPSL.*
- [68] Second Session of the WCRP CliC Scientific Steering Group, Copenhagen, Denmark, 6–9 November 2005. **Invited talk** : *Assessment of modeling uncertainties in long-term climate and sea level change projections.*

- [69] Meeting of the Scientific Committee of the Pôle de Modélisation de l'Institut Pierre Simon Laplace, Saclay, France, 13 March 2006. **Invited talk** : *Le point sur le développement de la nouvelle version du modèle de glace de mer de Louvain-la-Neuve (LIM3)*.
- [70] PAGES/CLIVAR Intersection Workshop on the 8.2 Kyr event, Birmingham, U.K., 23 October 2006. **Invited talk** : *Evaluation of different freshwater forcing scenarios for the 8.2 ka BP event in a coupled climate model* (in collaboration with H. Renssen et A. Wiersma).
- [71] Rapid Climate Change International Conference, Birmingham, U.K., 24–27 October 2006. **Contributed talk** : *Modeling the interactions between the Greenland ice sheet and climate during the next millennia*.
- [72] Kick-off Meeting of the Programme Science for a Sustainable Development of the Belgian Science Policy Office, Brussels, Belgium, 26–27 March 2007. **Invited talk** : *Assessment of modelling uncertainties in long-term climate and sea level change projections*.
- [73] European Geosciences Union General Assembly 2007, Vienna, Austria, 16–20 April 2007. **Invited talk** : *Modeling the influence of Greenland ice sheet melting on the Atlantic meridional overturning circulation during the next millennia*. **Posters** : *On the assimilation of ice velocity and concentration data into large-scale sea-ice models ; Simulations of the Arctic Basin with a finite-element sea-ice model ; LIM3, an advanced sea-ice model for climate studies*.
- [74] NEMO Developers Committee Meeting 2007, LOCEAN, Paris, 10–11 May 2007. **Invited talk** : *LIM3, the new version of the Louvain-la-Neuve sea-ice model* (in collaboration with M. Vancoppenolle).
- [75] IUGG XXIV General Assembly 2007, Perugia, Italy, 2–13 July 2007. **Invited talk** : *Influence of Greenland ice sheet melting on the Atlantic meridional overturning circulation during the next millennia*.
- [76] Workshop on the WCRP/CLIC Global Prediction of the Cryosphere (GPC) Project, British Antarctic Survey, Cambridge, U.K., 8–9 October 2007. **Invited talk** : *On the ability of current atmosphere-ocean general circulation models to predict the evolution of sea ice*.
- [77] European Geosciences Union General Assembly 2008, Vienna, Austria, 14–18 April 2008. **Invited talk** : *Simulating the mass balance and salinity of Arctic and Antarctic sea ice with LIM3-OPA9*. **Posters** : *Modelling salinity in a sea ice thickness distribution mode ; Simulating the climate of the Arctic during the last millennium in a coupled climate model including data assimilation ; Information on the early Holocene climate constrains the summer sea ice projections for the 21st century*.
- [78] NEMO Developers Committee Meeting 2008, LOCEAN, Paris, France, 22–23 May 2008. **Invited talks** : *LIM3-OP9, a new ice-ocean model for climate studies and operational oceanography ; Future sea ice model developments at UCL*.
- [79] Network for Ice Sheet and Climate Evolution (NICE) 2009 Winter School, Aussois, France, 4–11 January 2009. **Invited lecture** : *Sea ice and the polar oceans* (in collaboration with M. Vancoppenolle).
- [80] Joint IPCC-WCRP-IGBP Workshop on New Science Directions and Activities Relevant to the IPCC AR5, University of Hawaii, Honolulu, Hawaii, U.S.A., 3–6 March 2009. **Invited talks and posters** : *On the large-scale importance of sea ice salinity variations ; Antarctic ice sheet melting provides negative feedbacks on future climate warming*.
- [81] European Geosciences Union General Assembly 2009, Vienna, Austria, 20–24 April 2009. **Posters** : *Did fluctuations of the thermohaline circulation in the North Atlantic play a role during Arctic warm episodes of the past millennium ? ; Potential causes of the 15th century Arctic warming using coupled model simulations with data assimilation ; To clip or not to clip : Are positive schemes mandatory for advection-diffusion-reaction equations in geophysical flows ; Modelling uncertainties in the climate of the last millennium*.
- [82] IAMAS-IAPSO-IACS Joint General Assembly MOCA-09, Montreal, Canada, 20–24 July 2009. **Contributed talk** : *Simulating the mass balance and salinity of Arctic and Antarctic with NEMO-LIM3*. **Poster** : *Antarctic ice sheet melting provides negative feedbacks on future climate warming*.

- [83] Ocean Climate Model Development Meeting, Geophysical Fluid Dynamic Laboratory, Princeton, U.S.A., 28–30 October 2009. **Invited talk** : *The Louvain-la-Neuve sea ice model : Current status and ongoing developments.*
- [84] European Geosciences Union General Assembly 2010, Vienna, Austria, 2–7 May 2010. **Posters** : *New snow thermodynamics for the Louvain-la-Neuve sea ice model LIM ; The vertical profile of the sea ice age : Theory and preliminary results.*
- [85] Belgian IPY Symposium, Brussels, Belgium, 26 May 2010. **Poster** : *A new snow thermodynamic scheme for the Louvain-la-Neuve sea Ice Model (LIM).*
- [86] European Geosciences Union General Assembly 2011, Vienna, Austria, 3–8 April 2011. **Poster** : *Assimilation of sea ice freeboard and concentration data in a coupled ice-ocean model.*
- [87] Second COMBINE General Assembly, Hadley Centre, Exeter, United Kingdom, 24–27 May 2011. **Talk** : *New sea ice model developments at UCL within COMBINE WP4.* **Poster** : *Improving the representation of sea ice physics in NEMO-LIM : Snow thermodynamics and pancake ice formation.*
- [88] WCRP Workshop on CMIP5 Climate Model Analysis, University of Hawaii, Honolulu, U.S.A., 5–9 March 2012. **Invited talk and poster** : *The 21st century changes in the Arctic sea ice cover as a function of its present state : What can we learn from CMIP5 models ?*
- [89] Arctic Climate Scenario Assessment : An AMAP Workshop, Pacific Marine and Environmental Laboratory, Seattle, U.S.A, 16–18 October 2012. **Invited talk** : *Constraining projections of summer Arctic sea ice.*
- [90] European Geosciences Union General Assembly 2013, Vienna, Austria, 7–12 April 2013. **Talk** : *Constraining projections of summer Arctic sea ice* (in collaboration with F. Massonnet).
- [91] COMBINE Final General Assembly, University of Wageningen and Research Centre, Wageningen, The Netherlands, 2–4 octobre 2013. **Invited talk** : *Modelling recent and future sea ice changes : An assessment of CMIP5/COMBINE results* (in collaboration with F. Massonnet).
- [92] Belgium Chamber of Representatives, Brussels, Belgium, 5 November 2013. **Invited talk** : *Résumé à l'intention des décideurs de la contribution du Groupe de travail 1 du GIEC à son Cinquième rapport d'évaluation.*
- [93] Series of Lectures on the IPCC Fifth Assessment Report (Vol. 1: The Scientific Basis), IGEAT, Université libre de Bruxelles, Brussels, Belgium, 29 November 2013. **Keynote lecture** : *Le cinquième rapport d'évaluation du GIEC : processus de préparation et conclusions majeures du résumé à l'intention des décideurs.*
- [94] European Geosciences Union General Assembly 2014, Vienna, Austria, 27 April – 2 May 2014. **Posters** : *Prospects for better seasonal Arctic sea ice predictions from multivariate initialization ; Calibration of sea ice dynamic parameters in an ocean–sea ice model using an ensemble Kalman filter ; Interactions between snow and melt ponds in sea ice models.*
- [95] European Geosciences Union General Assembly 2015, Vienna, Austria, 12–17 April 2015. **Poster** : *Modelling the interplay between sea ice formation and the oceanic mixed layer : Limitations of simple brine rejection parameterizations.*
- [96] European Geosciences Union General Assembly 2016, Vienna, Austria, 17–22 April 2016. **Louis Agassiz Medal Lecture** : *Modelling sea ice for climate studies : Recent advances and future challenges.* **Poster** : *A multi-column vertical mixing scheme to parameterize the heterogeneity of oceanic conditions under sea ice.*
- [97] European Sea Ice Modelling Within NEMO, Institut of Physics, London, United Kingdom, 27 May 2016. **Invited talk** : *Sea ice modelling activities at UCL, Louvain-la-Neuve.*
- [98] NEMO Sea Ice Working Group Meeting, LOCEAN, Paris, France, 31 January – 2 February 2017. **Invited talk** : *Sea ice modelling activities at UCL, Louvain-la-Neuve* (in collaboration with O. Lecomte).
- [99] European Geosciences Union General Assembly 2017, Vienna, Austria, 23–28 April 2016. **Posters** : *Comparative study of sea ice dynamics simulations with a Maxwell-elasto-brittle*

rheology and the elastic-viscous-plastic rheology in NEMO-LIM3 ; Insights on the discretization of the ice thickness distribution in large-scale sea ice models..

18. Invited seminars

I have given about 20 invited seminars in British, Chinese, Dutch, French, German and American research institutes and universities.

19. Scientific missions without presentation

- [1] European Geophysical Society 10th Annual Meeting, UCL, Louvain-la-Neuve, Belgium, 30 July – 3 August 1984.
- [2] Workshop on Tertiary-Quaternary/Plio-Pleistocene Boundaries, FRS-FNRS Paleoclimatology Contact Group, UCL, Louvain-la-Neuve, Belgium, 28 November 1984.
- [3] Workshop on Quaternary Paleoclimatic Data, FNRS Paleoclimatology Contact Group, UCL, Louvain-la-Neuve, Belgium, 29 November 1984.
- [4] Workshop on the Dynamics of the West Antarctic Ice Sheet, Utrecht University, Utrecht, The Netherlands, 6–8 May 1985.
- [5] Conference on the Use of Satellite Data in Climate Models, Alpbach, Austria, 10–12 June 1985.
- [6] NATO Advanced Study Institute on Physically-Based Modelling and Simulation of Climate and Climatic Change, Erice, Italy, 11–23 May 1986.
- [7] Meeting on CO₂ and other Greenhouse Gases, Climatic and Associated Impacts, European Commission, Brussels, Belgium, 3–5 November 1986.
- [8] Workshop on Climatic Variations in Belgium, FRS-FNRS Paleoclimatology Contact Group, UCL, Louvain-la-Neuve, Belgium, 14 November 1986.
- [9] 19th International Liège Colloquium on Ocean Hydrodynamics, Université de Liège, Liège, Belgium, 4–8 May 1987.
- [10] Workshop on Human Influence on Climate, UCL, Louvain-la-Neuve, Belgium, 28 November 1987.
- [11] Symposium on Global Change, Palais des Académies, Brussels, Belgium, 22 April 1988.
- [12] NATO Advanced Research Workshop on Climate and Geo-Sciences : A Challenge for Science and Society in the 21st Century, Louvain-la-Neuve, Belgium, 22–27 May 1988.
- [13] The Late Cenozoic Ice Age Symposium, Edimburg, Scotland, 3–5 July 1989.
- [14] Conference on Energy and Environment, CNIT, Paris, France, 30–31 October 1989.
- [15] 22nd International Liège Colloquium on Ocean Hydrodynamics, Université de Liège, Liège, Belgium, 7–11 May 1990.
- [16] Workshop on Geological Data and Correlation to Global Change Modelling, FRS-FNRS Paleoclimatology Contact Group, UCL, Louvain-la-Neuve, Belgium, 13 February 1992.
- [17] EC–EPOCH–Paleo Meeting, Durbuy, Belgium, 20–23 May 1992.
- [18] EC–EPOCH–Paleo Meeting, Lourmarin, France, 4–7 September 1993.
- [19] First Meeting on the Variability of the Glacial and Interglacial Climates and Abrupt Climatic Changes, Col de Porte, France, 3–6 February 1996.
- [20] Climate and Ozone at the Dawn of the Third Millennium : A Seminar in Celebration of Pioneering Achievement Awards, Palais des Académies, Brussels, Belgium, 13–14 May 1996.
- [21] International CLIVAR Workshop on CLIVAR Ocean Programme for DecCen Climate Variability, Villefranche-sur-Mer, France, 28–31 October 1996 (*invited*).

- [22] 1997 Fall Meeting of the GASTON (Glacé, Atmosphère sur Terre et Océan Numériques) Group, Institut Pierre Simon Laplace, Paris, France, 29–30 September 1997.
- [23] Fourth Meeting on the Variability of the Glacial and Interglacial Climates and Abrupt Climatic Changes, Wengen, Switzerland, 15–18 October 1997.
- [24] IPCC Workshop on Rapid Non-linear Climate Change, Noordwijkerhout, The Netherlands, 31 March – 2 April 1998 (*invited*).
- [25] Fifth Euroclivar Meeting, Nice, France, 21 April 1998 (*invited*).
- [26] Sixth Euroclivar Meeting, Horley, U.K., 29–30 November 1998 (*invited*).
- [27] International CLIVAR Conference, UNESCO, Paris, France, 2–4 December 1998 (*invited*).
- [28] Workshop on EMIC (Earth System Model of Intermediate Complexity) Cooperation, Potsdam-Institut fuer Klimafolgenforschung, Potsdam, Germany, 16–17 February 1999 (*invited*).
- [29] 1999 Spring Meeting of the GASTON (Glacé, Atmosphère sur Terre et Océan Numériques) Group, Laboratoire des Sciences du Climat et de l'Environnement, Gif sur Yvette, France, 8–9 April 1999.
- [30] Workshop on Earth System Models of Intermediate Complexity, Potsdam-Institut fuer Klimafolgenforschung, Potsdam, Germany, 15–16 June 1999 (*invited*).
- [31] Meeting of the Group Mission MERCATOR, Sassenage, France, 29 September – 1st October 1999 (*invited*).
- [32] Eight Session of the WCRP ACSYS Scientific Steering Group, UCL, Louvain-la-Neuve, Belgium, 15–19 November 1999 (*invited*).
- [33] Symposium on Sustainable Development : Towards a Dialogue between Science and Policy, Brussels, Belgium, 24–25 November 1999.
- [34] Second EC Workshop on Holocene Ocean Instability, UCL, Louvain-la-Neuve, Belgium, 27–29 June 2000.
- [35] First Session of the WCRP ACSYS/CLiC Scientific Steering Group, Kiel, Germany, 23–27 October 2000 (*invited*).
- [36] Meeting of the LMD–ASTR International Scientific Cooperation Programme, Laboratoire de Météorologie Dynamique, Paris, France, 5 December 2000.
- [37] Climate Modelling in Europe : A COACH/PRISM Summer School, Les Diablerets, Switzerland, 25–29 June 2001.
- [38] Meeting on Supercomputing Dedicated to Climate Modelling, Brussels, Belgium, 5 October 2001.
- [39] Second Session of the WCRP ACSYS/CLiC Scientific Steering Group, Bedford Institute of Oceanography, Halifax, Canada, 22–26 October 2001 (*invited*).
- [40] PRISM Kick-off Meeting, Brussels, Belgium, 10 January 2002.
- [41] Meeting of the Scientific Committee of the French National Programme on the Study of Climate Dynamics, French National Centre of Scientific Research, Paris, France, 21–22 March 2002 (*invited*).
- [42] PRISM First Project Meeting, Centre Européen de Recherche et de Formation Avancée en Calcul Scientifique, Toulouse, France, 22–23 May 2002.
- [43] ESF/HOLIVAR Workshop on Holocene Climate Variability : Comparisons of Climate Model Simulations with Palaeoclimate Reconstructions, Louvain-la-Neuve, Belgium, 13–15 June 2002 (*invited*).
- [44] Academia Europaea Annual Conference on the Sciences and the Understanding of Risk : Policies for Public Trust and Well-being, Lisboa, Portugal, 9–12 October 2002.
- [45] Meeting on Arctic and Antarctic, A Belgian Scientific Adventure, Palais de la Nation, Brussels, Belgium, 15 November 2002 (*invited*).
- [46] PRISM Steering Group Meeting 2, Institut d'Aéronomie Spatiale, Brussels, Belgium, 13–14 November 2002.

- [47] 2003 PRISM Workshop, Brussels, Belgium, 26–28 February 2003.
- [48] PRISM User Consultation Meeting and Steering Group Meeting 3, Nice, France, 8–9 April 2003.
- [49] 2003 Spring Meeting of the GASTON (Glace, Atmosphère sur Terre et Océan Numériques) Group, Centre National de Recherches Météorologiques, Météo-France, Toulouse, France, 13–14 March 2003.
- [50] Meeting of the Scientific Committee of the French National Programme on the Study of Climate Dynamics, Observatoire de Paris, Paris, France, 8–9 March 2004 (*invited*).
- [51] Meeting of the OPA System Developers Committee, Laboratoire d’Océanographie Dynamique et de Climatologie, Paris, France, 6 April 2004 (*invited*).
- [52] First Lead Author Meeting of the IPCC Working Group 1 Fourth Assessment Report, Trieste, Italy, 26–29 September 2004 (*invited*).
- [53] Second Lead Author Meeting of the IPCC Working Group 1 Fourth Assessment Report, Beijing, China, 10–12 May 2005 (*invited*).
- [54] Meeting of the Scientific Committee of the Pôle de Modélisation de l’Institut Pierre Simon Laplace, Paris, France, 31 May 2005 (*invited*).
- [55] Second ECBILT-CLIO Users Meeting, UCL, Louvain-la-Neuve, Belgium, 18–19 October 2005.
- [56] Third Lead Author Meeting of the IPCC Working Group 1 Fourth Assessment Report, Christchurch, New Zealand, 13–15 December 2005 (*invited*).
- [57] BE-Poles Workshop, Muséum Royal d’Histoire Naturelle, Brussels, Belgium, 23–25 March 2006.
- [58] Fourth Lead Author Meeting of the IPCC Working Group 1 Fourth Assessment Report, Bergen, Norway, 26–28 June 2006 (*invited*).
- [59] Workshop on Data Assimilation to Study the Climate of the Past Millennium, UCL, Louvain-la-Neuve, Belgium, 30 May – 1 June 2007.
- [60] Fourth Session of the WCRP CliC Scientific Steering Group, World Meteorological Organization, Geneva, Switzerland, 19–21 November 2007 (*invited*).
- [61] NATO-Russian Advanced Research Workshop and 40th International Liège Colloquium on Ocean Dynamics on Influence of Climatic Change on Arctic, Université de Liège, Liège, Belgium, 2–7 May 2008.
- [62] Symposium on Climate Change : From the Geologic Past to the Uncertain Future, A Tribute to André Berger, UCL, Louvain-la-Neuve, Belgium, 26–29 May 2008.
- [63] General Assembly of the Pôle de Modélisation de l’Institut Pierre Simon Laplace, 6 February 2009 (*invited*).
- [64] COMBINE (Comprehensive modelling of the Earth system for better climate prediction and projection) Kick-off Meeting, Max-Planck Institute for Meteorology, Hamburg, Germany, 17–18 September 2009 (*invited*).
- [65] IS-ENES Scoping Meeting, Château de Montvillargenne, Gouvieux, France, 29–31 March 2010 (*invited*).
- [66] IPCC WG1 AR5 First Lead Author Meeting, Kunming, China, 8–11 November 2010 (*invited*).
- [67] IPCC WG1 AR5 Second Lead Author Meeting, Brest, France, 19–22 July 2011 (*invited*).
- [68] EMBRACE (Earth system model bias reduction and assessing abrupt climate change), Swedish Meteorological and Hydrological Institute, Norrköping, Sweden, 22–23 November 2011 (*invited*).
- [69] IPCC WG1 AR5 Third Lead Author Meeting, Marrakech, Morocco, 16–19 April 2012 (*invited*).
- [70] IPCC WG1 AR5 Fourth Lead Author Meeting, Hobart, Australia, 13–17 January 2013 (*invited*).
- [71] Second General Meeting of the Paleoclimate Modelling Intercomparison Project 3 (PMIP3), Namur, Belgium, 25–30 May 2014.
- [72] Meeting on Understanding and Predicting Antarctic Sea Ice Variability at the Decadal Timescale (PREDANTAR), Royal Meteorological Institute of Belgium, Brussels, 21–22 March 2015.

- [73] BNCGG–BNCAR Symposium on Unlocking a Continent : Scientific Research at the Belgian Princess Elisabeth Station, Antarctica 2008–2016, Palace of the Academies, Brussels, Belgium, 29 April 2016.
- [74] Workshop on Feedbacks in Polar Regions and the Way They Are Represented in Climate Models, UCL, Louvain-la-Neuve, Belgium, 17–19 May 2016.

20. Publications

Articles published in refereed journals or books

- [1] Fichefet, T., and P. Gaspar, 1988 : A model study of upper ocean-sea ice interactions. *J. Phys. Oceanogr.*, **18**, 181–195.
- [2] Fichefet, T., C. Tricot, A. Berger, H. Gallée, and I. Marsiat, 1989 : Climate studies with a coupled atmosphere–upper-ocean–ice-sheet model. *Phil. Trans. R. Soc. Lond.*, **A 329**, 249–261.
- [3] Berger, A., T. Fichefet, H. Gallée, I. Marsiat, C. Tricot, and J.-P. van Ypersele, 1990 : Ice sheets and sea level change as a response to climatic change at the astronomical time scale. In *Greenhouse Effect, Sea Level and Drought*, R. Paepe et al. (Eds.), Kluwer Academic Pub., Dordrecht, pp. 85–107.
- [4] Berger, A., T. Fichefet, H. Gallée, I. Marsiat, C. Tricot, and J.-P. van Ypersele de Strihou, 1990 : Physical interactions within a coupled climate model over the last glacial–interglacial cycle. *Trans. R. Soc. Edinburgh: Earth Sc.*, **82**, 357–369.
- [5] Berger, A., H. Gallée, T. Fichefet, I. Marsiat, and C. Tricot, 1990 : Testing the astronomical theory with a coupled climate–ice sheet model. *Paleogeography, -climatology, -ecology (Global and Planetary Change Section)*, **89**, 125–141.
- [6] Chervin, R., X. Jiang, J. Cherniawsky, Y.J. Han, H. Le Treut, T. Fichefet, P. Andrich, J. Mitchell, A. Jenkins, and J.-P. van Ypersele, 1990 : Modelling. In *Climate-Ocean Interaction*, M.E. Schlesinger (Ed.), Kluwer Academic Pub., Dordrecht, pp. 361–363.
- [7] Berger, A., T. Fichefet, H. Gallée, C. Tricot, and J.-P. van Ypersele, 1991 : Earth system and astronomical climate modeling. In *Global Environmental Change*, R.W. Corell, and P.A. Anderson (Eds.), *NATO ASI Series*, **I1**, Springer-Verlag, Berlin, pp. 137–153.
- [8] Gallée, H., J.-P. van Ypersele, T. Fichefet, C. Tricot, and A. Berger, 1991 : Simulation of the last glacial cycle by a coupled, sectorially averaged climate–ice sheet model. I. The climate model. *J. Geophys. Res.*, **96**, 13,139–13,161.
- [9] Marsiat, I., A. Berger, T. Fichefet, H. Gallée, and C. Tricot, 1991 : Modelling the transient response of a coupled model to the astronomical forcing over the last glacial to interglacial cycle. In *Klimageschichtliche Probleme der Letzten 130.000 Jahre*, B. Frenzel (Ed.), *Paläoklimaforschung*, **1**, Gustav Fischer Verlag, Stuttgart, pp. 139–152.
- [10] Berger, A., T. Fichefet, H. Gallée, C. Tricot, and J.-P. van Ypersele, 1992 : Entering the glaciation with a 2-D coupled climate model. *Quat. Sc. Rev.*, **11**, 481–493.
- [11] Fichefet, T., and C. Tricot, 1992 : Influence of the starting date of model integration on projections of greenhouse-gas-induced climatic change. *Geophys. Res. Lett.*, **19**, 1771–1774.
- [12] Gallée, H., J.-P. van Ypersele, T. Fichefet, I. Marsiat, C. Tricot, and A. Berger, 1992 : Simulation of the last glacial cycle by a coupled, sectorially averaged climate–ice-sheet model. II. Response to insolation and CO₂ variation. *J. Geophys. Res.*, **97**, 15,713–15,740.
- [13] Fichefet, T., and S. Hovine, 1993 : The glacial ocean: A study with a zonally averaged, three-basin ocean circulation model. In *Ice in the Climate System*, W.R. Peltier (Ed.), *NATO ASI Series*, **I12**, Springer-Verlag, Berlin, pp. 433–458.
- [14] Smits, I., T. Fichefet, C. Tricot, and J.-P. van Ypersele, 1993 : A model study of the time-evolution of climate at the secular time scale. *Atmosfera*, **6**, 255–272.
- [15] Berger, A., C. Tricot, H. Gallée, T. Fichefet, and M.-F. Loutre, 1994 : The last two glacial-interglacial cycles simulated by the LLN model. In *Long Term Climatic Variations - Data and*

- Modelling*, J.-C. Duplessy, and M.-T. Spyridakis (Eds.), *NATO ASI Series*, **122**, Springer-Verlag, Berlin, pp. 411–452.
- [16] Fichetef, T., S. Hovine, and J.-C. Duplessy, 1994 : Thermohaline circulation of the Atlantic Ocean during the last glacial maximum. *Nature*, **372**, 252–255.
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- [18] Hovine, S., and T. Fichetef, 1994 : A zonally averaged, three-basin ocean circulation model for climate studies. *Clim. Dyn.*, **10**, 313–331.
- [19] Fichetef, T., 1995 : Solar radiation and global climate change: Some experiments with a two-dimensional climate model. In *Solar Output and Climate during the Holocene*, B. Frenzel (Ed.), *Paläoklimaforschung*, **16**, Gustav Fischer Verlag, Stuttgart, pp.161–184.
- [20] Deleersnijder, E., J.-M. Beckers, J.-M. Campin, M. El Mohajir, T. Fichetef, and P. Luyten, 1996 : Some mathematical problems associated with the development and use of marine models. In *The Mathematics of Models for Climatology and Environment*, J.I. Diaz (Ed.), *NATO ASI Series*, **148**, Springer-Verlag, Berlin, pp. 39–86.
- [21] Duplessy, J.-C., L. Labeyrie, M. Paterne, S. Hovine, T. Fichetef, J. Duprat, and M. Labracherie, 1996 : High latitude deep water sources during the last glacial maximum and the intensity of the global oceanic circulation. In *The South Atlantic: Present and Past Circulation*, G. Wefer, W.H. Berger, G. Siedler, and D.J. Webb (Eds.), Springer-Verlag, Berlin, pp. 445–460.
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- [25] Goosse, H., T. Fichetef, and J.-M. Campin, 1997 : The effects of the water flow through the Canadian Archipelago in a global ice-ocean model. *Geophys. Res. Lett.*, **24**, 1507–1510.
- [26] Fichetef, T., H. Goosse, and M.A. Morales Maqueda, 1998 : On the large-scale modeling of sea ice–ocean interactions. In *Ocean Modeling and Parameterization*, E.P. Chassignet, and J. Verron (Eds.), *NATO ASI Series*, **C516**, Kluwer Academic Pub., Dordrecht, pp. 399–422.
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Internal reports

I am author or co-author of about 50 internal scientific reports. The list of these reports can be obtained upon request.