

## Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

April 2023

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## Bolin Centre Newsletter # 4

Dear Bolin Centre members,

March was marked by the release of the IPCC's Sixth Assessment Report (AR6) and activities around it. We had a successful Seminar together with the Swedish Meteorological Society, and the Department of Meteorology where we discussed the **IPCC Synthesis Report 2023** and the organization's role in climate policy and society. We are pleased to see so many of our members engaging in this important conversation.

We are excited to announce the upcoming **Bert Bolin Climate Lecture 2023**, which will be given by **Professor Trude Storelvmo** from the University of Oslo. During the lecture, Professor Storelvmo will be discussing *the fascinating link between microscale cloud physics and large-scale climate change*. As a climate scientist, she has studied the role of aerosol particles and clouds in Earth's climate, particularly focusing on cloud-climate feedback mechanisms, climate engineering, and the Earth's climate sensitivity. We look forward to seeing you all there.

Finally, we would like to announce the **Swedish Climate Symposium 2024**! Mark your calendars for May 15-17, 2024, in Norrköping. We will share more details about the event as the date approaches, but for now, please save the date.

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 <u>bolin@su.se</u>.

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

NEWS

## Climate expert on IPCC: "It's hard work but very rewarding"

The UN's climate panel IPCC publishes reports that summarize scientific knowledge about climate change, with input from thousands of researchers and experts worldwide. Thorsten Mauritsen from Stockholm University has contributed to previous reports.

Read the interview in Swedish here



Thorsten Mauritsen. Photo: Krister Junghahn

Measurements reveal the impact of air pollution on climate and health in southern Asia

Researchers from the Department of Environmental Science are involved in the operation of two strategically placed measurement stations in the Maldives and Bangladesh, which capture air pollutants that affect people's health and the climate. These pollutants come from diverse sources across the Indian subcontinent, which the research is seeking to pinpoint. <u>Read more</u>



Krishnakant Budhavant and Prof Örjan Gustafsson at the station in the Maldives. Photo: Joakim Romson

## Ian Brown presents research on glacial melting in "Vetenskapens värld"

Glaciologist Ian Brown has presented new research on the alarming rate at which glaciers are melting and sliding towards the ocean. The feature, which aired on SVT's "Vetenskapens värld", highlights the severity of the ongoing climate crisis and the urgent need for action. <u>Watch the report here (in Swedish)</u>



Photo: Jan-Ola Olofsson

## "35 years of missed climate targets"

Swedish radio program discusses missed climate targets with Henning Rodhe, Professor Emeritus of Chemical meteorology at Stockholm University. Listen to the program here.

# The EU Parliament behind ecocide in EU legislation!

The European Parliament has expressed its support for including ecocide in the EU's revised environmental crime directive after a unanimous vote in the committee for legal affairs.

This is a significant step forward in recognizing the importance of protecting our environment and holding those who cause severe harm accountable.

Read more here



Photo: End Ecocide Sweden

*"The more involved you are, the more you learn, the better a researcher you become"* 

The Intergovernmental Panel on Climate Change (IPCC) plays a vital role in assessing the state of the science on this issue, and their latest report, <u>Climate</u> <u>Change 2021: The Physical Science Basis</u>, the first of three reports in the sixth assessment cycle, is a milestone in our understanding of the problem and a testament to the hard work and dedication of scientists from around the world. One of the scientists who contributed to the latest IPCC report is <u>Sara Blichner</u>, a post-doctoral researcher at the Department of Environmental Science. <u>Read more</u>



Sara Blichner. Photo: Private

### **OPPORTUNITIES**

## Bolin Centre's Twitter

We are looking for a new volunteer to manage the Bolin Centre's Twitter account. The current manager will step down at the end of April .

We are calling for interested PhD students within the Bolin Centre to take over this role.

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



## Opportunities

Postdoctoral Fellow in Isotope Studies of Greenhouse Gases over South Asia

PhD Position at TU Delft (NL): Aerosol-Cloud Brightening from Observations to Idealized Modeling

Announcement of Donation scholarships 2023

FORMAS CALL: Sustainable climate change in a changing world

Open calls from The Swedish Research Council

EU funding that is relevant to you? - Focus on new calls and topics in pillar II
"Global Challenges and European Industrial Competitiveness" of the Framework
Programme Horizon Europe.
Date: 25 April 2023 (Digital Zoom meeting)
Time: 10.00 - 11.00
Location: Online via Zoom
Register before 24 April by sending an email to: henrik.aspeborg@su.se

## Seminar: ERC Starting and Consolidator Grants - How to write a competitive proposal

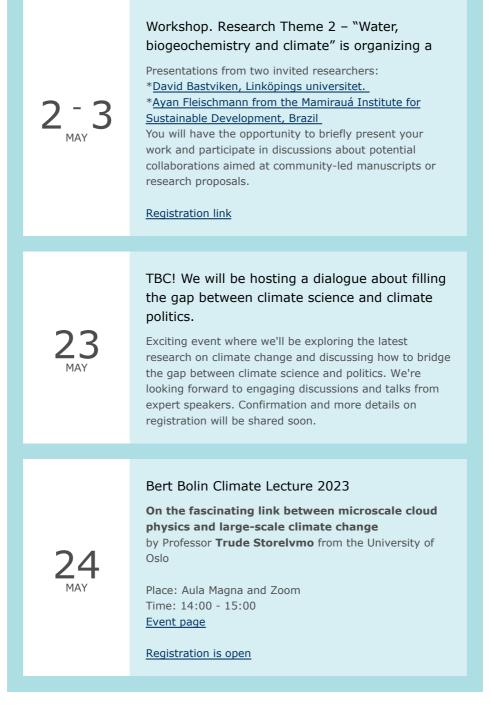
The European Research Council (ERC) provides funding for breakthrough research with a high-risk/high-gain dimension. Lars Emrén will introduce the format of ERC funding and give advice on how to write a competitive proposal for ERC Starting and Consolidator Grants. Lars has provided support for ERC applicants at Stockholm University since 2014.

Date: 11 May 2023

**Time:** 13.00-14.30 You will be informed about the venue when you register by an e-mail to

lars.emren@su.se

## CALENDAR - BOLIN CENTRE'S EVENTS



<u>To Bolin Centre calendar</u> →

PARTNERS' EVENTS

## Webinar: The way forward to reach the climate goals (in Swedish) Every four years, the government produces a climate policy action plan, which shows how the government's overall policy should contribute to reaching the milestones for 2030 and 2040, as well as the long-term emissions target for 2045. The Environmental Protection Agency contributes data to this plan and submits its report to the government on 13 April . Place: Online Time: 09:00 - 10:00 You can register here FLOW physics for climate program, Nordita 2023, Stockholm The four weeks program is centered around the following themes: - Geophysical fluid dynamics, convection, ice melting and ocean mixing (weeks 1-2) - Data-driven investigation of climate and weather 2 -26 (week 3) - Aerosols and clouds (week 4) A web page with further information and with the application/registration form for the program is available: https://indico.fysik.su.se/event/7913/ The deadline for registration is 5th of March. Geert Brethouwer (contact person: geert@mech.kth.se), FLOW, KTH, Stockholm, Sweden

# SAVE THE DATE for the 2023 transdisciplinary conference on connecting health and climate change

The transdisciplinary conference brings together researchers, experts and policymakers at the intersection between health and climate change. It provides and arena to discuss climate change effects on health, potential societal consequences, and opportunities for adaptation. We specifically solicit talks related to health impacts of environmental and occupational heat stress, as well as indirect health impacts of climate change, such as those arising from increased wildfire risk and infectious diseases.

WHEN: 11-12 October 2023 WHERE: Stockholm, Sweden DEADLINE FOR ABSTRACTS: 15 April 2023 Follow <u>enbel-project.eu</u> for updates - more information will be made available soon

PUBLICATIONS

11 - 12

OCTOBER

## Bolin Centre publications

On <u>bolin.su.se/publications</u> you'll find a list of scientific journal publications by Bolin Centre scientists.

Here are some of the latest:

- Jönsson, A. R. and **Bender, F. A**.-M. (2023): The implications of maintaining Earth's hemispheric albedo symmetry for shortwave radiative feedbacks, *Earth Syst. Dynam.*, 14, 345–365, https://doi.org/10.5194/esd-14-345-2023
- Sim, T.G., Swindles, G.T., Morris, P.J., Baird, A.J., Gallego-Sala, A.V., Wang, Y., Blaauw, M., Camill, P., Garneau, M., Hardiman, M., Loisel, J., Väliranta, M., Anderson, L., Apolinarska, K., Augustijns, F., Aunina, L., Beaulne, J., Bobek, P., Borken, W., Broothaerts, N., Cui, Q.-Y., Davies, M.A., Ejargue, A., Farrell, M., Feeser, I., Feurdean, A., Fewster, R.E., Finkelstein, S.A., Gaillard, M.-J., Gałka, M., Heffernan, L., Hoevers, R., Jones, M., Juselius-Rajamaki, T., Karofeld, E., Knorr, K.-H., Korhola, A., Kupriyanov, D., Kylander, M.E., Lacourse, T., Lamentowicz, M., Lavoie, M., Lemdahl, G., Łuców, D., Magnan, G., Maksims, A., Mansilla, C.A., Marcisz, K., Marinova, E., Mathijssen, P.J.H., Mauquoy, D., Mazei, Y.A., Mazei, N., McCarroll, J., McCulloch, R.D., Milner, A.M., Miras, Y., Mitchell, F.J.G., Novenko, E., Pelletier, N., Peros, M.C., Piilo, S.R., Pilote, L.-M., Primeau, G., Rius, D., Robin, V., Robitaille, M., Roland, T.P., Ryberg, E., Sannel, A.B.K., Schittek, K., Servera-Vives, G., Shotyk, W., Słowinski, M., Stivrins, N., Swinnen, W., Thompson, G., Tiunov, A., Tsyganov, A.N., Tuittila, E.-S., Verstraeten, G., Wallenius, T., Webb, J., Willard, D., Yu, Z., Zaccone, C., Zhang, H., 2023. Regional variability in peatland burning at mid-to high-latitudes during the Holocene. Quaternary Science Reviews 305, 108020, doi:10.1016/j.quascirev.2023.108020. https://www.sciencedirect.com/science /article/pii/S0277379123000689?via%3Dihub
- Dimitrelos, A., R. Caballero and A. Ekman: Controls on surface warming by winter Arctic moist intrusions in idealized large-eddy simulations. *J. Climate*, early online release, https://journals.ametsoc.org/view/journals/ clim/36 /5/JCLI-D-22-0174.1.xml
- Diodato, N., Ljungqvist, F.C., Fiorillo, F. & Bellocchi, G., 2023. A framework for modelling emergent sediment loss in the Ombrone River Basin, central Italy. *PLOS Water*, 2: e0000072. https://doi.org/10.1371/journal.pwat.0000072
- Liu, Z., Miao, B., Wang, X., Chen, X., Lin, K., Jaramillo, F., Cheng, L., Yao, L., 2023. Compensating Effects Between Climate and Underlying Characteristics on Watershed Water Loss. Journal of Geophysical Research: Atmospheres 128, e2022JD038353. <u>https://doi.org/10.1029/2022JD038353</u>
- Murto, S., L. Papritz, G. Messori, R. Caballero, G. Svensson and H. Wernli (2023): Extreme surface energy budget anomalies in the high Arctic in winter. *J. Climate*, early online release, <u>https://doi.org/10.1175/JCLI-D-22-0209.1</u>
- Lashgari, K., Brattström, G., Moberg, A., and Sundberg, R.: Evaluation of simulated responses to climate forcings: a flexible statistical framework using confirmatory factor analysis and structural equation modelling – Part 1: Theory, Adv. Stat. Clim. Meteorol. Oceanogr., 8, 225–248, <u>https://doi.org/10.5194</u> /ascmo-8-225-2022, 2022.
- Lashgari, K., Moberg, A., and Brattström, G.: Evaluation of simulated responses to climate forcings: a flexible statistical framework using confirmatory factor analysis and structural equation modelling – Part 2: Numerical experiment, Adv. Stat. Clim. Meteorol. Oceanogr., 8, 249–271, <u>https://doi.org/10.5194/ascmo-8-249-2022</u>, 2022.

New publication: Air quality and Swedish air quality monitoring 2023 - Theme: Particles

The publication is about the socio-economic costs associated with small particles that are invisible to the naked eye but have adverse health effects. It raises questions about whether we are implementing necessary measures to reduce particle concentrations, and whether there are factors that could counteract positive trends. The publication also highlights the role of research and political leaders in achieving a society with low particle concentrations.

Download the publication here



## Air & Environment



Source: The Swedish Environmental Protection Agency

DATABASE, MODELLING COORDINATION, CRS

## Bolin Centre Database

On bolin.su.se/data you'll find open access to Climate and Earth System Data

## Revitalization of the Climate Research School (CRS)

The Bolin Center's goal for 2023 is to continue to develop an active community of ECRs through the Climate Research School (CRS).

We are excited to announce a series of activities aimed at investigating the interlink between gender and climate. Some activities are planned for autumn 2023/spring 2024. Stay tuned for updates on the progress of this inspiring initiative.

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

## 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 <u>maria.basova@aces.su.se</u>



En del av European Researchers' Night 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 <u>bolin@su.se</u>, 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: <u>bolin@su.se</u>

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SOCIAL MEDIA

