

Curriculum Vitae

Personal info

- **Name:** Pattyn
- **First names:** Frank, Jean-Marie, Leon
- **Birthplace and date:** Etterbeek (Belgium), 4 March 1966
- **Nationality:** Belgian

Professional address

[Laboratoire de Glaciologie](#)

[Université Libre de Bruxelles](#)

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Studies

- PhD, Vrije Universiteit Brussel, 1998. Title Ph.D. thesis: "Ice-sheet dynamics in eastern Dronning Maud Land, Antarctica".
- Doctorate training course certificate, Vrije Universiteit Brussel, 1998.
- Graduate (licentiate) in Geography, Vrije Universiteit Brussel, 1986-88.
- Title Master Thesis: Een numeriek ijskapmodel van het gletsjersysteem in de Sør Rondane, Dronning Maud Land, Antarctica: een interpretatie van waargenomen gletsjerfluctuaties (A numerical ice-sheet model of the glacier system in the Sør Rondane, Dronning Maud Land, Antarctica: an interpretation of observed glacier fluctuations)
- Undergraduate (candidate) in Geography, Vrije Universiteit Brussel, 1984-86.

Professional career

- Professor (Professeur) at the [Université Libre de Bruxelles](#), from October 2011 (Chargé de Cours since December 2005).
- Visiting Professor at the [Université J. Fourier](#) (Laboratoire de Glaciologie et de Géophysique de l'Environnement, LGGE), Grenoble France, May-June 2013.
- Visiting professor at the [University of Ghent](#), 2008-2013 (Master course on Basin Modelling, 5%)
- Research associate at the [Vrije Universiteit Brussel](#), March 2000 - November 2005.
- Lecturer (Maître de Conférence from 2000 and Chargé de Cours (0.1 ETP) from 2004) at the [Université Libre de Bruxelles](#).

- Post-doc at the [National Institute of Polar Research \(NIPR\)](#), Tokyo, Japan (1999-2000).
- Research assistant at the Vrije Universiteit Brussel from October 1993 to March 1999. Research subject: Ice dynamics, numerical modelling of ice sheets and glaciers.
- Military service from December 1992 to September 1993.
- Research assistant at the Vrije Universiteit Brussel from October 1988 until November 1992. Research subject: Remote sensing, GIS, Geometric correction of satellite imagery.

Languages

Dutch (mother tongue, fluent spoken and written), **English** (fluent spoken and written), **French** (fluent spoken and written) and **German** (basic knowledge).

Scientific Research

Scientific publications ([see publication list](#))

Google Scholar:

http://scholar.google.co.uk/citations?sortBy=pubdate&hl=en&user=6wY7-oMAAAAJ&view_op=list_works

- 4 submitted papers
- 61 papers in international journals (peer review)
- 64 abstract publications in international journals (peer review)
- 1 book review
- 30 other publications (not peer review and scientific reports)
- 136 presentations on international symposia and workshops
- 12 presentations on national symposia

Projects

1. [IceCon: Constraining Ice Mass Change in Antarctica](#). BELSPO project (2012-2016). (PI/coordinator)
2. Dynamique et stabilité de la calotte d'Antarctique. Projet Tournesol, Fédération Wallonie-Bruxelles (2013-2014): échanges avec LGGE, Grenoble, France (PI).
3. IDyRa: Ice Dynamics derived from englacial Radar reflection Architecture. FRFC project (2011-2015). (PI)
4. Ice2Sea: estimating the future contribution of continental ice to sea-level rise. EU FP7 cooperation. Work package coordinator (2009-2013). (PI)
5. EUFAR project Sor Rondane Mountain Glaciers Antarctica . European Facility for Airborne Research. 16 flight hours of radar sounding + 3000 . 2010-2011. (co-PI)
6. BELISSIMA: Belgian Ice Sheet - Shelf Ice Measurements in Antarctica. BELSPO. 2008-2011. (PI/coordinator)
7. ICECUBE-DYN: Deep ice behaviour and subglacial linkages within ICECUBE, South Pole, Antarctica. ARC project (ULB, Communauté française de Belgique), 2008-2012. (PI/coordinator)
8. Estimation of glacier mass loss in the Brooks Range, Alaska and its contribution to 21st Century sea-level rise. FNRS Crédit aux chercheurs, 2009-2010. (PI)

9. Modélisation de gestion des ressources hydriques d'origine glaciaire sous le cadre des changements climatiques (Cordillère de La Paz, Villes de la Paz et El Alto). Projet de coopération bilatérale avec la Bolivie (CGRI): 2007-2010. (PI)
10. Dynamique des lignes d'ancrage et stabilité de la calotte d'Antarctique. Projet Tournesol, Communauté Française de Belgique - FNRS (2007-2008): échanges avec LGGE, Grenoble, France (PI).
11. "Au delà de la dernière glaciation: un programme de forage profond au Groenland septentrional pendant l'Année Polaire Internationale (IPY-NEEM) - The last interglacial and beyond: a northwest Greenland deep ice core drilling programme during the International Polar Year (IPY-NEEM)", FRFC project (FNRS), 2007-2010. (PI)
12. "Antarctic Subglacial Processes and Interactions: role of transition zones in ice sheet stability" (ASPI), Research project SD/CA/02A (Science for a Sustainable Development), Belgian Science Policy Office, 2005-2009 (PI/coordinator).
13. EU Framework V project "European Project on Ice Coring in Antarctica (EPICA)" 2001-2004 (Contributor to Work Package WP7)
14. EU Framework VI project "EPICA-MIS: New paleoreconstructions from Antarctic ice and marine records" 2004-2007 (Contributor to Work Package WP7).
15. "Antarctic ice-sheet dynamics and climatic change: modelling and ice composition studies (AMICS)", Research project EV/03/08 (Research action EV), Belgian Science Policy, 2000-2005 (co-promoter)
16. Belgian Polar Research Cluster (BE-POLES), Belgian Science Policy, 2003-2006 (co-promoter)
17. "Dynamics of the Antarctic ice cap and climate changes (a contribution to EPICA)", Research project A4/DD/E03 (Research action A4), Belgian Science Policy, 1996-2000 (co-promoter)
18. "Glacier fluctuations and climatic change in South Siberia", Research project BL/R/06 (Research action BL), Belgian Science Policy, 1997-2000 (co-promoter).
19. WCRP ACSYS/CliC Numerical Experimentation Group: ISMIP (Ice Sheet Model Intercomparison Project) (convenor of higher-order model exercise)

Memberships - Functions

- President of the [Belgian National Committee on Antarctic Research](#) (BNCAR) since 2010 and member since 2008 (associate member 2003-2007).
- Associate member of the Belgian National Committee on Geodesy and Geophysics since 2008.
- Belgian representative to [SCAR Standing Scientific Group of Geosciences](#).
- Secretary of the Cryospheric Science Division of the EGU (European Geosciences Union) since 2009.
- Member of SCAR-SALE: Scientific Committee on Antarctic Research: Subglacial Antarctic Lake Environments (2004-2010)
- Editorial Advisory Board Member of '[Antarctic Science](#)' (Cambridge Journals): 2006-
- Member of the [International Glaciological Society](#) (IGS) since 1996.
- Council member of the [International Glaciological Society](#) (IGS) for 2004-2007 and co-opted council member for 2008-2009 and 2011.
- Member of the [European Geosciences Union](#) (EGU) since 2004.
- Member of the [American Geophysical Union](#) (AGU) since 2004.
- Work Package leader of the FP7 ice2sea project and member of the Steering Committee.

- Member of the Steering Committee of IPY-NEEM (Belgian representative) and Chair of the Modelling Consortium (NEEM=North Greenland ice core Project)
- Member of the consultancy committee of the [Belgian Antarctic Research Station](#) project. International Polar Foundation (IPF).
- Member of the [FWO-Vlaanderen](#) commission 'E8 Wetenschappen van de aarde', 2007-.
- Departmental research representative in Faculty Council VUB (2000-2005).
- Member of the Public Relations Committee of the Faculty of Sciences VUB (2002-2005).

Editorial / reviews

- Scientific Editor of [The Cryosphere](#) (TC): 2013-
- Editorial Advisory Board Member of 'Antarctic Science' (Cambridge Journals): 2006-
- Member of the scientific committee of the International Colloquium on Climate Controversies (2010)
- Editor of Annals of Glaciology 50(51) Thematic issue on Radioglaciology and its application (2008)
- Editor of Annals of Glaciology 50(52) Thematic issue on Dynamics in Glaciology (2009)
- Reviews for Annals of Glaciology, Antarctic Science, Computers and Geosciences, Earth and Planetary Science Letters, Journal of Geophysical Research (Earth Surface), Journal of Geophysical Research (Planets), Journal of Glaciology, Nature, Nature Geosciences, Polar Meteorology and Glaciology, Science
- Project reviews for NSF (USA) and ANR (France), IPEV (France), NERC (UK), NordForsk

Other functions - organisation

- Convenor of the session 'Modelling of glaciers and ice sheets' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2013).
- Co-convenor of the session 'State of the cryosphere: observations and modelling' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2013).
- Co-convenor of the session 'Projections of the cryospheric contribution to sea-level rise over the next century: progress in modelling and related observations' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2013).
- Convenor of the Session 'Antarctica and sea-level change' at the Geologica Belgica Symposium 2012, Brussels, 11-14 September 2012
- Co-convenor of the ISMASS (Ice Sheet Mass Balance and Sea Level Rise) Workshop, 14 July 2012, Portland OR, USA.
- Convenor of the session 'Modelling of glaciers and ice sheets' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2012).
- Co-convenor of the session 'State of the cryosphere: observations and modelling' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2012).
- Convenor of the session 'Modelling of glaciers and ice sheets' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2011).
- MISMP: Marine Ice-sheet Model Intercomparison Project (co-sponsored ice2sea); coordinator of the benchmark experiments for representing grounding

- line magration in marine ice-sheet models (both flowline and planview models) (2011-2012)
- Co-convenor of the session 'State of the cryosphere: observations and modelling' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2011).
 - Convenor of the session 'Modelling of glaciers and ice sheets' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2010).
 - Co-convenor of the session 'State of the cryosphere: observations and modelling' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2010).
 - Convenor of the session 'Modelling of glaciers and ice sheets' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2009).
 - Scientific Editor of Annals of Glaciology 51: "Radioglaciology and its Applications".
 - Co-convenor of the session 'Modelling of glaciers and ice sheets' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2008).
 - Co-convenor of the session 'Modelling of glaciers and ice sheets' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2007).
 - Co-convenor of the session 'Modelling of glaciers and ice sheets' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2006).
 - Co-convenor of the session C10 'Icy Lakes: Intersections of Tectonics, Life and Climate', AGU (American Geophysical Union) Fall Meeting, (2005).
 - Co-convenor of the session CR9 'Modelling of glaciers and ice sheets' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2005).
 - Co-convenor of the session CR16 'Modelling of glaciers and ice sheets' (Cryospheric Science) of the General Assembly of the [European Geosciences Union](#) (2004).
 - Co-convenor of the AMICS Workshop "Dynamic Interaction between the Antarctic Ice Sheet and the Subglacial Environment", Brussels, 6-7 April 2004 (Vrije Universiteit Brussel).
 - ISMIP: Ice-sheet Model Intercomparison Project (co-sponsored [CliC: Climate and Cryosphere](#)); coordinator of the benchmark experiments for higher-order ice-sheet models.

Field work

1. Expedition to Princess Elisabeth Station, Antarctica: radar and cGPS surveying of the coastal area of Dronning Maud Land (IceCon - Constraining Ice Mass Change in Antarctica), November - December 2012.
2. Expedition to Princess Elisabeth Station, Antarctica and radar surveying of the coastal area of Dronning Maud Land (BELISSIMA - Belgian Ice Sheet - Shelf Ice Measurements in Antarctica), November - December 2010.
3. Expedition to McCall Glacier, Brooks Range, Alaska (USA), August 2010. Surveying of glacier using ice-penetrating radar and GPR. Collaboration with University of Alaska Fairbanks ([Dr. Matt Nolan](#); UAF, USA) and Dr. Bernhard Rabus (Simon Frasier University, Vancouver, Canada).
4. Expedition to Condoriri Glaciers, La Paz, Bolivia, July 2009. Surveying of glacier using ice-penetrating radar. Collaboration with University of La Paz (Prof. Ramirez, Bolivia) and the IRD.
5. Expedition to Princess Elisabeth Station, Antarctica and radar surveying of the coastal area of Dronning Maud Land (BELISSIMA - Belgian Ice Sheet - Shelf Ice Measurements in Antarctica), November - December 2008.

6. Expedition to Tuni Glacier, La Paz, Bolivia, July 2008. Surveying of glacier using ice-penetrating radar. Collaboration with University of La Paz (Prof. Ramirez, Bolivia) and the IRD.
7. Expedition to Wright Lower Glacier, Dry Valleys, Antarctica, December 2006 - January 2007. Collaboration with Dr. S. Fitzsimons, Antarctica New-Zealand: Radio-echo sounding and GPR measurements for study of basal characteristics and contact with proglacial Lake Brownsworth.
8. Expedition to McCall Glacier, Brooks Range, Alaska (USA), August 2006. Surveying of glacier using ice-penetrating radar. Collaboration with University of Alaska Fairbanks ([Dr. Matt Nolan](#); UAF, USA).
9. Expedition to the Sør Rondane Mountains, Dronning Maud Land, Antarctica, November - December 2005 (BELARE 2005).
10. Expedition to McCall Glacier, Brooks Range, Alaska (USA), August 2005. Surveying of glacier using ice-penetrating radar. Collaboration with University of Alaska Fairbanks ([Dr. Matt Nolan](#); UAF, USA).
11. Expedition to the Sør Rondane Mountains, Dronning Maud Land, Antarctica, November - December 2004 to select a potential site for the new Belgian research station on Antarctica (BELARE 2004): installation of an automatic weather station, D-GPS measurement of the site, ice radar sounding, accumulation/ablation and ice velocity measurements in the vicinity of the site.
12. Expedition to McCall Glacier, Brooks Range, Alaska (USA), August 2003. Surveying of glacier using ice-penetrating radar. Collaboration with [Arctic Environment Research Center](#) (Prof. F. Fujii; NIPR, Tokyo, Japan) and University of Alaska Fairbanks ([Dr. Matt Nolan](#); UAF, USA).
13. Expedition to the Altai Mountains, South Siberia, Russia, July 2000. Surveying of glaciers in South Chuya Range, i.e. measurement of glacier velocities, radio-echo sounding, and accumulation / ablation rates.
14. Participation in the 41st Japanese Antarctic Research Expedition (JARE-41) during the austral summer 1999-2000 to Langhovde and Heito Glaciers, Lützow-Holmbukta, Dronning Maud Land, Antarctica. Measurement of glacier motion and ice thickness and study of the dynamics of coastal outlet glaciers.
15. Expedition to the Altai Mountains, South Siberia, Russia, summer 1997. Surveying of glaciers in South Chuya Range, i.e. measurement of glacier velocities and accumulation / ablation rates.
16. Expedition to the Altai Mountains, South Siberia, Russia, summer 1996. Survey of glaciers in South and North Chuya Range for potential glaciological monitoring.
17. Expedition to the Altai Mountains, South Siberia, Russia, July 1995. Determination of frozen cavities in archeological burial mounds.
18. Participation in the 32nd Japanese Antarctic Research Expedition (JARE-32) during the austral summer 1990-91 to the Sør Rondane Mountains, Dronning Maud Land, Antarctica. Measurement of glacier motion and ice thickness.

Awards

- Laureate of the "Reisbeurzenwedstrijd 1989" from the Ministry of the Flemish Community.

Teaching activities

Courses

- Professor (Professeur) from 2011 (Chargé de Cours from 2005) at the [Université Libre de Bruxelles](#) (ULB). [A list of courses is found here.](#)

- Visiting professor at the [University of Ghent](#), 2008-2013 (Master course on Basin Modelling, 5%)
- Karthaus Summer School in Glaciology, Italy, September 2013. Course in numerical modelling of glaciers and ice sheets.
- Lecturer (Maître de Conférence from 2000 and Chargé de Cours from 2004) at the [Université Libre de Bruxelles](#) (ULB), "Modelling in physical geography (Modélisation en géographie physique), 15h" and "Environmental hazards (Risques naturels: évaluation et gestion), 15h".
- Lecturing graduate course "Models in physical geography (climatology and geomorphology)", 30h, 1994-2005, Vrije Universiteit Brussel (Prof. H. Declair).
- Assistance in Physical Geography, "Introduction to Remote Sensing techniques", undergraduate course, Academic year 1993-94 (Prof. H. Declair).
- Training school on environmental changes, Akadem Gorodok, Novosibirsk University, Russia, July 1998. Brief course in theoretical glaciology.
- International Short Courses in Computer Applications, Center for Irrigation Engineering, KUL, Leuven, september 1993, "DRM-based geometrical correction of images".

Phd theses (promoter)

1. Van Liefferinge, Brice: Etude des conditions basales de la calotte de glace de Groenland. Assistant ULB (2011-2017).
2. Callens, Denis: Influence des conditions basales de la plateforme de glace sur la stabilité de la calotte dans la Terre de la Reine Maud (Antarctique) déterminée grâce au radio-écho sondage et à la modélisation', 2010-2014, ULB, FRIA scholarship.
3. Docquier, David : Modelling transition zones in ice sheets , 2009-2013, ULB, ARC scholarship (promoter)
4. Delcourt, Charlotte: 'Subglacial processes and drainage beneath glacier systems based on radio-echo sounding analysis and glacier and ice-sheet modeling', 2007-2010, ULB - FRIA scholarship.
5. Olmos, Carlos: 'Modélisation de gestion des ressources hydrique d'origine glaciaire dans le cadre des changements climatiques et ENSO', 2006-2009, ULB. - CTB scholarship.
6. Perichon, Laura: "Investigating ice sheet dynamics using higher-order model inversion methods", 2007-2009, ULB - FRIA scholarship.
7. Remy, Jean-Philippe: "Physical and geochemical properties of marine ice: implications for the stability of ice shelves in Antarctica", FRIA grantee, 2005-2008, ULB - FRIA scholarship.

PhD theses (co-promoter)

1. De Brabander, Sang: "The effect of basal processes on glacier motion: Development and application of an integrated model of ice flow, subglacial hydrology and till deformation", IWT postgraduate grantee, 2004-2008, VUB
2. De Smedt, Bert: "Numerical modelling of Central-Asian glaciers and climate variations", FWO-Vlaanderen 2002-2006, VUB
3. Huyghe, Ann: "Glacial reconstruction of paleo ice-stream dynamics: a model study", FWO-Vlaanderen 2004-2008, VUB

Master theses

1. Sophie Berger (2013) The dynamics of ice as seen by interferometric SAR: a case study of Antarctic ice shelves in Dronning Maud Land. ULB (promoter)

2. Charles Delvaux (2013) Pine Island Glacier dynamics and marine ice sheet instability. ULB (promoteur)
3. Laigneaux, Pierre (2012), Impacts de la fonte des glaciers alpins sur les services écosystémiques liés à l'eau. Etude de cas dans le Val d'Hérens (Suisse). ULB (promoteur)
4. Didarally, Yasmina (2012), Modélisation des glaciers soumis à la marée au Groenland. ULB (promoteur)
5. Van Liefferinge, Brice (2011), Conditions intraglacières du Glacier McCall, Alaska. ULB (promoteur)
6. Camelbeeck, Mathieu (2011), Modélisation de l'impact des propriétés du sol et de l'érosion à l'échelle d'un bassin, ULB. (co-promoteur)
7. Callens, Denis (2010), Variabilité spatiale du bilan de masse du Frankenny Ice Rise, Dronning Maud Land, Antarctique. ULB (promoteur)
8. Loriaux, Thomas (2010), Bilan de masse et distribution des épaisseurs de glace du glacier Tuni, Andes boliviennes. ULB (promoteur)
9. De Greef, Gregory (2010), Modélisation de l'évolution historique et récente du glacier Chacaltaya dans les Andes boliviennes. ULB (promoteur)
10. Defrance, Dimitri (2009), Dynamique des lignes d'ancrage de la calotte Antarctique. ULB (promoteur)
11. Julemont, Christophe (2009), Sensibilité du bilan des ressources hydriques pour la gestion en eau des villes de La Paz et El Alto en Bolivie. ULB (promoteur)
12. Lothe, Audrey (2008) Impacts des changements climatiques sur le mode de vie des populations locales en Alaska: le cas d'Huslia, ULB (co-promoteur).
13. Rubin, Julien (2007) Conditions d'existences et influence des lacs sous-glaciaires sur le comportement des calottes polaires de la planète Mars: étude par modélisation numérique, ULB (promoteur)
14. Regnier, Charlotte (2007) Dynamique des lignes d'ancrage des calottes marines: comparaison de différents modèles, Université de Liège (co-promoteur)
15. Guzman Tipisman, Manuel (2007) Contribution à l'étude de l'influence des chaînes de montagne côtières sur la dynamique des vents catabatiques en Antarctique de l'est (Dronning Maud Land, nouvelle base Belge), ULB DEA en Sciences (promoteur)
16. Delcourt, Charlotte (2006) Les glaciers de l'Alaska et le changement climatique, ULB (promoteur).
17. Huyck, Pieter (2005) Reconstructie van de massabalans van gletsjers op basis van NCEP re-analysis data (co-promoter), VUB
18. Demuzere, Matthias (2003) Thermodynamisch model van 2 Oost-Antarctische kustgletsjers. (co-promoter), KULeuven
19. Huyghe, Ann (2003) Effect van basale hydrologie op grootschalige ijskapdynamica: Shirasegletsjer, Oost Antarctica. (co-promoter), VUB
20. De Brabander, Sang (2001) Radio-echo sounding op Sofiyskiy Gletsjer, Altai, Rusland: analyse van interne structuren en basale condities. (co-promoter), VUB
21. De Smedt, Bert (2001) Numeriek modelleren van de frontvariaties van Sofiyskiy Gletsjer, Altaigebirge, Rusland, als respons op het klimaatsignaal. (co-promoter), VUB
22. Verle, Wendy (2001) Studie van de energiebalans van Heito Gletsjer, Dronning Maud Land, Oost-Antarctica. (co-promoter), VUB
23. Deronde, Bart (1998) Wisselwerking tussen klimaat en de vegetatie in Zuidoost-Afrika. (assistance), VUB
24. Monte, Mark (2001) De evolutie van het klimaat in Ukkel. (assistance), VUB
25. Leemans, Ingrid (1994) Toerisme op Antarctica. (assistance), VUB

26. Van Huele, Wim (1994) Numerieke analyse van glaciële erosie en vormevolutie van glaciële valleien. (assistance), VUB

Member of PhD jury

- Dierckx, Marie (2013) Marine ice rheology from deformation experiments of ice shelf samples using a pneumatic compression device : Implications for ice shelf stability, Thèse de doctorat, Université Libre de Bruxelles (Président, Examineur)
- Drouet, Anne-Sophie (2012) Dynamique du glacier émissaire: des processus à l'application sur un glacier école, AStrolabe, Antarctique de l'Est. Thèse de doctorat Université de Grenoble (France) (Examineur)
- Delcourt, Charlotte (2012) Dynamique, hydrologie sous-glaciaire et régime polythermal du glacier McCall (Alaska, USA) (Promoteur)
- Boereboom, Thierry (2012) Greenhouse gases investigations in ice from periglacial environments (Président, Examineur)
- Seroussi, Hélène (2011) Modeling ice flow dynamics with advanced multi-model formulations. Thèse de doctorat à l'Ecole Centrale de Paris, France (jury invité)
- Morlighem, Mathieu (2011) Ice sheet properties inferred by combining numerical modeling and remote sensing data. Thèse de doctorat à l'Ecole Centrale de Paris, France (rapporteur)
- Olmos, Carlos (2011) Gestion des ressources hydriques des villes de La Paz et d'El Alto (Bolivie) : modélisation, apports glaciaires et analyse des variables. Thèse de doctorat de l'ULB (promoteur)
- Sanz Rodrigo, Javier (2011) On Antarctic Wind Engineering. ULB Mars 2011
- Alvarez-Solas, Jorge (2010) Changements abrupts et variabilité rapide dans différents contextes climatiques. Thèse de doctorat de l'Université Pierre et Marie Curie, Paris, France (rapporteur)
- De Fleurian, Basile (2010) Développement d'un modèle d'hydrologie sous-glaciaire dédié à la simulation du glissement basal des glaciers. Thèse de doctorat Université J. Fourier, Grenoble, France. (rapporteur)
- Schaefer, Martina (2007) Modélisation de l'écoulement des glaciers tempérés. Thèse de doctorat Université J. Fourier, Grenoble, France.
- Gagliardini, Olivier (2007) Modélisation d'écoulements complexes en glaciologie. Diplôme d'Habilitation à Diriger des Recherches. LGGE, Grenoble, France.
- Samyn, D. (2005), "Structural and geochemical analysis of basal ice from Taylor Glacier, Dry Valleys, Antarctica", Dir. R. Souchez and R. Lorrain, Laboratoire de glaciologie, ULB, Bruxelles.
- Verbeke, V. (2005), "Concentrations en gaz dans la glace de mer: développements techniques et implications environnementales", Dir. J.L. Tison, Glaciologie polaire, ULB, Bruxelles.
- Sleeweagen, S. (2005), "Interactions entre glaciers et lacs dans les Dry Valleys, Antarctique: approche par l'analyse multiparamétrique de la composition de la glace", Dir. R. Lorrain, Glaciologie polaire, ULB, Bruxelles.
- Khazendar, A. (2000), "Marine ice formation in rifts of Antarctic Ice Shelves: A combined laboratory study and modelling approach", Dir. R. Souchez, Glaciologie polaire, ULB, Bruxelles.

Excursions

- Excursion of physical geography to the Alps (Switzerland) with undergraduate students in Geography, May 2012.

- Excursion of physical geography to the Alps (Switzerland) with undergraduate students in Geography, May 2010.
- Excursion of physical geography to the Alps (Switzerland) with undergraduate students in Geography, May 2008.
- Excursion of physical geography to the Belgian Ardennes with undergraduate students in Geography, March 2008.
- Excursion of physical geography to the Belgian Ardennes with undergraduate students in Geography, March 2007.
- Excursion of physical geography to the Alps (Switzerland) with undergraduate students in Geography, May 2006.
- Excursion of physical geography to the Belgian Ardennes with undergraduate students in Geography, March 2006.
- Excursion of physical geography with undergraduate students in Geography to Vosges (France), May 2000 (with Prof. M. Van Molle).
- Field excursion to the Altai Mountains, July 1998 within the framework of the Training school on environmental changes, Akadem Gorodok, Novosibirsk University.
- Excursion of physical geography with undergraduate students in Geography to Vosges (France), May 1998 (with Prof. M. Van Molle).
- Excursion of physical geography with undergraduate and graduate students in Geography to Normandy (France), May 1996 (with Prof. M. Van Molle).
- Excursion of physical geography with graduate students in Geography to Ardeche and Massif Central (France), May 1994 (with Prof. M. Van Molle).

Conferences

- APECS Benelux (Association of Polar Early Career Scientists): Oral presentation of 'Ice Sheets and Sea-Level Rise'. Ghent, 11 October 2012.
- Conférence sur climato-scepticisme à l'ULB, 27 March 2012. Oral presentation of 'Dealing with doubt in climate science'.
- "Pool tot Pool": presentation of 'The Antarctic ice sheet and sea-level rise', Leiden, 17 March 2012 (www.pooltotpool.nl).
- Session Spéciale del l'Académie Royale de Belgique, Namur, Palais provincial, 4 October 2011. Oral presentation of "La glaciologie en Antarctique : la banquise et la calotte glaciaire, des acteurs climatiques multiples". Co-authored with J.L. Tison (invited)
- "Struggle for Poles": presentation of "contribution of ice sheets and glaciers to future sea-level rise" at Secondary school KTA Londerzeel, 1 october 2010.
- "Leven op de Zuidpool": presentation for Inverde, Groenendaal, 9 October 2009
- Conférence : à la mesure de l' Antarctique changements climatiques. ECOLO Watermael-Boitsfort et Auderghem, 4 Mars 2009.
- "IJs met een verhaal": presentation for Natuurpunt, Beersel, 9 January 2009.
- IJsonderzoek op de polen : de eerste wetenschappelijk expeditie naar het Princess Elisabeth Station. Kennismakers 2008 Dag van de onderzoeker FWO Vlaanderen. 23 October 2008, Heizel, Brussels expo.
- "La prédiction des changements climatiques" Intervention au Conseil économique et social de la Région wallonne (CESRW), 21 January 2008.
- Be-Poles workshop, 25 March 2006: "Ontdek de polen" (general public) Presentation of 'Diepe ijskernen in Antarctica: Het klimaat lezen in het ijs; is er leven onder de ijskap? / Les sondages profonds en Antarctique: lire le climat dans la glace, ya-t-il de la vie sous la glace?'
- Café Géó Bruxelles: "Changements climatiques: Myth ou réalité (critique d'un futur annoncé), 1 Février 2006.

- Presentation on the Antarctic and Greenland ice sheet with changing climate for the Lentekamp Wetenschappen, 29-31 March 2005, Vrije Universiteit Brussel.
- Seminar on climate changes and ice sheets on 'Dag van de Aarde' at the Koninklijk Atheneum Voskenslaan Gent (www.kavoskenslaan.be), 5th grade ASO, 24 March 2005.
- Presentation of "EDUCANT, an educational model of the Antarctic ice sheet" at the Mercator Museum, Sint-Niklaas, 22 April 2004.

Popular science contributions

1. Interview La Libre Belgique, 28 September 2013: Où voulons-nous vivre en 100 ans?
2. Forum du Midi, La Première radio, 27 September 2013: changement climatique et le nouveau rapport du GIEC.
3. Nature News 13 June 2013: <http://www.nature.com/news/oceans-melt-antarctica-s-ice-from-below-1.13200>
4. Princess Elisabeth visits Exposition on Princess Elisabeth Station, Antarctica 20 May 2013: <http://www.deredactie.be/cm/vrtnieuws/videozone/nieuws/binnenland/1.1635059>
5. Princess Elisabeth visits Exposition on Princess Elisabeth Station, Antarctica 20 May 2013: <http://nieuws.vtm.be/binnenland/47512-prinses-elisabeth-bezoekt-expositie>
6. Nuwa RTBF La première 17 May 2013: L'Antarctique: le défi du Traité
7. Interview RTBF 02 April 2013: http://www.rtf.be/info/societe/detail_ca-caille-rechauffement-et-jetstream-influent-sur-notre-meteo?id=7961679
8. Interview RTBF 01 April 2013: http://www.rtf.be/video/detail_suite-au-rechauffement-climatique-la-banquise-grandit?id=1811899
9. Chat Le Soir, 26 March 2013: "[Que le froid et la neige durent longtemps, sont des observations anormales](#)"
10. Interview RTL/TVi, 25 March 2013: Est-ce le froid et la neige anormale?
11. Interview Radio Campus: Conséquences du forage profond NEEM en Groenland.
12. Interview La Dernière Heure 25 Janvier 2013: Le graal des glaciologues.
13. Interview Radio 1, 21 September 2012: Hautekiet Radio 1: Het huis staat echt in brand: klimaatveranderingen en wat eraan doen?
14. Interview Radio Campus: Nouvelle publication: Controverses climatiques, sciences et politiques.
15. European Parliament, Brussels: [Science Briefing for Policy-Makers: Understanding Sea-Level Rise](#), 27 June 2012; briefing for MEPs (Members of European Parliament), EU and other interesting parties.
16. Interview Het Nieuwsblad, 17 April 2012: Uniek: gletsjer die groeit. Terwijl overal ter wereld gletsjers aan het smelten zijn door de stijgende temperaturen, is de Karakorumgletsjer in Pakistan gegroeid. Dat zegt de Franse gletsjerkundige Julie Gardelle. Maar haar opvallende vondst wordt genuanceerd door Frank Pattyn van de ULB: 'Dat de gletsjers in en rond het Himalyagebergte minder snel smelten, was al eerder bekend. Het groeien van de Karakorumgletsjer is mogelijk gewoon te wijten aan een grotere hoeveelheid neerslag.'
17. Conférence sur climato-scepticisme à l'ULB, 27 March 2012. Oral presentation of 'Dealing with doubt in climate science'.
18. Radio interview Radio1: Vandaag 7 February 2012. Subglaciaal Meer Vostok
19. Interview Le Soir 7 Février 2012: Le Lac Vostok a été atteint ([link](#))
20. Interview for EOS Avril 2011: La recherche belge en Antarctique

21. Interview RTL-TVI journal 19h, 10 Mars 2011: Résultats scientifiques de la recherche à la station polaire Belge
22. Interview Radio 1: Nieuwe Feiten: 8 Maart 2011 - Het lijkt simpel als pompwater. Er drijven ijsbergen rond waarvan het zoete water langzaam wegloopt in de oceanen. Waarom wordt dat bevroren water niet naar gebieden gesleept waar te weinig drinkwater is? Het is eerder geprobeerd - in de jaren '70 van Antarctica naar Saoedi-Arabië bijvoorbeeld - maar dat mislukte. Nu denkt de Franse ingenieur Georges Mougin dat het met de hedendaagse technologie wel moet lukken. In een 3D-simulatietest werd een ijsberg succesvol van Newfoundland (Canada) naar de Canarische eilanden gesleept. Met een gemiddelde snelheid van 2 km/uur zou die na goed 140 dagen ter bestemming moeten zijn, en er zou nog 2/3 van de oorspronkelijke ijsmassa over zijn.
23. Interview La Première: Sacré Cocktail: 03 Maart 2011- DE RETOUR D'ANTARCTIQUE
24. Interview Le Soir 25 Février 2011: Un été austral des plus fructueux
<http://archives.lesoir.be/antarctique-la-station-princess-elisabeth-se-prepare-a-t-20110225-0197Q2.html?query=pattyn&firstHit=0&by=10&sort=datedesc&when=-1&queryor=pattyn&pos=0&all=197&nav=1>
25. Interview La Libre 25 Februari 2011: De I Antarctique à la Belgique
<http://www.lalibre.be/societe/planete/article/644982/de-l-antarctique-a-la-belgique.html>
26. Interview VRT Radio 1: Het Journaal 18h: 24 Februari 2011: Onderzoek Princess Elisabeth station
27. Interview VRT Journaal 13h (TV), 24 Februari 2011: IJskap op Antarctica wordt kleiner
28. Interview De Morgen 7 Februari 2011 - Rusland moet race naar de oertijd staken
29. Interview Argus: 28 Januari 2011 - De race naar het Vostokmeer
<http://www.argusactueel.be/internationaal-nieuws/de-race-naar-het-vostokmeer>
30. "CryoSat": radio interview for Matin Première, la Première, 9 April 2010.
31. Interview La Libre Belgique: 9 March 2010. "Le lac sous la calotte".
32. Interview Radio 1: Koude winters and opwarming van de aarde? De Ochtend, 12 January 2010.
33. Interview Radio 1: de problematiek van artificiële sneeuw in de Alpen. De Ochtend, 3 January 2010.
34. Interview Radio 1 : IJs voor Kopenhagen (December 2009)
35. Interview Radio Contact: Empêcher la fonte des glaciers des Andes par la peinture (November 2009)
36. « De la peinture pour montagne » Interview pour La Dernière Heure (6 November 2009)
37. Interview Sciencepoles: Frank Pattyn on Ice Sheet Models and Ice-ocean Interaction 5 November 2009 (IPF)
38. "Een nieuwe Belgische poolbasis op Antarctica", Radio interview for NOS-TELEAC, 24 February 2009.
39. Interview Radio 1: Onderzoek aan het Princess Elisabeth Station (13 February 2009)
40. Princesse Elisabeth: la base Belge est née interview dans le Journal des Enfants (13 February 2009)
41. « Un scientifique de retour ». Interview pour SudPresse, 13 February 2009.
42. L'Antarctique est une vraie bibliothèque climatologique . Interview Vers l'Avenir 12 February 2009.
43. « NEEM sonde le Groenland » Interview de Christian Du Brulle. Le Soir, 2 October 2008

44. Opinion Publique, RTBF La Une (Télévision): "La construction de la base belge Princesse Elisabeth en Antarctique". 22 mai 2008.
45. « Antarctica: Deel 5 - Prinses Elisabethbasis » : Television Documentary CANVAS (VRT) 8 April 2008
46. Blog on CANVAS website on Antarctic Research 2008 (http://www.canvas.be/c_antarctica/category/blog/) (VRT)
47. Interview Sciencepoles : Frank Pattyn: Launching the Princess Elisabeth Station Research Programme , 14 February 2008. (IPF)
48. Interview in La Libre Essentielle La glace en mouvement (1 December 2007)
49. Television programme « BedWeters : klimaatveranderingen » KETNET (VRT), October 2007
50. Interview for « The last hidden place on Earth » by Mariana Gosnell. Discover Magazine, September 2007.
51. Meer sneeuw en ijs Interview De Standaard (27 September 2007)
52. Station Belge en Antarctique: émission zéro pour un gain maximal? Carte Blanche, Le Soir, 4 Septembre 2007.
53. « Meer geld voor zuidpool ». Open Brief, De Standaard, 4 September 2007.
54. "Feu vert du CEP pour la base Antarctique Belge": radio interview for Matin Première, la Première, 9 May 2007.
55. « L université a besoin des quadras ! » Interview dans Le Vif, 23 March 2007
56. "L'Année Polaire Internationale", television interview, 1 March, 2007, Journal Télévisé RTBF.
57. « Glaciologie de terrain avec l' ULB » Le Soir, 17 janvier 2007
58. La base Antarctique Belge": radio interview for Science à la Une, La Première, 1 June 2006.
59. « België bouwt op zuidpool » Interview in De Gazet van Antwerpen, 1 June 2006
60. België bouwt nieuw station op zuidpool Interview Belang van Limburg 1 June 2006
61. Après 40 ans d' absence, la Belgique retrouve l' Antarctique . Interview Metro 1 June 2006
62. « Great Lakes of Antarctica » Interview in Geotimes, March 2006
63. "Des lacs sous la banquise": interview for Radio-Canada: Les années lumières: émission du 14 Mai 2006.
64. "Rivières sous-glaciaires": radio interview for Science à la Une, La Première, 10 Mai 2006
65. "What do we really know about marine ice sheets?", press conference at the EGU General Assembly, 2-7 April 2006. (with R. Hindmarsh and C. Schoof)
66. PolePosition: Belgian Federal contest for schools. Participating scientist + collaborating scientist of the first prize team, Sint-Jozef Instituut of Aarschot (project "Cryosat").
67. Presentation on the Antarctic and Greenland ice sheet with changing climate for the Lentekamp Wetenschappen, 29-31 March 2005, Vrije Universiteit Brussel.
68. Seminar on climate changes and ice sheets on 'Dag van de Aarde' at the Koninklijk Atheneum Voskenslaan Gent (www.kavoskenslaan.be), 5th grade ASO, 24 March 2005.
69. Letter in "Humo" 3339/35 of August 31, 2004 as a reaction to the interview with Mr Frank Deboosere (Humo 3338).
70. "Centraal Aziatische gletsjers smelten weg", Nieuwsbrief (newsletter) 20, Faculty of Sciences, VUB, 2004.
71. Interview on "Radio Vlaanderen Internationaal" by Els Loos (RVI, April 2004)
72. "Zeven Meter Meer" in "Knack" by D. Draulans (28 April 2004)
73. Presentation of "EDUCANT, an educational model of the Antarctic ice sheet" at the Mercator Museum, Sint-Niklaas, 22 April 2004.

74. Belgian Federal Science Policy Office: [VUB research shows that Central Asian glaciers melt away](#) (16 March 2004).
 75. "Centraal-Aziatische gletsjers smelten weg" (16 March 2004). [Press communication VUB](#)
 76. Interview in "Academos" (April 2004): "Een nieuwe Belgische basis op Antarctica".
 77. Interview in "Het Laatste Nieuws" (12 Februari 2004): "Te warm: eerst gletsjer, dan meer".
 78. Interview in "Het Laatste Nieuws" (5 February 2004): "Opnieuw stukje België op Antarctica".
 79. "Aziatische gletsjers smelten in sneltempo" in "De Tijd" by F. Van Hamme (22 March 2004).
 80. "Wie heeft de koelkast laten open staan?", Nieuwsbrief (newsletter) 19, Faculty of Sciences, VUB, 2003.
 81. "Antarctica, daar roert entwat", Nieuwsbrief (newsletter) 16, Faculty of Sciences, VUB, 2002.
 82. "Onderwijs en onderzoek: een noodzakelijke symbiose", Nieuwsbrief (newsletter) 16, Faculty of Sciences, VUB, 2002.
 83. "Glijdende gletsjers" in "Knack" by D. Draulans (18 July 2000).
 84. Project leader of "[Wetenschapsweek \(Science week\)](#)" at the Vrije Universiteit Brussel from 1989 onwards (every two year). Subject: Antarctica and global change.
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Publications

Submitted / under review

1. Callens, D., K. Matsuoka, D. Steinhage, B. Smith, and **F. Pattyn** (submitted) Transition of flow regime along a marine-terminating outlet glacier in East Antarctica. Submitted to The Cryosphere.
2. Docquier, D., D. Pollard and **F. Pattyn** (submitted) Thwaites Glacier grounding line retreat: influence of width and buttressing parameters. Submitted to J. Glaciol.
3. Thoma, M., K. Grosfeld, D. Barbi, J. Determann, S. Göller, C. Mayer, and **F. Pattyn** (Submitted) RIMBAY a multi-physics 3-D ice-dynamics model for comprehensive applications: model-description and examples. Geosci. Model Dev.
4. Feldmann, J, T. Albrecht, C. Khroulev, **F. Pattyn**, A. Levermann (submitted) Resolution-dependent performance of grounding line motion in a shallow model compared to a full-Stokes model according to the MISMIP3d intercomparison. Submitted to J. Glaciol.

Peer review (accepted - in press - published)

1. Hubbard, B., J.L. Tison, M. Philippe, B. Heene, **F. Pattyn**, T. Malone, J. Freitag (2013) Ice-shelf density reconstructed from optical-televiwer borehole logging. Geophys. Res. Lett., accepted.
2. D. Di Nitto, G. Neukermans, N. Koedam, H. Defever, **F. Pattyn**, J. G. Kairo, and F. Dahdouh-Guebas (2013) Mangroves facing climate change: landward migration potential in response to projected scenarios of sea level rise. Accepted for Biogeosciences.

3. Van Liefferinge, B. and **F. Pattyn** (2013) Using ice-flow models to evaluate potential sites of million year-old ice in Antarctica. *Clim. Past*, 9, 2335-2345.
4. Fischer, H., J. Severinghaus, E. Brooke, E. Wolff, M. Albert, O. Alemany, R. Arthern, C. Bentley, D. Blankenship, J. Chappellaz, T. Creyts, D. Dahl-Jensen, M. Dinn, M. Frezzotti, S. Fujita, H. Gallee, R. Hindmarsh, D. Hudspeth, G. Jugie, K. Kawamura, V. Lipenkov, H. Miller, R. Mulvaney, **F. Pattyn**, C. Ritz, J. Schwander, D. Steinhage, T. van Ommen, and F. Wilhelms (2013) Where to find 1.5 million year old ice for the IPICS Oldest Ice ice core. *Climate of the Past*. in press.
5. **Pattyn, F.** and G. Durand (2013) Why marine ice-sheet model predictions may diverge in estimating future sea-level rise. *Geophys. Res. Lett.* 40(16): 4316-4320.
6. Delcourt, C., B. Van Liefferinge, **F. Pattyn** and M. Nolan (2013) The climate memory of an Arctic polythermal glacier. Accepted for *J. Glaciol.*
7. Hanna, E., F. Navarro, **F. Pattyn**, C. M. Domingues, X. Fettweis, E. R. Ivins, R. J. Nicholls, C. Ritz, B. Smith, S. Tulaczyk, P. L. Whitehouse, H. J. Zwally (2013) Ice sheet mass balance and climate change. *Nature*. 498 (7452), 51-59
8. Nick, F. M., A. Vieli, M. L. Andersen, I. R. Joughin, A. J. Payne, T. Edwards, **F. Pattyn**, and R. van de Wal (2013) Future sea level rise from Greenland's major outlet glaciers in a warming climate. *Nature* 497 (7448), 235-238.
9. **Pattyn, F.**, L. Perichon, G. Durand, L. Favier, O. Gagliardini, R. Hindmarsh, T. Zwinger, T. Albrecht, S. Cornford, D. Docquier, J. Furst, D. Goldberg, G. H. Gudmundsson, A. Humbert, M. Huetten, P. Huybrechts, G. Jouvet, T. Kleiner, E. Larour, D. Martin, M. Morlighem, T. Payne, D. Pollard, M. Rueckamp, O. Rybak, H. Seroussi, M. Thoma, and N. Wilkens (2013) Grounding-line migration in plan-view marine ice-sheet models: results of the ice2sea MISMIP3d intercomparison. *J. Glaciol.* 59 (215): 410-422.
10. Drouet, A.S., D. Docquier, R. Hindmarsh, G. Durand, **F. Pattyn**, O. Gagliardini, T. Zwinger (2013) Grounding line transient response in marine ice sheet models. *The Cryosphere*, 7, 395-406, doi:10.5194/tc-7-395-2013.
11. NEEM Community Members - including **F. Pattyn** (2013) Eemian interglacial reconstructed from a Greenland folded ice core. *Nature* 493: 489-494. doi:10.1038/nature11789.
12. Matsuoka, K., J. MacGregor and **F. Pattyn** (2012) Predicting radar attenuation within the Antarctic ice sheet. *Earth and Planetary Science Letters* 359-360: 173-183.
13. **Pattyn F.**, K. Matsuoka, H. Conway, D. Callens, M. Depoorter, D. Docquier, B. Hubbard, D. Samyn, J.L. Tison (2012) Radar and ice-core evidence for active ice-ocean interaction under the Roi Baudouin Ice Shelf, East Antarctica. *J. Geophys. Res.* 117, F04008, doi:10.1029/2011JF002154.
14. MacGregor, J., K. Matsuoka, E. Waddington, D. Winebrenner and **F. Pattyn** (2012) Modeling the spatial variation of englacial radar attenuation and application to the Vostok flowline. *J. Geophys. Res.* 117, F03022, doi:10.1029/2011JF002327.
15. **Pattyn, F.**, C. Schoof, L. Perichon, R.C.A. Hindmarsh, E. Bueller, B. de Fleurian, G. Durand, O. Gagliardini, R. Gladstone, D. Goldberg, G.H. Gudmundsson, P. Huybrechts, V. Lee, F.M. Nick, A.J. Payne, D. Pollard, O. Rybak, F. Saito, and A. Vieli (2012) Results of the Marine Ice Sheet Model Intercomparison Project, MISMIP. *The Cryosphere*, 6, 573-588, doi:10.5194/tc-6-573-2012.
16. Thoma, M., K. Grosfeld, C. Mayer and **F. Pattyn** (2012) Ice flow sensitivity to boundary processes: a coupled model study in the Subglacial Lake Vostok area. *Ann. Glaciol.* 53(60): 173-180.
17. Hubbard, B., J.L. Tison, **F. Pattyn**, M. Dierckx, T. Boereboom, K. Matsuoka, D. Samyn (2012) Optical-televviewer-based identification and characterization of

- material facies associated with an ice-shelf rift. *Ann. Glaciol.* 53(60): 53 (60), 137-146.
18. Nick, F.M., A. Luckman, A. Vieli, C.J. van der Veen, D. van As, R.S.W. van de Wal, A. Hubbard, D. Floricioiu, **F. Pattyn** (2012) The response of Petermann Glacier to large calving events and its future stability in the context of atmospheric and oceanic warming. *J. Glaciol.* 58 (208): 229-239.
 19. Matsuoka, K., **F. Pattyn**, D. Callens, Howard Conway (2012) Radar characteristics of the basal interface across the grounding zone of an ice-rise promontory, East Antarctica. *Ann. Glaciol.* 53(60): 29-34.
 20. Docquier, D., L. Perichon, **F. Pattyn** (2011) Representing grounding line dynamics in numerical ice sheet models: Recent advances and outlook. *Surveys in Geophysics*. doi:10.1007/s10712-011-9133-3.
 21. **Pattyn, F.** (2011) Antarctic subglacial lake discharges. in M. J. Siegert, M. C. Kennicutt II, and R. A. Bindschadler (Eds.) *Antarctic Subglacial Aquatic Environments*. Geophysical Monograph Series, Volume 192, 2011.
 22. Matsuoka, K., J.A. MacGregor and **F. Pattyn**, 2010, Using englacial radar attenuation to better diagnose the subglacial environment: A review, *Proc. 13th Intl. Conf. on Ground Penetrating Radar*, 5 pp., doi:10.1109/ICGPR.2010.5550161.
 23. Calov, R., R. Greve, A. Abe-Ouchi, E. Bueler, P. Huybrechts, J.V. Johnson, **F. Pattyn**, D. Pollard, C. Ritz, F. Saito, L. Tarasov (2010) Results from the ice sheet model intercomparison project Heinrich event intercomparison (ISMIP HEINO). *J. Glaciol.* 56 (197): 371-383.
 24. **Pattyn, F.** (2010) Antarctic subglacial conditions inferred from a hybrid ice sheet/ice stream model. *Earth and Planetary Science Letters* 295: 451-461.
 25. De Smedt, B., **F. Pattyn** and P. De Groen (2010) On the use of the unstable manifold correction in a Picard iteration for the solution of the velocity field in higher-order ice-flow models. *J. Glaciol.* 56 (196): 257-261
 26. Thoma, M., K. Grosfeld, C. Mayer, and **F. Pattyn** (2010) Interaction between ice sheet dynamics and subglacial lake circulation: a coupled modelling approach, *The Cryosphere* 4(1): 1-12.
 27. **Pattyn, F.**, K. Matsuoka, J. Berte (2010) Glacio-meteorological conditions in the vicinity of the Belgian Princess Elisabeth Station, Antarctica. *Antarctic Science* 22 (1), 79-85, doi:10.1017/S0954102009990344.
 28. Huybrechts, P., O. Rybak, D. Steinhage and **F. Pattyn** (2009) Past and present accumulation rate reconstruction along the Dome Fuji-Kohnen radio echo sounding profile, Dronning Maud Land, East Antarctica. *Annals of Glaciology* 50(51): 112-120.
 29. **F. Pattyn**, C. Delcourt, D. Samyn, B. De Smedt and M. Nolan (2009) Bed properties and hydrological conditions underneath McCall Glacier, Alaska, USA. *Annals of Glaciology* 50(51): 80-84.
 30. **F. Pattyn**, L. Perichon, A. Aschwanden, B. Breuer, B. de Smedt, O. Gagliardini, G. H. Gudmundsson, R. Hindmarsh, A. Hubbard, J. V. Johnson, T. Kleiner, Y. Konovalov, C. Martin, A. J. Payne, D. Pollard, S. Price, M. Rueckamp, F. Saito, O. Soucek, S. Sugiyama, and T. Zwinger (2008) Benchmark experiments for higher-order and full-Stokes ice sheet models (ISMIP-HOM). *The Cryosphere* 2(3), 95-108.
 31. Delcourt, C., **F. Pattyn**, M. Nolan (2008) Modelling historical and recent mass loss of McCall Glacier, Alaska, USA. *The Cryosphere* 2:23-31.
 32. **Pattyn, F.** (2008) Investigating the stability of subglacial lakes with a full Stokes model. *Journal of Glaciology*. 54(185): 353-361.
 33. Huybrechts, P., O. Rybak, **F. Pattyn**, U. Ruth, and D. Steinhage (2007) Ice thinning, upstream advection, and non-climatic biases for the upper 89% of the EDML ice core from a nested model of the Antarctic ice sheet. *Climate of the Past* 3(4): 577-590.

34. Rybak, O., O., P. Huybrechts, **F. Pattyn**, and D. Steinhage (2007): Regionalnaya model' dinamiki l'da. Chast' 2. Post-eksperimentalnaya obrabotka dannykh (in Russian: Regional ice-dynamic model. Part 2. Post-experimental processing of data), *Materialy Glatsiologicheskikh issledovaniy* (Data of glaciological studies), 103, 3-10.
35. Rybak, O.O., P. Huybrechts, **F. Pattyn**, and D. Steinhage (2007): Regionalnaya model' dinamiki l'da. Chast'1. Opisaniye modeli, postanovka chislennykh eksperimentov i sovremennaya dinamika potoka v oksrestnostiakh stantsii Konen (in Russian; Regional ice-dynamic model. Part 1. Model description, performance of numerical experiments, and present-day ice-flow dynamics around Kohlen station), *Materialy Glatsiologicheskikh issledovaniy* (Data of glaciological studies), 102, 3-11.
36. **Pattyn, F.**, A. Huyghe, S. De Brabander, and B. De Smedt (2006) The role of transition zones in marine ice sheet dynamics. *Journal of Geophysical Research (Earth Surface)*. 111 (F2): No. F02004, [doi:10.1029/2005JF000394](https://doi.org/10.1029/2005JF000394)
37. **Pattyn F.** (2006) GRANTISM: An Excel model for Greenland and Antarctic ice sheet response to climate changes. *Computers and Geosciences* 32 (3): 316-325, [doi: 10.1016/j.cageo.2005.06.020](https://doi.org/10.1016/j.cageo.2005.06.020).
38. **Pattyn F.**, M. Nolan, B. Rabus and S. Takahashi (2005) Localized basal motion of a polythermal Arctic glacier: McCall Glacier, Alaska, USA. *Annals of Glaciology* 40: 47-51.
39. **Pattyn, F.**, S. De Brabander and A. Huyghe (2005) Basal and thermal control mechanisms of the Ragnhild glaciers, East Antarctica. *Annals of Glaciology* 40: 225-231.
40. **Pattyn F.** (2004) Comment on the comment by M. J. Siegert on A numerical model for an alternative origin of Lake Vostok and its exobiological implications for Mars by N. S. Duxbury et al. *Journal of Geophysical Research*, 109 (E11004), [doi:10.1029/2004JE002329](https://doi.org/10.1029/2004JE002329).
41. **Pattyn, F.**, B. De Smedt and R. Souchez (2004) Influence of subglacial Lake Vostok on the regional ice dynamics of the Antarctic ice sheet: a model study. *Journal of Glaciology* 50 (171): 583-589.
42. Souchez, R., D. Samyn, R. Lorrain, **F. Pattyn**, and S. Fitzsimons (2004) An isotopic model for basal freeze-on associated with subglacial upward flow of pore water, *Geophys. Res. Lett.*, 31, L02401, [doi:10.1029/2003GL018861](https://doi.org/10.1029/2003GL018861).
43. **Pattyn, F.** and R. Naruse (2003) The nature of complex ice flow in Shirase Glacier catchment, East Antarctica. *Journal of Glaciology* 49 (166): 429-436.
44. **Pattyn, F.** (2003) A new three-dimensional higher-order thermomechanical ice-sheet model: basic sensitivity, ice-stream development and ice flow across subglacial lakes. *Journal of Geophysical Research (Solid Earth)*, 108 (B8), 2382, [doi:10.1029/2002JB002329](https://doi.org/10.1029/2002JB002329).
45. **Pattyn, F.**, B. De Smedt, S. De Brabander, W. Van Huele, A. Agatova, A. Mistrukov and H. Declair (2003) Ice dynamics and basal properties of Sofiyskiy Glacier (Altai, Russia) based on DGPS and radio-echo sounding surveys. *Annals of Glaciology* 37: 286-292.
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5. Canters, F., **Pattyn, F.** and L. Depredomme (1998) Georeferering en inpassing van gescande kadasterplannen op basis van middenschalig referentiemateriaal. Rapportering van de onderzoeksresultaten.
6. **Pattyn, F.**, F. Forier, H. Declair, Cornelis, B., M. Binard, S. De Bethune, J. Donnay (1997) Geocoding SPOT image coverage of Belgium: evaluation and optimization of rectification procedures, feasibility study, Belgian federal Office for Scientific, Technical and Cultural Affairs (OSTC).

7. Cornelis, B., M. Binard, S. De Bethune, J. Donnay, **Pattyn, F.**, F. Forier and H. Declair (1996) Geocoding SPOT-XS image coverage of Belgium: evaluation and optimization of rectification procedures, feasibility study, Belgian federal Office for Scientific, Technical and Cultural Affairs (OSTC).
 8. Canters, F., **Pattyn, F.** and H. Declair (1992) De ontwikkeling van een GIS-methodologie voor de kartering van afgelegen of moeilijk toegankelijke gebieden op basis van satellietbeelden en fragmentaire grondgegevens. Wetenschappelijk Onderzoeksprogramma inzake Teledetectie per Satelliet, DPWB, Telsat/II/05, Eindverslag van de tweede fase 1990-1992, 78pp.
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Presentations at symposia and workshops

International symposia and workshops

- 1.
2. Ice Sheet Expert Elicitation Workshop, 29-31 October 2012, Windsor, UK. Invited participant.
3. APECS Benelux Polar Science Event, 11-12 October 2012, Gent, Belgium. Oral presentation of 'Ice sheets and sea level rise' (Invited speaker)
4. IPICS Oldest Ice Workshop, La Londe (France) 6-7 October 2012: Oral presentation of 'Geothermal Heat Flow uncertainties and the search for million year old ice in Antarctica'. (invited)
5. IPICS Symposium, Giens (France) 1-5 October 2012. oral presentation of 'Constraints on the search for Million-Years old ice in Antarctica'.
6. SCAR Open Science Conference, Portland OR, USA 16-20 July 2012. Oral presentation of "Improved estimates of basal and englacial conditions of the Antarctic ice sheet" (keynote)
7. EGU General Assembly, Vienna, April 2012. MISMIP3d Splinter Meeting. Oral presentation of 'Results of the Marine Ice Sheet Model Intercomparison for Planview Models'.
8. ice2sea open Forum Amsterdam, 14-16 February 2012. Oral presentation of 'Results of the Marine Ice Sheet Intercomparison Project, MISMIP'; poster presentation of 'Evaluating grounding line migration in 3D ice sheet models: MISMIP3d' (author) + 'grounding line migration captured by flowline ice sheet models' (co-author)
9. British Geophysical Association Meeting, Burlington House, London, UK, 9-10 February 2012. Oral presentation of 'The climate memory of an Arctic polythermal glacier'.
10. AGU Fall Meeting, San Francisco USA 5-12 December 2011. Poster presentation of "MISMIP3d: Marine Ice Sheet Model Intercomparison for planview models".
11. Antarctic Glaciology Workshop, Norwegian Polar Institute, 7 October 2011. Oral presentation of "Ice rises and Antarctic ice dynamics". (invited)
12. ISAES (International Symposium on Antarctic Earth Sciences) Edinburg, UK (10-16 July 2011). Oral presentation of "Antarctic subglacial lake discharge and its influence on ice dynamics" (keynote talk).
13. IGS Symposium San Diego on the Interaction of Ice Sheets and Glaciers with the Ocean (5-10 June 2011). Oral presentation of "Effects of rapid grounding line retreat investigated with three-dimensional ice sheet-ice shelf models" (keynote talk)

14. Castine Workshop on Basal Processes and Interactions, Castine, Maine, USA (23-26 May 2011). Oral presentation of "Estimating basal melt rates of the Antarctic and Greenland ice sheet" (invited talk)
15. Castine Workshop on Basal Processes and Interactions, Castine, Maine, USA (23-26 May 2011). Oral presentation of "Subglacial Water discharge underneath the Antarctic ice sheet" (invited talk)
16. Icecube Meeting Madison, Wisconsin, USA (26-29 April 2011): Oral presentation of "Influence of subglacial processes on ice sheet dynamics in the vicinity of IceCube, South Pole: a modeling study" (invited talk)
17. EGU Assembly, Vienna, 4-8 April 2011. Oral presentation of "A multidisciplinary approach to identify thermohaline circulation under an East-Antarctic ice shelf" (author)
18. EGU Assembly, Vienna, 4-8 April 2011. Poster presentation of "Modelling the spatial variability of accumulation across ice rises in Dronning Maud Land, Antarctica" (coauthor)
19. ice2sea Open Science Forum Copenhagen, 15-18 March 2011. Oral presentation of "What can ice2sea learn from MISMIP-type experiments?" (author)
20. ice2sea Open Science Forum Copenhagen, 15-18 March 2011. Oral presentation of "WP2.1 recommendations on grounding line treatment in numerical ice sheet models" (author)
21. International Colloquium on Climate Controversies, Brussels 27-28 October 2010: Oral presentation of "Les incertitudes des prévisions de hausse du niveau des océans" (author)
22. IPCC Workshop on Sea Level Rise and Ice Sheet Instabilities, Kuala Lumpur, Malaysia. 21-24 June 2010. Poster presentation of 'Marine ice sheet instability and grounding line modelling' (invited)
23. EGU Assembly, Vienna, May 2010. Co-organizer and presenter of the MISMIP splinter meeting (Marine Ice Sheet Intercomparison Project).
24. EGU Assembly, Vienna, May 2010. Poster presentation of 'The role of ice rises in the stability of an ice sheet: a forward/inverse approach to interpret radar layers using ice-flow models.' (author)
25. EGU Assembly, Vienna, May 2010. Poster presentation of 'On the use of the unstable manifold correction in a Picard iteration for the solution of the velocity field in higher-order ice-flow models' (co-author)
26. EGU Assembly, Vienna, May 2010. Poster presentation of 'Stress transmission across grounding lines and marine ice sheet instability' (co-author)
27. EGU Assembly, Vienna, May 2010. Poster presentation of 'Numerical modeling of the temperature and flow field of McCall Glacier, Alaska, constrained by borehole temperature data' (co-author)
28. EGU Assembly, Vienna, May 2010. Poster presentation of 'Greenland subglacial conditions inferred from a hybrid ice sheet/ice stream model: implications for NEEM basal ice' (author)
29. EGU Assembly, Vienna, May 2010. 'Optical televiewer imaging of ice facies within and around an Antarctic ice shelf rift' (co-author)
30. EGU Assembly, Vienna, May 2010. Poster presentation of 'Investigating the « ice mélange » in an ice-shelf coastal rift along the Princess Ragnhild Coast (Antarctica)' (co-author)
31. EGU Assembly, Vienna, May 2010. Poster presentation of 'Radar-observed structures of interior and bottom of an ice shelf, East Dronning Maud Land, Antarctica' (co-author)
32. Workshop on the Earth's Cryosphere and Sea Level Change, ISSI, Bern (Switzerland). 22-26 March 2010. Oral presentation of 'Stability of marine ice sheets and grounding line modelling' (invited)

33. ice2sea Open Science Meeting, Krakow, Poland. 17-18 March 2010. Oral presentation of 'WP2: Key glacial processes' and 'Migration of grounding lines and stress transmission' (solicited)
34. Alfred-Wegener Institut fuer Polar- und Meeresforschung, Bremerhaven, Germany, 24 February 2010: Oral presentation of 'Modelling transition zones in ice sheets: Ice/Ocean and ice/subglacial lake interactions'. (invited)
35. AGU (American Geophysical Union) Fall Meeting, San Francisco, USA, December 2009. Poster presentation of 'On the effect of ice-shelves melting on the grounding line dynamics in presence of buttressing backforces'. (co-author)
36. AGU (American Geophysical Union) Fall Meeting, San Francisco, USA, December 2009. Oral presentation (invited) 'Modelling subglacial lakes and their influence on Antarctic ice sheet dynamics'.
37. ACE Meeting (Antarctic Climate Evolution, Granada, Spain, September 2009. Oral presentation (invited) 'Modelling subglacial lakes and their influence on Antarctic ice sheet dynamics'.
38. IGS-IPY Meeting: International Symposium on Glaciology in the International Polar Year, Newcastle, UK, July 2009. Oral presentation of 'Subglacial Antarctic Lake Environments and their relation to basal temperature, hydrology and age of the ice sheet' (author).
39. Fifth Japan-EU Workshop on Climate Change Research, Tokyo (Japan), July 2009. Oral presentation of 'Ice2sea: an FP7 framework project on reducing the uncertainties in cryospheric contribution to future sea-level rise'. (invited)
40. SCAR-SALE Meeting, Brussels, Belgium, June 2009. Oral presentation of 'ASPI -Antarctic Subglacial Processes and Interactions: challenges and achievements.
41. EGU Assembly, Vienna, April 2009. Oral presentation of 'MISMIP: Marine Ice Sheet Model Intercomparison Project Results'. (co-author)
42. EGU Assembly, Vienna, April 2009. Poster presentation of 'Variagated glacier surge flow as a setup for new higher-order ice flow models intercomparison'. (co-author)
43. EGU Assembly, Vienna, April 2009. Oral presentation of 'Glacio-meteorological conditions in the vicinity of the Belgian Princess Elisabeth Station, Antarctica'. (author)
44. Workshop on the dynamics and mass budget of Arctic glaciers, 16-19 February 2009, Barrier Lake Station (Biogeoscience Institute, University of Calgary), Alberta, Canada. Oral presentation : 'Climate sensitivity of McCall Glacier, Alaska based on RES and numerical flow modeling (co-author)
45. International Symposium on dynamics in glaciology, Limerick, Ireland, 17-22 August 2008. Oral presentation of "Episodic subglacial lake discharge: widespread or isolated events?" (author)
46. International Symposium on Radioglaciology and its applications, Madrid, Spain, 9-13 June 2008. Poster presentation of "Bed properties and hydrological conditions underneath McCall Glacier, Alaska, USA" (co-author)
47. EGU Assembly, Vienna, April 2008. Oral presentation (solicited) of "Improving high-resolution basal temperature estimates of the Antarctic ice sheet." (author)
48. AGU (American Geophysical Union) Fall Meeting, San Francisco, USA, December 2007. Oral presentation (solicited) of "Benchmark experiments for higher-order and full-Stokes ice sheet models (ISMIP-HOM)" (author)
49. AGU (American Geophysical Union) Fall Meeting, San Francisco, USA, December 2007. Poster presentation of "High Resolution Geothermal Heat Flux Data-Implications for Ice Sheet Dynamics and Model Uncertainty." (co-author)
50. CAOS Workshop 2008: Predicting Sea Level in the 21st Century: The Role of Ice-Ocean Interaction. Oral presentation (solicited) of "Higher-Order Modelling

- of Ice Sheet/Ice Stream/Ice Shelf Transition", New York University, New York, February 2008.
51. Participation in 2007 French-Russian Seminar Vostok , 2-5 July 2007, AARI, St. Petersburg. Oral presentation of Stability of Antarctic subglacial lakes and Lake Vostok in particular .
 52. SCAR-SALE Meeting, Bozeman, Montana, June 2007. Oral presentation of Episodic drainage of subglacial lakes in Antarctica.
 53. EGU Assembly, Vienna, April 2007. ISMIP Splinter Meeting. Oral presentation of: 'ISMIP-HOM: Results of the Higher-Order Ice Sheet Model Intercomparison exercise.' (author)
 54. EGU Assembly, Vienna, April 2007. Poster presentation of: 'Modelling historical and recent mass loss of a polythermal Arctic glacier (McCall Glacier, Alaska)' (co-author)
 55. EGU Assembly, Vienna, April 2007. Poster presentation of 'A robust 2D higher-order ice-flow model for inverse applications.' (co-author)
 56. EGU Assembly, Vienna, April 2007. Poster presentation of: 'Inverse modelling of basal velocity using a 2D higher-order ice-flow model.' (co-author)
 57. EGU Assembly, Vienna, April 2007. Poster presentation of: 'Mountain glacier flow modelling : a comparison of different models from the Shallow Ice Approximation to the Full-Stokes solution.' (co-author)
 58. EGU Assembly, Vienna, April 2007. Oral presentation of: 'Mechanisms for subglacial lake drainage and outbursts.' (author).
 59. EGU Assembly, Vienna, April 2007. Poster presentation of: 'Model-derived ice core chronology and non-climatic biases in the lower part of the EDML ice core.' (co-author)
 60. EGU Assembly, Vienna, April 2007. Poster presentation of: 'Benchmarks and intercomparison program for marine ice sheet models.' (co-author)
 61. EGU Assembly, Vienna, April 2007. Poster presentation of: 'First Results of the ISMIP-HEINO Model Intercomparison Project.' (co-author)
 62. EGU Assembly, Vienna, April 2007. Poster presentation of: 'The climate of the Belgian research station in Antarctica from a regional atmospheric model.' (co-author)
 63. EGU Assembly, Vienna, April 2007. Poster presentation of: 'ISMIP-HOM: Results of the Higher-Order Ice Sheet Model Intercomparison exercise.' (author)
 64. Seminar "Subglacial lakes and the dynamics of the Antarctic ice sheet", 14 November 2006. British Antarctic Survey, Cambridge, UK.
 65. ICC-DRC Meeting on Dome Fuji Ice Core (Dating Consortium), 25-26 October 2006, Tokyo, Japan. Presentation of "2D/3D higher-order approaches for the modelling of the Dome F region". (solicited)
 66. Seminar "Numerical modelling in Glaciology", Madrid, 26-28 September 2006, Grupo de Simulación Numérica en Ciencias e Ingeniería de la Universidad Politécnica de Madrid. Oral presentation of "Subglacial lakes and subglacial river networks interconnecting them" (solicited)
 67. Seminar "Numerical modelling in Glaciology", Madrid, 26-28 September 2006, Grupo de Simulación Numérica en Ciencias e Ingeniería de la Universidad Politécnica de Madrid. Oral presentation of "3A higher-order model of glacier/ice-sheet dynamics and its applications to modelling of ice flow in transition zones and over subglacial lakes" (solicited)
 68. SALE (Subglacial Antarctic Lake Environments) Workshop, Grenoble, 24-26 April 2006. Poster presentation of "Mechanisms for subglacial lake drainage and outbursts in Antarctica" (author)
 69. French-Russian seminar on Vostok, LGGE, Grenoble, 20-22 April 2006; oral presentation of "Interactions of the Antarctic ice sheet with subglacial Lake Vostok" (author)

70. EGU Assembly, Vienna, April 2006. Oral presentation of "Marine ice sheet stability and grounding line dynamics (solicited)" (author).
71. EGU Assembly, Vienna, April 2006. Poster presentation of "Ice Sheet Model Intercomparison Project: Benchmark Experiments for Higher-Order Ice Sheet Models (ISMIP-HOM)" (author)
72. EGU Assembly, Vienna, April 2006. Poster presentation of "Testing numerical techniques to solve the mass continuity equation in a coupled ice-sheet / ice-shelf model" (co-author)
73. EGU Assembly, Vienna, April 2006. Poster presentation of "Inverse modelling of basal friction using a 2D higher-order ice-flow model" (co-author).
74. EGU Assembly, Vienna, April 2006. Poster presentation of "Non-climatic biases and chronology of the EDML ice core derived from a nested Antarctic ice sheet model" (co-author)
75. University of Bristol, School of Geographical Sciences, 7 February 2006: oral presentation of "Marine ice sheets, grounding lines, and transition zones" (invited talk)
76. AGU (American Geophysical Union) Fall Meeting, San Francisco, USA, 5-9 December 2005. Oral presentation of "Grounding line migration and West-Antarctic ice sheet dynamics" (author)
77. EGU Assembly, Vienna, April 2005. Oral presentation of "Numerical modelling of grounding line dynamics and migration with a full Stokes ice-sheet model". (author)
78. EGU Assembly, Vienna, April 2005. Poster presentation of "GRANTISM: An Excel model for Greenland and Antarctic ice-sheet response to climate changes". (author)
79. EGU Assembly, Vienna, April 2005. Poster presentation of "Dating and accumulation rate reconstruction along the Dome Fuji - Kohlen radio echo-sounding profile". (co-author)
80. EGU Assembly, Vienna, April 2005. Poster presentation of "Influence of geothermal heat variability on enhanced flow and onset of West Antarctic ice streams". (co-author)
81. EGU Assembly, Vienna, April 2005. Poster presentation of "Numerical modelling of paleo-ice streams within the Antarctic Peninsula ice sheet". (co-author)
82. AGU (American Geophysical Union) Fall Meeting, San Francisco, USA, 13-17 December 2004. Oral presentation of "Mechanisms for the Survival of Subglacial Lake Vostok During the Buildup of the Antarctic Ice Sheet" (author)
83. International Symposium on Ice and Water Interactions: Processes Across the Phase Boundary, Portland State University, Portland, Oregon, U.S.A. 26-30 July 2004. Oral presentation of "Basal and thermal control mechanisms of the Ragnhild glaciers, East Antarctica" (author)
84. International Symposium on Ice and Water Interactions: Processes Across the Phase Boundary, Portland State University, Portland, Oregon, U.S.A. 26-30 July 2004. Poster presentation of "Localized basal motion of a polythermal Arctic glacier: McCall Glacier, Alaska, USA" (author)
85. Kolloquien der Institute für Geologie/Paläontologie, Geophysik, Mineralogie, Planetologie, Geoinformatik und Landschaftsökologie der Westfälischen Wilhelms-Universität Münster: presentation of 'Higher-order modelling of East-Antarctic ice-streams and ice flow over subglacial Lake Vostok', 20 July 2004 (invited speaker)
86. First EGU Assembly, Nice, April 2004. Oral presentation of "Age and origin of the ice in the EPICA DML ice core derived from a nested Antarctic ice sheet model" (co-author)

87. First EGU Assembly, Nice, April 2004. Oral presentation of "Basal control mechanisms of East-Antarctic ice streams: Ragnhild ice streams unveiled" (author)
88. First EGU Assembly, Nice, April 2004. Oral presentation of "Basal friction estimation of ice sheets using control methods based on a higher-order ice-sheet model" (co-author)
89. First EGU Assembly, Nice, April 2004. Poster presentation of "From shallow-ice to full Stokes: evaluating the importance of higher-order stresses in ice-sheet models" (co-author),
90. First EGU Assembly, Nice, April 2004. Poster presentation of "Influence of basal hydrology on large-scale ice dynamics of Shirase Glacier, Antarctica" (co-author)
91. First EGU Assembly, Nice, April 2004. Poster presentation of "Simulation of the ice-dynamical history around the EPICA DML site with a nested Antarctic ice sheet model" (co-author).
92. AMICS Workshop "Dynamic Interaction between the Antarctic Ice Sheet and the Subglacial Environment", Brussels, 6-7 April 2004 (Vrije Universiteit Brussel). Convenor and oral presentation of "Higher-order modelling of East-Antarctic ice-streams and ice flow over subglacial Lake Vostok" (author).
93. 2003 AGU Fall Meeting. Presentation of "Surface Topography and Ice-Sheet Dynamics Over the Vostok Subglacial Lake, Antarctica" (co-author).
94. "7th International Symposium on Antarctic Glaciology - ISAG-7", 25 - 29 August 2003, Milano (Italy). Oral presentation of "3D numerical modelling of ice-sheet dynamics around Vostok subglacial lake, Antarctica: implications for the Vostok basal ice core sequence" (author).
95. "7th International Symposium on Antarctic Glaciology - ISAG-7", 25 - 29 August 2003, Milano (Italy). Oral presentation of "Numerical simulation of ice-dynamical properties around the EPICA DML drill site with a nested Antarctic ice sheet model" (co-author).
96. EGS-AGU-EUG Joint Assembly, Nice, 6-11 April 2003. Oral presentation of "Modelling ice flow over a wet base with a 3D thermo-mechanical higher-order ice-sheet model: examples from the Siple Coast ice streams and Lake Vostok, Antarctica" (author).
97. "25th Symposium on Polar Meteorology and Glaciology", 20-21 November 2002, National Institute of Polar Research, Tokyo, Japan. Oral presentation of "Ice-sheet - ice-stream interaction with a 3D thermomechanical ice-sheet model including higher-order stress gradients" (author)
98. "25th Symposium on Polar Meteorology and Glaciology", 20-21 November 2002, National Institute of Polar Research, Tokyo, Japan. Poster presentation of "Ice dynamics and basal properties of Sofiyskiy Glacier, Altai Mountains, Russia, based on DGPS and radio-echo sounding surveys" (author)
99. "25th Symposium on Polar Meteorology and Glaciology", 20-21 November 2002, National Institute of Polar Research, Tokyo, Japan. Poster presentation of "Onset of complex ice flow in Shirase drainage basin, Dronning Maud Land, Antarctica" (author).
100. International Symposium on Physical and Mechanical Processes in Ice in relation to Glacier and Ice-sheet Modelling, Chamonix Mont-Blanc, France, 26-30 August 2002. Poster presentation of "Numerical modelling of historical front variations and dynamic response of Sofiyskiy glacier, Altai Mountains, Russia" (co-author)
101. International Symposium on Physical and Mechanical Processes in Ice in relation to Glacier and Ice-sheet Modelling, Chamonix Mont-Blanc, France, 26-30 August 2002. Poster presentation of "A 3D numerical thermomechanically coupled ice-sheet model including higher-order stress gradients: numerics and sensitivity experiments" (author)

102. International Symposium on Physical and Mechanical Processes in Ice in relation to Glacier and Ice-sheet Modelling, Chamonix Mont-Blanc, France, 26-30 August 2002. Poster presentation of "Ice-dynamical properties and basal properties of Sofiyskiy glacier, Altai Mountains, Russia, based on GPS and radio-echo sounding surveys" (author).
103. "International Symposium on Fast Glacier Flow", Yakutat, Alaska (USA), June 2002. Poster presentation of "Onset of fast ice flow in Shirase drainage basin, Dronning Maud Land, Antarctica" (author).
104. "EGS XXVII General Assembly", Nice, France, April 2002. Oral presentation of "Ice-dynamical and basal properties of Sofiyskiy Glacier (Altai Mountains, Russia) based on GPS and radio-echo sounding surveys" (author).
105. "24th Symposium on Polar Meteorology and Glaciology", 20-21 November 2001, National Institute of Polar Research, Tokyo, Japan. Oral presentation of "Numerical modelling of historical front variations of Sofiyskiy Glacier, Altai Mountains, Russia" (co-author)
106. "24th Symposium on Polar Meteorology and Glaciology", 20-21 November 2001, National Institute of Polar Research, Tokyo, Japan. Oral presentation of "Ice-flow characteristics over a rough bedrock: implications for ice-core interpretation" (author).
107. "4th International Symposium on Remote Sensing in Glaciology", Symposium of the International Glaciological Society, College Park, Maryland, USA, June 2001. Poster presentation entitled "Shirase Glacier dynamics inferred from ERS-SAR interferometry" (author).
108. "EGS XXVI General Assembly", Nice, France, March 2001. Oral presentation of "The response of glaciers and ice sheets to climate change using a higher order numerical model" (author).
109. "23rd Symposium on Polar Meteorology and Glaciology", National Institute of Polar Research, Tokyo, Japan, November 2000. Oral presentation of "Is Shirase Glacier retreating?" (author)
110. "23rd Symposium on Polar Meteorology and Glaciology", National Institute of Polar Research, Tokyo, Japan, November 2000. Poster presentation of "Glaciological observations on Heito and Langhovde Glaciers, Antarctica: preliminary results of the JARE-41 field campaign" (author).
111. FRINGE'99 Workshop "Advancing ERS-SAR Interferometry from Applications towards Operations", Liege (Belgium), 10-12 November 1999. Oral presentation of "Shirase Glacier ice dynamics from ERS-SAR interferometry" (author)
112. FRINGE'99 Workshop "Advancing ERS-SAR Interferometry from Applications towards Operations", Liege (Belgium), 10-12 November 1999. Oral presentation of "DInSAR and coherence tracking applied to glaciology: The example of Shirase Glacier" (co-author).
113. EPICA Meeting of Science Subgroups (Dome C and Dronning Maud Land), Giens (France), 16-17 September 1999. Oral presentation of "Belgian contribution to the EPICA project" (author).
114. "International Symposium on the verification of cryospheric models: bringing data and modelling scientists together", Zurich (Switzerland), 16-20 August 1999. Oral presentation of "Ice sheet modelling at different spatial resolutions: focus on the grounding line" (author).
115. "24th General Assembly of the European Geophysical Society, EISMINT-EPICA symposium on ice sheet modelling and deep ice drilling", Den Haag (The Netherlands), April 1999. Oral presentation of "Ice-flow characteristics over a rough bedrock: implications for ice-core interpretation" .
116. EPICA science group meeting, Bern, 2-3 October 1998. Oral presentation of "Belgian contribution to EPICA-DML: Preliminary results of the flowline model experiments" (author).

117. 6th International Symposium on Antarctic Glaciology (ISAG-6), Lanzhou, P. R. China, September 1998. Oral presentation of "The variability of Antarctic ice sheet response to the climatic signal" (author).
118. "Glaciers and the Glaciated Landscape", Symposium of the International Glaciological Society, Kiruna, Sweden, August 1998. Poster on "Aspects of glacier dynamics in ablation islands of Antarctica" (author).
119. Oral presentation on "Ice dynamics in Antarctic marginal areas", Alfred Wegener Institut, Germany, 29 April 1998.
120. 20th NIPR Symposium on Polar Meteorology and Glaciology, Tokyo, 26-27 November 1997. Oral presentation of "The Shirase flow line model: an additional tool for interpreting the Dome-F signal".
121. "EISMINT Model Intercomparison Workshop", Grindelwald, Switzerland, 25-27 September 1997. Participation in experiments on ice dynamics near the grounding line of ice sheets.
122. IV International Congress of Geomorphology, Bologna, August 1997. Poster: "Glacial valley form revised" (co-author)
123. "Antarctica and Global Change: Interactions and Impacts", Hobart, Tasmania, Australia, 13-18 July 1997. Oral presentation of "Ice dynamics near East Antarctic coastal mountain ranges: implications for the interpretation of the glacial-geological evidence" (author).
124. ERS SAR Interferometry Workshop 1996, Remote Sensing Laboratories, University of Zurich, October 1996.
125. 15th NIPR Symposium on Antarctic Geosciences, 26-27 October 1995, National Institute of Polar Research, Tokyo, Japan. Oral presentation of "Paleo-reconstruction of the Antarctic ice sheet and numerical modeling" (author).
126. Institute of Low Temperature Sciences, 30 October 1995, University of Hokkaido, Sapporo, Japan. Oral presentation of "Ice dynamics and basal processes in ice streams" (author)
127. Institute of Low Temperature Sciences, 30 October 1995, University of Hokkaido, Sapporo, Japan. Oral presentation of "Paleo-reconstruction of the Antarctic ice sheet and numerical modeling" (author).
128. 1995 Conference of the Japanese Society of Snow and Ice, 23-26 October 1995, Nagoya, Japan. Poster presentation of "Modelling Shirase Glacier: towards an understanding of ice stream dynamics" (author)
129. 1995 Conference of the Japanese Society of Snow and Ice, 23-26 October 1995, Nagoya, Japan. Poster presentation of "Satellite-image-derived surface velocities and glacier dynamics" (co-author).
130. International Symposium on Ice Sheet Modelling, Chamonix Mont Blanc, 18-22 September 1995, European Ice Sheet Modelling Initiative (EISMINT), European Science Foundation (ESF). Poster: "Numerical modelling of a fast flowing outlet glacier: experiments with different basal conditions" (author).
131. 17th Symposium on Polar Meteorology and Glaciology, National Institute of Polar Research, Tokyo, Japan, July 13-14, 1994. Oral presentation of "Flowline modelling of the ice sheet in East Dronning Maud Land and Enderby Land, Antarctica" (author).
132. First joint seminar of Geoscience and Glaciology, National Institute of Polar Research, Tokyo, Japan, April 12, 1994. Oral presentation of "Modelling of the ice sheet in Dronning Maud Land, East Antarctica" (author).
133. 5th International Symposium on Antarctic Glaciology, 5-10 September 1993, Cambridge, United Kingdom. Poster: "Modeling the glacier behavior in an ablation island of the East Antarctic ice sheet" (co-author).
134. ISPRS XVII Congress, Washington D. C., August 2-14, 1992. Oral presentation of "Topographic Mapping with SPOT in Polar Regions" (author).
135. International Symposium on Remote Sensing of Snow and Ice (International Glaciological Society), A contribution to the Global Change

programme, Boulder, Colorado, USA, 17-22 May 1992. Poster: "Satellite Monitoring of Ice and Snow in the Sør Rondane, Dronning Maud Land, Antarctica" (author).

136. European Conference on Geographical Information Systems EGIS'91, Brussels, April 2-5, 1991. Oral presentation of "The Geocoding of SPOT Imagery in Raster-Based Geographical Information Systems" (author).

National symposia and workshops

1. Belgian IPY symposium, Brussels 26 May 2010. Oral presentation of "Antarctic subglacial lake discharges: a contribution to the SCAR-SALE program" (author)
2. Belgian IPY symposium, Brussels 26 May 2010. Poster presentation of "The role of ice rises in the stability of an ice sheet: a forward / inverse approach to interpret radar layers using ice-flow models" (author)
3. Belgian IPY symposium, Brussels 26 May 2010. Poster presentation of "Numerical modeling of the temperature and flow field of McCall Glacier, Alaska, constrained by borehole temperature data" (co-author)
4. Belgian National Committee on Antarctic Research (BNCAR) Meeting 19.03.2008: presentation of "BELISSIMA: Belgian Ice Sheet - Shelf Ice Measurements in Antarctica". Project for the first Belgian Antarctic Research Expedition 2008-09 (author).
5. AstroBio Workshop, Brussels, 13 June, 2006 at the SCKCEN. Oral Presentation of "Subglacial Lakes on Mars: an Antarctic Analogy?". (author)
6. Be-Poles workshop, 23-25 March 2006: Oral presentation of "Interaction of the Antarctic ice sheet with subglacial lakes" in the session Antarctic Glaciology and Climatology (author).
7. Van Huele, W., H. Declair and F. Pattyn, "D-GPS for monitoring glacier changes", Leica GPS 98 Celebration Day, Genval, 11 June 1998 (co-author).
8. Presentation of "Ice stream motion inferred from ERS interferometry", KMI, 5 May 1998 (ERS-TANDEM follow-up meeting).
9. Co-presentation on the Belgica Symposium, Brussels, May 1998, "Ice and climate: lessons from Antarctica" by A. Berger, H. Declair and R. Souchez.
10. Poster on the Belgica Symposium, Brussels, May 1998: 'Antarctic Ice dynamics' (co-author).
11. Presentation of "Interpreting glacial-geological evidence in Antarctica with ice sheet modeling", meeting of the Belgian Association of Geomorphologists, Liege, 8 November 1997 (author).
12. NFWO Kontaktgroep "Geomorfologische Onderzoeksmethoden (Geomorphological research methods)" 11.05.1990 at the Instituut voor Aardwetenschappen, Katholieke Universiteit Leuven. Oral presentation of "Snow and Ice Studies by Landsat Thematic Mapper and SPOT Imagery" (author).

Courses @ ULB

Bachelier en sciences géographiques

- Géomorphologie structurale (GEOG-F-102)
10 ECTS (théorie: 2, travaux pratiques: 6.5, travaux personnels: 1, excursions 0.5)

- Société et environnement (GEOG-F-106)
3 ECTS (théorie: 1+1, travaux personnels: 1) pour GEOG1 / GEOG2
2 ECTS (théorie: 1+1) pour les autres sections
- Processus géomorphologiques et climatiques (GEOG-F-203)
5 ECTS (théorie: 3.5, travaux pratiques: 1.5)
- Géomorphologie climatique (GEOG-F-301)
5 ECTS (théorie: 2, travaux pratiques: 2, travaux personnels: 0.5, excursions 0.5)

Master en sciences et gestion de l'environnement (section sciences)

- Risques naturels: évaluation et gestion (GEOG-F-401)
5 ECTS (théorie: 1+1+2, travaux pratiques: 1)
- Cartographie numérique et levé de terrain (GEOG-F-405)
5 ECTS (théorie: 2, excursion: 1, travaux personnels: 2)
- Modèles numériques et analyse des séries temporelles en géosciences (GEOG-F-408)
5 ECTS (théorie: 3, travaux personnels: 2)

Master en sciences et gestion de l'environnement (section gestion)

- Climat: sciences et politique (ENVI-F-405)
4 ECTS (théorie: 0.5+1+1.5, travaux personnels 1)

Courses @ UGent

Master in Geology (Department of Geology and Soil Sciences)

- Basin Modelling (CHGEOL00000042)