

CURRICULUM VITAE

NAME: Jan-Gunnar Winther

BIRTH DATE: 1962

NATIONALITY: Norwegian

POSITION: Director, Norwegian Polar Institute (NPI)
Adjunct Professor,
The University Centre in Svalbard (UNIS)

CIVIL STATUS: Married to Ph.D. Beate Németh Winther. Three children

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EDUCATION

2003 2 months leader coarse at the Norwegian National Defence College (“Forsvarets høgskole - Totalforsvarskurset”)

1993 Ph.D. in Civil Engineering,
Norwegian Institute of Technology, Trondheim, Norway.

1990/91 Studies at Department of Geography,
University of British Columbia, Vancouver, B.C., Canada.

1987 M.S. in Civil Engineering,
Norwegian Institute of Technology, Trondheim, Norway.

KEY QUALIFICATIONS

Varied professional practice, mainly research and development, in hydraulic and hydrology engineering from 1988 to 1994. Initially, one year in hydraulic research as a research scholar at the Norwegian Institute of Technology, mainly academic. In the period 1988-94 at an applied research institute (SINTEF) affiliated with the Norwegian Institute of Technology, engaged in research projects related to polar hydrology and satellite remote sensing. Since 1994 Head of the Antarctic Section at the Norwegian Polar Institute (NPI). Besides research, the position includes responsibility for planning, co-ordinating and managing of NPI's and Norwegian research activity in Antarctica together with representation of Norway in various international research and management fora. Considerable experience in cold-regions field research by leading and participating in snow and glaciological research on four Antarctic expeditions (1,5 to 3 months each) and a number of 2-4 weeks campaigns in Svalbard. Scientific leader and second in command at the Norwegian Antarctic Research Expeditions in 1996/97 and 2000/01. A number of national and international appointments, among them member of an international committee for reviewing the Netherlands Antarctic Programme, National Representative to the International Hydrological Programme (UNESCO/IHP) Northern Research Basins, National Representative on Committee of Managers of National Antarctic Programmes (COMNAP), National Delegate and Representative of the Scientific Committee on Antarctic Research (SCAR), National Representative and member of the Steering Committee for European Project of Ice Coring in Antarctica (EPICA), and Expert Reviewer of Intergovernmental Panel on Climate Change (IPCC) WG I Third Assessment Report. Since 1998 Research Leader of a Polar Climate Programme at NPI (20-25 employees). Qualifications equal to Professor competence appointed by external evaluation panel in 2002. From 2003 also Adjunct Professor at the University Centre in Svalbard (UNIS). Fluency in English, fair skills in German. Some Spanish.

EMPLOYMENT

2005-	Director, Norwegian Polar Institute
2004-05	Research Director, Norwegian Polar Institute
2002-	Adjunct Professor at the University Centre in Svalbard (UNIS)
1998-04	Research Leader of the Polar Climate Programme at NPI
1994-05	Head of Antarctic Section Norwegian Polar Institute (NPI), Tromsø, Norway. (Research within glaciology, satellite remote sensing and polar hydrology. Planning, co-ordinating and managing of Antarctic research at NPI).

1988-94	Research Engineer Norwegian Hydrotechnical Laboratory, SINTEF NHL, Trondheim, Norway. (Research and development in polar hydrology and satellite remote sensing).
1991-93	University Scholar, Division of Hydraulic and Environmental Engineering, Faculty of Civil Engineering, Norwegian Institute of Technology, University of Trondheim, Norway. (Scholarship intended for Ph.D. -studies).
1988	Research Scholar, Division of Hydraulic and Sanitary Engineering, Department of Civil Engineering, Norwegian Institute of Technology, University of Trondheim, Norway. (Flood analyses in the Arendal watercourse using the HEC-5 hydraulic computer model).
1979-82	Construction worker, H. Eeg-Henriksen A/S, 29 weeks Construction worker, NSB Narvik, 19 weeks Construction worker, Ingeniør F. Selmer A/S, 6 weeks

MAIN PROJECTS

Antarctica	<i>Norwegian-USA IPY traverse (TASTE-IDEA)</i> A massive, largely unexplored region, the East Antarctic ice sheet looms large in the global climate system, yet relatively little is known about its climate variability or the contribution it makes to sea level changes. The field expedition for this international partnership involves scientific investigations along two overland traverses in East Antarctica: one going from the Norwegian Troll Station to the United States South Pole Station in 2007-2008; and a return traverse by a different route in 2008-2009. This project will investigate climate change in East Antarctica, with the following goals: 1) Investigate climate variability in Dronning Maud Land of East Antarctica on time scales of years to centuries, 2) Establish spatial and temporal variability in snow accumulation over this area of Antarctica to understand its impact on sea level, 3) Investigating the impact of atmospheric and oceanic variability on the chemical composition of firn and ice in the region, and 4) Revisiting areas and sites first explored by traverses in the 1960's, for detection of possible changes and to establish benchmark data sets for future research efforts
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Ice Cores and Climate

Reconstruction of past climate through glacial to inter-glacial cycles and during the Holocene studying chemical, electrical, and physical properties of ice cores. National representative and member of the Steering Committee in the European Project for Ice Coring in Antarctica (EPICA). EPICA involves ten European countries and is funded from EU with ~ 10.5 MEuro in 1995-03. Norwegian budget numbers for EPICA including national contribution are 960 000 Euro for 1995-99 and ~ 850.000 Euro for 2000-03, including six years of funding from the Norwegian Research Council for contracted scientists (1996-1999 and 2001-2004) and funding for one Ph.D. student (2000-04). The main objective of EPICA in Dronning Maud Land (DML) is to study inter-hemispherical climate fluctuations by comparing with ice core data from Greenland.

Scientific leader and second in command of the Norwegian Antarctic Research Expedition (NARE) in 1996/97. Project and field leader of a 10 person large tracked vehicle traverse (EPICA) into the interior of DML. Responsible for the expedition budget of 43MNkr. Under NARE 2000/01, scientific leader of the land parties and project leader for a similar EPICA-traverse.

Climate studies using satellite remote sensing techniques

Glaciological and meteorological ground truthing measurements at the Norwegian Antarctic Research Expeditions in 1989/90, 1992/93, and 1993/94 (budget of 800 000,- Norwegian kroner, Nkr). Comparison of in situ and satellite-derived reflectance and temperatures. Measurements of spectral reflectance characteristics of snow and glacier ice. Meteorological measurements. Snow characteristics. Glacier velocity, dynamics and topography (GPS). Surface radio-echo-soundings. Satellite image analyses (Landsat, NOAA AVHRR, ERS-1/2, Radarsat).

Surface and near-surface melt processes

Extensive near-surface melt has been found, studied and modelled in coastal areas of Dronning Maud Land. Fieldwork has been carried out on NARE 1989/90, 1993/94, and 1996/97. Modelling and remote sensing techniques have been used to map the continental distribution of areas where near-surface melt occurs. Further, the continentalwide meltwater contribution resulting from this previously not well-known understood process is going to be published in *Journal of Climate* in 2005.

Spectral reflectance and penetration of solar radiation for snow and sea ice in the Kongsfjorden area during the snow melt season. Funding in 1996-2000 from the Norwegian Research Council through their polar research programme “Arktisk lys og varme”, a total of 1.6MNkr. Funding for a post-doc (3 years).

Snow distribution

Studies of regional distribution of snow on Svalbard acquired by use of ground penetrating radars and manual snow pack investigations. Intensive field campaigns involving research groups from NPI, NTNU, SINTEF, UiO, and UNIS (1997-99).

Surface albedo

Measurements of snow and glacier ice reflectance acquired from the Landsat Thematic Mapper satellite from the glaciers Austre Brøggerbreen, midre Lovenbreen, and Kongsvegen. Field measurements of snow properties at Austre Brøggerbreen. Influence of surface (spectral) albedo from snow metamorphosis processes and cloud conditions, 1990-1992. Use of MODIS for monitoring of surface albedo on Svalbard (2000-03).

Satellite studies and glacier mass balance

For 1999-2002, a three year contract for ESA: A pilot study for snow and glacier ice research with ENVISAT MERIS and ASAR, especially development of new methods for glacier mass balance measurements from space. Funding for one contracted scientist.

Further, PI for a Cryosat calibration-validation ESA-funded project with a strong component of collecting in situ data from Nordaustlandet (2003-04). From 2004, also a partner of another EU project (INTEGRAL) where NPI is going to study glacier dynamics at Nordaustlandet using INSAR techniques. The latter two projects fund a post-doc position.

Ice cores

Ice-core drilling on Lomonosovfonna in April-May 2000 in collaboration with American and Dutch scientists.

Sea ice

Studies of optical and physical properties of sea ice in Kongsfjorden, Svalbard (1996-2000). Mass and energy fluxes during freeze-up; a joint U.S.–Norwegian collaborative project (2001-04). Similar measurements in the Fram Strait in 2005.

Norway, mainland

Snow hydrology in hydropower production management

Satellite image processing techniques for the determination of snow-covered areas during the snow melt season. Input to watershed runoff forecast. Studies of snow albedo. The Kvikne area, 1989-1993 (total budget of 1050 000,- Nkr).

Testing, development, and evaluation of a two-frequency radar for snow depth measurements 1988-1990 and 1994.

Use of radar data for accurate estimates of the snow depth distribution and the relationship between snow-covered area and snow in storage at Nerskogen. Satellite studies to update the amount of snow in storage. All data are handled and presented in the geographic information system Arc/Info. 1993-95 (budget of 850 000,- Nkr).

Other

Improved parameterisation of General Circulation Models

In the EU-project EuroClim new methodology for satellite-derived retrieval of cryospheric parameters will be developed. These multiple-sensor products of parameters like sea ice extent, sea ice thickness, snow coverage, glacier mass balance and surface albedo will be used to improve input parameters to a global climate model, the ECHAM5 GCM. Further, advanced statistical methods will be used to calculate trends of climate parameters as calculated by the GCM. EuroClim has an overall funding from EU of 2.86 Meuro, including funding for a Ph.D. student (3-years) at NPI. Additionally, funds for another Ph.D. student has been granted by the Research Council of Norway (2002-05) to conduct this research.

OTHER PROFESSIONAL EXPERIENCE

Various selected presentations (until 2005)

Northwest Glaciologists Annual Meeting in Seattle, 1990; European Geophysical Society in Edinburgh, 1992; 2nd Circumpolar Symposium on Remote Sensing of Arctic Environments in Tromsø, 1992; International Symposium on Remote Sensing of Snow and Ice in Boulder, 1992; Nordic Hydrological Conference in Alta, 1992; 9th International Northern Research Basins Symposium/Workshop in Whitehorse, 1992; 5th International Symposium on Antarctic Glaciology in Cambridge (poster), 1993; International Symposium on the Role of the Cryosphere in Global Change in Columbus, 1994 (poster); 10th International Northern Research Basins Symposium/Workshop in Svalbard, 1994; Canadian Geophysical Union's Annual Meeting in Banff, 1995; 10th Filchner Ronne Ice Shelf Programme (FRISP) Workshop in Leipzig, 1995; International Conference on Past, Present and Future Climate in Helsinki, 1995 (poster); 4th Circumpolar Symposium on Remote Sensing of the Polar Environment in Lyngby, 1996; 11th Filchner Ronne Ice Shelf Programme (FRISP) Workshop in Stockholm, 1996; Guest lecture at University Studies on Svalbard (UNIS), 1997; Guest lecture at "Nordlysplanetarier" University in Tromsø, 1997; 12th Filchner Ronne Ice Shelf Programme (FRISP) Workshop in London, 1997; International Conference on Antarctica and Global Change (IGS) in Hobart, 1997 (two posters); 11th International Northern Research

Basins Symposium/Workshop in Fairbanks, 1997 (invited); IGS Nordic Branch Meeting in Oslo, 1997; 4th NySMAC Meeting in Ravello, 1998; 27th International Symposium on Remote Sensing of Environment in Tromsø, 1998 (poster); 6th International Symposium on Antarctic Glaciology in Lanzhou, 1998 (poster); International Conference on Snow Hydrology in Brownsville, 1998 (poster); Arctic Club in Tromsø, 1999 (invited); European Geophysical Society in den Haag, 1999; 12th International Northern Research Basins Symposium/Workshop in Reykjavik, 1999 (oral and poster); Euroconference: Polar Regions and Quaternary Climate, 1999 (invited); Seminar on climate issues for employees in the Norwegian Ministry of Environment, 2000 (invited); 2nd International Symposium on Environmental Research in the Arctic and 5th Ny-Ålesund Scientific Seminar in Tokyo, 2000 (two oral and one poster presentations); Seminar Series at the Polar Environmental Centre (POMI) in Tromsø, 2000 (invited); The Svalbard Coarse, Ny-Ålesund, 2000 (invited); Hamsundagene, Tranøy, 2000 (invited); Arctic Club in Tromsø, 2000 (invited); National Envisat Seminar, Oslo, 2001; Seminar at POMI, 2001 (invited); Travellers Club in Oslo, 2001 (invited); Seminar Series at POMI, 2001 (invited); National ACIA (Arctic Climate Impact Assessment) meeting, Tromsø, 2001 (invited); 4th International Symposium on Remote Sensing in Glaciology, Maryland, 2001; International Symposium on Ice Cores and Climate, Kangerlussuaq, 2001 (poster); Norwegian Polar Club, Oslo, 2001 (invited); Seminar on Arctic Hydrology, Longyearbyen, 2001 (invited); Arctic Club in Tromsø, 2001 (invited); Seminar at POMI, 2002 (invited); National ACIA meeting in Longyearbyen, 2002 (two invited lectures); Meeting with the Minister of Environment at POMI, 2002; Seminar at POMI, 2002 (invited); Workshop - harsh environments initiative: Space technology transfer to arctic research and development, Tromsø, 2002 (invited); Seminar at POMI (visit of Russian Academy of Sciences), 2002 (invited); Sixth Ny-Ålesund International Scientific Seminar, Tromsø, 2002; Lecture series (7x) onboard MS Nordnorge on an Antarctic cruise, 2003 (invited); “1/2 meeting” with the Ministry of Environment, Tromsø, 2003 (invited); 75 years anniversary Norwegian Polar Institute, Tromsø, 2003 (invited); 4th national conference on climate research, Oslo, 2003 (invited); International Arctic Buoy Programme (IABP-13), Tromsø, 2003 (invited); Symposium on Polar Environmental Research, Helsinki, 2003 (invited); Lecture series (4 x) at Frydenlund videregående skole (college), 2003 (invited); Presentation for the Norwegian National Defence College (“Forsvarets høgskole hovedkurset”), Longyearbyen, 2004 (invited); Tromsø Rotary, 2004 (invited); “Polardagen”, Bergen, 2004 (invited); Presentation for the Ministry of Environment, Svalbard, 2004; Symposium at XXVIII SCAR and COMNAP XVI, Bremen, 2004; Kings Bay Seminar, Oslo, 2004 (invited); Svalbardseminar, Longyearbyen, 2005 (invited); Bilateral workshop on South African – Norwegian research collaboration, Cape Town, 2005 (invited); International Climate Seminar, Ny-Ålesund, 2005 (invited); The Third Trans-Atlantic Co-operative Research Conference on Climate, Oceans and Policies - Challenges for the 21st Century, Washington D.C., 2005 (invited); Parliament representatives from Troms County, 2005 (invited); Tromsø Rotary, 2005 (invited); Seminar hosted by the Norwegian Television (NRK), Tromsø, 2005 (invited);

International Appointments

National Delegate to Antarctic Treaty Consultative Meetings (ATCM). Yearly 1995-99 & 2003-.

National Representative Northern Research Basins (NRB) (a working group within UNESCO/IHP). 1998-2005.

National Representative COMNAP (Committee of Managers of National Antarctic Programmes). 1994-99 & 2004-.

National Representative SCAR (Scientific Committee on Antarctic Research). Standing Scientific Group on Physical Sciences. 2002-.

National Representative SCAR (Scientific Committee on Antarctic Research) Working Group of Glaciology. 1995-2002.

National Representative IAHS (International Association of Hydrological Sciences) International Commission for Snow and Ice. 1995-99.

National Representative of the Steering Committee for EPICA (European Project for Ice Coring in Antarctica). 1995-2004.

National contact person in the UNESCO International Hydrological Programme (IHP-V) Project 1.3: “Hydrological interpretations of global predictions”. 1995-2001.

Scientific Editor of Annals of Glaciology Volume 35, Proceedings of IGS’s 4th International Symposium on Remote Sensing in Glaciology, Maryland 2001.

Chairperson of the FRAM Arctic Laboratory Evaluation Board (Norwegian-Russian collaboration). 2003-2004.

Chairperson of COMNAP Environmental Coordinating Group. 1997-99.

Member of AMAPs (Arctic Monitoring and Assessment Programme) Founding Board. 2004-2006.

Member of ESA’s CryoSat calibration-validation team. 2003-04.

Member of Ny-Ålesund Science Science Managers Committee (NySMAC). 2004-2006.

Member of an international expert reviewing panel for the Academy of Finland. 2002-04.

Member of international committee for reviewing the Netherlands Antarctic Programme (NAAP). 1999.

Member of the EPICA Dronning Maud Land Science Group. 1995-2004.

Member of NRB Task Force Group on Remote Sensing in Northern Hydrology. 1997-01.

Member of European Association of Remote Sensing Laboratories (EARSeL) Special Interest Group on Land Ice and Snow. 1995-.

Member of the IGS Council and Publications Committee. 2000-01.

Member of expert group contributing to the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) - *Risk Estimation of Collapse of WAIS*.

National Appointments

Deputy chair of an expert group on northern region policies appointed by the Norwegian Government. 2005-.

Chairperson of a working group established by the Research Council of Norway to develop a science plan for Norwegian research in Antarctica (2005-09). 2003-04.

Member of steering committee of NORKLIMA (climate programme) appointed by the Research Council of Norway. 2004-.

Member of the Norwegian National Committee on Polar Research. 2004-.

Member of Norwegian national IPY committee appointed by the Norwegian Academy of Sciences. 2003-05.

Member of the Norwegian Technical Academy of Sciences. 2003-.

Member of a National coordination committee on marine research. 2005-.

Member of a National Committee on marine monitoring and forecasting. 2001-2004.

Member of steering committee appointed by the Research Council of Norway for developing a Climate Change Research Programme for 2002-11 (KlimaProg). 2000-04.

Member of steering committee appointed by the Research Council of Norway for a planned national research programme (1996-2000) in hydrology. 1994-95.

Member of national group with mandate to design Norwegian interests to ESA's ENVISAT-programme. 1997-99.

Secretary for a working group nominated by the Research Council of Norway planning a polar hydrology research programme in Svalbard (Winther, 1994).

Secretary for the Norwegian Geophysical Society. 1994-1995.

Other Appointments

Chairperson of the Polar Environmental Centre's Director's Meeting. 2007-.

Chairperson of the Polar Environmental Centre's working group on Polar Climate. 2000-04.

Chairperson of the Polar Environmental Centre's working group on Earth Observation. 1998-2000.

Chairperson of NPI's working group on Earth Observation. 1996-98.

Member of a committee evaluating applicants for a Professorship within satellite remote

sensing and GIS at the University of Oslo. 2004.

Member of a panel set down by the Norwegian Defence Research Establishment (FFI) for evaluating employee Dr. Dan Weydahl for professor competence. 2002.

Member of the Polar Environmental Centre's Group of Research Directors. 2004-2005.

Member of steering committee for the *Arctic Club* in Tromsø. 2001-04.

Member of the scientific board of the Glacier Museum ("Bremuseet") in Fjærland. 2001-04.

Member of the scientific board of *Polaria* (a polar adventure and exhibition center). 2001-04.

Member of the Steering Committee for NGI's (Norwegian Geotechnical Institute) Strategic Institute Programme within Permafrost. 1999-2004.

Member of the Steering Committee for GAIA, a Strategic Institute Programme at NORUT IT AS. 1996-99.

Member of the Norwegian Church Aid Emergency Water and Sanitation Preparedness Group. 1995-97.

Coordinator for establishing an international expert lecturing team including preparing lecturing series for OVDS ASA Hurtigruta's Antarctic cruises. 2001-02.

External Examiner at NTNU. 2000-.

Reviewer for NASA GSFC regarding consideration of promotion to the GS-15 level (i.e., comparable to Full Professor) for employee Dr. D.K. Hall. 1999.

Acting Head of the Section of Hydrology (11 researchers) at SINTEF NHL. December 1993 to March 1994.

Chairperson of a co-ordinating committee acting as a link between the employees and the Director at SINTEF NHL. 1994.

Teaching

Lecturer at UNIS (The University Centre in Svalbard) in AT 202/AT 206 "Arctic Water Resources Management" undergraduate course (1 week/year). Yearly since 1997. From 2002 responsible for the course and about 3 weeks lecturing and excursion per year.

Teaching assistant and lecturer in undergraduate and graduate courses on hydrology and hydraulic engineering at the Norwegian Institute of Technology (2 months/year). 1988-1992.

Lecturer of engineering hydrology in "Hydropower Development" course - a 1 year intensive postgraduate course for professionals from developing countries (1 week/year). 1988-89.

Supervision

Supervision of a post-doc (Andrea Taurisano) at NPI. 2004.

Main advisor Ph.D. thesis of Christina Alsvik Pedersen at the University of Tromsø. 2002-07.

Main advisor Ph.D. thesis of Lars Karlöf at the University of Oslo. 2000-2004.

Main advisor Ph.D. thesis of Max König at the University of Oslo. 2001-2004.

Supervision of a post-doc (Marzena Kaczmarska) at NPI. 2001-2003.

Supervision of a contracted scientist (M.Sc. M. König) at NPI. 1999-2002.

Supervision of a contracted scientist (Dr. Sebastian Gerland) at NPI. 1997-2000.

Supervision of a contracted scientist (M.Sc. L. Karlöf) at NPI. 1998-2000.

Supervision of a contracted scientist (Dr. Michiel R. van den Broeke) at NPI. 1996-98.

External advisor M.Sc. thesis of Carola Gokke at the Univ. of Utrecht, The Netherlands. 2002.

External advisor M.Sc. thesis of Martin N. Jespersen at the Technical Univ. of Denmark. 1999-00.

External advisor M.Sc. thesis of Øyvind Dalen at the Norwegian Institute of Technology. 1995.

Opposition

Opponent, Ph.D. theses of Bernt Viggo Matheussen (Effects of anthropogenic activities on snow distribution and melt in an urban environment), Norwegian University of Science and Technology, June 2004.

Opponent, Ph.D. thesis of Wolf Marchand (Application and improvement of a georadar system to assess areal snow distribution for advances in hydrological modeling), Norwegian University of Science and Technology, December 2003.

Opponent, Ph.D. thesis of Dagrun Vikhammer (Snow-cover mapping in forests by optical remote sensing) University of Oslo, February 2003.

Opponent, Ph.D. thesis of Cecilie Eie Rolstad (The large-scale dynamics of Jutulstraumen drainage basin, East Antarctica), University of Oslo, November 2000.

Opponent, Ph.D. thesis of Rune Engeset (Change detection and monitoring of glaciers and snow using satellite microwave imaging) University of Oslo, May 2000.

Opponent, Ph.D. thesis of Tore Guneriussen (Snow characteristics in mountainous areas as

observed with synthetic aperture radar (SAR) instruments), University of Tromsø, September 1998.

Member of Evaluation Committee, Ph.D. thesis of Malin Stenberg (Spatial variability and temporal changes in snow chemistry, Dronning Maud Land, Antarctica), University of Stockholm, May 2000.

Awards

Receiver of the Fram Committee's Nansen Award. 2004.

Selected by American Biographical Institute, Inc. to appear in the biographical reference edition *500 Leaders of Science*. 2001.

Selected by International Biographical Centre to appear in *2000 Outstanding Intellectuals of the 21th Century* (1st edition). 2001.

Selected by American Biographical Institute, Inc. to appear in *Great Minds of the 21st Century*.

Awarded by the Nordic Hydrological Committee for two publications in Nordic Hydrology in the period 1992-94. The award (10,000 SEK) is given every second year for contributions of high scientific quality within hydrological research.

Awarded with A/S Veidekke's price (10,000 NOK) for Master Students. 1987.

Awarded two publication prices from SINTEF for peer-reviewed papers. 1993 and 1994.

Referee (journals). 5-15 reviews per year (until ~2003):

Antarctic Research Series, Antarctic Science, Annals of Glaciology, Cold Regions Science and Technology, International Journal of Remote Sensing, Journal of Atmospheric and Terrestrial Physics, Journal of Geophysical Research – Atmospheres, Journal of Glaciology, Meddelelser om Grønland, Nordic Hydrology, Polar Research, Remote Sensing of Environment, Reviews of Geophysics.

Referee (other). 5-20 reviews per year (until ~2003):

IPCC WG II AR4, Academy of Finland, IPCC WG I TAR, Italian Programme for Antarctic Research, Italian Space Agency, National Geographic Society's Committee for Research and Exploration, National Science Foundation Office of Polar Programmes (U.S.A.), Natural Environment Research Council (NERC), The Research Council of Norway, Space Research Organization Netherlands.

Memberships

Norwegian Academy of Technological Sciences
International Glaciological Society
Norwegian Hydrological Council

Norwegian Geophysical Society
American Geophysical Society
European Geophysical Society
Norwegian Svalbard Society
(Norwegian) Arctic Club
Norwegian Polar Club
The Explorers Club

PUBLICATIONS

Citations in scientific literature: 344 (per 2004)

Book chapters

1. **Winther, J-G.**, R.A. Bindenschadler, M. König & D. Scherer, 2005: Glaciers and Ice Sheets. In Remote Sensing in Northern Hydrology: Measuring Environmental Change, Edited by Duguay, C.R. and A. Pietroniro, Geophysical Monograph 163, American Geophysical Union, Washington, DC, pp. XX-XX.
2. Scherer, D., D.K. Hall, V. Hochschild, M. König, J.-G. Winther, C.R., Duguay, F. Pivot, C. Mätzler, F. Rau, K. Seidel, R. Solberg, and A.E. Walker, 2005. Remote sensing of snow cover. In Remote Sensing in Northern Hydrology: Measuring Environmental Change, Edited by Duguay, C.R. and A. Pietroniro, Geophysical Monograph 163, American Geophysical Union, Washington, DC, pp. 7-38.
3. Riffenburgh, B. (Ed.), in prep.: *Encyclopedia of the Antarctic*, Routledge, Taylor & Francis Books Inc., New York.

International peer-reviewed journals

1. EPICA community paper, 2006: One-to-one coupling of glacial climate variability in Greenland and Antarctica. *Nature* **444**, 195-198.
2. Rotschky, G., Holmlund, P., Isaksson, E., Mulvaney, R., Oerter, H., Van den Broeke, M.R. and **Winther, J-G.**, accepted: A new surface accumulation map for western Dronning Maud Land, Antarctica, from interpolation of points records. *Journal of Glaciology*
3. Kaczmarek, M., Isaksson, E., Karlöf, L., Brandt, O., **Winther, J-G.**, Van de Wal, R.S.W., Van den Broeke, M.R. and Johnsen, S.J., 2006: Ice core melt features in relation to Antarctic coastal climate. *Antarctic Science* **18** (2), 271-278.
4. Bertler, N., Mayweski, P. et al., 2005: Snow chemistry across Antarctica. *Annals of Glaciology* **41**, 167-179.
5. Pedersen, C.A. and **Winther, J-G.**, 2005: Intercomparison and validation of snow albedo parameterisation schemes in climate models. *Climate Dynamics* **25**, 351-362. DOI 10.1007/s00382-005-0037-0.
6. Karlöf, L. Isaksson, E., **Winther, J-G.**, Gundestrup, N., Meijer, H.A.J., Mulvaney, R., Pourchet, M., Hofstede, C., Lappegard, G., Pettersson, R., Van den Broeke, M.R. and van de Wal, R.S.W., 2005: Accumulation variability over a small area in Dronning Maud Land, Antarctica, as determined from shallow firn cores and snow pits: some implications for ice-core records. *Journal of Glaciology* **51**, 343-352.
7. Liston, G.E. & **Winther, J-G.**, 2005: Antarctic surface and sub-surface snow and ice melt. *J. Climate* **18** (10), 1469-1481.

8. Kaczmarek, M., Isaksson, E., Karlöf, L., **Winther, J-G.**, Kohler, J., Godtliobsen, F., Ringstad Olsen, L., Hofstede, C.M., Van den Broeke, M.R., Van de Wal, R.S.W. & Gundestrup, N., 2004: Accumulation variability derived from an ice core from coastal Dronning Maud Land, Antarctica. *Annals of Glaciology* **39** (7), 339-345.
9. EPICA community paper, 2004: Eight glacial cycles from an Antarctic ice core. *Nature* **429**, 623-628.
10. Gerland, S., Haas, C., Nicolaus, M. and **Winther, J-G.**, 2004: Seasonal development of structure and optical surface properties of fast-ice in Kongsfjorden, Svalbard. In The coastal ecosystem of Kongsfjorden, Svalbard. Synopsis of biological research performed at the Koldewey Station in the years 1991-2003 (Ed. C. Wienke). *Reports on Polar and Marine Research* **492**, 26-34.
11. König, M., **Winther, J-G.**, Kohler, J. & König, F., 2004: Two methods for firn-area and mass-balance monitoring of Svalbard glaciers with SAR satellite images. *Journal of Glaciology* **50** (168),
12. Hofstede, C.M., Van de Wal, R.S.W., Kaspers, K., Van den Broeke, M.R., Karlöf, L., **Winther, J-G.**, Isaksson, E., Lappégard, G., Mulvaney, R., Oerter, H., and Wilhelms, F., 2004: Firn accumulation records for the past 1000 years on the basis of dielectric profiling of six cores from Dronning Maud Land, Antarctica. *Journal of Glaciology* **50** (169), 279-291.
13. Kaspers, K.A., Van de Wal, R.S.W., de Gouw, J.A., Hofstede, C.M., Van den Broeke, M.R., Reijmer, C.H., Van der Veen, C., Neubert, R.E.M., Meijer, H.A.J., Brenninkmeijer, C.A.M., Karlöf, L., and **Winther, J-G.**, 2004: Seasonal cycles of non-methane hydrocarbons and methyl chloride, as derived from firn air from Dronning Maud Land, Antarctica. *JGR Atmosphere* 2004JD004629R.
14. **Winther, J-G.**, Edvardsen, K., Gerland, S., and Hamre, B., 2004: Surface reflectance of sea ice and under-ice irradiance in Kongsfjorden, Svalbard. *Polar Research* **23** (1), 115-118.
15. Hamre, B., **Winther, J-G.**, Gerland, S., Stamnes, J.J. & Stamnes, K., 2004: Modeled and measured optical transmittance of snow-covered first-year sea ice in Kongsfjorden, Svalbard. *Journal of Geophysical Research Atmospheres* 109, C10006, doi :10.1029/2003JC001926.
16. Kaspers, K.A., Van de Wal, R.S.W., de Gouw, J.A., Hofstede, C.M., Van den Broeke, M.R., Van der Veen, C., Neubert, R.E.M., Meijer, H.A.J., Brenninkmeijer, C.A.M., Karlöf, L., and **Winther, J-G.**, 2004: Analyses of firn gas samples from Dronning Maud Land, Antarctica: Study of nonmethane hydrocarbons and methyl chloride. *JGR Atmosphere* **109** (D2): Art. No. D02307.
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