



**International Symposium**  
***Arctic-East Asia climate research:  
Observations, Modeling, Teleconnections and  
Predictions***

***for***







**Nansen–Zhu International  
Research Centre (NZC) 15-Year  
Collaboration**

**at**

**Foreign Experts Building Beijing**

**16-17 October, 2018**

*Partners of Nansen-Zhu International Research Centre:*

					
<i>Institute of Atmospheric Physics, Chinese Academy of Sciences</i>	<i>Peking University</i>	<i>Nansen Environmental and Remote Sensing Center Bergen, Norway</i>	<i>Uni Research Bergen, Norway</i>	<i>University of Bergen Bergen, Norway</i>	<i>Nanjing University</i>

# **The Nansen-Zhu International Research Centre at Institute of Atmospheric Physics (IAP) under the Chinese Academy of Sciences (CAS)**

## **BACKGROUND**

The *Nansen-Zhu Centre* is a non-profit joint venture located at the Institute of Atmospheric Physics under the Chinese Academy of Sciences (IAP/CAS) in Beijing, China. Representatives from the Chinese and Norwegian authorities formally opened the *Nansen-Zhu Centre* on 4th November 2003. The Centre is based on an *Agreement of Understanding* between IAP/CAS, NERSC and UoB of 7th August 2001, and a *Memorandum of understanding* between IAP/CAS, NERSC, UoB and PKU of 5th November 2002.

## **VISION**

The overarching goal of the Nansen-Zhu International Research Centre (*NZC*) is to be an internationally acknowledged climate research and training centre with emphasis on tropical and high-latitude regions, and the interactions between these regions, for past, present and future climate.

## **AIMS**

*NZC* is set up based on the desire to establish and run an attractive and focused cutting edge climate research network bridging scientists from China, Norway and abroad.

Particularly, *NZC* aims to:

- Exchange scientists and graduate students between the founding partners
- Initiate and develop joint research projects between the founding partners
- Co-ordinate and facilitate joint research proposals to be submitted to national and international funding bodies
- Stimulate and support joint publications in international peer-reviewed journals
- Develop co-operation in education and research programs.

## **PARTNERS**

*NZC* has six partners<sup>1</sup>:

- Institute of Atmospheric Physics/Chinese Academy of Sciences (IAP/CAS), Beijing, China
- Nansen Environmental and Remote Sensing Center (NERSC), Bergen, Norway
- University of Bergen (UoB), Bergen, Norway
- Peking University (PKU), Beijing, China
- Uni Research AS, Bergen, Norway
- Nanjing University (NJU), Nanjing, China

<sup>1</sup> All Norwegian partners are also partner institutions of the Bjerknes Centre for Climate Research (BCCR), a formal partner of *NZC* until it was replaced by Uni Research AS in 2011.

# NZC Annual Meeting 2018

16-17 October, Beijing, China

Foreign Experts Building Beijing

## 16 October, Tuesday

08:30-09:00	<i>Registration</i>
	<i>Opening</i> <b>Chair: Jianqi Sun (NZC)</b>
09:00-09:30	<i>Open Remarks: Founding director of NZC Prof. Huijun Wang (NUIST/NZC) Director of NERSC Prof. Sebastian Mernild (NERSC) Director-general Prof. Jiang Zhu (IAP)</i>
09:30-09:40	<b>Jianqi Sun (NZC): 15 year Science of NZC</b>
09:40-09:50	<b>Yongqi Gao (NERSC/NZC/UiB) and Tore Furevik (UiB): 15 years of excellence in international collaboration and research training - summer schools and student mobility</b>
09:50-10:10	<i>Tea/coffee break and photo</i>
<b>Session 1</b>	<b>Climate change</b> <b>Chair: Ke Fan (NZC) and Nils Gunnar Kvamstø (UiB)</b>
10:10-10:30	<b>Huijun Wang (NUIST/NZC)</b>
10:30-10:50	<b>Lasse Pettersson (NERSC): Arctic cooperation between Norway, Russia, India, China and US in satellite Earth observation and Education (ARCONOR) - research and higher education related to sea ice, environment, climate change, and operational conditions in the Arctic Ocean focusing on the Northern Sea Route</b>
10:50-11:10	<b>Jianping Huang (LZU): Global oxygen cycle: A new direction of climate study</b>
11:10-11:30	<b>Jerry Tjiputra (NORCE): Using interior oxygen to track future circulation changes in the ocean</b>
11:30-11:50	<b>Odd Helge Otterå (NORCE): Climate responses to aerosol geoengineering: a multi-method comparison</b>
11:50-12:10	<b>Tao Wang (NZC): Impacts of strong tropical volcanic eruptions on East Asian-Pacific climate</b>
12:10-13:30	<i>Lunch</i>
<b>Session 2</b>	<b>Climate dynamics</b> <b>Chair: Shuanglin Li (NZC) and Trond Martin Dokken (NORCE)</b>
13:30-13:50	<b>Xiuqun Yang (NJU): Midlatitude air-sea interaction: the role of atmospheric transient eddy forcing</b>
13:50-14:10	<b>Zhiping Wen (FDU): Effect of boreal spring precipitation anomaly pattern change in the late 1990s over tropical Pacific on the atmospheric teleconnection.</b>

14:10-14:30	<b>Botao Zhou (NUIST):</b> <i>Snow changes in China under global warming</i>
14:30-14:50	<b>Yali Zhu (NZC):</b> <i>The interannual summer drought variation along with the regime shift over Northwest China in the late 1980s</i>
14:50-15:10	<b>Jingzhi Su (CMA):</b> <i>The influence of the subtropical Pacific on the ENSO evolution</i>
15:10-15:30	<b>Ya Gao (NZC):</b> <i>Precipitation anomalies in the Pan-Asian monsoon region during El Niño decaying summer 2016</i>
15:30-16:00	<i>Tea/coffee break and poster</i>
<b>Session 3</b>	<b>Climate change</b> <span style="float: right;"><b>Chair: Aihui Wang (NZC) and Stein Sandven (NERSC)</b></span>
16:00-16:20	<b>Xuejie Gao (CCRC):</b> <i>Future changes of thermal comfort conditions over China based on multi-RegCM4 simulations</i>
16:20-16:40	<b>Haishan Chen (NUIST):</b> <i>Possible causes and impacts of non-uniform land surface warming of the Eurasian continent</i>
16:40-17:00	<b>Huopo Chen (NZC):</b> <i>Projected changes in climate extremes in China in a 1.5°C warmer world</i>
17:00-17:20	<b>Entao Yu (NZC):</b> <i>Warmer, wetter and less windy China in the 21st century projected by a nested high resolution simulation using the Weather Research and Forecasting (WRF) model</i>
17:20-17:40	<b>Donglin Guo (NZC):</b> <i>Simulating near-surface permafrost degradation in different regions in the Northern Hemisphere</i>
17:40-18:00	<b>Yanchun He (NERSC):</b> <i>A model-based evaluation of the inverse Gaussian transit-time distribution method for inferring anthropogenic carbon storage in the ocean</i>
18:30	<i>Banquet</i>

### **17 October, Wednesday**

<b>Session 4</b>	<b>Climate dynamics</b> <span style="float: right;"><b>Chair: Yali Zhu (NZC) and Hanne Sagen (NERSC)</b></span>
09:00–09:20	<b>Stein Sandven (NERSC):</b> <i>Sea ice thickness in the Arctic from satellite data</i>
09:20–09:40	<b>Tonghua Wu (SKLCS):</b> <i>Establishment of cryosphere observation stations in the Arctic regions of Alaska</i>
09:40–10:00	<b>Hanne Sagen (NERSC):</b> <i>The coordinated Arctic Acoustic Thermometry Experiment (CAATEX)</i>
10:00–10:20	<b>Linling Chen (NERSC):</b> <i>Arctic amplification metrics and WACC pattern during 1901-2010</i>
10:20–10:40	<b>Shengping He (UiB):</b> <i>New insights into the Arctic warming - Eurasian cooling teleconnection</i>
10:40–11:00	<i>Tea/coffee break</i>
<b>Session 5</b>	<b>Climate Dynamics</b> <span style="float: right;"><b>Chair: Huopo Chen (NZC) and Mats Bentsen (NORCE)</b></span>

11:00-11:20	<b>Yaocun Zhang</b> (NJU): <i>Interannual variability of the North Pacific winter storm track and its relationship with extratropical atmospheric circulation</i>
11:20-11:40	<b>Shuanglin Li</b> (NZC): <i>The interannual seesaw between the Somali and the Maritime Continent cross-equatorial flows and its connection with East Asian summer climate</i>
11:40-12:00	<b>Bo Sun</b> (NUIST): <i>Interannual variation of the spring and summer precipitation in the Three-River-Source region of China and the associated regimes</i>
12:00-12:20	<b>Dong Chen</b> (NZC): <i>Pacific multi-decadal oscillation modulates the effect of Arctic oscillation and El Niño southern oscillation on the East Asian winter monsoon</i>
12:20–13:30	Lunch
<b>Session 6</b>	<b>Climate Prediction</b> <span style="float: right;"><b>Chair: Tao Wang (NZC) and Bjørg Risebrobakken (NORCE)</b></span>
13:30–13:50	<b>Mats Bentsen</b> (NORCEI): <i>Status of NorESM2 and the Norwegian contribution to CMIP6</i>
13:50–14:10	<b>Aihui Wang</b> (NZC): <i>Does the antecedent precipitation really represent the soil moisture condition?</i>
14:10–14:30	<b>Madlen Kimmritz</b> (NERSC): <i>Assimilation of sea ice in an Earth system model and its impacts for climate prediction</i>
14:30–14:50	<b>Yiguo Wang</b> (NERSC): <i>Dynamical predictions with the Norwegian Climate Prediction Model</i>
14:50–15:10	<b>Jun Wang</b> (NZC): <i>Application of realtime satellite and model rainfall in landslide forecasting: A case study</i>
15:10–15:30	<b>Mao-Lin Shen</b> (UiB): <i>Reducing noise and systematic errors to improve model states and prediction skill</i>
15:30-15:50	<b>Baoqiang Tian</b> (NZC): <i>East Asian winter monsoon forecasting schemes based on the NCEP's climate forecast system</i>
15:50-16:20	Tea/coffee break and poster
<b>Session 7</b>	<b>Paleoclimate</b> <span style="float: right;"><b>Chair: Yongqi Gao (NERSC/NZC/UiB) and Odd Helge Otterå (NORCE)</b></span>
16:20-16:40	<b>Haijun Yang</b> (PKU): <i>How does the Tibetan Plateau affect the global climate?</i>
16:40-17:00	<b>Bjørg Risebrobakken</b> (NORCE): <i>Paleoclimatic constraints on high latitude responses to global warming</i>
17:00-17:20	<b>Zhongshi Zhang</b> (NZC): <i>Instability of Northeast Siberian ice sheet during glacials</i>
17:20-17:40	<b>Qin Yan</b> (NZC): <i>Climate constraints on glaciation over high-mountain Asia during the last glacial maximum</i>
17:40-18:00	<b>Closing and discussion</b>

18:30	<i>Dinner</i>
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**Note:** 20 minutes including 15 minutes for report and 5 minutes for discussion.

**NUIST:** Nanjing University of Information Science & Technology

**NORCE:** Norwegian Research Center (UniResearch)

**CMA:** China Meteorological Administration

**LZU:** Lanzhou University

**CCRC:** Climate Change Research Center

**SKLCS:** State Key Laboratory of Cryospheric Science