

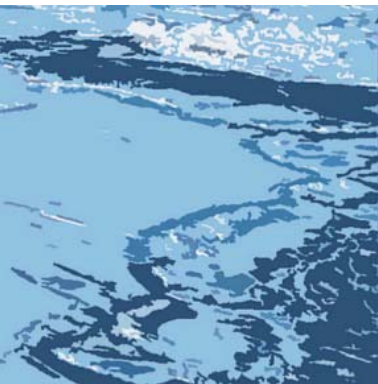


International Glaciological Society

International Symposium  
on Sea Ice  
in the Physical and  
Biogeochemical System

Co-sponsored by  
The Norwegian Polar  
Institute's Centre for Ice,  
Climate and Ecosystems  
and  
The University of Tromsø

Second Circular  
September 2009



Tromsø, Norway  
**31 May–4 June 2010**  
[www.igs2010.org](http://www.igs2010.org)



## INTERNATIONAL SYMPOSIUM ON SEA ICE

The International Glaciological Society will hold an International Symposium on Sea Ice in 2010. The symposium will be held in Tromsø, Norway from 31 May to 4 June 2010. This will be the third IGS symposium dedicated to sea ice research; the previous ones were held in 2000 and 2005.

### THEME

Sea ice is a relatively fragile part of the Earth system, capable of undergoing changes much faster than many Earth surfaces. It is also important for the understanding of a wide range of subjects, from climate, to biodiversity, to society and culture. Given the recent completion of the IPY and the ongoing changes to sea ice in some regions, this symposium will present a timely opportunity for participants interested in all fields related to sea ice to meet. The suggested topics are intentionally interdisciplinary, including physical, biological, chemical, and socio-economic research on sea ice.

### TOPICS

1. **Sea ice in the regional and global climate system**, including: atmosphere-ice-ocean interactions, feedbacks, large-scale observations, Arctic vs. Antarctic, climate model simulations, dynamics, conditions in the past

2. **The role of sea ice in polar ecosystems**, including: marine mammals, birds, fish, copepods, microorganisms, algae, bacteria

3. **Physical properties of sea ice**, including: growth and decay of sea ice, bulk properties, in-situ measurements, microphysics, models, lab experiments, theoretical approaches

4. **Biogeochemistry and physics of sea ice**, including: brine composition, nutrients, oil and pollutants, iron, carbon and oxygen cycling, gas exchange, dissolved organic matter, black carbon

5. **Sea ice thickness, drift and large-scale circulation**, including: in-situ measurements, remote sensing, and numerical modelling of ice thickness, concentration, drift, and mechanics

6. **Snow on sea ice**, including: snow thickness and processes, melt ponds, atmosphere-snow interaction, gas exchange, effects on remote sensing

7. **Social, economic and political importance of sea ice**, including: indigenous and local societies in a changing climate, shipping and economical use of the Arctic, use of local and indigenous knowledge

8. **Sea ice research beyond the IPY**, including: international and interdisciplinary studies, legacy of IPY, observational systems, public outreach, education





## SESSIONS

Oral sessions will be held over five days, from Monday morning until noon on Friday, often with two parallel sessions, in order to try to accommodate all interested participants. Oral presentations will be allocated 20 minutes, of which 15 minutes should be used for the presentation, allowing 5 minutes for discussion and a timely handover to the next presenter.

Poster sessions will be organised on Tuesday and Thursday afternoons to present, view, and discuss posters. The poster display area will be open throughout the conference, and posters may be displayed for approximately 24 hours before and after the organised sessions.

Meeting rooms will be available on both Sunday and Friday afternoons for participants who may wish to arrange small break-out meetings. Please contact the organisers ([igs2010@npolar.no](mailto:igs2010@npolar.no)) to book a meeting room. Such meetings will be in the Polar Environmental Centre, near the city centre.

## SCIENTIFIC STEERING AND LOCAL ORGANIZING COMMITTEE

Sebastian Gerland (Chair), Fred Godtlielsen, Geir Gotaas, Mats Granskog, Stephen Hudson, Nalân Koç, Marte Lundberg, Marcel Nicolaus, Christina A. Pedersen, Keguang Wang, Tordis Villinger, Paul Wassmann

## PARTICIPATION

Scientists from all fields related to sea ice are encouraged to participate in the symposium. Sea ice research is inherently interdisciplinary, and we hope this symposium will foster collaborations that lead to innovative and exciting new research directions.

A registration form is available at the back of this circular, but online registration through the websites is preferred. Registration and accompanying payment are both due by 24 February 2010; there is a surcharge for late registration. The registration fee includes a set of abstracts, the icebreaker reception, coffee breaks, lunches, the mid-week excursion, the symposium dinner, and a copy of the *Annals of Glaciology*.

## REGISTRATION FEES

All fees are in Pounds Sterling, GBP

Participant (IGS member)	£350
Participant (non-member)	£400
Student	£175
Accompanying person (adult)	£200
Accompanying person (<18)	£160
Accompanying person (<12)	Free
Late registration fee	£50

## ACCOMPANYING PERSONS

The accompanying persons' registration fee (£200 for 18 and over; £160 for ages 12 to 17; under 12 free) includes the icebreaker, the mid-week excursion, and the symposium dinner.





The University of Tromsø campus, venue for the symposium



The Polar Environmental Centre and Polaria exhibition centre

## VENUE

The symposium will be held at the University of Tromsø. At nearly 70° N, Tromsø is the largest city in northern Norway, a major research and education centre, a busy port and the northernmost city in the world that has over 50,000 inhabitants. The modern campus lies just north of the city centre; public buses run to the campus frequently throughout the day, and all participants will receive a bus pass for the week, which is also good for recreational travel around the city. Most of the recommended hotels are near or in the compact city centre, where there are many restaurants, cafés and bars. The symposium will be held in early June, while Tromsø is enjoying the midnight sun. The late-spring weather in Tromsø can be variable, so participants should plan for a variety of weather; the average high and low temperatures for the days of the conference are 11° and 4.5°C, but conditions can vary from near freezing with rain to sunshine and over 20°C. There is more information about Tromsø at [www.destinasjontromso.no/english](http://www.destinasjontromso.no/english).

## TRAVEL TO TROMSØ

The Tromsø Langnes Airport is about a 10-minute drive from the city centre, which can be reached by taxi or the airport bus. Both SAS and Norwegian airlines operate several flights per day between Oslo and Tromsø. Norwegian also flies direct between London Gatwick and Tromsø on Tuesdays and Saturdays. Some scheduled flights also operate between Tromsø and other cities in Norway, Sweden, Latvia, and Russia, but the schedules vary seasonally.

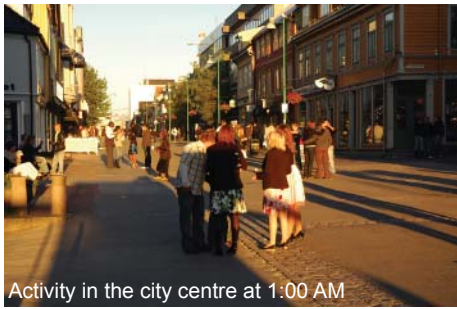
Tromsø cannot be reached directly by train, but the Swedish rail network operates trains to Narvik, Norway, and there are regular buses from Narvik to Tromsø, approximately a four-hour ride. Additional information is on the symposium website.



The Arctic Cathedral and Tromsdalstinden (mountain) in the midnight sun



Sommarøy (symposium dinner location)



Activity in the city centre at 1:00 AM



A view of the city from the top of the cable car

## ACCOMMODATIONS

Block bookings have been arranged at several hotels in Tromsø for the symposium period. Accommodations are available at hotels ranging in price from budget to higher-end, and include in apartments and cottages. To take advantage of the block bookings, please reserve rooms by 17 March (some hotels may fill up before then). Most hotels are in the city centre; buses to the campus venue stop near all hotels. A list of all available accommodation as well as information about each location is available on the conference website, where booking instructions are also provided.

## SOCIAL PROGRAMME

The icebreaker reception will be on Sunday evening at the Polar Environmental Centre, home to the Norwegian Polar Institute and other research institutions.

Tuesday evening a public lecture will be held at a popular bar in the city centre. The talk will likely be in Norwegian, but participants are encouraged to attend for socialising afterwards.

Wednesday afternoon and evening are reserved for excursions, with the following options: 1) a guided hiking trip in the region, 2) a charter sightseeing and fishing trip in the sound, 3) a sightseeing tour by bus, ferry, and Hurtigruten ship (see photo below). More information is on the website [www.igs2010.org](http://www.igs2010.org).

The symposium dinner—a barbecue focused on local foods—will be held on Thursday evening on Sommarøy, a beautiful small island about a 1-hour drive from Tromsø. The trip there and back (by different routes) provides a great view of northern Norwegian scenery.



The Hurtigruten along the route of the sightseeing tour



Outdoor café in the city centre



## ABSTRACTS

Participants who would like to contribute to the Symposium should submit an abstract of their proposed presentation. This abstract must contain sufficient detail for evaluation by the Scientific Steering Committee. There is a link from the symposium website with instructions for uploading abstracts and contact information. Authors may indicate a preference for an oral or poster presentation, but the number of oral presentations is limited by time.

### DEADLINE FOR SUBMISSION OF ABSTRACTS IS 4 DECEMBER 2009

Each abstract will be assessed on its scientific quality and relevance to the symposium. Corresponding authors will be notified by 1 February 2010 regarding abstract acceptance.

## THEMATIC PUBLICATION

The Council of the IGS has decided to publish an *Annals of Glaciology* issue with a sea ice theme. A first call for papers will be made in November 2009. Papers may be submitted for this issue regardless of whether the author participates in the symposium. Deadline for manuscript submission is 22 March 2010. Papers should be submitted through the IGS system and will be refereed according to the Society's normal standards before a publication decision is made. Every effort will be made to complete the reviews before

the symposium so the associate editor and authors can discuss revisions during the symposium week. When submitting abstracts to the symposium, you will be asked to indicate whether you intend to submit a paper for the *Annals* volume, so that reviewers may be sought in advance. Papers submitted for consideration in the *Annals* may not be submitted to another publication.

## EDITORIAL COMMITTEE

The following is the current list of editors for the *Annals* volume; additional editors may be added on the website. Mats Granskog (Chief Editor), Jody Deming\*, Hajo Eicken\*, Rolf Gradinger, Pat Langhorne, Andy Mahoney\*, Thorsten Markus, Rob Massom, Kunio Shirasawa, Lars Henrik Smedsrud, Julienne Stroeve\*, Matthew Sturm\*, Jean-Louis Tison\*, Timo Vihma

\* also giving an invited keynote talk

## POST-SYMPOSIUM TRAVEL

Participants may choose to combine this meeting with the IPY conference in Oslo the following week ([www.ipy-osc.no](http://www.ipy-osc.no)). Various travel options for the weekend in between are possible, including travelling south on the Hurtigruten coastal steamer. This coastal route is known as a breathtaking way to take in Norway's coastal scenery. More details about the travel options are on the conference website.



## DATES AND DEADLINES

Abstract submission by	4 December 2009
Notification of acceptance by	1 February 2010
Late-registration fee after	24 February 2010
Hotel reservation deadline	17 March 2010
Manuscript submission by	22 March 2010
Deadline for refund	12 April 2010
Registration and Icebreaker	30 May 2010
Conference begins	31 May 2010
Final revised papers submitted	19 July 2010

## CONTACTS FOR FURTHER INFORMATION

Further information is available at [www.igs2010.org](http://www.igs2010.org), where updates will be posted, as necessary. General inquiries should be sent to [igs2010@npolar.no](mailto:igs2010@npolar.no)

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Web: <http://www.igs2010.org>

## REGISTRATION BY MAIL

Though we strongly prefer registration through the website, it can also be done by filling in and returning the back page of this circular. If payment by credit card is not possible, contact IGS to arrange for a bank transfer. Payments made after 24 February must include the additional £50 late-registration fee. When completed, please send the form to Magnús Már Magnússon, at the address above.





CENTRE FOR ICE, CLIMATE AND ECOSYSTEMS



INTERNATIONAL SYMPOSIUM ON SEA ICE IN THE PHYSICAL AND BIOGEOCHEMICAL SYSTEM, TROMSØ, NORWAY, 31 MAY–4 JUNE 2010  
REGISTRATION FORM

Register online at [www.igsoc.org/symposia](http://www.igsoc.org/symposia)

Family Name: \_\_\_\_\_

Given Name: \_\_\_\_\_

Address: \_\_\_\_\_

Tel: \_\_\_\_\_ E-mail: \_\_\_\_\_

Accompanied by:

Name: \_\_\_\_\_ Age (if under 18) \_\_\_\_\_

Name: \_\_\_\_\_ Age (if under 18) \_\_\_\_\_

Dietary requirements (vegetarian, pescetarian, gluten, lactose, etc.)

Excursion preference:  Hiking  Fishing  Hurtigruten sightseeing

Registration fees (British Pounds)

Participant (IGS member) £350 (€400, \$575)

Participant (not IGS member) £400 (€450, \$675)

Student £175 (€200, \$290)

Accompanying person (18+/12-17) £200/£160 (€230/€185, \$330/\$265)

Late registration surcharge £50 (€60, \$85)

(after 24 February 2010)

All payments are processed in £ Sterling. Conversions are given for guidance and are subject to change due to exchange rate fluctuations.

TOTAL REGISTRATION FEES £ \_\_\_\_\_

Payment of registration fee by Access/Eurocard/MasterCard or VISA/Delta

Card number

Expiration /  CVV (last 3 numbers on signature strip)

Name of card holder as shown on card: \_\_\_\_\_

Signature: \_\_\_\_\_