



# 26<sup>th</sup> International Conference on Port and Ocean Engineering under Arctic Conditions POAC 2021

14-18 June, 2021, Moscow, Russia

Lomonosov Moscow State University, the main university of Russia, welcomes you to Moscow for the 26th edition of the International Conference on **Port and Ocean Engineering under Arctic Conditions**. Around 200 participants from over 30 countries are expected to come and will be able to seamlessly enjoy presentations in different parallel sessions, watch cutting-edge plenary lectures and enjoy the social program and the excursions that my team. Moscow is the huge metropolis, economic, scientific, industrial, political and cultural center of the country which attract millions of tourists.

## Scientific topics:

- Arctic offshore strategy and technologies
- Arctic materials
- The Arctic sea routes
- Shipping in ice conditions
- Applied oceanography of marine ice regions
- Ice physics and mechanics
- Permafrost dynamics and its impact on coastal facilities
- Environmental Issues of the Arctic Exploration

## Key dates:

October 1, 2020 – registration opening

April 30, 2021 – early-bird registration deadline

## Venue:

Lomonosov Moscow State University, Faculty of Geography\*

\*At the moment POAC 2021 is planned as normal on site conference. In case the situation will be developed in a negative way, we will change the format into virtual / hybrid way.

## Fees:

Abstract submission fee (this fee will be accepted as a participation fee in case of virtual format of the conference) - **50 EUR**

Full onsite participation: - early-bird/regular - **550/650 EUR**;  
- student - **300 EUR**;  
- accompanying person - **180 EUR**.

For more information visit our website: <https://poac2021.ru/>  
Contact us: [poac2021@geogr.msu.ru](mailto:poac2021@geogr.msu.ru)

## CONFERENCE TOPICS

### 1. Arctic offshore strategy and technologies

- The challenges and development prospects for the Russian projects in the Arctic, Sakhalin island shelf, and in the Caspian Sea.
- Problems of construction of oil and gas platforms, underwater pipelines and coastal structures.
- Ice-resistant structures, design and ice actions, standards
- Ice management

### 2. Arctic materials

- Materials for the Arctic port infrastructure
- Materials for ice-class vessels, ice-breakers, and ice-resistant platforms
- Anti-icing materials and technologies
- Field and laboratory tests of the materials
- Technical standards for the Arctic materials

### 3. The Arctic sea routes

- Ice conditions
- The remote sensing and ice conditions forecasting methods
- Ports and ice airfields
- Legal regulation

### 4. Shipping in ice conditions

- The challenges for design and exploitation of ice-breakers and ice-class vessels
- Ice loads on vessels
- Navigation problems in ice conditions
- Alternative types of water transport

### 5. Applied oceanography of marine ice regions

- Icebergs formation, drift and deterioration
- Sea waves in ice regions
- Heat flows and phenomena in boundary layer near floating ice
- Oceanographic and ice conditions in Arctic straits
- Dangerous hydrometeorological processes and phenomena

### 6. Ice physics and mechanics

- Ice physics and engineering applications
- Mechanical conditions and ice strength
- Formation and evolution of natural and artificial ice features
- Ice impact on sea floor and hydrotechnical facilities
- Physics of icing process and methods of its prevention

### 7. Permafrost dynamics and its impact on coastal facilities

- Permafrost dynamics in coastal zone
- Dangerous coastal processes in permafrost zone
- Coastal erosion in permafrost zone
- Coastal facilities stability on permafrost
- Submerged permafrost dynamics

### 8. Environmental issues of the Arctic exploration

- Climate changes and ice cover of the Arctic seas
- Shipping and shelf infrastructure environmental impact
- Oil spills in ice conditions
- Hydrotechnical facilities impact on offshore sediment transport