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10th EARSel Land Ice and Snow workshop

Welcome!

**Remote Sensing of the Cryosphere:
Methods and Applications from Regional to Global Scale**

Stefan Wunderle, Céline Portenier, Elias Frey

Institute of Geography, Oeschger Centre for Climate Change Research

University of Bern

Why organizing a workshop “Remote Sensing of Land Ice and Snow”?



- > **Stefan:** Why should we organize a workshop for remote sensing of land ice and snow?
- > **ChatGPT:** *There are many reasons why we should organize a workshop for remote sensing of land ice and snow.*
 - *One reason is that remote sensing is a powerful tool for monitoring land ice and snow.*
 - *Remote sensing can help us to better understand the changes that are happening to these features, and it can help us to develop better models.*

Remote Sensing of the Cryosphere: Methods and Applications from Regional to Global Scale

Program overview – session topics



> **Monday**

- Cryosphere in polar regions
- Group Photo of Workshop Participants (11:40 – front of Institute)
- Snow cover (basics and operational applications)
- Poster session I (including coffee break)
- Snow Hydrology – Snow Water Equivalent

> **Tuesday**

- Microwave technologies to observe the Cryosphere
- Intertwined Essential Climate Variables: Permafrost and Snow
- ESA CCI+ Snow / SnowPEX+
- Poster session II (including coffee break)
- Mountain snow

Program overview – session topics and Keynote speakers



- > **Wednesday**
 - Remotely sensed snow height
 - Long time series of snow cover based on AVHRR and Sentinel-3
 - Educational programs and activities
 - Glaciers
 - Closing session

- > **Rodica Nitu (WMO-GCOS, Geneva)**
Global Cryosphere Watch – Status and Future Plans WMO - GCOS (Monday)

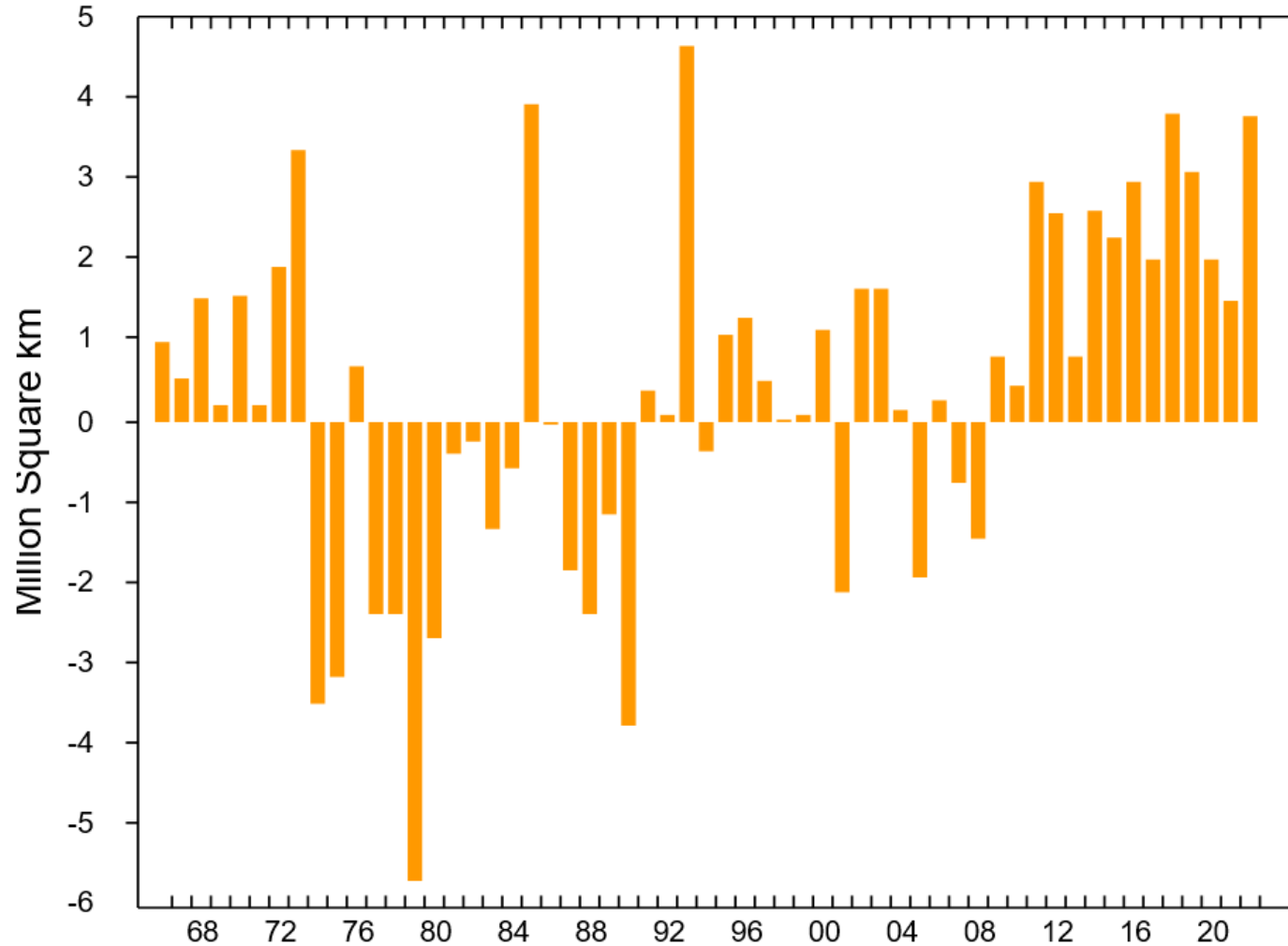
- > **Prof. Dr. Julia Boike (Alfred Wegener Institut (AWI), Germany)**
Arctic Permafrost: The Importance of Snow (Tuesday)

- > **Dr. Carolina Adler (Mountain Research Initiative MRI, Bern, Switzerland)**
The Mountain Cryosphere in a Changing Climate: a View from Within Science-Policy Processes (Tuesday)

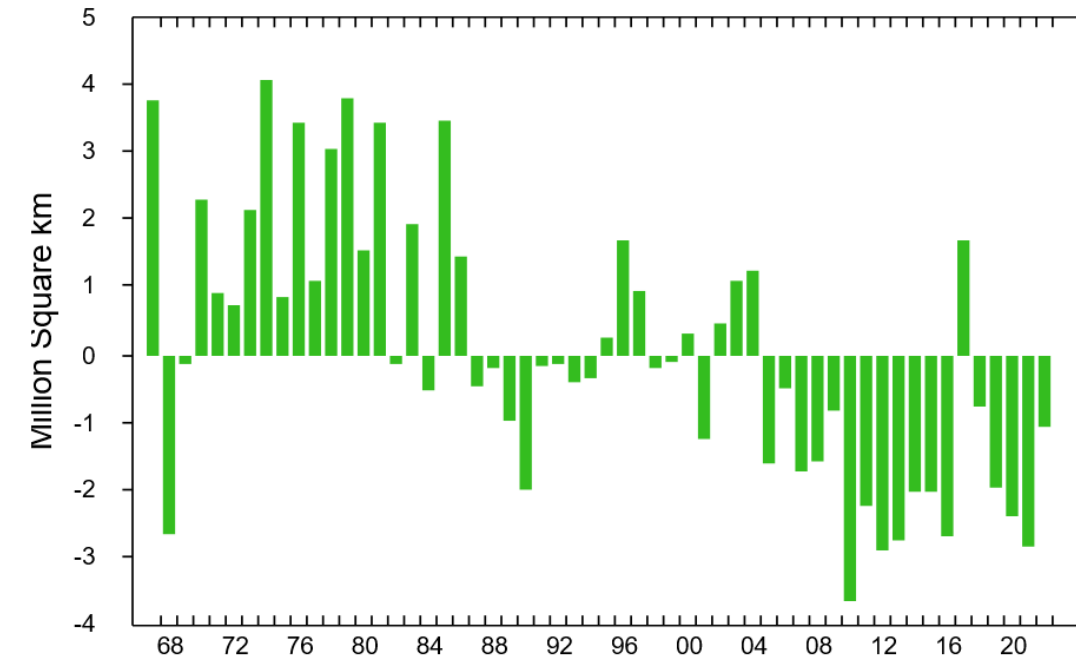
Motivation to focus on snow and ice



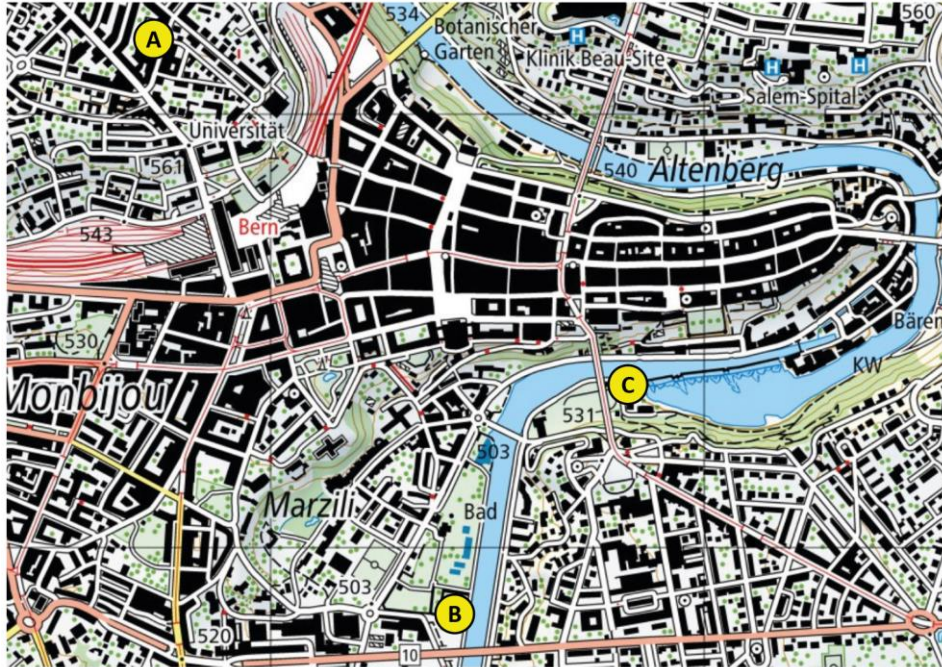
Northern Hemisphere Snow Cover Anomalies
1966-2022 November



Northern Hemisphere Snow Cover Anomalies
1967-2022 May




No science without fun and social program



Monday evening: Icebreaker event (B)



A: Institute of Geography (Conference Venue),
Hallerstrasse 12, 3012 Bern 

B: Dampfzentrale (Ice Breaker Reception),
Marzilistrasse 47, 3005 Bern 

C: Restaurant Terrasse/Schwellenmätteli (Conference Dinner),
Dalmaziquai 11, 3005 Bern 

Tuesday morning (7:00): Fun Run at River Aare



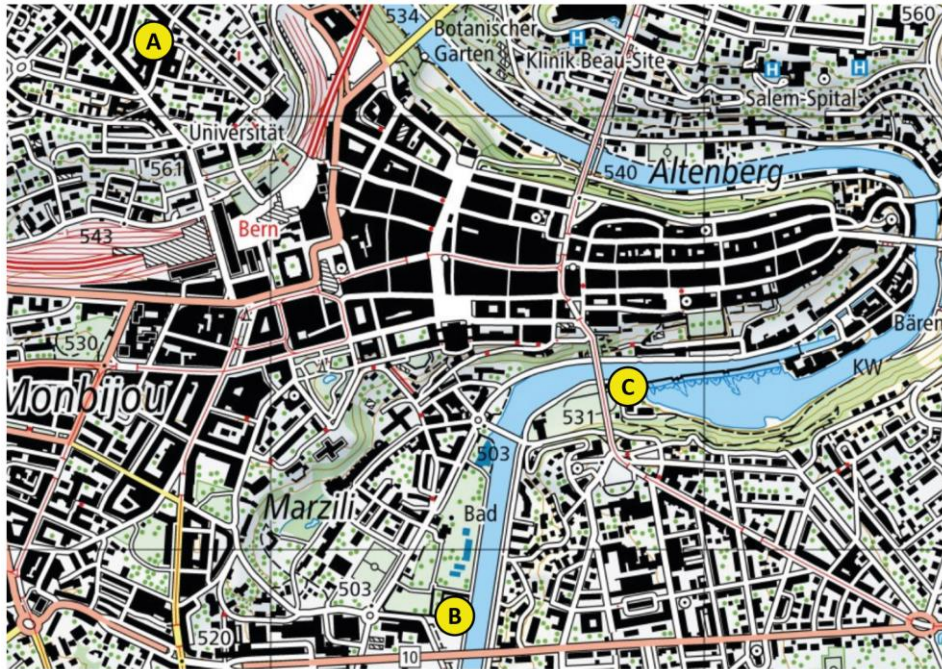
Sunrise: 7:47 am
Temperature: -3° C
Precipitation: None
Start:

- workshop venue
- 7.00 am (meet at 6:50)

Duration:

- approx. 45 min.

No science without fun and social program



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Tuesday evening: Conference Dinner (C)



Wednesday afternoon: chill-out beer (A); # offered by Remote Sensing Research Group

No science without sponsors ..



- > We would like to acknowledge the contribution from our sponsors!



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Finally, no science without helping hands ...



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- > **Céline Dizerens, Elias Frey**
(Remote Sensing Group Bern)
- > **Ursula Widmer** (Oeschger Center for Climate Change Research, OCCR)
- > Marlis Röthlisberger (GIUB)
- > Saliba Saliba, Ashish Kulshreshtha (GIUB – IT)
- > Heide Bierbrauer (EARSeL - Registration)
- > Martin Grosjean (OCCR)
- > Bojan Bojkov (Eumetsat)
- > Swiss Commission for Remote Sensing (sc:nat)

Information ...



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- > If you need help for WIFI access, you're welcome to ask us.
- > Any other requirements from your side? Let us know.

- > **Presentations:**
 - 15 min. / 5min. time slot for every presentation
 - Please upload your presentation during the previous break
 - Poster: every poster can be introduced for 2 min. using 2 slides.
Questions / discussions are allocated to the following poster presentation including coffee break.

- > **Let's start the workshop!**