# Stockholm University

#### Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

May 2023

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#### Bolin Centre Newsletter # 5

Dear Bolin Centre members,

We would like to draw your attention to a series of Bolin Centre events that will take place on May 23rd and May 24th, 2023.

On May 23rd, we will kick off the day with the <u>Bert Bolin Science Seminar</u>, which will focus on the precipitation efficiency in deep convective clouds, and its sensitivity to temperature and aerosol perturbations. This seminar is held annually back-to-back to the Bolin Climate Lecture, which is given this year by Professor Trude Storelymo.

Later that day, we will host a panel discussion and networking session on bridging the gap between climate science and policy. Please note that the venue for the event has changed, and it will now be held at Accelerator. This venue provides better opportunities for interaction and networking. The panel discussion will focus on ways to improve the meaningful exchange between science and policy, and it will feature distinguished speakers such as Member of the European Parliament Pär Holmgren, Professor Trude Storelvmo, new Climate General of the City of Stockholm - Annika Jacobson, and the Bolin Centre Directors. Please note that there are a limited number of places available, we kindly ask that you register in advance.

On May 24th, we will conclude the event series with the Bert Bolin Climate Lecture 2023, on the fascinating link between microscale cloud physics and large-scale climate change.

We invite you to join us for these events and help us spread the word by registering and sharing with your networks.

We will continue to inform you of the latest news in our monthly Newsletter. We strive to make the Newsletter a valuable source of information, inspiration and research exchange, but we need your help. Don't forget to share information you want us to publish in the upcoming Newsletter, send it to <a href="mailto:bolin@su.se">bolin@su.se</a>.

Thank you for your continued support, and we look forward to seeing you at our upcoming events.



Photo: Martin Jacobsson

Swedish icebreaker Oden departs for Arctic expedition to study onset of melting season

On April 28th, the icebreaker Oden will depart from a Swedish port for the research expedition called ARTofMELT 2023 in the Arctic Ocean. The researchers will study the arrival of spring in the Arctic and the beginning of the melting season.

"The weather is ultimately driven by the temperature difference between the polar regions and the equator. As the Arctic warms up much faster than the rest of the world, the conditions for weather and climate across the entire Northern Hemisphere are changing. The effects of disappearing ice in the Arctic do not stop there," says Michael Tjernström, Professor of Meteorology at Stockholm University. During the spring, the Swedish Polar Research Secretariat has worked intensively to prepare and adapt the Oden for this early expedition. Recently, the researchers gathered in Helsingborg's port in southern Sweden to load equipment onboard and install research instruments. The expedition also includes Swedish visual artist Ida Rödén, who has been awarded a place in the Swedish Polar Research Secretariat's artist program.

The participants will board Oden in Longyearbyen on Svalbard, Norway, on May 7th, but Paul Zieger from Stockholm University will already be onboard when the Oden departs Sweden on April 28th.

"It's an opportunity to calibrate and start up all the instruments so that we are prepared when the expedition starts for real. We have more than 30 instruments to be used for observing the atmosphere. After a long period of preparation, our journey finally begins, and I look forward to carrying it out along with a team of outstanding scientists from around the world," says Paul Zieger, Associate Professor of Experimental Atmospheric Science at Stockholm University. After casting off the mooring lines at Longyearbyen on May 7th, the ship is expected to reach the ice edge in the Arctic Ocean within two days. When the Oden is positioned between northeast Greenland, northwest Svalbard, and the North Pole, the "hunt" for powerful, southerly inflows of warm and humid air that are expected to trigger the start of the melting season in the Arctic Ocean will begin. This means that the research expedition lacks a predetermined route. Instead, advanced weather forecasts will determine where the icebreaker needs to be within four to five days.

"Before the ice begins to melt, it is the most challenging to navigate in. This is one reason why there are no observations from this time of year. To more accurately predict future weather and climate, we need to study warm air inflows and their effect on Arctic snow and ice," concludes Michael Tjernström.

#### About the expedition

## Emissions from authorities' business travel have increased after the pandemic

The results of the environmental management work of authorities in 2022 show an increase in emissions from business travel after the pandemic. Carbon dioxide emissions from long-haul flights were five times higher in 2022 than in 2021 but still lower than in 2019, the year before the pandemic.

During the first half of 2022, the restrictions related to the pandemic were lifted. In the Swedish Environmental Protection Agency's report on environmental management work in 2022, it is clear that traveling resumed. Carbon dioxide emissions from official travel increased by 170 percent from 2021 and totaled about 91,000 tons in 2022. Despite the increase, emissions were 35 percent lower than in 2019.

Read more in Swedish here.

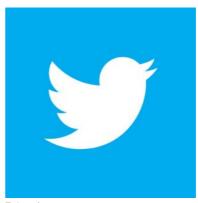
#### OPPORTUNITIES -

#### **Bolin Centre's Twitter**

We are currently seeking a new volunteer to manage the Bolin Centre's Twitter account.

We are calling for interested PhD students within the Bolin Centre to take over for a period of 2-3 months.

If you know anyone who might be interested or have any suggestions, please let us know.



Twitter logo

#### Funding opportunities

Are you an established, leading principal investigator who wants long-term funding to pursue a ground-breaking, high-risk project? The European Research Council (ERC) Advanced Grant could be for you.

ERC Advanced Grant 2023 - deadline 23 May 2023 (call open)

https://erc.europa.eu/apply-grant/advanced-grant

Read about SU support here:

https://www.su.se/erc

Commission boosts research and innovation budget for civil security for society and renewable energy

Read more here

Common mistakes to avoid when applying for Horizon Europe funding

Submitting a project proposal under <u>Horizon Europe</u> is a challenging task that requires careful planning, precise budgeting, and a seamless collaboration with partners. Here you find some Dos and Don'ts to help you prepare a quality proposal.

Read more here

#### Horizon Europe - calls

Mission calls with deadline in September.

Mission: Adaptation to climate change

<u>Testing and demonstrating transformative solutions to build resilience towards</u> <u>health risks caused by the effects of climate change</u>

Deadline date: 20 September 2023

Mission: Restore our Ocean, seas and waters by 2030

<u>Atlantic and Arctic sea basin lighthouse – Addressing climate change and human</u> activities threats to marine biodiversity

Deadline date: 20 September 2023

Marie Skłodowska-Curie Actions (MSCA) calls

**MSCA Postdoctoral Fellowships 2023.** Deadline: 13 September 2023 (call open).

https://marie-sklodowska-curie-actions.ec.europa.eu/calls/msca-postdoctoral-fellowships-2023

**MSCA Doctoral Networks 2023.** Call opens 30 May 2023; deadline: 28 November 2023 (indicative dates).

https://marie-sklodowska-curie-actions.ec.europa.eu/calls/msca-doctoral-networks-2023

MSCA COFUND 2023. Call opens 10 October 2023; deadline: 8 February 2024 (indicative dates)

https://marie-sklodowska-curie-actions.ec.europa.eu/calls/msca-cofund-2023

**MSCA Staff Exchanges 2023.** Call opens 5 October 2023; deadline 28 February 2024 (indicative dates)

 $\frac{\text{https://marie-sklodowska-curie-actions.ec.europa.eu/calls/msca-staff-exchanges-2023}{\text{exchanges-2023}}$ 

Read about REIS's support here.

You find the MSCA work programme 2023-2024 <u>here</u> and the Guide for Applicants for each call on the <u>Funding and Tenders Portal</u>.

#### CALENDAR - BOLIN CENTRE'S EVENTS

#### Bert Bolin Science Seminar

On the precipitation efficiency in deep convective clouds, and its sensitivity to temperature and aerosol perturbations

**Date:** 23 May 2023, 10.00 AM - 23 May 2023, 11.00 AM **Venue:** DeGeersalen, Geoscience building, Stockholm University

23

The Bert Bolin Science Seminar for researchers is hold annually back-to-back to the Bolin Climate Lecture. the Bolin Climate Lecture is given to commemorate professor Bert Bolin and his pioneering work for climate research at Stockholm University and internationally. The speaker is selected among prominent scientists within climate research by the Faculty of Science. This years honourable speaker is Professor Storelymo.

## Panel discussion: Bridging the gap between climate science and policy

**Date:** 23 May 2023, 1.00 PM - 23 May 2023, 3.00 PM **Venue:** ACCELERATOR, Stockholm University The Bolin Centre for Climate Research invites you to participate in a panel discussion and networking session with experts in climate science and policy. The event aims to provide an opportunity for Bolin Centre members to meet and discuss the centre's position on the intersection of research, policy, and outreach.

#### More information

Registration required. <u>Please, register here</u> Please note that there are a limited number of places available for this event.

### Bert Bolin Climate Lecture 2023

On the fascinating link between microscale cloud physics and large-scale climate change by Professor **Trude Storelymo** from the University of Oslo

24

Place: Aula Magna and Zoom

Time: 14:00 - 15:00

Event page

#### Registration is open

Please, help us spread the word and promote the lecture.

29-30 NOVEMBER SAVE THE DATE! Bolin Days 2023

Place: Aula Magna, SU

#### OPEN SCIENCE - FROM POLICY TO PRACTICE

16 MAY: IMPLEMENTING OPEN SCIENCE - FROM POLICY

TO NATIONAL LEVEL

17 MAY: EMBEDDING OPEN SCIENCE IN SOCIETY -

FROM POLICY TO PRACTICE

You are welcome to join both days or just the part that is most relevant to you. The event will also be streamed to facilitate online participation.

#### Please register to join the conference!

16-17

The conference is associated with the <u>Swedish</u> <u>Presidency</u> of the Council of the European Union and is organised by the <u>National Library of Sweden</u>, the <u>Swedish Museum of Natural History</u> and the <u>Swedish Research Council</u> with support from <u>Riksbankens Jubileumsfond</u> and in collaboration with the following partners: the Association of Swedish Higher Education Institutions, the European Commission Joint Research Centre, The European Network of Science Centres and Museums (Ecsite), EuroScience, the Swedish National Commission for UNESCO, the Swedish Science Centres, Stockholm University Baltic Sea Centre, Young Academy of Sweden, and VA (Public & Science).

### Webinar: EU's Climate Policy and its impact on industrial and energy sectors

Time: 09:00 - 10:30

Time zone: Stockholm, GMT+02:00

Organizer: The Swedish Environmental Protection

Agency

Language: Swedish

22 MAY Join the webinar on how EU's climate policy impacts the transition in the industrial and energy sectors. This webinar will provide a detailed picture of the emissions from the facilities included in the EU emissions trading system, including larger energy and industrial facilities, and how the expected development looks like.

Don't miss this opportunity to gain insights into the ongoing developments in EU's climate policy and how it affects the industrial and energy sectors. For more information and registration, click here.

# Webinar: The emission development for transport, work machines and agriculture in an EU perspective

Time: 13:00 - 14:30

Time zone: Stockholm, GMT+02:00

Organizer: The Swedish Environmental Protection

Agency

Language: Swedish

The webinar on emissions trends in transportation, agricultural, and construction sectors in the EU. Learn

25 MAY

#### Bolin Centre publications

On  $\underline{bolin.su.se/publications}$  you'll find a list of scientific journal publications by Bolin Centre scientists.

Here are some of the latest:

- Nikiforov, S., Ananiev, R., Jakobsson, M., Moroz, E., Sokolov, S., Sorokhtin, N.,
  Dmitrevsky, N., Sukhikh, E., Chickiryov, I., Zarayskaya, Y., Razumovskiy, A.,
  Semiletov, I., 2023. The Extent of Glaciation in the Pechora Sea, Eurasian Arctic,
  Based on Submarine Glacial Landforms. Geosciences: 13, 53. <u>Doi:</u>
  10.3390/geosciences13020053
- Detlef, H., O'Regan, M., Stranne, C., Jensen, M.M., Glasius, M., Cronin, T.M., Jakobsson, M., and Pearce, C., 2023. Seasonal sea-ice in the Arctic's last ice area during the Early Holocene. Communications Earth & Environment: 4, 86. Doi: 10.1038/s43247-023-00720-w
- Pithan, F., Athanase, M., Dahlke, S., Sánchez-Benítez, A., Shupe, M. D., Sledd, A., Streffing, J., Svensson, G., and Jung, T. 2023: Nudging allows direct evaluation of coupled climate models with in situ observations: a case study from the MOSAiC expedition, *Geosci. Model Dev.*, 16, 1857–1873, <a href="https://doi.org/10.5194/gmd-16-1857-2023">https://doi.org/10.5194/gmd-16-1857-2023</a>

DATABASE, MODELLING COORDINATION, CRS

#### Bolin Centre Database

On  $\underline{bolin.su.se/data}$  you'll find open access to Climate and Earth System Data.

#### **NEW PROJECT**

The project "Certification of the Bolin Centre Database - a repository for climate, environmental, and earth system data at Stockholm University" aims to certify the Bolin Centre Database as a sustainable and FAIR (Findable, Accessible, Interoperable, and Reusable) repository for climate, environmental, and earth system data. The Bolin Centre Database is a repository that collects and makes available research data produced by around 400 researchers from Stockholm University, SMHI, and KTH. The repository has a unique feature of handling and visualizing spatial data, making its research data more findable and usable for researchers than general repositories. The project aims to deepen the collaboration between the Bolin Centre and the central research data team at Stockholm University to ensure the repository's long-term sustainability and meet the requirements for certification by CoreTrustSeal.

For more information contact: Anders Moberg (anders.moberg@natgeo.su.se)

#### Modelling coordination

### Climate scientist with focus on modelling ice sheets in the global climate system

DMI is opening a research position for modelling and investigating the present and future climate and climate-ice sheet interactions using our Earth system model (EC-Earth) with interactive ice sheets (PISM).

You can find the full job description here

Closing date: May 14th 2023

#### News from the Climate Research School (CRS)

The Bolin Centre CRS has proposed a new initiative aimed at exploring the integration of a gender perspective into the research carried out by early career researchers at the Centre. The proposal aims to create a knowledge base for PhD students and postdoctoral researchers to develop and participate in multidisciplinary projects that link climate and gender. It seeks to encourage young researchers to apply a gender-sensitive perspective. The baseline questionnaire will be sent out shortly to kickstart this initiative.

For more information contact the coordinator of the Climate Research School: Carmen Prieto (<a href="mailto:carmen.prieto@natgeo.su.se">carmen.prieto@natgeo.su.se</a>)

### Book "En varmare värld" (A Warmer World) by Naturvårdsverket

We want to announce that the third edition of "En varmare värld" (A Warmer World) by Naturvårdsverket is now available at the Bolin Centre as a printed copy in Swedish. This is a great opportunity to get the book about fundamental processes and for those who want to understand the complex issue of climate change and its consequences.

You can get the book by contacting bolin@su.se.

#### ForskarFredag 2023

Bolin Centre is planning to participate in ForskarFredag 2023, which will take place on **September 30th**, and this year's theme is "The Human, Health, and Water."

ForskarFredag aims to promote interest in science among children and young people. We are planning to cooperate with Vetenskapenshuset on the practical aspects of organization.

If you would like to be part of this event or get more information about it, please email your interest to <a href="mailto:maria.basova@aces.su.se">maria.basova@aces.su.se</a>



ForskarFredag logo

#### Promotional material

If you need promotional material featuring the Bolin Centre logos for your upcoming field trip or work, please don't hesitate to contact us. We have T-shirts, bags, buffs, and limited sizes of hoodies.

To make a request, kindly reach out to Maria Basova at <a href="mailto:bolin@su.se">bolin@su.se</a>, and we will be more than happy to assist you.

All members of the Bolin Centre receive the Bolin Centre Newsletter, which showcases our current activities and latest news.

If you have suggestions or research that you would like to share in upcoming newsletters, please contact <u>bolin@su.se</u>.

Please note that the newsletter is typically sent once a month.

Editor: Maria Basova (Coordination) Bolin Centre for Climate Research

Contact: bolin@su.se

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