

PROGRAMME OF SESSIONS

MONDAY, 21 AUGUST 2006

Opening of Symposium

Atsumu Ohmura, President of the IGS
Barry Goodison, Chairman of CliC
Georg Kaser, President of UCCS
Tom Lachlan-Cope, Chairman, Local Organizing Committee
Martin Sharp, Chief Editor of *Annals* 46

CliC project area 2: Glaciers, ice caps and ice sheets, and their relation to sea level

Richard B. Alley, Matthew K. Spencer, and Sridhar Anandakrishnan: Ice-sheet mass balance: assessment, attribution and prognosis
H. Jay Zwally, Scott B. Luthcke, Donghui Yi, Jack L. Saba, Jun Li, Mario B. Giovinetto, Helen G. Cornejo and Anita C. Brenner: Mass balance of the Greenland and Antarctic ice sheets and ice shelves: an overview of recent results
Robert Bindshadler and Hyeungu Choi: Mapping the total Antarctic ice sheet discharge: an IPY benchmark data set
Eric Rignot: Western Greenland glacier ice discharge since 1957 and its contribution to sea level change

Actual records of climate in cryospheric regions, and their relation to changes in the cryosphere, including statistical/model interpretation

Edward Hanna, Konrad Steffen, Philippe Huybrechts, Russell Huff and John Cappelen Stephens: Record Greenland melt and runoff in 2005
Helgard Anschuetz, Olaf Eisen, Hans Oerter, Daniel Steinhage and Mirko Scheinert: Investigating small-scale variations of the recent accumulation rate in Central Dronning Maud Land, East Antarctica
Konrad Steffen, Russell Huff and Nicolas Cullen: Accumulation, melt, and climate variability at the Western slope of the Greenland ice sheet at Swiss Camp: 1990 to 2005
Andrew P. Barrett and Mark C. Serreze: Glacier mass balance and runoff to the Arctic Ocean
Maria Shahgedanova, Viktor Popovnin, Alexander Alaynikov, Dmitry Petrakov and Christopher R. Stokes: Long-term change and interannual and intraseasonal variability in climate and glacier mass balance in the Caucasus Mountains, Russia

Observed historical changes in the cryosphere

Hamish Pritchard and David G. Vaughan: Widespread acceleration of the Antarctic Peninsula's retreating tidewater glaciers
Richard Hodgkins, Adrian Fox and Anne-Marie Nuttall: Mass-balance change between 1990 and 2003 at Finsterwalderbreen, a Svalbard surge-type glacier, from GPS-profiling
Chris DeBeer and Martin Sharp: Recent glacier retreat within the southern Canadian Cordillera
Etienne Berthier, Yves Arnaud Sarfaraz Ahmad, Rajesh Kumar, Patrick Wagnon and Pierre Chevallier: Recent glacier thinning in the Spiti/Lahaul region of Indian Himalaya obtained by comparing SRTM and SPOT 5 DEM
Shangguan Donghui, Liu Shiyin, Ding Yongjian, Li Jing, Zhang Yong, Ding Lianfu, Wang Xing, Xie Changwei and Li Gang: Glacier changes in the West Kunlun Mountains, China from 1970 to 2001 derived from Landsat TM/ETM+ and Chinese glacier inventory data
Frank Paul, Andreas Wipf, Max Maisch, Martin Hoelzle and Wilfried Haeberli: Long-term changes in alpine glacier volume obtained by six independent approaches
Tavi Murray and Tim James: Volume loss from a Svalbard catchment – contrasts between a surge-type and non-surge-type glacier
Isabella Velicogna and John Wahr: Monitoring the mass variations of ice sheets
Oddur Sigurðsson, Tómas Jóhannesson and Trausti Jónsson: Relation between glacier front variations and summer temperature in Iceland since 1930
Anton (Toni) Schenk, Yushin Ahn, Beata Csatho and Andrew Fountain: Precise reconstruction of cryospheric changes from aerial photography and airborne laser scanning
Keith Echelmeyer, Craig Lingle, Brent Richie, Sandra Zirnheld and Virginia Valentine: Continued volume changes of Alaska glaciers
C. D'Agata, M. Citterio, G. Diolaiuti, G. Stella, T. Carnielli and C. Smiraglia: Trends in glacial terminus fluctuations from the first complete database of Italian glaciers
Rajmund Przybylak: Recent air temperature changes in the Arctic
Jon Ove Hagen, Trond Eiken, Even Loe, Jack Kohler, Kjetil Melvold, Thomas V. Schuler and Andrea Taurisano: Elevation changes on Austfonna ice cap
Ninglian Wang, L. G. Thompson, M. E. Davis and Tandong Yao: Similarities and differences between the variations in accumulation rates over the past 500 years recorded in ice cores from the Northern and Southern Tibetan Plateau
Wolfgang Schönner and Reinhard Böhm: A statistical mass balance model for reconstruction of LIA ice mass of glaciers of European Alps
Elisabeth Isaksson, Dmitry Divine, Harro Meijer, Roderik S.W. van de Wal, Tonu Martma, Veijo Pohjola, John Moore and Makoto Igarashi: The ice core record of Svalbard climate during the past 800 years

Snow accumulation, snow stratigraphy, surface melt and runoff

Heidi Escher-Vetter and Matthias Siebers: Sensitivity of glacier runoff to summer snowfall events

Allan Frei, Gavin Gong, David A. Robinson, Gwangyong Choi and Debjani Ghatak: North American snow extent as an indicator of climate change

Wang Feiteng, Li Zhongqin, R. Edwards and Li Huilin: Long term changes in the snow-firn pack stratigraphy on Glacier No. 1 in the Eastern Tianshan Mountains

Tetsuo Ohata: Cryosphere–atmosphere–biosphere interaction and changes in northern Eurasia

Thomas H. Painter, Andrew P. Barrett, Chris Landry and Corey Lawrence: Radiative forcing of desert dust deposition in mountain snow cover

Vladimir N. Golubev, Marina N. Petrushina and Denis M. Frolov: Variability of temperature and precipitation regime as a factor of snow cover distribution and stratigraphy of snowpack

Chris Derksen, Ross Brown and Libo Wang: Spring snow cover over northern Canada from satellite and in situ data

Ross D. Brown and Gregory M. Flato: Snow cover variability and change over North America

Ice shelves and their interaction with the ocean and atmosphere

Luke Copland and Laurie Weir: The 2005 calving of the Ayles Ice Shelf, Ellesmere Island, Canada

Mervyn P. Freeman, Martin E. W. O'Leary and Alison J. Cook: How long is the coastline of Antarctica? – a new method for understanding iceberg calving and a possible precursor of ice shelf collapse

Faezeh Maghami Nick and Cornelis van der Veen: Controls on advance of tidewater glaciers: results from numerical modeling applied to Columbia Glacier

Jeremy Lloyd, David Roberts, Antoon Kuijpers, Matthias Moros and Antony Long: Interaction between ocean circulation, climate and ice stream dynamics of Jakobshavn Isbrae, West Greenland

R.A. Massom, T. Scambos, J.C. Comiso, John Turner, Sharon Stammerjohn, Ian Simmonds, Mark Fahnestock and Neil Adams: The contribution of extreme events in the austral spring-summer of 2001/2 to the disintegration of the Larsen-B ice shelf

CliC information session

Tatiana Khromova: CPA1: The terrestrial cryosphere and hydrometeorology of cold regions

Konrad Steffen: CPA2: Glaciers, ice caps and ice sheets, and their relation to sea level

Tony Worby: CPA3: The marine cryosphere and its interactions with high latitude oceans and atmosphere

John Turner: CPA4: Links between the cryosphere and global climate

Tetsuo Ohata: How Asian region will be tackled under the CliC Program

Vladimir Ryabinin: The integrated global observing system for the cryosphere; IGOS–cryo

TUESDAY, 22 AUGUST 2006

Lakes and surface melt features

Martin O. Jeffries and Kim Morris: Some aspects of ice phenology on ponds in Central Alaska

Roger J. Braithwaite: Calculation of sensible heat flux over a melting ice surface: the Greenland ice sheet revisited

Shelley MacDonell and Sean Fitzsimons: Melt initiation at the Wright Lower Glacier, Antarctica

Malcolm McMillan, Peter Nienow, Andrew Shepherd and Toby Benham: Supra-glacial lake evolution at the margins of the Greenland ice sheet

C.R. Stokes, V. Popovnin, A. Aleynikov, S.D. Gurney and M. Shahgedanova: Recent glacier retreat in the Caucasus Mountains, Russia, and associated increases in supraglacial debris cover and supra/proglacial lake development

Observed historical changes in the cryosphere, continued

William B. Krabill and Robert H. Thomas: Recent ice sheet and glacier elevation changes in Greenland and Canada from aircraft laser altimetry

G Hilmar Gudmundsson, Ed C. King and Richard C.A Hindmarsh: Shifting margins of the Talutis and Carlson Inlet ice streams, West Antarctica

Fiona Cawkwell, Martin Sharp and Luke Copland: Shrinkage of small ice masses in the Canadian High Arctic, 1960–2000

Andrew G. Klein, Joni L. Kincaid, Kevin E. Merritt, Christopher P. Graff, Jennifer N. Morris, Alan J. Poole, Alicia M. Rutledge and Jared D. Stucky: A synthesis of tropical glacier retreat: a remote sensing approach

Remko de Lange, Tavi Murray, Adrian Luckman and Edward Hanna: Current changes at the East Greenland Helheim glacier: unravelling the chronology of events

Andrew Shepherd: Antarctic glaciers set to raise sea levels this century

Etienne Berthier, Yves Arnaud, Christian Vincent and Frederique Remy: Biases of SRTM in high-mountain areas (Alps, Himalaya). Implications for the monitoring of glacier volume changes

Processes that lead to changes in the cryosphere and how these make interpretation difficult

Adrian Luckman and Edward Hanna: Arctic ice sheet and ice cap melt extent from Envisat global mode synthetic aperture radar data

Douglas Benn and Nicholas Hulton: 'Calving laws', 'sliding laws' and the stability of tidewater glaciers

Ruth Mottram, Douglas I. Benn and Nicolas J. Hulton: The importance of glacier dynamics in the response of glacier dynamics to climate change: a study at Breiðamerkurjökull, Iceland

Gwendolyn J.M.C. Leysinger Vieli, Richard C.A. Hindmarsh and Martin J. Siegert: Three-dimensional flow influences on radar layer stratigraphy

Sridhar Anandakrishnan, Matt A. King, Donald E. Voigt, Richard B. Alley, J. Paul Winberry, Huw Horgan, Leo E. Peters and Robert A. Bindschadler: Dispersive response of ice stream flow to tidal forcing

Extension of climate records back in time, using observations of cryospheric changes

Daniel E. Lawson, Richard B. Alley and David C. Finnegan: Holocene glacier fluctuations in relations to climatic and non-climatic controls, Glacier Bay, Alaska

Michiel Helsen, Roderik van de Wal and Michiel van den Broeke: The present-day isotope-temperature relationship over Antarctica

Philip D. Hughes, Jamie Woodward and Philip Gibbard: Pleistocene glaciers and climates in the Balkans

Øyvind Nordli, Elin Lundstad and A.E.J. Ogilvie: A late winter-early spring temperature reconstruction for Southeastern Norway from 1758 to 2006

R. Bintanja and R.S.W. van de Wal: A three million-year history of Northern Hemisphere glaciation and climate

Cryosphere surface processes, radiation and mass balance

- Atsumu Ohmura, Andreas Bauder, Hans Müller and Giovanni Kappenberger: The role of radiation in mass balance change of glaciers
 Jing Zhang, Uma S. Bhatt, Wendell V. Tangborn, Craig S. Lingle and Keith A. Echelmeyer: Response of glaciers in northwestern North America to global warming: an atmospheric/glacier mass-balance modeling approach
 P. Kuipers Munneke, C.H. Tijm-Reijmer, J. Oerlemans and P. Stammes: A model for studying Antarctic snow surface albedo under clear and cloudy conditions
 Carleen Reijmer and Regine Hock: Modeling the mass balance of Storglaciären, Sweden, using a distributed energy and mass-balance model including a multi-layer snow model

Poster Session 1

- Olaf Eisen, Andreas Bauder, Patrick Riesen and Martin Funk: Deducing temperature distribution in the tongue of Gornergletscher from radar surveys
 Gunnar Spreen, Stefan Kern and Detlef Stammer: New satellite multi-sensor approach to estimate sea ice volume flux
 Donghui Yi and H. Jay Zwally: Antarctic surface slope from ICESat repeat ground tracks
 Inka Koch, Martin Sharp, Lindsey Nicholson and Dorthe Dahl-Jensen: Comparison of climate proxies in short ice core records from the Canadian Arctic with observed climate records
 Anna Sinisalo, Kristiina Virkkunen, John Moore, Aslak Grinsted, Harro A.J. Meijer and Tonu Martma: Oxygen isotope records in a traditional (vertical) and horizontal ice cores from an Antarctic blue ice area
 Chiyuki Narama, K. Fujita, T. Kajiura, C. Ormukov and K. Abdrakhmatov: Recent changes in glacial meltwater due to glacial shrinkage in the Terskey-Alatoo Range, Kyrgyz Republic
 Peter Jansson, Hans Linderholm, Rickard Pettersson, Torbjörn Karlin and Carl Magbus Mörth: Assessing the possibility to couple chemical signal in winter snow on Storglaciären to atmospheric climatology
 Bogdan Gadek and Leszek Kolondra: Response of glacierets in Polish and Slovakian Tatra Mountains to climate variability and change
 Thomas Vikhamar Schuler, Even Loe, Andrea Taurisano, Trond Eiken, Jon Ove Hagen and Jack Kohler: A calibrated surface mass balance model for the Austfonna ice cap, Svalbard
 Xie Changwei, Ding Yongjian, Zhao Lin, We Tonghu, Han Haidong: The influences of debris cover on the melting process and the shrinkage of Keqikaer Glacier, south slope of Mount Tuomuer, Western China
 Adam Booth, Tavi Murray and Roger Clark: Limitations of common-midpoint surveys for estimation of ice water content
 David B. Reusch and Richard B. Alley: Antarctic sea ice: a self-organizing map-based perspective
 Ian Willis, Martin Sharp, Bryn Hubbard, Peter Nienow, Douglas Mair, Neil Arnold, Urs Fischer and Javier Corripio: Past and future mass balance of Haut Glacier d'Arolla, Switzerland derived from glaciological and geodetic measurements and numerical modelling
 Hongxi Pang, Yuanqing He, Wilfred H. Theakstone and David D. Zhang: Soluble ionic and oxygen isotopic compositions of a shallow firn profile, Baishui Glacier No. 1, southeastern Tibetan Plateau
 Maria Ananicheva and Alexander Krenke: Contemporary and future change of glacier systems characteristics in northeastern Asia
 Andrew Shepherd, Zhijun Du, Toby J. Benham, Julian A. Dowdeswell and Elizabeth M. Morris: Mass balance of the Devon ice cap, Canadian Arctic
 Guðfinna Aðalgeirsdóttir, Helgi Björnsson, Sverrir Guðmundsson, Tómas Jóhannesson, Oddur Sigurðsson and Finnur Pálsson: Climate change response of Vatnajökull, Hofsjökull and Langjökull ice caps, Iceland
 Masaaki Ishizaka, Satoru Yamaguchi and Atsushi Sato: Relationships in climatic monthly values of Japanese snowy areas between maximum snow depth, mean air temperature and precipitation
 Stefan Kern, Gunnar Spreen, Lars Kaleschke, Sara de la Rosa Höhn and Georg Heygster: Polynya signature simulation method polynya area in comparison to AMSR-E 89 GHz sea-ice concentrations in the Ross Sea and off Adelie Coast, Antarctica, for 2002–2005: first results
 Sebastian Gerland and Angelika H.H. Renner: Sea ice mass balance monitoring in an Arctic fjord
 Philip Hughes and Roger Braithwaite: Application of a degree-day model to reconstruct Pleistocene glacial climates in Greece
 Zhongqin Li, Ross Edwards, Feiteng Wang and Huilin Li: Chemical composition of recent snow/ice on glaciers in eastern Tianshan
 Rune Solberg: A new system and service for climate monitoring in the cryosphere
 Hans Linderholm and Peter Jansso: Proxy data reconstructions of the Storglaciären mass balance record back to AD 1500 on annual to decadal timescales
 Toshimitsu Sakurai, Hiroshi Ohno, Yoshinori Iizuka and Takeo Hondoh: Formation mechanisms of methanesulfonate salts found in Dome Fuji ice core
 Elisabeth Isaksson and 16 others: Høltedahlfonna – a new Svalbard ice core record
 Kumiko Goto-Azuma, Takayuki Shiraiwa, Sumito Matoba, Takahiro Segawa, Syosaku Kanamori, Yoshiyuki Fujii and David A. Fisher: An ice-core study of climate and environmental variability during the last 100 years in the North Pacific region
 Peter M. Abbott, Siwan M. Davies, Jørgen Peder Steffensen, Sigfus, J. Johnsen and Matthias Bigler: Tephrochronological investigations of the marine isotope stage 4 sections of the Greenland ice cores
 Saito Fuyuki, Ayako Abe-Ouchi and Heinz Blatter: Improvement in the numerical scheme to compute horizontal gradients at the ice-sheet margin and its effect on the simulated ice sheet topography
 Wang Xin, Liu Shiyin, Shangguan Donghu, Xie Zichu, Zhang Yingsong, Zhang Yong and Li Jin: Simulation and mitigation for glacier lake outburst flood of Longbasaba and Pida Lake in Pumqu Basin, Himalaya
 Jonathan G. Fairman, Jr, Bryan G. Mark and Mitchell A. Plummer: Modeling the climatic controls and topographic form of modern and Late Pleistocene tropical Andean glaciers
 Narelle Baker: Analysing the evolution of the Antarctic ice sheet
 L. A. Rasmussen, L. M. Andreassen and H. Conway: Reconstruction of mass balance of glaciers in southern Norway back to 1948
 Xie Changwei, Ding Yongjian, Zhao Lin, Wu Tonghua and Li Ren: The use of artificial neural networks (ANNs) to simulate melt-water runoff on Keqikaer Glacier, south slope of Mount Tuomuer, western China
 Yong Zhang, Shiyin Liu, Yongjian Ding, Donghui Shangguan, Jing Li and Xin Wang: Mass-balance modelling of Keqicar Glacier in the Tarim River basin, northwestern China
 Catherine Ritz and Vincent Peyaud: Large scale response of the Antarctic ice sheet to changes in the dynamics of outlet glaciers
 Carlos Martin, Richard C. A. Hindmarsh and Francisco Navarro: Signal of ice divide motion on radar layer geometry
 Rianne H. Giesen and Johannes Oerlemans: Modelling the influence of 20th century climate on the surface mass balance of Hardangerjøkulen, southern Norway
 Byron R. Parizek, Richard B. Alley and Todd K. Dupont: A mechanism for inland migration of surface meltwater access to the bed

- Ryan Woodard and Mervyn P. Freeman: An Antarctic ice sheet model inspired by self-organized criticality
- Saito Fuyuki, Ayako Abe-Ouchi and Segawa Tomonori: Response of Greenland ice sheet to the global warming simulated by a high resolution atmosphere–ocean GCM coupled by an ice sheet model
- Trudy Wohllleben: Total area concentration and total sea ice severity in the Gulf of St. Lawrence, Canada: experimental linear predictions for 2007–08 to 2017–18.
- Matthias Huss, Shin Sugiyama, Andreas Bauder and Martin Funk: Retreat scenarios of Unteraargletscher, Switzerland, using a coupled ice-flow mass-balance model
- Liss M. Andreassen and Johannes Oerlemans: Modelling the long term mass balance series of Storbreen, Norway, using a simplified energy balance approach.
- Todd K. Dupont, Richard B. Alley and Byron R. Parizek: Subglacial-lake formation by ice-shelf grounding: implications for outburst flooding
- Trudy Wohllleben, Martin Sharp and Andrew Bush: John Evans Glacier, Nunavut, Canada: a case for modelling surface ice velocities using a linearly viscous Shallow Ice Equation model
- Thorsteinn Thorsteinsson and Bergur Einarsson: Timescale calculations for potential ice core drilling sites on the temperate ice caps in Iceland
- Friedrich Obleitner, Nicolas Cullen and Konrad Steffen: Simulation of turbulent fluxes at Summit, Greenland

Richard Alley: Seligman Crystal Award Ceremony talk

WEDNESDAY, 23 AUGUST 2006

CliC project area 3: The marine cryosphere and its interactions with high latitude oceans and atmosphere

- Ellsworth LeDrew: Temporal change and forcing processes for regional sea-ice concentration in the Arctic
- Angelika Renner and Victoria Lytle: Sea-ice thickness in the Weddell Sea: a comparison of model and upward looking sonar data
- Anthony Worby, Robert Massom, Victoria Lytle and Thorsten Markus: Validation of AMSR-E derived snow thickness over East Antarctic sea ice
- Helen Amanda Fricker and Laurence Padman: Investigating the Antarctic ice shelf grounding zones with ICESat
- Donghui Yi and H. Jay Zwally: Seasonal variation of Antarctic sea-ice freeboard height and thickness from ICESat

Modelling of all of the above. How well do models capture the observed changes?

- Craig S. Lingle, Jed A. Kallen-Brown and Ed Bueler: Multi-modal flow in a thermocoupled model of the Antarctic ice sheet: verification and sensitivity
- Shin Sugiyama, Andreas Bauder, Conrad Zahno and Martin Funk: Evolution of Rhonegletscher in Switzerland over the past 125 years and in the future: application of an improved flowline model
- Olaf Eisen: Extracting velocity information from kinematic inversion of firn layers
- Jun Li, H. Jay Zwally and Josefino C. Comiso: Ice sheet elevation changes caused by variations in firn compaction rates induced by satellite-observed temperature variations (1982–2003)
- Ros Death, A.J. Payne, A.P. Wright and J.M. Gregory: A statistical approach to estimating the contribution of glaciers to future sea-level rise
- Helgi Björnsson, Guðfinna Aðalgeirsdóttir, Finnur Pálsson and Sven P. Sigurðsson: 20th century evolution and response of Hoffellsjökull, southeast Iceland, to climate change
- Weili Wang, Jun Li and Jay Zwally: Modeling investigation of ice sheet flow enhanced by the surface melt-induced basal sliding

THURSDAY, 24 AUGUST 2006

CliC project area 1: The terrestrial cryosphere and hydrometeorology of cold regions

- Terry D. Prowse, Barrie R. Bonsal, Claude R Duguay and Martin P. Lacroix: River-ice break-up/freeze-up: a review of climatic drivers, historical trends and future predictions
- Xiao Cunde, Liu Shiyin, Zhao Lin, Wu Qingbai, Li Peiji, Liu Chunzhen, Zhang Qiwen, Ding Yongjian, Yao Tandong, Li Zhongqin and Pu Jiancheng: Observed changes of cryosphere in China over the second half of the 20th century: an overview
- M. Tamil Selvan and Sarfaraz Ahmad: An investigation of climate change impact on snow/ice melts runoff in Himalayas
- Andreas Kääb: Satellite-derived glacier changes 1990–2002 along a transect over the Bhutan Himalayas
- Alexander Krenke and Maria Ananicheva: Mountain glacier systems and their relation to 'hyonosphere': methodology and use in glacio-climatology
- Valentina Radić, Regine Hock and Johannes Oerlemans: Volume-area scaling approach vs flowline model in glacier volume projections
- Florence Fetterer and Matt Savoie: Observations for SEARCH: data integration for change detection
- Jessie Cherry, Bruno Tremblay, Marc Stieglitz, Gavin Gong and Stephen Dery: New estimates of land-based Arctic solid precipitation, 1940–1999
- Richard L. Armstrong, Mary J. Brodzik, Matthew H. Savoie and Kenneth Knowles: Northern Hemisphere snow extent trends derived from passive microwave and optical satellite data

Synthesis of records by geographical region, and ultimately globally

- Roger J. Braithwaite and Sarah C. B. Raper: Glaciological conditions in seven contrasting regions estimated with the degree-day model
- Georg Kaser: Tropical glaciers: recent history, present state, and climate forcing

Poster Session 2. Short presentations

- Walter N. Meier, Julianne Stroeve and Florence Fetterer: The declining Arctic sea ice: how much of an indicator of change is it?
- Frédéric Parrenin, Richard Hindmarsh and Frédérique Rémy: Analytical solutions for the effect of topography, accumulation rate and lateral flow divergence on isochrone layer geometry in ice sheets
- Jacob Clement Yde and Niels Tvis Knudsen: 20th century glacier fluctuations on Disko Island, Greenland
- Toshitaka Suzuki, Takeshi Itoh, Yoshiyuki Fujii: Variations in total concentrations of metallic elements in Dome Fuji ice core representing the last 320 kyr
- Kyung In Huh, Bea M. Csatho and Cornelis van der Veen: Reconstructing Holocene glacier changes in West Greenland from multispectral aster imagery

- Michel Sacchetti, Frédéric Parrenin, Olaf Eisen and Daniel Steinhage: Reconstruction of past accumulation rates from internal layers around Kohonen station (Antarctica)
- Gonzalo Barcaza, Masamu Aniya, Tatsuto Aoki and Takane Matsumoto: Satellite monitoring of equilibrium lines in Northern Patagonia icefield: 1979–2003
- Ted A. Scambos, Walter N. Meier and Jim McNeill: Comparison of ICESat freeboard measurements of high Arctic sea ice with in situ measurements from the Ice Warrior Project
- Shavawn Donoghue, Ian Allison and Mark Curran: Improving the mass balance estimates of Brown Glacier, Heard Island
- Marco Möller, Christoph Schneider and Rolf Kilian: Glacier change and climate forcing in recent decades at Gran Campo Nevado, southernmost Patagonia
- Andreas Bauder, Martin Funk and Matthias Huss: Ice volume changes of selected glaciers in the Swiss Alps since the end of the 19th century
- Liu Shiyin, Shangguan Donghui, Ding Yongjian, Zhang Yong, Li Jing, Zhang Yingsong, Ding Liangfu and Li Gang: Reassessment of changes of the Xinqingfeng and Malan ice caps in the Northern Qinghai-Tibetan Plateau, China
- Ian Willis, Ian Owens, Wendy Lawson and Penny Clendon: Mass balance of Brewster Glacier, New Zealand revealed by geodetic methods
- Addy Pope, Tavi Murray and Adrian Luckman: DEM quality assessment for quantification of glacier surface change
- Edward G. Josberger, William R. Bidlake, Rod S. March and Ben W. Kennedy: Glacier mass-balance fluctuations in the Pacific Northwest and Alaska, USA
- Douglas W.F. Mair, David O. Burgess, Martin J. Sharp, Shawn J. Marshall and Fiona G.L. Cawkwell: Surface mass balance and area change of the northern glacial catchments of Prince of Wales Ice-field, Ellesmere Island, Nunavut, Canada
- Keith A. Brugger: The non-synchronous response of Rabots Glaciär and Storglaciären to recent climate change: a comparative study
- Kadota Tsutomu and Davaa Gombo: Recent glacier variations in Mongolia
- Carlo D'Agata, Guglielmina Diolaiuti, Teresa Carnielli, Antonio Zanutta, Yuri Pusceddu and Claudio Smiraglia: Recent changes of glaciers in the Italian Alps: differences between debris-covered and debris-free glaciers
- J. Paul Winberry, Sridhar Anandakrishnan and Andy M. Smith: Changes in velocity near the onset of Bindschadler ice stream
- Martin Jeffries, David Carlson, Lars Kullerød and Mark McCaffrey: The cryosphere research community has a role to play in education and outreach for the International Polar Year
- Christopher A. Shuman, Dorothy K. Hall and Richard S. Williams, Jr: Detection of surface-elevation change on Drangajökull, Iceland
- Yao Tandong, Duand Kequin, L.G. Thompson, Wang Ninglian, Tian Lide, Xu Baiqing, Wang Youqing and Yu Wusheng: Temperature reconstruction over past millennium on the Tibetan Plateau using four ice cores
- Cecilie Rolstad and Johannes Oerlemans: Updating North Atlantic glaciers length records from optical satellite images
- G. Diolaiuti, C. Smiraglia, C. Mihalcea, C. D'Agata and A. Zanutta: Surface and volume changes of Lys Glacier (Monte Rosa, Italian Alps) during the last thirty years (1975–2005) by indirect analysis and ablation measurements
- Paulina Lopez, Yves Arnaud, Pierre Chevallier, Bernard Pouyau and Johannes Oerlemans: An update of glacier length changes in Patagonia and Darwin Cordillera
- Rafael R. Ribeiro, Jorge Arigony-Neto, Jefferson Cardia Simões and Edson Ramirez: Evaluation and use of CBERS-2 digital data for glacier inventories
- Ian S. Evans: Glacier change in the southern coast mountains of British Columbia: the role of size, gradient and aspect
- Tatiana Khromova, Gennady Nosenko, Richard Armstrong, Roger Barry, Bruce Raup and Siri Jodha Singh Khalsa: Results of GLIMS database population for glacier regions of the former Soviet Union
- Astrid Lambrecht and Michael Kuhn: Glacier changes in the Austrian Alps during the last three decades, derived from the new Austrian glacier inventory
- Andreas Bauder, Giovanni Kappenberger, Hans Müller-Lemans, Matthias Huss and Atsumu Ohmura: 90 years of seasonal mass balance observations on Claridenfirn, Switzerland
- Carmen Molina, Francisco Navarro, Jaume Calvet, David García-Sellés and Javier Lapazaran: Hurd Peninsula glaciers, Livingston Island, Antarctica, as indicators of regional warming: ice volume changes during the period 1956–2000
- Luke Copland, Wendy Lawson and Becky Goodsell: A century of change at the McMurdo Ice Shelf, Antarctica
- Jorge Arigony-Neto, Frank Rau, Helmut Saurer, Ricardo Jaña, Jefferson Cardia Simões and Steffen Vogt: A time series of SAR data for monitoring changes in boundaries of glacier zones on the Antarctic Peninsula
- Matthew Beedle, Mark Dyurgerov, Siri Jodha Singh Khalsa, Bruce Raup, Christopher Helm, Richard Armstrong and Roger G. Barry: Bering Glacier, Alaska: uncertainty in estimation of mass turnover in response to climate
- Kunio Rikiishi, Risa Obama and Daisuke Hatsuzuka: The trend of earlier melting of seasonal snow in the Northern Hemisphere
- Bruce H. Raup, Siri Jodha Singh Khalsa, Matthew Beedle, Christopher Helm, Richard Armstrong and Roger G. Barry: Change detection of the Klinaklini Glacier, British Columbia, in the context of the GLIMS GLACE 2 experiment
- Robert S. Fausto, Christoph Mayer and Andreas P. Ahlström: Surface type and melt area study of the Greenland ice sheet using MODIS data from 2000–2005
- Massimo Pecci and Claudio Smiraglia: Ten years of mass balance of the ghiacciaio del Calderone (Gran Sasso d'Italia, central Apennines) and related issues of a reducing glacier in a changing central-Mediterranean cryosphere
- Jane G. Ferrigno, Alison J. Cook, Richard S. Williams, Jr., Charles Swithinbank, Adrian J. Fox and Janet W. Thomson: Analysis of coastal changes mapped in the Larsen ice shelf area, Antarctica: 1940–2005
- Masahiro Hori, Teruo Aok, Knut Stamnes and Wei Li: Spatial and temporal variations of satellite-derived snow physical parameters in the Arctic regions during the spring-fall seasons in 2003
- C. Nuth, J. Kohler, H.F. Aas, O. Brandt and J.O. Hagen: Glacier geometry and elevation changes on Svalbard: a baseline dataset
- Timothy D. James, Tavi Murray, Adrian J. Luckman, Nicholas E. Barrant and Trine Abrahamsen: Change in the geometry and extent of Slakbreen, Svalbard since 1961 using lidar-controlled aerial photography and photogrammetry
- Leo E. Peters, Sridhar Anandakrishnan and Donald E. Voigt: Temporal variations in the subglacial regime of Bindschadler ice stream, West Antarctica
- Matthew J. Hoffman, Andrew G. Fountain and Jonathan M. Achuff: Twentieth-century variations in area of small glaciers and icefields, Rocky Mountain National Park, Rocky Mountains, Colorado, USA
- Keith M. Jackson and Andrew G. Fountain: Spatial and morphological change on Eliot Glacier, Mount Hood, Oregon, USA
- Tazio Strozzi, Miriam Jackson and Andrew Shepherd: A comparison of seasonal velocity variations on Unteraagletscher and Svartisen
- David M. Rippin, Jared West, Tavi Murray and Anthony L. Endres: Implications of time domain reflectometry (TDR) studies of dielectric permittivity for interpretation of water content from radio echo sounding (RES) experiments

- Robert G. Bingham, Martin J. Siegert and Bryn P. Hubbard: Radio-echo sounding determination of ice stream stability: Institute ice stream, West Antarctica
- Ketil Isaksen, Rune Strand Ødegård, Trond Eiken and Johan Ludvig Sollid: Calculation of mean annual ground surface temperature (MAGST) in mountain permafrost
- Helen Freeman, Bernd Kulesa and Bryn Hubbard: Application of ultrasonic velocity anisotropy to the characterisation of ice cores extracted from Glacier de Tsanfleuron, Switzerland
- Audrey D. Huerta: Coupled evolution of mountains and ice sheets; faults, fjords, and fluvial systems
- Teruo Aoki, Hiroki Motoyoshi, Yuji Kodama, Tepei J. Yasunari and Konosuke Sugiura: Variations of snow physical parameters and their effects on albedo in Sapporo
- Gernot Koboltschnig, Hubert Holzmann, Wolfgang Schöner and Massimiliano Zappa: Contribution of glacier melt to stream runoff: if the climatically extreme summer of 2003 had happened in 1979...
- Robert G. Bingham, Peter W. Nienow, Alun L. Hubbard, David M. Chandler and Martin J. Sharp: Influence of meltwater on the dynamic response of Arctic glaciers to climate change: field evidence and modelling simulations
- Victoria Parry, Peter Nienow, Douglas Mair, Julian Scott, Bryn Hubbard and Elizabeth Morris: Investigations of meltwater refreezing and density variations in the snowpack and firn within the percolation zone of the Greenland ice sheet
- Bernd Kulesa and Gerald Müller: Numerical modelling of the propagation of pressure pulses as modified acoustic waves through glacial melt water systems
- Suzanne Bevan, Adrian Luckman, Tavi Murray, Helena Sykes and Jack Kohler: Positive mass balance during the late 20th century on Austfonna, Svalbard revealed using satellite radar interferometry

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CLiC project area 4: Links between the cryosphere and global climate

- Nicolas J. Cullen, Thomas Mölg, Douglas R. Hardy, Konrad Steffen and Georg Kaser: Energy balance model validation on the top of Kilimanjaro using eddy correlation data
- Caixin Wang and Aike Beckmann: Investigation of the impact of Antarctic ice shelf melting in a global ice-ocean model (ORCA2-LIM)
- Kai Rasmus and Aike Beckmann: The impact of global change on low-altitude blue ice areas in Antarctica; a thermodynamic-hydrodynamic modelling study
- Takao Kameda, Vladimir Ya. Lipenkov and Takeo Hondoh: Total air content of Dome Fuji ice core during the last 30,000 years, and a new interpretation of total air content from the Last Glacial Maximum to present in Antarctic ice cores.
- Andrew Mackintosh and Brian Anderson: The response of New Zealand glaciers to climatic change
- Regine Hock, Valentina Radić and Matthias de Woul: Climate sensitivity of Storglaciären – an intercomparison of mass balance models using ERA-40 reanalysis and regional climate model data
- C.I. van Tuyll, R.S.W. van de Wal and J. Oerlemans: The response of a simple Antarctic ice flow model to temperature and sea level fluctuations over the Cenozoic era
- Willem Jan van de Berg, Michiel van den Broeke and Erik van Meijgaard: The modelled Antarctic atmospheric energy and moisture budget
- Jeff Ridley, Alison McLaren, Ann Keen, Chris Durman and Doug Smith: Changes in contemporary polar climate in the Hadley Centre climate model, HadGEM1
- Ed Bueler, Craig Lingle and Jed Kallen-Brown: Fast computation of a viscoelastic deformable earth model for ice sheet simulations
- Jennifer Griggs and Jonathan Bamber: Uncertainty in observed and modelled cloud fraction over Greenland and its impact on the ice sheet energy balance

CLiC project area 3: The marine cryosphere and its interactions with high latitude oceans and atmosphere

- Mark Drinkwater, Carolin Schmitt and Christoph Kottmeier: Relationships between southern annular mode and Antarctic sea-ice drift
- Peter Wadhams and Nicholas Hughes: Recent sea ice thickness data from submarines and their implications
- Nerilie Abram, Robert Mulvaney and Eric Wolff: Methane sulphononic acid in near-coastal ice cores as a proxy for Antarctic sea ice variations
- Julienne C Stroeve, Thorsten Markus, Walt Meier and MaryJo Brodzik: Arctic climate connections between sea ice, the Greenland ice sheet, and the adjacent land
- Ted Maksym and Thorsten Markus: Snowfall and snow depth over Antarctic sea ice

CLiC project area 2: Glaciers, ice caps and ice sheets, and their relation to sea level

- Libo Wang and Martin Sharp: Melt season duration over ice caps in the eastern high Arctic, 2000–2004
- G. Picard, M. Fily and H. Gallée: Surface melting derived from microwave radiometers as a climatic indicator in Antarctica
- Wilfried Haeberli, Martin Hoelzle, Frank Paul and Michael Zemp: Integrated monitoring of mountain glaciers as key indicators of global climate change: the example of the European Alps