PoSvalbard Science Conference 2025: Svalbard as an Arctic hotspot for climate change and international cooperation

28-29 October 2025, Quality hotel Expo, Fornebu, Oslo

Preliminary program august 2025

The conference aims to integrate the Svalbard region in a wider context with a special focus on pan Arctic systems, inter-disciplinary approaches and wider time frames (historical and future).

Tuesday 28 October: Plenary sessions

The three plenary sessions will be organised around an invited keynote speaker and three talks followed at the end by 15 min questions and panel discussion with the session's participants and a moderator.

1. **Strategies for the next International Polar Year (IPY-5)**
   The next IPY is planned for 2032-2033. Many climatic changes are happening faster than previously predicted and the most serious consequences are linked to the unprecedented changes in polar areas. How can the next IPY contribute to close major knowledge gaps through collaborative efforts? How can research in Svalbard contribute to these goals?

2. **Svalbard in a pan-Arctic context**
   Svalbard is an important platform for research and higher education, as well as for international cooperation. Svalbard has a unique location in the Arctic and is the starting point for a number of research activities, including national and international collaborative expeditions. How does research carried out in Svalbard contribute to our understanding of polar environments? How does the community of Svalbard compare to other Arctic communities?

3. **Managing risks in a changing Arctic**
   The Arctic faces numerous risks due to the striking effects of climate change. Permafrost thawing leads to ground instability and carbon release, threatening ecosystems, infrastructure, and activities in the region. These natural hazards also impact societal security, necessitating risk management strategies across various levels. How can we address these challenges at local and regional scales? Can Arctic regions collaborate to develop long-term risk mitigation strategies? How can the Svalbard community contribute to climate adaptation and foster more resilient Arctic societies?

4. **Science-to-policy: challenges and opportunities for Arctic science – Debate**
   In this session we will invite several panelists with diverse backgrounds to discuss their views on bringing science to policy and society. We wish to foster discussions on creating engagement in civil society.

Wednesday 29 October: Parallel sessions

The six parallel sessions are more topic-oriented and include several oral presentations. To encourage interdisciplinarity, we have invited contributions from all research fields in all sessions.

1. **New technologies and methods: how can they benefit polar science? I**

2. **New technologies and methods: how can they benefit polar science? II**

   Innovative technologies and techniques enable scientists to make huge advances in knowledge and understanding. We observe the Earth from space, from beneath the ice and deep in the ocean. We integrate and model large volumes of data in new, creative frameworks. What are these newly developed tools and how can they contribute to polar science?

3. **Coast and fjords as systems in change I**

4. **Coast and fjords as systems in change II**

   Arctic coastal zones are changing following the rates of change of the cryosphere affecting biodiversity, local communities, livelihoods, and other ecosystem services. Which changes in the land to sea interface are critical to understand? How can these socio-ecological systems be managed in the light of rapid climate changes?

5. **Climate resilience of Arctic settlements and the footprint of anthropogenic activities**
   The Arctic ecosystem, historically characterized by low anthropogenic disturbance, is now experiencing increased accessibility of sea and land due to warming, which has spurred the development of human activities. This shift raises critical questions about understanding where and what types of activities are occurring and how to ensure sustainable development. Simultaneously, changes in sea ice, snow cover, lake and river ice, and permafrost are impacting the economy, infrastructure, health, livelihoods, culture, and identity of Arctic communities. Advancing sustainable development while improving environmental, economic, and social conditions is essential for managing these fragile regions. Lessons from current Arctic settlements can provide valuable insights into building resilience to climate change and ensuring the long-term sustainability of the region.

6. **Svalbard in transformation: from seasonal variability to long-term trends**
   August 2024 marked the third record-breaking summer in Svalbard. In the near-future, Svalbard will likely experience significant changes such as intense rainfall events, greater river flows, shorter snow season, permafrost thawing and intense sea ice loss. How will these changes affect ecosystems and human activities in the archipelago? How does this situation translate to other Arctic regions?

Other sessions

Art and science session

Climate science often involves complex data that can be difficult for non-experts to grasp. Art—whether visual, musical, literary, or performative—translates this information into forms that are more intuitive and emotionally compelling. Art has the power to evoke emotions; fear, joy, hope, urgency, or inspiration—that raw data alone may not. Emotional engagement is crucial for motivating people to care about climate change and act. While scientific papers and reports often reach policymakers and academics, art can engage a broader audience, including those who may not typically seek out scientific information.

We have invited several artists to present their outlook on Svalbard, Arctic science and climate change through unusual lenses.

Poster session

Posters will be accessible throughout the whole conference and with dedicated sessions to meet the presenters.