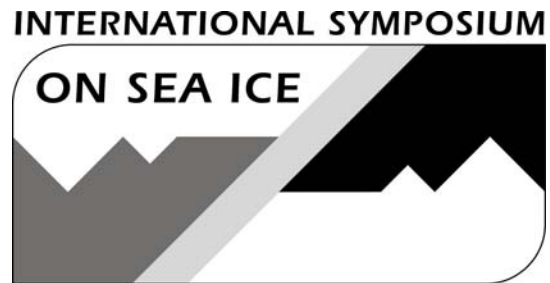


INTERNATIONAL GLACIOLOGICAL SOCIETY

**INTERNATIONAL SYMPOSIUM ON
SEA ICE**

Dunedin, New Zealand
5–9 December 2005



CO-SPONSORED BY
University of Otago
Royal Society of New Zealand
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THIRD CIRCULAR
&
PROGRAMME

November 2005

Registered Charity

INTERNATIONAL GLACIOLOGICAL SOCIETY

PRESIDENT: A. Ohmura

VICE PRESIDENTS: E. Brun, Ian Allison and Eric Wolff

IMMEDIATE PAST PRESIDENT: E.M. Morris

SYMPOSIUM ON SEA ICE

The International Glaciological Society will hold an International Symposium on Sea Ice in 2005. The symposium will be held in Dunedin, New Zealand, with registration on 4 December and sessions from 5–9 December 2005.

SYMPOSIUM ORGANIZATION

Magnús Már Magnússon (International Glaciological Society)

LOCAL ARRANGEMENTS COMMITTEE

Vernon Squire and Pat Langhorne (co-Chairs), Sean Fitzsimons, Russell Frew, Chris Petrich, Kerry Buchan, Sarah Mager, Harry Keys, Tim Haskell, Mike Williams.

SCIENCE STEERING AND EDITORIAL COMMITTEE

Pat Langhorne and Vernon Squire (Chief scientific editors), Martin O. Jeffries, Ian Allison, Gerhard Dieckmann, Hajo Eicken, Jean-Louis Tison, Tony Worby, Enrico Zambianchi, Christian H. Fritsen, Matti Lepparanta, Donald Perovich, Kunio Shirasawa, Stan Jacobs, Mike Williams, Adrian Jenkins, Stein Sandven, Joey Comiso, Jamie Morison, Alexander Makshtas, Michelle Johnston, Stephen Jones, Ruth Preller, Stephen Ackley, Petra Heil.

INFORMATION ABOUT THE SYMPOSIUM MAY BE OBTAINED FROM:

International Glaciological Society, Scott Polar Research Institute,
Lensfield Rd, Cambridge CB2 1ER, UK.

Tel: +[44] (0)1223 355 974

Fax: +[44] (0)1223 354 931

Email: igsoc@igsoc.org

Web: <http://www.igsoc.org/symposia/>

<http://www.physics.otago.ac.nz/research/ice/igs/>

LOCAL INFORMATION

There is an annotated campus map on the webpage

http://www.physics.otago.ac.nz/research/ice/igs/Venue_CampusMap_annotated2.jpg.

The Castle lecture theatre complex is at F5.03, and registration will be held directly opposite, in the Link, from 17:30 until 19:30.

The registration desk will remain open through the week. Receipts and other materials will be distributed at registration. Your name tag is proof of your registration and should be worn to all events.

Icebreaker including some nibbles and drinks will be held at the Otago Museum from 18:00 to 20:00 on Monday evening.

More information about the campus of the University of Otago <http://www.otago.ac.nz/about/>, including a campus map, a web cam, a 360° view, and weather station).

THEME

The sea-ice of the Arctic and Antarctic Seas exerts a major impact on the regional oceans and atmosphere, concomitantly affecting global climate and modifying the global oceans. It also strongly influences the ecology of the polar oceans. Through remote sensing, fieldwork and modelling, often with a multidisciplinary flavour, scientists are well placed to make significant progress over the next two decades in our understanding of this vital constituent of the geosphere and biosphere at all scales. Succeeding the very successful 'International Symposium on Sea Ice and its Interactions', held in Fairbanks Alaska during June 2000, the overarching goal of this Symposium is to promote interdisciplinary discussion of the geophysics of sea ice and its interactions with the ocean, atmosphere and biosphere.

TOPICS

The suggested topics include:

1. Sea-ice and climate
2. Sea-ice growth and decay
3. Sea-ice morphology, motion and deformation
4. Large scale sea-ice processes
5. Atmosphere-ice-ocean interactions
6. Interactions between sea-ice and ice shelves
7. Sea-ice ecology and habitat
8. Sea-ice modelling

SESSIONS AND POSTERS

Oral and poster sessions are all located in the Castle St Lecture Theatres

Oral presentations:

Oral presentations will be allowed 20 minutes *inclusive* of time for discussion. The session chairs will be asked to ensure that every presentation starts and finishes according to schedule in order to allow session-hopping during parallel sessions.

Presentations will be given in modern lecture theatres. An overhead projector, a Mac running MS PowerPoint 2004 and Acrobat Reader 7.0, and a PC running MS PowerPoint 2003 and Acrobat Reader 7.0 will be available for presentations. Presentations should be uploaded from CD/DVD or USB memory stick/flash drive. **Please bring your presentation, on CD/DVD or USB memory stick/flash drive, to Sunday registration as this is the ideal opportunity to upload presentations to the lecture theatre server.**

Posters presentations

Poster introductions will be allowed 1 minute and *one overhead*. PowerPoint presentations etc. are not acceptable due to the additional time required. There will be a limited number of blank overheads and pens available.

The mounting boards for posters are 2 m high and 1.2 m wide. Velcro will be provided.

SOCIAL PROGRAMME

Sunday (17:30-19:30)	Registration and Meet & Greet
Monday (18:00-20:00)	Icebreaker.
Tuesday (17:30-18:00)	Drinks and nibbles with posters
Wednesday (11:30-early evening)	Mid week excursions.
Thursday (19:00 - 23:30)	Banquet at Larnach Castle
Friday (11:00-11:30)	Brunch

PUBLICATION

Selected papers from the symposium will be published by the Society in the *Annals of Glaciology*, volume 44. All papers (including those based on posters) will be refereed and edited according to the Society's regular standards before being accepted for publication.

EXCURSIONS

MID WEEK FIELD TRIP:

Option 1: Excursion along Otago Peninsula. The Otago Peninsula is the only mainland nesting site of the Royal Albatross. The tour will include a visit to the albatross colony, a short boat trip to the mouth of the Otago Harbour, and a visit to a yellow-eyed penguin colony.

Option 2: Excursion to Central Otago. This group will head north up the coast by bus to view the Moeraki boulders. The tour will then travel inland to the goldfields of Central Otago to Pukerangi where they will board the Taieri Gorge railway to return to Dunedin by train through the spectacular Taieri gorge.

BANQUET to be held on Thursday evening in the ballroom of Larnach Castle on the Otago Peninsula. Larnach Castle was built in 1871 as home to a local businessman.

POST-SYMPOSIUM TOUR: LEADERS– SARAH MAGER & CHRIS PETRICH

Approximate cost is NZ\$700 or UK£270 per person, including breakfasts and lunches, mini-bus travel and accommodation on twin share basis.

10 December: The field trip will begin from Dunedin after the Symposium. The main themes on the first day will be gold, tourism and hydro electricity development, land use change and new viticulture. We travel up the Clutha Valley through the historic heartland of Otago to arrive in Queenstown. This is a very scenic place in glaciated terrain and the adventure capital of New Zealand. Accommodation arranged in Queenstown.

11 December: Mountains, inter-mountain basins and lakes of the South Island. Boat trip and barbecue in Queenstown. Travel from Queenstown over two mountain passes to the McKenzie Country and the Mount Cook Region. Accommodation arranged in Twizel.

12 December: Lakes, foothills and plains. Travel from Twizel to Lake Tekapo. Weather permitting, there will be a side trip to Mount Cook and the Tasman Glacier. The route passes through the foothills to the Canterbury Plains, across spectacular braided rivers and on to Christchurch. Accommodation arranged in Christchurch.

13 December: Participants will be able to leave for world-wide destinations from Christchurch International Airport. For those with late flights there will be the opportunity to explore Christchurch.

ACCOMPANYING PERSONS PROGRAMME

The accompanying persons registration fee includes the icebreaker, the banquet, the mid-week field trip and the services of the accompanying persons coordinator. The coordinator will be able to assist accompanying persons to make further arrangements through the local tourist office. Tourist information is available at <http://www.visit-dunedin.co.nz/>.

LOCATION AND WEATHER

Dunedin is home to New Zealand's oldest university and has a population of about 120,000. Situated on the south-east coast of New Zealand's South Island, it is the capital of the spectacular province of Otago. The nearby Otago Peninsula is a sanctuary for wildlife, principally seals, penguins and Royal Albatross. Dunedin has a mild maritime climate and the weather is notoriously unpredictable. December is early summer so make sure you pack a warm jersey, a raincoat, sun block, a sun hat and some comfortable walking shoes for the Wednesday field trip. Further information is available at <http://www.cityofdunedin.com>.

TRAVEL AND ACCOMMODATION

Citizens of the US, Canada, Japan and many European nations do not need a visa to enter New Zealand. If in doubt ask a travel agent or consult the Immigration New Zealand website www.immigration.govt.nz for information on visitor visas.

Please note that New Zealand has strict laws regarding entering the country with agricultural products. Visitors will be asked to declare the following: food of any kind, animal products (e.g. skins, honey, salami), or plant products (e.g. flowers, pot pourri). Camping and hiking gear will be checked to ensure it is clean. Take care to check your luggage – forgetting an apple can cost you an instant fine of NZ\$200!!

A choice of accommodation is offered on the attached sheet. Pencil bookings have been made for conference participants at a range of accommodation. Participants must book their own accommodation and must settle directly with this accommodation on departure. Accommodation will be booked on a first-come first-served basis but pencil bookings will be surrendered if bookings are not made by September. Delegates are cautioned that December is the high tourist season, on top of which university graduations are held throughout the week of the conference. Space in the city's hotels and motels will be at a premium.



IGS International Symposium on Sea Ice, 5-9 December 2005, Dunedin, New Zealand

Monday morning, 5/12/05	
CASTLE 1	
A1: Morning session	
CASTLE 2	
8:30 AM	Opening of the Symposium
8:50 AM	44A173: Convective and advective contributions to heat transfer through sea ice <i>Hajo Eicken, Lars G. Backstrom, Daniel Pringle, Jeremy Miner, and Joe Trodehl</i>
9:10 AM	44A098: Spectral albedo, reflectance and transmittance of first year sea ice <i>Sebastian Gerland, Berge Hamre, Christina A. Pedersen, and Kåre Edvardsen</i>
9:30 AM	44A044: Changes in floe size distribution observed during early summer in the western Weddell Sea <i>Anthony Worby, Petra Heil, Adam Steer, and Kelvin Michael</i>
9:50 AM	44A013: Pack ice ridging and drift in southern Gulf of St. Lawrence during the winter of 2004. <i>Simon Prinsenberg, A. van der Baaren, Ingrid Peterson, and Scott Holladay</i>
10:10 AM	44A159: The North American Ice Service (NAIS) – Present Status and Future Directions <i>Pablo Clemente-Colón, Marie-France Gauthier, Katherine Wilson, Towanda Street, Kelly Taylor, Paul Seymour, John Falkingham, and Denis Dubé</i>
10:30-11:00	Morning tea
B1: Morning session	
11:00 AM	44A154: Brittle Failure Envelope for First-Year Arctic Sea Ice <i>Erlend M. Schulson, Andrew Fortt, and Daniel Iliescu</i>
11:20 AM	44A074: Inter-annual and regional variability of Southern Ocean snow on sea ice and its correspondence with sea ice cover and atmospheric circulation patterns <i>Thorsten Markus and Donald J. Cavalieri</i>
11:40 AM	44A112: Validation of sea ice thickness calculated from AVHRR data in an Antarctic coastal polynya <i>Takeshi Tamura, Kay I. Ohshima, Hiroyuki Enomoto, Kazutaka Tateyama, Atsuhiko Muro, Shuki Ushio, and Robert A. Massom</i>
12:00 PM	44A123: Sea-ice drift and deformation during ARISE 2004: Observations and modeling results. <i>Petra Heil, Robert A. Massom, and Ian Allison</i>
12:20-1:50	Lunch
1:30-1:50	Seven pleasures of the Arctic <i>A film by Lars Smedsrud</i>

Monday afternoon, 5/12/05	
CASTLE 1	
C1: Sea ice morphology, motion and deformation	
1:50 PM	44A014: Brine Diffusion in First Year Sea Ice Measured by Earth's Field PGSE - NMR <i>Ocean Mercier, Mark Hunter, and Paul Callaghan</i>
2:10 PM	44A092: Measured physical behavior of Arctic summer ice in 2003 <i>Zhijun Li, Zhanhai Zhang, Xilu Dong, Peng LU, Bin Cheng, Zhi Chen, and Kunio Rikiishi</i>
2:30 PM	44A055: Parametrisation of Arctic sea ice surface roughness for application in ice type classification <i>Carola von Salderg, Thomas Busche, Christian Haas, and Wolfgang Dierking</i>
2:50 PM	44A020: An evaluation of dual-polarization ENVISAT ASAR for discrimination of first-year sea ice deformation <i>Carrie Breneman and John Yackel</i>
3:10 PM	44A094: Multiple equilibrium states of the Arctic ice cover due to sea ice mechanics <i>Jennifer K. Hutchings and William D. Hibler III</i>
3:30-4:00	Afternoon tea
D1: Sea ice morphology, motion and deformation	
4:00 PM	44A024: Measurement of sea ice draft using an autonomous underwater vehicle <i>Christopher J Banks, Mark A Brandon, and Paul H Garthwaite</i>
4:20 PM	44A151: Airborne laser altimeter measurements of sea ice freeboard and comparison with coincident thickness data <i>Sibylla Goebell and Christian Haas</i>
4:40 PM	44A129: Sea ice thickness measurements and its underside morphology analysis in the Arctic Ocean using ground-penetrating radar <i>Bo Sun, Zhanhai Zhang, Dali Wang, Bengbin Wang, and Yuansheng Li</i>
5:00 PM	44A121: Comparison of the sea ice thickness distribution in the Lincoln Sea and the adjacent Arctic Ocean in 2004 and 2005 <i>Christian Haas and Steffen Hendricks</i>
5:20 PM	44A143: Ship-borne Electromagnetic Induction Sounding of Sea Ice Thickness in the South Okhotsk Sea <i>Shotauro Uto, Takenobu Toyota, Haruhito Shimoda, Kazutaka Tateyama, and Kunio Shirasawa</i>
5:40 PM	44A029: A drop in mid-summer shortwave radiation induced by changes in the ice-surface condition in the central Arctic <i>Jun Inoue, Takashi Kikuchi, Donald K. Perovich, and James H. Morison</i>
6:00 - 8:00	Ice breaker at the Otago Museum
CASTLE 2	
C2: Atmosphere-Ice-Ocean	
	44A064: About a Technique to Estimate the Sea Ice Volume Flux into the Greenland Sea by Use of Spaceborne Remote Sensing <i>Gunnar Spreen, Stefan Kern, Detlef Stammer, Rene Forsberg, and Robert Ezraty</i>
	44A018: Influence of the Southern Annular Mode on the sea ice—ocean system: The role of the thermal and mechanical forcing <i>Wouter Lefebvre and Goosse Hugues</i>
	44A117: Climate variability of sea ice in the Australian sector of the Southern Ocean <i>Siobhan O'Farrell and Ian Smith</i>
	44A084: The role of atmospheric circulation in the negative correlation between sea ice extents in the Sea of Okhotsk and snowfalls in the Japanese Islands <i>Kunio Rikiishi and Shingo Miyahata</i>
D2: Atmosphere-Ice-Ocean	
	44A017: The effects of clouds and sea ice on the solar radiation budget in the Southern Ocean from surface measurements <i>Melanie F. Fitzpatrick and Stephen G. Warren</i>
	44A029: A drop in mid-summer shortwave radiation induced by changes in the ice-surface condition in the central Arctic <i>Jun Inoue, Takashi Kikuchi, Donald K. Perovich, and James H. Morison</i>
	44A165: Implications of cloud forcing and feedbacks in the Southern Ocean <i>Erica L. Key and Peter J. Minnett</i>
	44A183: Scattering of Ice-Coupled Waves by an Ice Sheet With Arbitrary Thickness <i>Gareth L. Vaughan, Timothy D. Williams, and Vernon A. Squire</i>
	44A186: The Effect of a Growing Lead in Sea-Ice on the Passage of Waves <i>Timothy D. Williams, Vernon A. Squire, and Gareth L. Vaughan</i>
	44A111: Estimation of ice-ocean heat transfer coefficient from concentration-temperature relationship <i>Sotey Nishashi and Kay I. Ohshima</i>

Tuesday morning, 6/1/2005		CASTLE 1	CASTLE 2
		E1: Morning session	
8:30 AM		44A006: Wave-Induced Rafting Effects on Sea Ice Edge Development <i>Mingrui Dai, Heyley H. Shen, Stephen F. Ackley, and Motoyoshi Ikeda</i>	
8:50 AM		44A035: CryoSat Retrievals of Arctic Sea Ice Thickness <i>Katharine Giles, Seymour Laxon, Duncan Wingham, David Wallis, R. Keith Raney, and William B. Krabill</i>	
9:10 AM		44A090: Effects of the Ross Sea megabergs on local sea-ice conditions <i>Douglas R. MacAyeal, Kelly Brunt, Olga Sergienko, Young-Jin Kim, Marianne Okal, Jonathan Thorn, Shelly Knuth, and Matthew Lazzara</i>	
9:30 AM		44A133: Thermodynamic evolution of summer first year sea ice properties at ISPOL (Western Weddell Sea, Antarctica): implications for biological activity and air-ice-sea gas exchanges <i>Jean-Louis Tison, Anthony Worby, Bruno Delille, Véronique Schoemann, Johannes de Jong, Delphine Lennuzel, and Christian Haas</i>	
9:50 AM		44A042: Modeling of superimposed ice formation during spring melt-refreezing period in the Baltic Sea <i>Bin Cheng, Timo Vihma, Mats A. Granskog, and Roberta Piazzini</i>	
10:10 AM		44A193: Fluid transport in sea ice <i>Kenneth M. Golden, Amy L. Heaton, Hajo Eicken, Ali Jabini, and Jingyi Zhu</i>	
10:30-11:00		Morning tea	
		F1: Sea ice modelling	F2: Sea ice ecology and habitat
11:00 AM			44A077: Controls of the landfast ice-ocean ecosystem offshore Barrow, Alaska <i>Weibing Jin, Clara Jodwalis Deal, Jia Wang, Kyung-hoon Shin, Nori Tanaka, Terry Whitledge, and Sang-Ho Lee</i>
11:20 AM		44A015: Pack ice as a two-dimensional granular plastic: A new constitutive law <i>Keguang Wang</i>	44A175: A Comparative Study of O2 Measurements in Experimental (Interice II) and Natural (ISPOL, Western Weddell Sea, Antarctica) First Year Sea Ice <i>Jean-Louis Tison, Thomas Mock, David Thomas, Andreas Krell, Stathis Papadimitriou, Veronique Verbeke, Bruno Delille, and Gerhard Dieckmann</i>
11:40 AM		44A031: Anisotropic Model of Granulated Sea Ice Dynamics <i>Alexander Wilchinsky and Daniel Feltham</i>	44A192: High resolution DMS and DMSP time series profiles in summer first year sea ice at ISPOL (Western Weddell Sea, Antarctica) <i>Jean-Louis Tison and Jacqueline Stefels</i>
12:00 PM		44A086: Four Ways of Modelling Sea Ice Deformation in the Arctic: A Comparison with Measurement Data from 1995 to 2004 <i>Torge Martin</i>	
12:20-1:50		Lunch	
		IGS Council meeting in Castle D	

Tuesday afternoon, 6/12/05	
CASTLE 1	
G1: Sea ice modelling	
1:50 PM	44A007: A model for wave scattering by in the marginal ice zone using a two-dimensional multiple ice solution. <i>Allison Kohout and Mike Meylan</i>
2:10 PM	44A131: Numerical analysis on characteristics of wave propagating arbitrary ice-covered sea <i>Toshinori Ogasawara and Shigeki Sakai</i>
2:30 PM	44A095: Solidification of Leads: Approximate Solutions of Nonlinear Problem <i>Dmitri V. Alexandrov, Alexey P. Malgin, and Irina V. Alexandrova</i>
2:50 PM	44A180: Comparison of embedded and levitated Arctic ice-ocean tidal models <i>W. D. Hibler III, Andrew Roberts, Petra Heil, and A Proshutinsky</i>
3:10 PM	44A033: A model of melt pond evolution on sea ice <i>Paul Taylor and Daniel Feltham</i>
3:30-4:00	Afternoon tea
HI: Poster session	
4:00 PM	44A127: Brine release from warm sea ice <i>Karolina Widebäck, Peter M. Haugan, and Frank Nilsen</i>
4:02 PM	44A138: What controls pCO ₂ dynamics in Antarctic sea ice and related air-ice CO ₂ fluxes? <i>Bruno DeLille, Véronique Schoemann, Christiane Lancelot, Delphine Lannuzel, Jeroen T.M. de Jong, Bronte Tilbrook, Daniel DeLille, Alberto V. Borges, and Jean-Louis Tison</i>
4:04 PM	44A140: Surface albedo measurements over sea ice in the Baltic Sea during the spring snowmelt period <i>Roberta Pirazzini, Mats A. Granskog, Timo Vihma, and Bin Cheng</i>
4:06 PM	44A170: Surface albedo observations of Hudson Bay land-fast sea ice during melt onset <i>Jens Ehn, Mats Granskog, Tim Papakyriakou, Ryan Galley, and David Barber</i>
4:08 PM	44A162: The Reflection and Transmission of Ultraviolet Light by an Arctic Sea Ice Cover <i>Donald K. Perovich</i>
4:10 PM	44A125: Sea Ice Research within the International Polar Year 2007-2008 <i>Ian Allison, Michel Beland, and David Carlson</i>
4:12 PM	44A146: The classification of ASAR alternating polarization data with co-incident in situ data <i>Richard Heil and Nicholas Hughes</i>
4:14 PM	44A171: Arctic Sea Ice Atlas of the Future <i>Lawson W. Brigham, John E. Walsh, and Michael S. Timlin</i>
4:16 PM	44A010: Covariation of sea ice and methane sulphonic acid in Wilhelm II Land, Antarctica <i>Annette F.M. Foster, Mark A. J. Curran, Barbara T. Smith, Tas D. van Ommen, and Vin I. Morgan</i>
4:18 PM	44A012: ARISE (Antarctic Remote Ice Sensing Experiment) in the East: Validation of satellite sea-ice data products. <i>Rob.Massom, Tony Worby, Thorsten Markus, Vicky Lytle, Ted Scambos, Ian Allison, Hiroyuki Enomoto, Kazuaki Tateyama, and Terry Haran</i>
4:20 PM	44A036: The Role of Melt in the Recent Extreme Arctic Summer Ice Extent Minima <i>Julienne Stroeve, Walt Meier, and Thorsten Markus</i>
4:22 PM	44A047: Ice thickness and hydrography of the North East Water Polynya <i>Guy Williams, Peter Wadhams, and Jeremy Wilkinson</i>
CASTLE 2	
G2: Large scale sea ice processes	
	44A087: Anomalies of Sea Ice Transports in the Arctic <i>Torge Merittin and Thomas Martin</i>
	44A019: Modes of variability of the winter sea ice in the Southern Ocean <i>Wouter Lefebvre and Goosse Hugues</i>
	44A122: Increase in sea-ice velocity in East Antarctica as evidenced by SMMR and SSM/I. <i>Petra Heil and Samantha Lake</i>
	44A190: Wave propagation within sea ice: developments in instrumentation <i>Martin Doble, David Madrum, Duncan Mercer, Oli Peppe, and Jeremy Wilkinson</i>
	44A050: Self-organized criticality in the Arctic ice ridges system <i>Denis Zvyantsov and Vladimir N. Smlirnov</i>

Tuesday afternoon cont'd, 6/12/05	
CASTLE 1	
H1: Poster session cont'd	
4:24 PM	44A150: Antarctic sympagic amphipods in the Central Weddell Sea <i>R.H. Kraig, J. Berge, B. Gulliksen, and J. Werner</i>
4:26 PM	44A169: Spatial variation of biogeochemical properties of landfast sea ice in the Gulf of Bothnia (Baltic Sea) <i>Matthias Steffens, Mats A. Granskog, Hermann Kaarokallio, Harri Kuosa, and David N. Thomas</i>
4:28 PM	44A009: Relation of ice growth rate to salt segregation during freezing of low-salinity seawater (Baltic Sea) <i>Mats A. Granskog, Jari Uusikivi, Alberto Blanco Sequeiros, Eino Sominen, and Tonu Martma</i>
4:30 PM	44A065: Retrieval of thin-ice thickness using the L-band polarization ratio measured by the helicopter-borne scatterometer HELISCAT <i>Stefan Kern, Martin Gade, Andreas Peiffering, and Christian Haas</i>
4:32 PM	44A096: Properties of sea ice and overlying snow in the southern Sea of Okhotsk <i>Takanobu Toyota, Shinya Takatsuji, Kazuhiro Maoki, Kazuaki Tateyama, and Kay I. Ohshima</i>
4:34 PM	44A097: Variability of sea ice thickness off West Spitsbergen <i>Sebastian Gerzberg and Richard Hall</i>
4:36 PM	44A100: Spectral transmission and implications for the partitioning of shortwave radiation in arctic sea ice <i>Thomas C. Grenfell, Bonnie Light, and Donald K. Perovich</i>
4:38 PM	44A026: Modelling the areal evolution of Arctic melt ponds <i>Fern Scott and Daniel Feltham</i>
4:40 PM	44A027: A NEW PARAMETERIZATION OF MELT PONDS IN THE CICE MODEL: PRELIMINARY RESULTS <i>Daniela Focco and Daniel L. Feltham</i>
4:42 PM	44A126: Thickness measurements of the deformed sea-ice by using an electromagnetic-inductive device <i>Kazutaka Tateyama, Shotaro Uto, Kunio Shirasawa, and Hiroyuki Enomoto</i>
4:44 PM	44A144: EVP dynamics in HadCM3 <i>William M. Connolley and Ann Keen</i>
4:46 PM	44A164: A Discrete Element, Ray Tracing Model of Radiative Transfer in Snow <i>Mark A. Hopkins and Donald K. Perovich</i>
4:48 PM	44A194: NRL's Polar Ice Prediction System (PIPS 3.0): Current capabilities and future plans <i>Ruth Preller, Pamela G. Posey, and Robert C. Rhodes</i>
4:50 PM	44A056: IceCam: Sea ice data collection on Vessels Of Opportunity in IPY 2007-8 <i>Nicholas Hughes and Richard Hell</i>
4:52 PM	44A078: High-resolution sea ice motions from AMSR-E imagery <i>Walter N. Meier and Mingrui Dai</i>
4:54 PM	44A166: A Review of Sea Ice Remote Sensing Observations During the Healy Trans-Arctic Crossing of 2005 <i>Pablo Clemente-Colón, Sean Helfrich, Kelly Taylor, and Gene Swape</i>
4:56 PM	44A196: The response of arctic sea ice to the winter atmospheric Dipole Anomaly (DA) <i>Jia Wang, B. Wu, and John Walsh</i>
4:58 PM	44A198: Interactions between Antarctic sea ice and atmospheric circulation on weekly to seasonal time scales. <i>Jim Renwick</i>
5:00 PM	44A200: The North Pole Environmental Observatory <i>Jamie Morrison, Knut Aagaard, Kelly Falkner, Takashi Kikuchi, Miles G. McPhee, Dick Moritz, Jim Overland, Tim Stanton, and Mike Steele</i>
5:02-6:00	Drinks and nibbles at the poster boards in The Link
6:00-7:30	Informational meeting on the North Pole Environmental Observatory, in Castle D

Wednesday, 7/12/05	
CASTLE 1	
11: Morning session	
8:00 AM	44A109: Impacts of the Variability of Ice Types on the Decline of the Arctic Perennial Ice Cover <i>Jessilina C. Corniso</i>
8:20 AM	44A028: Arctic Sea Ice Surviving the Summer Melt <i>H. Jay Zwally and Per Gloersen</i>
8:40 AM	44A116: Sea ice production in the Okhotsk coastal polynya and its relation to interannual variability of Okhotsk Sea Intermediate Water <i>Kav L. Oshima, Takeshi Tamura, and Sohey Niinashi</i>
9:00 AM	44A076: Ice Mass Balance Buoys: A tool for measuring and attributing changes in the thickness of the Arctic sea ice cover <i>Jackie Richter-Menge, Don Perovich, Bruce Elder, Ignatius Rigor, and Mark Ortmeier</i>
9:20 AM	44A158: Freeboard Measurements and Thickness Estimates of Antarctic Sea Ice, 2003 - 2005 from ICESat <i>Donghui Yi and H. Jay Zwally</i>
9:40 AM	44A152: Growth and Decay of First-year Sea Ice: Arctic Ice compared to sub-Arctic Ice <i>Michelle E. Johnston, and Garry W. Timco</i>
10:00-10:30	Morning tea
J1: Sea ice and climate	
10:30 AM	44A001: Surface Albedo of the Antarctic Sea-ice Zone <i>Richard Brandt, Stephen Warren, Tony Worby, and Thomas Grenfell</i>
10:50 AM	44A075: Combining satellite laser and radar altimeter estimates of sea ice freeboard and thickness. <i>Shead L. Farrell, Seymour W. Laxon, Katharine A. Giles, Jay H. Zwally, Donghui Yi, and Dave C. McAdoo</i>
11:10 AM	44A057: Temporal variation of fast ice in Lützow-Holmbukta, Antarctica: analysis for physical factors of frequent breakup <i>Shuki Ushio</i>
11:30 -	Mid-Week field trips to Otago Peninsula and Central Otago
CASTLE 2	
J2: Sea ice growth and decay	
10:30 AM	44A139: Characteristics of Sea Ice Thickness and Snow Depth Distributions of the Summer Land-fast Ice in Lützow-Holmbukta, East Antarctica <i>Shotaaro Uto, Haruhito Shimoda, and Shuki Ushio</i>
10:50 AM	44A167: THE ROLE OF LANGMUIR CIRCULATION IN NEW ICE FORMATION AND SUSPENSION FREEZING <i>Edward W. Kempema and Dirk Dethleff</i>
11:10 AM	44A104: Effect of snow and small scale processes on the distribution of Antarctic sea ice types <i>Ted Maksym</i>

Thursday morning, 8/12/05	
CASTLE 1	
K1: Morning session	
8:30 AM	44A108: Impact of decreasing sea ice cover on native communities in the Baffin Bay region <i>Walter M. Meier, Juliette Stroeve, and Shari Fox Gearheard</i>
8:50 AM	44A073: Sea ice response to climate change in the Met Office climate model, HadGEM1. <i>Jeff Ridley and Anne Pardeens</i>
9:10 AM	44A034: Beyond SCICEX: Measurement of Arctic sea ice thickness and oceanography by submarine in the 21st Century <i>Nicholas Hughes and Peter Wadhams</i>
9:30 AM	44A079: The Role of the Molecular Sublayer Under Freezing Sea Ice and Implications for Muddy Layer Convection. <i>James H. Morison, Miles G. McPhee, John S. Wettlaufer, and M. Grae Worster</i>
9:50 AM	44A177: From Points to Poles: Extrapolating point measurements of sea ice mass balance <i>Donald K. Perovich and Jacqueline A. Richter-Menge</i>
10:10 AM	44A039: Growth, properties and relation with backscattering coefficient of sea ice in Lutzow-Holm Bay, Antarctica <i>Toshiyuki Kawamura, Hiroyuki Wakabayashi, and Shuki Ushio</i>
10:30-11:00	Morning tea
L1: Sea ice and climate	
11:00 AM	44A045: Simultaneous ice thickness and oceanographic measurements by an AUV in the North East Water Polynya <i>Jeremy Wilkins, Peter Wadhams, Guy Williams, Steve McPhail, Gwyn Griffiths, and Arthur Kozlitzky</i>
11:20 AM	44A088: Sea Ice Concentration in the Ross Sea: Comparison of in situ ASPeCT observations and satellite passive microwave estimates. <i>Margaret A. Kruth and Stephen F. Ackley</i>
11:40 AM	44A048: Cross - validation of in situ, airborne and remote sensing sea ice data from East Antarctica. <i>Andreas Pfaffling, Robert Massom, and Anthony Worby</i>
12:00 PM	44A049: The significance and origin of changes in Arctic sea ice mass balance during the last four decades: an investigation using a highly optimised sea ice model <i>Paul Miller, Seymour Laxon, and Daniel Feltham</i>
12:20-1:50	Lunch
1:30 - 1:50	Meeting for participants of the Post-Symposium Tour in Castle D
CASTLE 2	
L2: Sea ice growth and decay	
	44A191: Physical and radiative characteristics of the Okhotsk Sea ice cover from current satellite, aircraft, and in situ ship data <i>Fumihiko Nishie, Josefino C. Comiso, Masashige Nakayama, Ai Gasiewski, and Boba Stanko</i>
	44A187: Platelet ice formation in McMurdo Sound, Antarctica <i>Inga J. Smith, Patricia J. Langhorne, Timothy G. Haskell, Russell D. Frew, and M. Ross Vennell</i>
	44A070: Tracer study of surface meltwater percolation into first-year Baltic Sea ice during spring melt onset <i>Mats A. Granskog and Hermann Kaarokkalo</i>
	44A041: Snow melt and formation of superimposed ice on Arctic and Antarctic sea ice <i>Marcel Nicolaus, Christian Haas, Sascha Willmes, and Jörg Barreiss</i>

CASTLE 1		CASTLE 2	
Thursday afternoon, 8/12/05		Thursday afternoon, 8/12/05	
M1: Sea ice and climate		M2: Sea ice growth and decay	
1:50 PM	44A083: Calibration of an ice-core glaciochemical (sea salt) record with sea ice variability in the Canadian Arctic <i>Christophe Kissel, Christian M. Zdanowicz, and David A. Fisher</i>	44A185: Temperature Field in Sea Ice of East Antarctica during Late-spring <i>Jiancheng Kang, Ian Allison, Victoria Lytle, Rob Massom, and Tony Worby</i>	
2:10 PM	44A102: A comparison of SSM/I, ULS and HadCM3 Sea ice concentrations in the Weddell Sea <i>William M. Connolley</i>	44A153: Control of sea ice permeability by an external shear flow <i>Jerome Neufeld and John S. Wettlaufer</i>	
2:30 PM	44A156: A CASE STUDY OF OLD ICE IMPORT AND EXPORT THROUGH PEARY AND SVERDRUP CHANNEL IN THE CANADIAN ARCTIC ARCHIPELAGO: 1988-2004 <i>Bea Alt, Katherine Wilson, and Tom Carrieres</i>	44A179: Retrozen cracks in sea ice <i>Chris Petrich, Pat J. Langhorne, and Tim G. Haskell</i>	
2:50 PM	44A147: A Four Year Dataset of Sea-Ice Thickness and Mass Balance for the Southern Ocean <i>Tracy L. Deliberty, Cathleen A. Geiger, Michael Van Woert, Anthony Worby, and Stephen Ackley</i>	44A172: Growth and development of physical properties of first year land-fast Antarctic sea ice determined from winter field measurements. <i>Craig R. Purdie, Pat J. Langhorne, Greg H. Leonard, and Tim G. Haskell</i>	
3:10 PM	44A040: Impacts of the Recent decline of Arctic Sea Ice in summer on the Asia-Pacific Climate in the GISS AGCM <i>Wei Lixin, Zhang Zhanhai, and Wu Huiding</i>	44A062: The salinity evolution of sea ice <i>Dirk Notz and M. Grae Worster</i>	
3:30-4:00	Afternoon tea		
M1: Poster session			
4:00 PM	44A011: A modelling study of the atmospheric impact on the evolution of sea ice area anomalies in the Laptev Sea during selected summers <i>Klaus Gørgen</i>		
4:02 PM	44A038: Variability of the upper ocean heat content in the central Arctic associated with storm-driven mixing <i>Jun Inoue, Takashi Kikuchi, and James H. Morison</i>		
4:04 PM	44A063: The sea-ice compactness in the northern North-Atlantic during 1979-2003: Changes and links to the surface air flow <i>Stefan Kern, Youmin Chen, Dettlef Stemmer, and Gunnar Spreng</i>		
4:06 PM	44A103: Atmosphere-Ice-Ocean (AIO) interaction studies in Svalbard <i>Frank Nilsson, Karolina Widell, Sebastian Gerland, Peter M. Haugen, Jan-Gunnar Winther, Miles McPhee, Anders Sirevaag, Kåre Edvardsen, and James Morison</i>		
4:08 PM	44A114: The feature of the intraseasonal variability of sea-ice in the Antarctic. <i>Kenji Baba, Shoshiro Minobe, Noriaki Kimura, and Masaaki Wakatsuchi</i>		
4:10 PM	44A115: Observational Paradigm of Ocean-Ice-Atmosphere interaction using ice drifting buoys <i>Takashi Kikuchi, Jun Inoue, and Masuo Hosono</i>		
4:12 PM	44A195: Molecular dynamics simulation of ice growth from pure water and brine. <i>Manuel Carignano, E. Baskaran, P.B. Shepson, and I. Szeifer</i>		
4:14 PM	44A105: The Impact of tabular icebergs on the formation of fast ice in McMurdo Sound, Antarctica <i>Kelly M. Buzut, Olga Sergiyenko, and Douglas R. MacAyeal</i>		
4:16 PM	44A043: Regional and Seasonal Variability in Antarctic sea ice thickness <i>Anthony Worby, Cathleen Geiger, Michael van Woert, Stephen Ackley, and Tracy Deliberty</i>		
4:18 PM	44A060: Antarctic sea ice thickness from space? <i>Saybour Lazenby, Sinead Farrell, Andrew Ridout, Katharine Giles, Jay Zwally, and Donghui Yu</i>		
4:20 PM	44A063: Validation of Sea Ice Skin Temperature Algorithms for AVHRR and MODIS <i>Terry Haran, Ted A. Scambos, and Robert Massom</i>		

Thursday afternoon cont'd, 8/12/05	
CASTLE 1	
N1: Poster session cont'd	
4:22 PM	44A082: Climatic analysis of sea ice concentration in the Canadian Arctic derived from operational charts, 1979-2004 <i>Christophe Kyrke</i> , <i>Christian M. Zdanowicz</i> , <i>David A. Fisher</i> , <i>Bea Alt</i> , and <i>Steve McCourt</i>
4:24 PM	44A124: Directional emissivity of snow and ice in the thermal infrared wavelength region <i>Masahito Hori</i> , <i>Teruo Aoki</i> , <i>Tomonori Tanikawa</i> , <i>Hiroki Motoyoshi</i> , <i>Konosuke Sugiura</i> , and <i>Tepppei J. Yasunari</i>
4:26 PM	44A136: The seasonal cycle of sea ice brightness temperatures in the Weddell Sea – Results from the ISPOL drift station and SSM/I swath data <i>Sascha Willmes</i> , <i>Jörg Bareiss</i> , <i>Christian Haas</i> , and <i>Marcel Nicolaus</i>
4:28 PM	44A137: Spatial and temporal variability of diurnal melt-freeze cycles in the Weddell Sea during summer 2004/2005 derived from sub-daily SSM/I brightness temperatures <i>Jörg Bareiss</i> , <i>Sascha Willmes</i> , <i>Christian Haas</i> , and <i>Marcel Nicolaus</i>
4:30 PM	44A003: Biopolymers at sea ice surfaces. <i>Ido Braslavsky</i> , <i>Klaus Meiners</i> , <i>Erik S. Thomson</i> , <i>John S. Wettlaufer</i> , <i>Larry A. Wilen</i> , and <i>Jerome Neufeld</i>
4:32 PM	44A101: Energy and Mass Balance Observations of the land-ice-ocean-atmosphere system near Barrow, Alaska Nov 1999 - July 2002 <i>Thomas C. Grenfell</i> , <i>Hajo Eicken</i> , <i>Doraid K. Perovitch</i> , <i>Jacqueline Richter-Menge</i> , <i>Bruce Elder</i> , <i>Andrew Mehoney</i> , and <i>Matthew Sturm</i>
4:34 PM	44A118: Sea-Ice Thickness Retrieval in the Sea of Okhotsk using dual-polarization SAR data <i>Kazuki Nakamura</i> , <i>Hiroyuki Wakabayashi</i> , <i>Shotaro Uto</i> , <i>Kazuhiko Naoki</i> , <i>Fumihiko Nishio</i> , and <i>Selho Uraisuka</i>
4:36 PM	44A120: Estimation of liquid-water content of wet snow on sea ice <i>Shunsuke Kojima</i> , <i>Tomonori Tanikawa</i> , <i>Akihiro Hachikubo</i> , <i>Hiroyuki Enomoto</i> , and <i>Kazutaka Tateyama</i>
4:38 PM	44A197: Relationship between sea ice thickness and temperature in Bohai Sea of China <i>Ning Li</i> , <i>Wei Gu</i> , and <i>Hasi</i>
4:40 PM	44A030: Granular flow in the Marginal Ice Zone <i>Daniel Feltham</i>
4:42 PM	44A032: Continuum sea ice rheology determined from subcontinuum mechanics <i>Paul Taylor</i> , <i>Daniel Feltham</i> , <i>Peter Sarmonds</i> , and <i>Daniel Henton</i>
4:44 PM	44A051: Data Assimilation of Sea-Ice Motion Vectors: Sensitivity to the Parameterization of Sea-Ice Strength <i>Todd E. Arbetter</i> , <i>Walter N Meier</i> , and <i>Ming Rui Dai</i>
4:46 PM	44A099: Kalman Filter Techniques for the Assimilation of Ice Concentration Data into an Ice Prediction Model <i>Mike Van Woert</i> , <i>Mingrui Dai</i> , and <i>Walt Meier</i>
4:48 PM	44A066: Modelling Sea-ice Halohermodynamics <i>Martin Vancoppenolle</i> , <i>Cecilia Bitz</i> , <i>Thierry Fichefet</i> , and <i>Wouter Leffebvre</i>
4:50 PM	44A061: A 1-D enthalpy model of sea ice <i>Dirk Naiz</i> and <i>M. Grae Worster</i>
4:52 PM	44A085: In-situ measurements of the direct-current conductivity of Antarctic sea ice: implications for airborne electromagnetic sounding of sea ice thickness <i>James E Reid</i> , <i>Andreas Pfaffling</i> , <i>John Bishop</i> , and <i>Anthony P. Worby</i>
4:54 PM	44A168: National Ice Center Sea Ice Activities around Antarctica <i>Pablo Clemente-Colón</i> , <i>Towanda Street</i> , <i>Sean Helfrich</i> , and <i>Kelly Taylor</i>
4:56 PM	44A199: Crystal-orientations in quietly frozen ice sheets from fresh water and low concentration NaCl solutions <i>Marc Mueller-Stoffels</i> , <i>Pat J. Langhorne</i> , <i>Chris Petrich</i> , and <i>Edward W. Kempema</i>
4:58 PM	44A025: Ocean-Atmosphere-Sea Ice Interactions in the Arctic, and Its Impact on Global Change <i>S. Shanmuganandan</i>
5:00-6:00	Drinks and nibbles at the poster boards in The Link
7:00-11:00	Dinner at Laimach Castle

Friday, 9/12/05	
CASTLE 1	
CASTLE 2	
	O1: Atmosphere-Ice-Ocean: Interactions between sea ice and ice shelves
9:00 AM	44A128: Direct measurements of turbulent momentum, heat and salt fluxes under landfast ice in the Baltic Sea. <i>Jeri Uusikivi, Jens Ehn, and Mats A. Granskog</i>
9:20 AM	44A113: Estimation of sea ice production from passive microwave data in Antarctic coastal polynyas <i>Takeshi Tamura, Kay I. Ohshima, and Sohey Nihashi</i>
9:40 AM	44A008: Fine scale sea ice modelling of the Storfjorden polynya <i>Lars H. Smedsrud, Paul Budgell, and Alastair D. Jenkins</i>
10:00 AM	44A071: Modeling the opening and closing of the Storfjorden polynya from the wind stress curl field over the Barents Sea <i>Frode Mjølseth, Katja Weigel, and Ragnheid Skogseth</i>
10:20 AM	44A188: Tidal mixing and platelet ice formation during the winter of 2003 in McMurdo Sound, Antarctica <i>Greg Leonard, Pat Langhorne, Craig Purdie, Tim Haskell, Mike Williams, and Ross Vennell</i>
10:40 AM	44A059: Simulation of the ice flow of the Brunt Ice Shelf, Antarctica <i>Angelika Humbert, Ralf Greve, Kolumban Hutter, and Christopher A. Shuman</i>
11:00-11:30	Brunch
	P1: Atmosphere-Ice-Ocean: Interactions between sea ice and ice shelves
11:30 AM	44A107: A frazil ice model for embedding within three-dimensional ocean circulation models <i>Michael J. M. Williams and Roland C. Warner</i>
11:50 AM	44A054: Internal waves under a solid cover of land-fast sea ice <i>Nicole Albrecht, Mike Williams, Ross Vennell, Craig Stevens, Greg Leonard, Pat Langhorne, and Tim G. Haskell</i>
12:10 PM	44A182: Arctic Sea Ice thickness variations due to M2 tidal forcing <i>Andrew Roberts, W. D. Hibler III, and Petra Heil</i>
12:30 PM	44A016: The Representation of Antarctic Sea Ice in a global ice-ocean model <i>Caixin Wang, Alke Beckmann, and Jean-Marc Molines</i>
12:50 PM	44A141: Effect of the seasonal variation of the sea ice extent on the CO2 concentrations in the atmosphere <i>Vladimir N. Golubev, German A. Rzhantitsyn, Sergey A. Sokratov, and Andrey V. Shishkov</i>
1:10 - 2:30	Lunch
2:30 - 4:30	Workshops and Special Interest Groups Closing ceremony and prize giving

NOTES