



Welcome to the 12th Bolin Days!

Wednesday, November 25th

Agorify platform and Zoom

11.00–12.00 Lunch

Zoom lunchrooms

Bring your lunch to Zoom and choose a breakout room to meet fellow scientists. In these rooms, divided following the Bolin Centre Research Areas, you can lift your research, ask for advice and listen in to other scientists within your field.

- Research Area 1 & 2:
[Ocean-atmosphere dynamics, clouds, aerosols, turbulence and climate](#)
- Research Area 3 & 4:
[Hydrosphere, cryosphere, biogeochemical cycles and climate](#)
- Research Area 5 & 6:
[Historical, millennial and deep time climate variability](#)
- Research Area 7 & 8:
[Landscape processes, biodiversity and climate](#)

12.00–12.30 Opening of the 12th Bolin Days

Introduction by the directors: Nina Kirchner & Alasdair Skelton

- The Greenland Ice Sheet is entering uncharted territory
Invited speaker **Jason Briner, University at Buffalo**

Chairs:

Nina Kirchner &
Alasdair Skelton

12.30–14.30 Historical warming, processes affecting it, and implications for future climate change

- Surprising shifts in climate sensitivity and historical warming between CMIP5 and CMIP6 models
Clare Flynn
- Dimming and Brightening in a Shortwave Energy Balance Perspective
Matthias Schwarz
- A multi-model ensemble study of the impact of short-lived climate forcer emission reductions on Arctic climate
Srinath Krishnan
- The importance of Aitken mode aerosol particles for cloud sustenances in the summertime high Arctic: A simulation study supported by observational data
Ines Bulatovic

Chairs:

Matthew Salter &
Thorsten
Mauritsen



Bolin Days 2020

- Refinement of Arctic sea-ice projections in CMIP6 models
David Docquier
- Feedback mechanisms of winter arctic amplification and sea ice loss
Paul Glantz
- On the assessment of Earth's climate sensitivity based on the historical surface warming evolution
Angshuman Modak

14.30–15.30 Fika and breakout sessions

Zoom rooms with hosts and themes: Database, communication, Climate Research School, Mentorship program & Modeling

15.30–17.30 Impacts of hydrological drivers on biogeochemical cycles

- Methane emissions from a thawing sub-Arctic peatland
Ruth Varner
- Old water storage juxtaposed with young discharge
Wouter Reinier Berghuijs, Eidgenössische Technische Hochschule Zürich
- Aerial rivers: a changing landscape of human-environment systems in Amazonia
Wei Weng
- Synergy of bio-optical parameters and biogeochemical modelling
Susanne Kratzer
- Is the hydrological cycle absent in Earth System Models?
Navid Ghajarnia
- Large stocks of peatland carbon and nitrogen are vulnerable to permafrost thaw
Gustaf Hugelius
- Slow onset risks from climate change in Sweden
Fernando Jaramillo

Chairs:
Volker Brüchert
& Fernando
Jaramillo

17.40–19.00 Virtual poster session

Chairs:
Nina Kirchner &
Alasdair Skelton



Bolin Days 2020

Thursday, November 26th

Agorify platform and Zoom

11.00–12.00 Lunch

Zoom lunchrooms

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[Landscape processes, biodiversity and climate](#)

12.00–14.00

Understanding Earth's Climate Sensitivity: Timescales, feedbacks and processes of climate change

- The Miocene: searching for Earth's future climate in the past
Margret Steinhorsdottir
- The Cenozoic history of upwelling in the Southwest Pacific: implications for ocean circulation and the evolution of whales
Steffen Kiel
- A Bayesian framework for emergent constraints: case studies of climate sensitivity with PMIP
Martin Renoult
- Insights into past climate from paleoglaciological reconstructions and landscape evolution of the south-eastern Tibetan Plateau
Ramona Schneider
- Formation, evolution and implications of the Cooloola Sand Mass, south east Queensland, Australia
Daniel Ellerton
- Vegetation feedbacks enhance the African monsoon during the mid-Holocene - a model study using EC-Earth
Ellen Bertell
- Skewness of Temperature Data Implies an Abrupt Change in the Climate System Between 1985 and 1991
Alasdair Skelton

Chairs:

Helen Coxall &
Malin Kylander



Bolin Days 2020

- 14.00–15.00 Fika and breakout sessions
Zoom rooms with hosts and themes: Database, communication, Climate Research School, Mentorship program & Modeling
- 15.00–17.00 Climate effects on landscapes and biodiversity
- Using palaeogenomics to investigate impacts of past climate change
Edana Lord
 - Global changes in surface water area and interactions with hydro-climate variables
Zahra Kalantari
 - Fires and vegetation changes in a boreal peatland: Store Mosse, south-central Sweden
Eleonor Ryberg
 - Forest management drives warming and cooling of understory communities at magnitudes larger than climate change
Ditte Christiansen
 - Insect development under naturally fluctuating temperatures is predictable
Loke von Schmalensee
 - Blue carbon storage in seagrass meadows: knowns and unknowns
Martin Dahl
 - The effect of geothermal heating on genetic differentiation and winter survival ability
Jan-Niklas Nuppenau
- 17.15–18.30 External Science Advisory Group and closing remarks
- **Jay Famiglietti, University of Saskatchewan**
 - **Karen Kohfeld, Simon Fraser University**
 - **Ulrike Lohmann, ETH Zürich**
 - **Camille Parmesan, University of Plymouth**
 - **Maureen E. Raymo, Columbia University**
 - **Veerabhadran Ramanathan, University of California**
 - Presentation of poster competition winners & closing remarks
- 18.30–19.30 Virtual mingle
- Chairs:
Regina Lindborg & Karl Gotthard
- Chairs:
Nina Kirchner & Alasdair Skelton