



*25 years in geoscience
1992-2017*

Nansen Centre's 25th Anniversary Symposium

PROGRAMME

St. Petersburg State University – Nansen Centre

St. Petersburg, Russia, 12-13 October 2017

*Symposium is
sponsored by the*



12 October, Thursday

Petrovsky Hall, St. Petersburg State University

09:00-09:30 Registration

Session 1

Chair: Prof. Nikolay Filatov, Corresponding Member RAS, President, Nansen Centre, Petrozavodsk, Russia

09:30-10:00 Opening.

Prof. Nikolay Filatov, President, Nansen Centre, Petrozavodsk, Russia

Welcome speeches:

Mr. Dag Malmer Halvorsen, Consul General of Norway in St. Petersburg

Prof. Sergey Aplonov, Vice-Rector, St. Petersburg State University, St. Petersburg, Russia

10:00-10:30 St. Petersburg Nansen Centre: 25 years of environmental and climate research

Dr. Leonid Bobylev, Director, Nansen Centre, St. Petersburg, Russia

10:30-10:55 From Waves and Ocean Remote Sensing to Climate and Climate Policy - 25 years of fruitful collaboration with NIERSC

Prof. Klaus Hasselmann and Prof. Hartmut Grassl, Max-Planck Institute for Meteorology, Hamburg, Germany

10:55-11:20 Studies of the atmosphere, hydrosphere and educational programs of St. Petersburg State University

Prof. Kirill Chistyakov, Director, Earth Sciences Institute, St. Petersburg State University/ Vice-President, Russian Geographic Society, St. Petersburg, Russia

11:20-11:40 **Coffee Break**

11:40-12:05 Arctic sea ice and processes in the Marginal Ice Zone: a brief review

Prof. Ola M. Johannessen, President, Nansen Scientific Society, Bergen, Norway

12:05-12:30 Arctic in the context of Paris Agreement

Prof. Vladimir Kattsov, Director, Voeikov Main Geophysical Observatory, St. Petersburg, Russia

12:30-14:00 **Lunch**

Session 2

Chair: Prof. Timo Vihma, Head of Polar Meteorology and Climatology Group, Finnish Meteorological Institute, Helsinki, Finland

14:00-14:25 Climate Change and Melting Glaciers and Ice Sheets - From Arctic to High Andes

Dr. Sebastian Mernild, Director, Nansen Centre, Bergen, Norway

14:25-14:50 Research activities of the Arctic and Antarctic Research Institute in the Arctic

Prof. Alexander Makarov, Director, Arctic and Antarctic Research Institute, St. Petersburg, Russia

- 14:50-15:15 **Monitoring and modelling atmospheric gases**
Prof. Yury Timofeev and Prof. Sergey Smyshlyaev, St. Petersburg State University and Russian State Hydrometeorological University, St. Petersburg, Russia
- 15:15-15:40 **Calcifying phytoplankton role in CO₂ dynamics in the atmosphere-ocean system at subpolar and polar latitudes**
Prof. Dmitry Pozdnyakov, Nansen Centre, St. Petersburg, Russia
- 15:40-16:05 **Largest lakes of Eurasia: integrated studies of ecosystems**
Prof. Nikolay Filatov, Corresponding Member RAS, President, Nansen Centre/ Councillor RAS, Northern Water Problems Institute, Petrozavodsk, Russia
- 16:05-16:25 **Coffee Break**
- 16:25-16:50 **Ice climatology of polar lakes**
Prof. Matti Leppäranta, University of Helsinki, Helsinki, Finland
- 16:50-17:15 **Integrated Arctic observation system (INTAROS)**
Prof. Stein Sandven, Nansen Centre, Bergen, Norway
- 17:15-17:40 **The impact of climate change on wind energy in Europe**
Dr. Richard Davy, Nansen Centre, Bergen, Norway
- 19:00 **Banquet at the Palace of Grand Duke Vladimir (House of Scientists)**
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13 October, Friday

Nansen Centre

Session 3

Chair: Prof. Stein Sandven, Nansen Centre, Bergen, Norway

- 10:00-10:25 **Global warming in the Arctic: role of atmospheric transport and solar radiation**
Prof. Genrikh Alekseev, Arctic and Antarctic Research Institute, St. Petersburg, Russia
- 10:25-10:40 **Seasonal and interannual variability of heat fluxes in the Barents Sea region**
Dr. Igor Bashmachnikov, St. Petersburg State University/Nansen Centre, St. Petersburg, Russia
- 10:40-10:55 **Atmospheric heat advection in the Kara Sea region**
Dr. Alla Yurova, St. Petersburg State University/Nansen Centre, St. Petersburg, Russia
- 10:55-11:20 **Coffee Break**
- 11:20-11:45 **Arctic climate change: anomalies and trends**
Prof. Igor Mokhov, Academician RAS, Director, Obukhov Institute of Atmospheric Physics, Moscow, Russia

- 11:45-12:10 Effects of changing Arctic on mid-latitude weather and climate
Prof. Timo Vihma, Finnish Meteorological Institute, Helsinki, Finland
- 12:10-12:35 Arctic warming and cold weather over continents - great scientific challenge
Prof. Valentin Meleshko, Voeikov Main Geophysical Observatory, St. Petersburg, Russia
- 12:35-12:50 Effects of surface temperature anomalies in the Arctic on 2-m air temperature in Europe and Northern Asia
Dr. Natalia Gnatiuk, Nansen Centre, St. Petersburg, Russia
- 12:50-14:00 **Lunch**

Session 4

Chair: Dr. Leonid Bobylev, Director, Nansen Centre, St. Petersburg, Russia

- 14:00-14:15 A new methodology of remote sensing determination of CO₂ partial pressure dynamics in surface ocean due to *E. huxleyi* blooms
Mr. Dmitry Kondrik, Nansen Centre/Arctic and Antarctic Research Institute, St. Petersburg, Russia
- 14:15-14:35 Applied meteorological and oceanographic research at NIERSC
Dr. Vladimir Volkov, Nansen Centre, St. Petersburg, Russia
- 14:35-14:50 Operational algorithm for automated sea-ice retrieval in the Arctic using SAR data
Dr. Natalia Zakhvatkina, Arctic and Antarctic Research Institute/Nansen Centre, St. Petersburg, Russia
- 14:50-15:05 Sea ice drift retrieval from satellites
Mr. Denis Demchev, Arctic and Antarctic Research Institute/Nansen Centre, St. Petersburg, Russia
- 15:05-15:20 NIERSC data archiving and processing system for research and environmental monitoring in the Arctic
Mr. Eduard Kazakov, Nansen Centre, St. Petersburg, Russia
- 15:20-15:45 **Coffee Break**
- 15:45-16:00 Introducing Climate Service Centre Germany: think tank for climate services
Dr. Lola Kotova, Climate Service Centre Germany (GERICS), Hamburg, Germany
- 16:00-16:15 Presentation of the Nansen-Zhu Centre (NZC)
Prof. Jianqi Sun, Nansen-Zhu Centre, Beijing, China
- 16:15-16:30 Presentation of the Nansen Environmental Research Centre, India (NERCI)
Dr. Ajith Joseph, Nansen Environmental Research Centre, Kochi, Kerala, India
- 16:30-16:40 Symposium closing
- 18:00 **Fourchette at the Nansen Centre**