



Pan-Eurasian Experiment

PEEX

# **The 2<sup>nd</sup> Pan-Eurasian Experiment (PEEX) Science Conference**

## **PROGRAMME BOOK**

**18-20 May 2016 Beijing · China**





# The 2<sup>nd</sup> Pan-Eurasian Experiment Science Conference

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Integrated Land Ecosystem-Atmosphere Processes Study



International Eurasian Academy of Sciences

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# The 2<sup>nd</sup> Pan-Eurasian Experiment Science Conference

## Welcome to the 2<sup>nd</sup> PEEEX Science Conference

Dear Colleagues,

As Chair of the Organizing Committee and Co-Chairs of the Scientific Committee for the 2<sup>nd</sup> Pan-Eurasian Experiment (PEEX) Science Conference, we would like to welcome you to Beijing to participate in this important and meaningful event, to be held 18-20 May 2016.

PEEX is a multidisciplinary, multi-scale research initiative aiming at resolving the major uncertainties in Earth System and Global Sustainability Science. PEEEX is especially concerned with Arctic and Pan-Eurasian regions. The vision of PEEEX is to solve interlinked global grand challenges, such as climate change, air quality, biodiversity loss, chemicalization, food security, energy production and fresh water supply. The ultimate goal is to influence human well-being and societies in Pan-Eurasia in an integrative way, recognizing the significant role of boreal and Arctic regions in the context of global change.

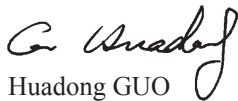
The conference is a scientific platform to discuss further steps for implementing the PEEEX Science Plan, and explore better scientific approaches to global sustainable development. It is aiming to promote PEEEX as a next-generation natural sciences and socio-economic research initiative. PEEEX will rely on excellent multi-disciplinary science with clear impacts on future environmental, socio-economic and demographic development of the region. It serves as a scientific community building novel infrastructures in those areas. In this conference, we will focus on, but not limit ourselves to, the themes of observation, data management, technological infrastructure, processing and modeling, and impacts, adaptation and administration. Scientists, technologists, and managers from around the world with enthusiasm for tackling global sustainable development will be able to exchange knowledge and experiences, and share new methods, technologies and applications related to the PEEEX vision.



**18-20 May 2016 Beijing · China**

The Earth is our home and we are responsible for its effective protection and environmental optimization. Over a period of three days, the 2<sup>nd</sup> PEEEX Science Conference will bring us together to underpin the role of PEEEX in global change, and support the scientific struggle for tangible results to inform our response to global challenges and the creation of a better society.

We look forward to meeting you over the coming days.



Huadong GUO

Chair of Organizing Committee

The 2<sup>nd</sup> Pan-Eurasian Experiment Science Conference



Markku KULMALA

Co-Chair of Scientific Committee

The 2<sup>nd</sup> Pan-Eurasian Experiment Science Conference



Valery BONDUR

Co-Chair of Scientific Committee

The 2<sup>nd</sup> Pan-Eurasian Experiment Science Conference





# The 2<sup>nd</sup> Pan-Eurasian Experiment Science Conference

## Organizing Committee

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**Huadong GUO** Institute of Remote Sensing and Digital Earth  
Chinese Academy of Sciences

### Members

**Alla BORISOVA** University of Helsinki

**Fang CHEN** Institute of Remote Sensing and Digital Earth  
Chinese Academy of Sciences

**Tianhua HONG** Institute of Remote Sensing and Digital Earth  
Chinese Academy of Sciences

**Pavel KONSTANTINOV** Lomonosov Moscow State University

**Joni KUJANSUU** University of Helsinki

**Jie LIU** Institute of Remote Sensing and Digital Earth  
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**Yubao QIU** Institute of Remote Sensing and Digital Earth  
Chinese Academy of Sciences

**Alexandra TUSHNOVA** Research Institute for Aerospace Monitoring

## **Scientific Programme Committee**

### **Co-Chairs**

<b>Markku KULMALA</b>	University of Helsinki
<b>Valery BONDUR</b>	Research Institute for Aerospace Monitoring

### **Members**

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<b>Natalia CHUBAROVA</b>	Lomonosov Moscow State University
<b>Aijun DING</b>	Nanjing University
<b>Congbin FU</b>	Nanjing University
<b>Tuukka PETÄJÄ</b>	University of Helsinki
<b>Mikhail SHAKHRAMANYAN</b>	Research Institute for Aerospace Monitoring
<b>Marina TSIDILINA</b>	Research Institute for Aerospace Monitoring
<b>Changlin WANG</b>	Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences
<b>Yong XUE</b>	Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences
<b>Jiahua ZHANG</b>	Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences
<b>Sergej ZILITINKEVICH</b>	Finnish Meteorological Institute

## Local Organizing Committee

### Chair

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Institute of Remote Sensing and Digital Earth  
Chinese Academy of Sciences

### Secretary General

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Institute of Remote Sensing and Digital Earth  
Chinese Academy of Sciences

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**Hao JIANG**

Institute of Remote Sensing and Digital Earth  
Chinese Academy of Sciences

**Jiuliang LIU**

Institute of Remote Sensing and Digital Earth  
Chinese Academy of Sciences

**Qingrong NI**

Institute of Remote Sensing and Digital Earth  
Chinese Academy of Sciences

**Yubao QIU**

Institute of Remote Sensing and Digital Earth  
Chinese Academy of Sciences

## Acknowledgements

The Organizing Committee and Scientific Programme Committee of the 2<sup>nd</sup> PEEX Science Conference would like to express their gratitude and acknowledge the following people for their hard work and contribution towards the success of the event.

Xiaomei WANG, Qing CHANG, Lu SHE, Na ZHAO, Luke Driskell, Yun BAI, Sha ZHANG, Yongjian RUAN, Guoqing SUN, Xinlei HAN



# *REGISTRATION & CONFERENCE INFORMATION*





# The 2<sup>nd</sup> Pan-Eurasian Experiment Science Conference

## Registration & Information Desks

A registration desk will be open in the main lobby of level three at Beijing International Convention Center (BICC) at the following times for participants to check in and collect their conference materials:

Tuesday, 17 May	09:00 – 18:00
Wednesday, 18 May	08:00 – 17:00
Thursday, 19 May	08:00 – 17:00
Friday, 20 May	08:00 – 12:00

Please note that the 2<sup>nd</sup> PEEEX Science Conference cannot accept on-site payment for participants.

## Dining

Tickets for the lunch buffet (12:00 – 13:30, 18 – 20 May), welcome reception (18:30 – 20:00, 18 May) and buffet reception (18:00 – 20:00, 19 May) of the 2<sup>nd</sup> PEEEX Science Conference are available from the registration desk.

12:00 – 13:30, 18 May	Lunch Buffet at the Beijing North Star Continental Grand Hotel Lijiang Restaurant
18:30 – 20:00, 18 May	Welcome Reception at the Beijing North Star Continental Grand Hotel Lijiang Restaurant
12:00 – 13:30, 19 May	Lunch Buffet at the Beijing North Star Continental Grand Hotel Lijiang Restaurant
18:00 – 20:00, 19 May	Buffet Reception in the BICC Conference Room 307
12:00 – 13:30, 20 May	Lunch Buffet at the Beijing North Star Continental Grand Hotel Lijiang Restaurant

## Conference Information

### Conference Venue

#### Beijing International Convention Center (BICC)

No.8 Beichen East Road, Chaoyang District, Beijing 100101, China

<http://www.bicc.com.cn/english/index.html>



The Beijing International Convention Center (BICC) is located in the flourishing Yayuncun area along Beijing's North Fourth Ring Road, where the central axis of the city meets the Fourth Ring Road, and right next to national stadiums like the Bird's Nest and the Water Cube. It's a 20-km trip east to the airport, a 9-km journey south to Tian'anmen Square, a 10-km excursion west to the Summer Palace, and an 80-km sojourn north to the Badaling section of the Great Wall. And with the Olympic Village only a stone's throw away, there is no better location in the city from which to base your trip.

### Conference Language

The official language is English.



# The 2<sup>nd</sup> Pan-Eurasian Experiment Science Conference

## **Name Tags**

Upon arrival at the 2<sup>nd</sup> PEEEX Science Conference, participants will have received name tags and relevant materials. Please be sure to wear your name tag to all sessions and present invitations for entry to lunch, welcome reception, and buffet reception.

## **WIFI**

Throughout the exhibition, a free WIFI connection is available in public areas of BICC. Please use your device to search “CMCC-GJHY” to log in without a password.

## **Coffee Breaks**

Coffee, tea, fruit, and pastries will be served to participants during the breaks indicated in the programme.

## **Mobile Phones**

Participants are kindly requested to keep their mobile phones switched off or muted in conference rooms.

## **Notice Board / Messages**

There will be a notice board near the registration where updates and notifications will be posted during the conference. Participants are also welcome to use this board to leave messages for colleagues.

## **Liability and Insurance**

The Secretariat and Organizers of the 2<sup>nd</sup> PEEEX Science Conference cannot accept liability for personal accidents or loss of or damage to private property of participants. Participants are advised not to leave their personal belongings unattended in conference rooms and throughout the conference venue.

## **Photography**

Please note there will be official photographers at the 2<sup>nd</sup> PEEEX Science Conference. Please do not take photographs during scientific sessions.

The group photo will be taken from 10:00 – 10:30 on 18 May. Please follow the directions to the designated place.

### **Video Photography**

Due to legal and privacy regulations, we request that participants refrain from any video recording during scientific sessions. This is also disruptive to fellow participants and we therefore ask you to be considerate.

### **Smoking Policy**

BICC is a non-smoking facility. Participants are requested to refrain from smoking in all areas.

## **Presentation Information**

### **Speaker Ready Room**

The Speaker Ready Room is located in Conference Room 306 on level three of BICC next door to the registration desk. All oral speakers are required to upload their presentations in Microsoft Office PowerPoint format by using a USB stick in the Speaker Ready Room well in advance of their presentations, and up to 1 hour before the beginning of the session.

The Speaker Ready Room will be open at the following time:

Tuesday, 17 May	09:00 – 18:00
Wednesday, 18 May	08:00 – 17:00
Thursday, 19 May	08:00 – 17:00
Friday, 20 May	08:00 – 12:00

### **Oral Presentation Instructions**

The conference room is equipped with a computer and video projector, a microphone, a lectern and a laser pointer device. The software installed on the computers includes: Microsoft Windows 7, Microsoft Office 2007, Adobe Reader, Internet Explorer, and Windows Media Player. The Windows Media Player is only available with standard codecs. Use of standard True Type fonts is suggested for PowerPoint presentations. If





# The 2<sup>nd</sup> Pan-Eurasian Experiment Science Conference

your presentation contains a video or animation, please ensure that both files (PPT and video) are in the same folder.

The plenary presentation is allocated 20-30 minutes and other oral presentations are allocated 15 minutes. Please find attached the detailed guidelines for the preparation of your presentation. The Chair or Co-Chairs of the session are instructed to remind speakers on the timing and aim to finish the oral presentation part about 3 minutes early, in order to remain on time. It is important that you comply with all the instructions so that all participants will get the most benefit from your presentation.

## **Poster Presentation Instructions**

For each paper accepted for the poster session, a poster board is reserved, and the poster size should be A1 (594mm x 841mm). The poster session will open for participants in Conference Room 307 at 18:00 – 20:00 on 19 May. You are encouraged to hang your poster in the afternoon on 19 May. Double-sided tape and technical equipment will be available for mounting posters.

Authors are invited to be on stand-by near their posters during the poster session. Please remove your poster after 20:00 on 19 May. The organizers cannot be responsible for posters not removed by that time.

***CONFERENCE VENUE LAYOUT &  
PROGRAMME AT A GLANCE***

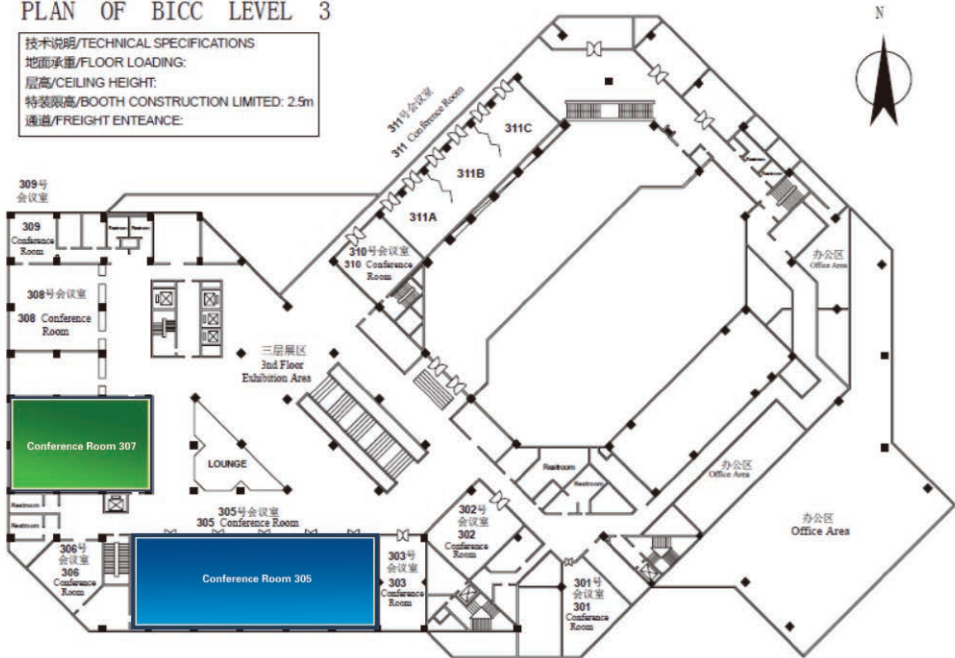




## Floor Plans

BICC 三层平面图  
PLAN OF BICC LEVEL 3

技术说明/TECHNICAL SPECIFICATIONS
地面承重/FLOOR LOADING:
层高/CEILING HEIGHT:
特装限高/BOOTH CONSTRUCTION LIMITED: 2.9m
通道/FREIGHT ENTRANCE:



**Blue Area:** Conference Room 305 for Scientific Sessions at 9:00 – 18:00 on 18 – 19 May.

**Green Area:** Conference Room 307 for Poster Session at 18:00 – 20:00 on 19 May and Scientific Sessions at 9:00 – 17:30 on 20 May.

# Programme at a Glance for the 2<sup>nd</sup> PEEEX Science Conference

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The 2nd Pan-Eurasian Experiment (PEEX) Science Conference Programme at a Glance				
	WEDNESDAY MAY 17	WEDNESDAY MAY 18	THURSDAY MAY 19	FRIDAY MAY 20
AM		Opening Ceremony	Plenary Session	Plenary Session
		Group Photo & Break	Break	Break
		Plenary Session	Scientific Session	Scientific Session
MIDDAY		Lunch	Lunch	Lunch
	On-Site Registration for the 2nd PEEEX Science Conference	Scientific Session	Scientific Session	Scientific Session
		Break	Break	Break
PM		Scientific Session	Scientific Session	CRAICC-PEEX Special WS Session
		Break	Break	Break
		CRAICC-PEEX Special WS Session	CRAICC-PEEX Special WS Session	CRAICC-PEEX Special WS Session
EVE		Welcome Reception	Poster Session & Buffet Reception	Closing Ceremony



## Oral Session Summary

<b>WEDNESDAY 18 May, 2016    BICC Conference Room 305</b>	
10:30-12:00	PLENARY SESSION I
13:30- 15:00	GLOBAL SCALE – FEEDBACKS – INTERACTIONS
15:30-17:30	FROM AIR QUALITY TO PERSONAL WEATHER
17:00-18:00	CRAICC-PEEX SPECIAL WS SESSION I: TURBULENT EXCHANGE ACROSS STRONGLY HETEROGENEOUS INTERFACES (FRACTURED ICE, SUMMER TUNDRA, ARCTIC COASTAL & URBAN AREAS)
<b>THURSDAY 19 May, 2016    BICC Conference Room 305</b>	
09:00-10:00	PLENARY SESSION II
10:30-12:00	BIG DATA & RESEARCH INFRA <sub>s</sub> & OBSERVATION NETWORKS
13:30-15:00	ARCTIC AND COLD REGIONS: OBSERVATIONS AND IMPACT ON THE CRYOSPHERE
15:15-16:30	LAND ECOSYSTEM & ENVIRONMENT: OBSERVATION AND MODELING I
16:45-18:00	CRAICC-PEEX SPECIAL WS SESSION II: ESTIMATING AND MONITORING ANTHROPOGENIC EMISSIONS AND THEIR IMPACTS IN THE ARCTIC BY USING REMOTE SENSING
<b>FRIDAY 20 May, 2016    BICC Conference Room 307</b>	
09:00-10:00	PLENARY SESSION III
10:30-12:00	FROM SOCIETY TO KNOWLEDGE TRANSFER AND INTERNATIONAL COLLABORATION
13:30-15:00	LAND ECOSYSTEM & ENVIRONMENT: OBSERVATION AND MODELING II
15:00-16:30	CRAICC-PEEX SPECIAL WS SESSION III: CLIMATOLOGY OF THE HIGH-LATITUDE PLANETARY BOUNDARY LAYER



# *SCIENTIFIC PROGRAMME*





# The 2<sup>nd</sup> Pan-Eurasian Experiment Science Conference

## Overview

The 2<sup>nd</sup> PEEEX Science Conference is open for all scientists interested in research on grand challenges and global change. The Conference is bringing professional and scientific experts together under research themes related to land-atmosphere-aquatic-anthropogenic systems. The Scientific Programme of the 2<sup>nd</sup> PEEEX Science Conference is fully designed to provide all attendees with an opportunity to make broad discussion and research exchange on further steps for implementing the PEEEX Science Plan, and exploration of better scientific approaches to global sustainable development.

The Scientific Programme consists of Plenary Sessions, Scientific Sessions, and a Poster Session. In three Plenary Sessions, six invited keynote speakers will give their presentations. These sessions are distributed after the Opening Ceremony on the morning of 18 May (Wednesday) in Conference Room 305, and early on the morning of 19 May (Thursday) in Conference Room 305 and 20 May (Friday) in Conference Room 307. In total, 174 abstracts worldwide, from over twenty countries and regions, were submitted to the 2<sup>nd</sup> PEEEX Science Conference. Of these, over fifty presentations were selected for oral presentations in “observations and data management/infrastructure”, “processing/modeling”, and “impacts, adaptation and management” at ten Scientific Sessions, and over 100 posters will be presented in Conference Room 307 on the evening of 19 May (Thursday) during the Buffet Reception.

All registered abstracts will be made available to all attendees on a USB stick.

## Keynote Speakers



### Prof. BONDUR, Valery

AEROCOSMOS Research Institute for Aerospace Monitoring, Russia

Academician Valery Bondur is a Presidium member of the Russian Academy of Sciences, D.Sc., Professor, the Director of AEROCOSMOS Research Institute for Aerospace Monitoring, and the President of the International Eurasian Academy of Sciences. He leads the Division of Oceanology, Atmospheric Physics, and Geography of the RAS Earth Sciences Department. He is the Editor-in-Chief of the *Issledovanie Zemli iz kosmosa* Journal; a member of the editorial boards for *Oceanology*, *Marine Hydrophysical Journal*, and *Geodesy and Aerophotography*; and Deputy Editor-in-Chief of the *Information Bulletin of the Earth Sciences Department of the RAS*. Academician Bondur is the Head of the Environmental Management Expert Group in the framework of the Federal Targeted Programme for Research and Development in Priority Areas of Development of the Russian Scientific and Technological Complex for 2014-2020, and the Head of the Working Group for preparation of harmonized calls under this Targeted Programme and EU Horizon-2020. Academician Bondur is a well-known scientist in the areas of remote sensing, development of basic physics and system-wide principles for creation of complicated aerospace systems for monitoring ocean, atmosphere, land, geological environment, and near-Earth space in the context of the Earth sciences, environmental protection and conservancy, and prevention of dangerous natural and technogenic processes. He has published more than six hundred research papers, including sixteen books. He is a principal investigator of many Russian and international programmes and projects in the areas of environmental monitoring and prevention and mitigation of natural and technogenic disasters. He was twice awarded the Russian Government Award in the sphere of science and technology.



**Prof. BORNSTEIN, Robert**

Dept. of Meteorology, San Jose State University, San Jose, CA USA  
Institute for Urban Meteorology (IUM), Beijing, China  
NOAA/CREST Facility, CCNY/CUNY, NYC, USA

Prof. Robert Bornstein earned a PhD (1972) in Meteorology from NYU. He has been a Professor in the Department of Meteorology and Climate Science at SJSU since 1969. His research focuses on observations and simulation of polluted coastal urban PBLs in a changing climate. He is an AMS Fellow, and has received lifetime achievement awards for research in urban climate from the AMS (2008) and IAUC (2009).



**Prof. FU Congbin**

Nanjing University, China

Prof. Congbin Fu is a professor of climate change at Nanjing University, China. He is an Academician of the Chinese Academy of Sciences. He is currently serving as the Director to the Institute for Climate and Global Change Research at Nanjing University and the Collaborative Innovation Center of Climate Change of Jiangsu Province, China.

Prof. Fu is one of the earliest scientists engaged in studies on climate and global change in China. His expertise includes atmosphere-ocean and land-atmosphere interactions, Asian monsoon climate, and regional climate modeling. He has published eight books/chapters and more than two hundred peer-reviewed papers in international journals. He was one of the earliest scientists to propose a theory and method differentiating El Niño patterns based on the zonal sea surface temperature profile in the Equatorial Pacific.

Prof. Fu has been actively involved in international academic organizations. For example, he served as an Executive Member of



ICSU (International Council for Science), Vice-President of the China Association for Science and Technology, President of the Pacific Science Association, Scientific Steering Committee Member of IGBP, and Founder and first Chair of MAIRS (Monsoon Asia Integrated Regional Study). He is a foreign member of the Finnish Society of Sciences and Letters of Finland, and was awarded an honorary doctorate from the University of Gothenburg.



**Prof. GUO Huadong**

Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, China

Huadong Guo is a Professor of the Chinese Academy of Sciences (CAS) Institute of Remote Sensing and Digital Earth (RADI), an Academician of CAS, and a Fellow of the World Academy of Sciences for the advancement of science in developing countries (TWAS). He presently serves as President of the International Society for Digital Earth (ISDE), Past-President of ICSU Committee on Data for Science and Technology (CODATA), Science Committee Member of the Integrated Research on Disaster Risk (IRDR) programme co-sponsored by ICSU, ISSC and UNISDR, Editor-in-Chief of the *International Journal of Digital Earth* and Chairman of the Chinese National Committee for ISDE and China Committee for IRDR. He also serves as Director of the International Center on Space Technologies for Natural and Cultural Heritage (HIST) under the Auspices of UNESCO, and Director of the CAS-TWAS Center of Excellence on Space Technology for Disaster Mitigation (SDIM). Prof. Guo has over thirty years of experience in remote sensing, specializing in radar for Earth observation and research on Digital Earth. He has been the principle investigator for over thirty major national projects in China, and principle investigator for seven international radar



remote sensing projects. He has published more than four hundred papers and sixteen books, and is the principal awardee of thirteen national and CAS prizes, one being “National Outstanding Expert”, awarded by the State Council of China. He also received the N.M. Przewalski Gold Medal awarded by the Russian Geographical Society, and the Boon Indrambarya Gold Medal awarded by the 30<sup>th</sup> Asian Conference on Remote Sensing.

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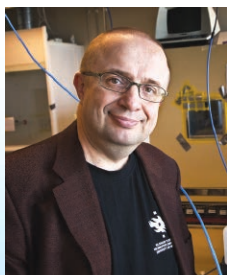


**Prof. HOLTSLAG, Bert**

Meteorology and Air Quality, Wageningen University, Netherlands

Prof. Bert Holtslag is a Senior Professor of Meteorology and Chair of the Meteorology and Air Quality Section at Wageningen University, the Netherlands. His research focuses on modeling and conceptual analysis of observations dealing with atmosphere-land interactions, surface fluxes, boundary layer processes, wind energy and urban meteorology. He is a fellow of the American Meteorological Society and (co-) author of more than four hundred scientific publications, including about one-hundred forty well-cited peer reviewed articles in the international atmospheric scientific literature.

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**Prof. KULMALA, Markku**

Division of Atmospheric Sciences, Department of Physics, University of Helsinki, Finland

Prof. Markku Kulmala directs the Division of Atmospheric Sciences at the University of Helsinki Department of Physics and has served as a professor at the university since 1996. Kulmala is currently coordinating the "Centre of Excellence in Atmospheric Science - From Molecular



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and Biological processes to the Global Climate", appointed by the Academy of Finland for the first time in 2002. He also coordinates the Nordic Center of Excellence, appointed by Nordforsk "Cryosphere-atmosphere interactions in a changing Arctic climate" (CRAICC). It is the largest joint Nordic research and innovation initiative to date, aiming to strengthen research and innovation regarding climate change issues in the Nordic and high-latitude regions. Kulmala is also Director of the Pan-Eurasian Experiment (PEEX) Programme, started in 2012. Prof. Kulmala, together with Prof. Pertti Hari, is the primary inventor of the SMEAR (Station Measuring Ecosystem-Atmosphere Relations) concept. According to the ISI Web of Knowledge, Prof. Kulmala is in first place in the Citation Rankings in Geosciences (since 1.5.2011). His H-factor is 85. Prof. Kulmala has received several international awards such as the Smoluchovski Award (1997), the International Aerosol Fellow Award (2004), the Wilhelm Bjerkenes medals (2007), Fuchs Memorial Award (2010), and Litke Medal (2015).

## Programme

<b>TUESDAY 17 May, 2016</b>	
<b>09:00-18:00</b>	<b>REGISTRATION</b>
<b>WEDNESDAY 18 May, 2016</b>	
<b>08:00-09:00</b>	<b>REGISTRATION</b>
<b>09:00-10:00</b>	<b>OPENING CEREMONY</b> Chair: Ms. Jie Liu, RADI, China Dr. Joni Kujansuu, Univ. Helsinki, Finland
09:00-09:10	Performance of Dance
09:10-09:20	Welcoming Remarks given by Prof. Huadong Guo, RADI, China
09:20-09:30	Remarks given by Dr. William Paton, IRDR, Canada
09:30-09:30	Remarks given by Prof. Sergej Zilitinkevich; Finnish Met. Inst, Finland
09:30-09:40	Remarks given by Dr. Sergey Chalov, Moscow State Univ., Russia
09:40-10:00	Aims of the Conference given by Prof. Markku Kulmala, Univ. Helsinki, Finland
<b>10:00-10:30</b>	<b>GROUP PHOTO &amp; COFFEE BREAK</b>
<b>10:30-12:00</b>	<b>PLENARY SESSION I</b> <b>Co-Chair:</b> Prof. Tuukka Petäjä, Univ. Helsinki, Finland Prof. Jiahua Zhang, RADI, China
10:30-11:00	Air quality - climate interactions and feedbacks, Prof. Markku Kulmala, Univ. Helsinki, Finland
11:00-11:20	Seamless coupled meteorology-composition modeling: historical overview and future research needs, Prof. Alexander Baklanov, WMO, Switzerland
11:20-11:40	Towards further understanding of the impact of land use and cover change on regional climate in Monsoon Asia, Prof. Congbin Fu, Univ. Nanjing, China

11:40-12:00	Eurasian great lakes: diagnosis and prediction of the water level fluctuations under climate changes and anthropogenic impacts, Prof. Nikolay Filatov, Northern Water Problems Inst., Russia
<b>12:00-13:30</b>	<b>LUNCH</b>
<b>13:30- 15:00</b>	<b>GLOBAL SCALE – FEEDBACKS – INTERACTIONS</b> <b>Co-Chair:</b> Prof. Alexander Baklanov, WMO, Switzerland Prof. Jiahua Zhang, RADII, China
13:30-13:45	Cognitive chaos: turbulence and planetary boundary layers in Earth systems, Prof. Sergej Zilitinkevich, Finnish Met. Inst., Finland
13:45-14:00	Toward global picture of atmospheric new particle formation based on observations, Prof. Veli-Matti Kerminen, Univ. Helsinki, Finland
14:00-14:15	Feedback of aerosol pollution to atmospheric chemistry in Eastern China, Dr. Wei Nie, Univ. Nanjing, China
14:15-14:30	Environmental and climatic changes in the northern hemisphere and international ecological co-operation, Prof. Gennady Matishov, Southern Scientific Center, Russia
14:30-14:45	Terrestrial ecosystem climate feedbacks in boreal and tropical forests, Prof. Jaana Bäck, Univ. Helsinki, Finland
14:45-15:00	Biogenic Aerosols – Effects on Clouds and Climate (BAECC) study as an example for scientific integration, Prof. Tuukka Petäjä, Univ. Helsinki, Finland
<b>15:00-15:30</b>	<b>COFFEE BREAK</b>
<b>15:30-17:30</b>	<b>FROM AIR QUALITY TO PERSONAL WEATHER</b> <b>Chair:</b> Prof. Aijun Ding, Univ. Nanjing, China
15:30-15:45	The characteristics of vertical distribution and regional transport of PM <sub>2.5</sub> within the lower troposphere during high pollution episode winter of 2015 in Shanghai, China based on tethered balloon, Dr. Qingyan Fu, Shanghai Environmental Monitoring Center, China
15:45-16:00	Monitoring and assessment of regional air quality in China using space observations (MARCO POLO), Prof. Ronald van der A, KNMI, Netherlands
16:00-16:15	Impact of accurate description of land use type and vegetation on simulation of the East Asian monsoon precipitation, Dr. Weidong Guo, Univ. Nanjing, China

16:15-16:30	Potential impact of pollution on clouds and precipitation over China, Prof. Olaf Kruger, Univ. Helsinki, Finland
16:30-16:45	Remote sensing of aerosol optical, microphysical and chemical properties based on sun-sky radiometer measurements over polluted cities, Prof. Zhengqiang Li, RADI, China
<b>16:45-17:00</b>	<b>SHORT BREAK</b>
<b>17:00-18:00</b>	<b>I - CRAICC-PEEX SPECIAL WS SESSION: TURBULENT EXCHANGE ACROSS STRONGLY HETEROGENEOUS INTERFACE (FRACTURED ICE, SUMMER TUNDRA, ARCTIC COASTAL &amp; URBAN AREAS)</b> <b>Co-Chair:</b> Prof. Timo Vesala, Univ. Helsinki, Finland Prof. Sergej Zilitinkevich, Finnish Met. Inst., Finland
17:00-17:20	Effects of land surface heterogeneities on convective boundary layers. What did we learn from large-eddy simulation so far?, Prof. Siegfried Raasche, Inst. of Meteorology and Climatology, Germany
17:20-17:35	Numerical modelling of lake-atmosphere continuum in forested landscapes, Dr. Victor Stepanenko, Moscow State Univ., Russia
17:35-17:50	Long term effects of fire on northern greenhouse gas exchanges in Northern Forests, Dr. Frank Berninger, Univ. Helsinki, Finland
17:50-18:05	The effect of surface cover and climate conditions on the surface energy and water balance in cold climate cities, Dr. Leena Järvi, Univ. Helsinki, Finland
<b>18:30</b>	<b>WELCOME RECEPTION</b>

## THURSDAY 19 May, 2016

<b>09:00-10:00</b>	<b>PLENARY SESSION II</b> <b>Chair:</b> Prof. Sergej Zilitinkevich, Finnish Met. Inst., Finland
09:00-09:20	Satellite monitoring of trace gas and aerosol emissions into the atmosphere of Northern Eurasia, Prof. Valery G. Bondur, AEROCOSMOS, Russia
09:20-09:40	Spaceborne Earth observing technologies for environmental monitoring in the Belt and Road region, Prof. Huadong Guo, RADI, China
09:40-10:00	Geographic and geo-economic factors of long-term development of Pacific Russia, Prof. Petr Ya. Baklanov, Pacific Inst. of Geography, Russia



10:00-10:30	<b>COFFEE BREAK</b>
10:30-12:00	<b>BIG DATA &amp; RESEARCH INFRAs &amp; OBSERVATION NETWORKS</b> Co-Chair: Prof. Gerrit De Leeuw, Finnish Met. Inst., Finland Prof. Yong Xue, RADI, China
10:30-10:45	High performance retrieval of FY3 global surface albedo, Prof. Yong Xue, RADI, China
10:45-11:00	Efficient remote sensing data storage and management based on parallel file system and NOSQL database, Prof. Jochen Garcke, Fraunhofer Institute for Algorithms and Scientific Computing SCAI, Germany
11:00-11:15	Integrated Carbon Observation System (ICOS) Research Infrastructure, Dr. Eija Juurola, ICOS-ERIC HQ, Finland
11:15-11:30	COOP+: Promoting the cooperation among international Research Infrastructures to address global environmental challenges, Dr. Ari Asmi, Univ. Helsinki, Finland
11:30-11:45	First year of research activities at Villum Research Station, Station Nord, North Greenland, Prof. Henrik Skov, Aarhus Univ., Denmark
11:45-12:00	Satellite remote sensing of aerosol and cloud properties over the PEEEX area, Prof. Gerrit De Leeuw, Finnish Met. Inst., Finland
12:00-13:30	<b>LUNCH</b> (PEEX Steering Group lunch meeting / Working Group lunch meetings)
13:30-15:00	<b>ARCTIC AND COLD REGIONS: OBSERVATIONS AND IMPACT</b> Chair: Dr. Bin Cheng, Finnish Met. Inst., Finland Dr. Yubao Qiu, RADI, China
13:30-13:45	Summer ice transformation in the Eurasian arctic seas in the 20th and 21st centuries, Dr. Leonid Bobylev, NIERSC, Russia
13:45-14:00	Satellite-based snow cover and climatology analysis over Center Asia and Xinjiang province, China, Ms. Lijuan Shi, RADI, China
14:00-14:15	Observed and modeled snow and ice thickness in Chukchi Sea with CHINARE 2014 data, Dr. Bin Cheng, Finnish Met. Inst., Finland
14:15-14:30	Three epochs of data on glacier changes on the Tibetan Plateau derived from Landsat imagery, from the 1970s to 2013, Dr. Qinghua Ye, Inst. of Tibetan Plateau Research, China

14:30-14:45	Spatio-temporal analysis of Greenland snowmelt using microwave radiometer data (1988-2014), Dr. Xingdong Wang, RADI, China
14:45-15:00	GEO Cold Region Initiative (GEOCRI), Dr. Yubao Qiu, RADI, China
15:00-15:15	<b>SHORT BREAK</b>
15:15-16:30	<b>LAND ECOSYSTEM &amp; ENVIRONMENT: OBSERVATION AND MODELING I</b> Co-Chair: Prof. Jaana Bäck, Univ. Helsinki, Finland Prof. Li Zhang, RADI, China
15:15-15:30	Dynamics of carbon, nitrogen and other climate relevant trace gases measured at SMEAR Estonia, Dr. Steffen Noe, Estonian Univ. of Life Sciences, Estonia
15:30-15:45	Ozone in the Western Yangtze river delta of China: A synthesis study based on ground, aircraft and sounding measurement, 2011-2015, Prof. Aijun Ding, Nanjing Univ., China
15:45-16:00	Complicate observations and multi-parameter land information constructions on allied telemetry experiment (COMPLICATE), Prof. Xin Tian, Inst. of Forest Resource Information Techniques, China
16:00-16:15	Boreal ecosystem biogeochemistry sifted through the catchment-resolving analysis, Dr. Alla Yurova, NIERSC, Russia
16:15-16:30	Simulation of forest carbon flux by model incorporation and assimilation, Dr. Min Yan, Inst. of Forest Resource Information Techniques, China
16:30-16:45	<b>SHORT BREAK</b>
16:45-18:00	<b>II - CRAICC-PEEX SPECIALL WS SESSION: ESTIMATING AND MONITORING ANTHROPOGENIC EMISSIONS AND THEIR IMPACTS IN THE ARCTIC BY USING REMOTE SENSING</b> Chair: Dr. Leonid Bobylev, NIERSC, Russia
16:45-17:00	New continuous aerosol and greenhouse gas measurements in Russian arctic ice base cape Baranova -station, Dr. Tuomas Laurila, Finnish Met. Inst., Finland
17:00-17:15	Modelling black carbon: from international climate law to impact on Arctic climate, Dr. Thomas Kuehn, Univ. of Eastern Finland, Finland
17:15-17:45	The emissions of biogenic greenhouse gases from arctic and north boreal soils due to the different types of anthropogenic land use at local and regional scales: prospects and dynamics, Dr. Dmitry Karelin, Inst. of Geography, Russia

17:45-18:00	Radiative forcing sensitivity to model bias in high latitude ozone profiles, Dr. Stephen Arnold, Univ. of Leeds; United Kingdom
<b>18:00-20:00</b>	<b>POSTER SESSION &amp; BUFFET RECEPTION</b> <b>Co-Chair:</b> Prof. Markku Kulmala, Univ. Helsinki, Finland Prof. Timo Vesala, Univ. Helsinki, Finland
19:00-20:00	“From Vertigo to Blue Velvet – Connotations between movies and climate change”, Prof. Timo Vesala, Univ. Helsinki, Finland

**FRIDAY 20 May, 2016**

<b>09:00-10:00</b>	<b>PLENARY SESSION III</b> <b>Chair:</b> Prof. Sergej Zilitinkevich, Finnish Met. Inst., Finland
09:00-09:30	Challenges for Stable Atmospheric Boundary Layers, Prof. Bert Holtslag, Wageningen Univ., Netherlands
09:30-10:00	Observation and simulation of polluted urban boundary layers in a changing climate, Prof. Robert Bornstein, San Jose State Univ., USA
<b>10:00-10:30</b>	<b>COFFEE BREAK</b>
<b>10:30-12:00</b>	<b>FROM SOCIETY TO KNOWLEDGE TRANSFER AND INTERNATIONAL COLLABORATION</b> <b>Co-Chair:</b> Dr. Taina Ruuskanen, Univ. Helsinki, Finland Dr. Joni Kujansuu, Univ. Helsinki, Finland
10:30-10:45	Russian climate policies and local reality, Prof. Veli-Pekka Tynkkynen, Univ. Helsinki, Finland
10:45-11:00	Adaptability indigenous arctic population by "urban heat island", Dr. Sergei Petrov, Tyumen Scientific Center, Russia
11:00-11:15	Variational modeling technology with data assimilation for environmental prediction and risk assessment, Dr. Alexey Penenko, Institute of Computational Mathematics and Mathematical Geophysics, Russia
11:15-11:30	Atmosphere-land-lake carbon cycle provides possibilities for economic studies, Dr. Jouni Heiskanen, Univ. Helsinki, Finland
11:30-11:45	Future Earth: co-designing global change research to respond to grand societal challenges, Dr. Tanja Suni, Univ. Helsinki, Finland

11:45-12:00	The atmospheric science paradigm and horizontal learning: experiences from short research-intensive courses, Dr. Antti Lauri, Univ. Helsinki, Finland
<b>12:00-13:30</b>	<b>LUNCH</b>
<b>13:30-15:00</b>	<b>LAND ECOSYSTEM &amp; ENVIRONMENT: OBSERVATION AND MODELING II</b> <b>Co-Chair:</b> Prof. Zhihai Gao, Inst. of Forest Resource Information Techniques, China Prof. Aleksander Baklanov, WMO, Switzerland
13:30-13:45	Satellite based drought and vegetation changes over semi-arid areas, Dr. Anzhi Zhang, IAP, China
13:45-14:00	Analysis of long-term carbon stocks in permafrost-dominated forest ecosystems of North-East Russia, Prof. Trofim Maximov, Inst. for Biological Problems of Cryolithozone, Russia
14:00-14:15	Land degradation assessment by coupling NPP and climate in Xilin Gol Legue, Inner Mongolia, China, Prof. Zhihai Gao, Inst. of Forest Resource Information Techniques, China
14:15-14:30	Hydroclimatic impacts on catchment-scale water cycle and metal and carbon fluxes in Selenga-Baikal river system, Dr. Sergey Chalov, Moscow State Univ., Russia
14:30-14:45	Online measurements of fluorescent aerosol particles at a polluted regional site in the North China Plain: insights into the potential impact of burning activities Dr. Hang Su, Max Planck Inst. for Chemistry, Germany
14:45-15:00	The importance of moisture recycling in China, Mr. Tolga Cömert, Delft Univ. of Technology, Netherlands
<b>15:00-15:30</b>	<b>COFFEE BREAK</b>
<b>15:00-16:30</b>	<b>III - CRAICC-PEEX SPECIAL WS SESSION: CLIMATOLOGY OF THE HIGH-LATITUDE PLANETARY BOUNDARY LAYER</b> <b>Chair:</b> Dr. Igor Esau, NERSC, Norway
15:00-15:15	Surface air temperature changes in the high-latitude boundary layer, Dr. Richard Davy, NERSC, Norway
15:15-15:30	Extra-tropical Ocean Warming and Winter Arctic Sea Ice Cover since the 1990s, Dr. Yongqi Gao, NERSC, Norway
15:30-15:45	Revisiting the drives of Northern Hemisphere winter surface air temperature variability during 1901-2010, Dr. Linling Chen, NERSC, Norway

15:45-16:00	Remote-sensing indicators of urban effects in the Arctic: Focus on northern West Siberia, Dr. Victoria V. Miles, NERSC, Norway
16:00-16:15	Breeze induced modification of the local circulation in a coastal mountainous valley, Mr. Tobias Wolf, NERSC, Norway
16:15-16:30	Surface urban heat islands in northern cities, Dr. Igor Esau, NERSC, Norway
<b>16:30-16:45</b>	<b>SHORT BREAK</b>
	<b>CLOSING CEREMONY</b>
<b>16:45-17:30</b>	<b>Co-Chair:</b> Prof. Markku Kulmala, Univ. Helsinki, Finland Prof. Huadong Guo, RADI, China
16:45-17:00	PEEX Program - Future prospects, Dr. Hanna Lappalainen, Univ. Helsinki, Finland
17:00-17:20	Concluding Remarks given by Prof. Markku Kulmala, Univ. Helsinki, Finland Prof. Valery G. Bondur, AEROCOSMOS, Russia Prof. Sergej Zilitinkewich, Finnish Met. Inst., Finland Prof. Alexander Baklanov, WMO, Switzerland Prof. Aijun Ding, Nanjing Univ, China Prof. Tuukka Petäjä, Univ. Helsinki, Finland
17:20-17:30	Closing Remarks given by Prof. Huadong Guo, RADI, China



## Poster Session

**Date:** 19 May, 2016 (Thursday)

**Time:** 18:00 – 19:00

**Location:** Conference Room 307

### IMPACTS, ADAPTATION AND MANAGEMENT

Poster No.	Full Name	Poster Title
1	Joni KUJANSUU	BEAUTIFUL CHINA – HOW TO TACKLE AIR POLLUTION
2	Outi MEINANDER	LIGHT ABSORBING PARTICLES AND DENSITY OF MELTING SURFACE SNOW
3	Alexey PANOV	SOIL CO <sub>2</sub> EFFLUX RATES AFTER WILDFIRES IN CENTRAL SIBERIAN ECOSYSTEMS
4	Zhongren PENG	PERFORMANCE EVALUATION OF LINE SOURCE DISPERSION MODELS FOR SHORT-TERM ESTIMATION AT ROAD INTERSECTION
5	Sergei PETROV	ADAPTOGENESIS OF OAT (AVENA SATIVA L.) TO OIL POLLUTION OF SOIL
6	Dmitry POZDNYAKOV	CONTEMPORARY TENDENCIES IN PRIMARY PRODUCTION DYNAMICS IN THE ARCTIC OCEAN UNDER CONDITIONS OF GLOBAL WARMING
7	Taina RUUSKANEN	MULTIDISCIPLINARY AIR QUALITY CAPACITY BUILDING
8	Aleksei SHCHERBININ	ATTRIBUTION OF CLIMATE IMPACTS TO ORGANIZATIONS: GAS AND OIL OPERATION IN THE ARCTIC

9	Xiaoqi YU	CLOUD REMOVING METHOD FOR DAILY SNOW MAPPING OVER CENTRAL ASIA AND XINJIANG, CHINA
10	Xiaodan AN	AEROSOL DETECTION ANALYSIS FROM SATELLITE DURING THE HARVEST SEASON OVER NORTH CHINA PLAIN
11	Yun BAI	ACCURACY OF RIVER NETWORK EXTRACTED FROM DIFFERENT DEM DATASET AND THE RELATIONSHIP WITH TERRAIN UNDULATION
12	Yongjian RUAN	PASSIVE MICROWAVE REMOTE SENSING OF LAKE FREEZE-THAW OVER EURASIA
13	Zhihui HAN	WARNING METHOD OF URBAN RAIL TRANSIT OPERATION SAFETY UNDER STRONG WIND

**OBSERVATIONS AND DATA MANAGEMENT/INFRASTRUCTURE**

Poster No.	Full Name	Poster Title
14	Pavel ALEKSEYCHIK	OVERVIEW OF THE GROUND-BASED STATION NETWORK IN THE PEEX REGION
15	Ksenia ATLASKINA	ANALYSIS OF AEROSOL PROPERTIES DYNAMICS IN RELATION TO THE AIR MASS TRANSPORT DURING BAEC CAMPAIGN
16	Natalia BELKINA	THE PROJECT “LAKE ONEGO AND ITS WATERSHED: GEOLOGICAL HISTORY, ANTHROPOGENIC TRANSFORMATION AND CURRENT STATE”, PRELIMINARY RESULTS
17	Magdalena BRUS	ENVRIPUS – ENVIRONMENTAL RESEARCH INFRASTRUCTURES PROVIDING SHARED SOLUTIONS FOR SCIENCE AND SOCIETY

18	David BRUS	OVERVIEW OF PALLAS CLOUD EXPERIMENT, PACE 2015
19	Xuguang CHI	ON THE INTERPRETATION OF THE LOADING CORRECTION OF THE AETHALOMETER
20	Otto CHKHETIANI	AEROSOL EMISSION IN THE ARID AND SEMI-ARID REGIONS OF SOUTHERN RUSSIA
21	Jonathan DUPLISSY	DEVELOPMENT OF AN ICE NUCLEATION CHAMBER TO STUDY ICE ABILITIES OF PARTICLES FROM NORTHERN EURASIA
22	Egor DYUKAREV	EVALUATION OF THE VEGETATION STRUCTURE AND ABOVEGROUND NET PRODUCTION OF WETLAND ECOSYSTEMS USING SATELLITE DATA
23	Hannele HAKOLA	HIGH SESQUITERPENE EMISSIONS FROM NORWAY SPRUCE IN SUMMER
24	Juan HONG	RETRIEVE THE ORGANIC VOLATILITY DISTRIBUTION OF SUBMICRON AEROSOLS IN A BOREAL FOREST ENVIRONMENT USING A KINETIC EVAPORATION MODEL
25	Marjut KAUKOLEHTO	TOWARDS GLOBAL SMEAR NETWORK TO PROVIDE COMPREHENSIVE DATA FOR KNOWLEDGE BASED DECISIONS
26	Elena KHARYUTKINA	CLIMATE VARIABILITY OVER THE TERRITORY OF WEST SIBERIA
27	Maxim KISELEV	TEMPERATURE REGIME OF OLIGOTROPHIC AND EUTROPHIC MIRES AT SOUTH OF WEST SIBERIA
28	Pavel KONSTANTINOV	URBAN HEAT ISLAND'S RESEARCH IN EX-USSR REGION. METHODOLOGY AND FIRST RESULTS

29	Hanna MANNINEN	ONSET OF NEW PARTICLE FORMATION WITHIN A RISING MIXED BOUNDARY LAYER: ZEPPELIN FLIGHTS OVER HYYTIÄLÄ
30	Stephany MAZON	CLUSTER EVENTS IN A BOREAL FOREST: COMPARING NIGHT-TIME WITH DAY-TIME ION CLUSTERS FROM 2003–2013
31	Anna NIKANDROVA	COMBINING AIRBORNE AND LIDAR MEASUREMENTS FOR ATTRIBUTION OF AEROSOL LAYERS
32	Anne OJALA	INTEGRATED AQUATIC STUDIES BASED A CONTINUOUSLY OPERATED MEASURING PLATFORM: POSSIBILITIES AND CHALLENGES
33	Pauli PAASONEN	ANTHROPOGENIC PARTICLE NUMBER EMISSIONS AND THEIR SIZE DISTRIBUTIONS IN NORTHERN AND EASTERN EURASIA
34	Sergei PETROV	ASSESSMENT OF ANTHROPOGENIC CONTAMINATION IN GEOCRYOLOGICAL AREAS OF THE ARCTIC ZONE OF WESTERN SIBERIA
35	Anatoly PROKUSHKIN	DRIVERS OF TERRESTRIAL CARBON RELEASE TO RIVERS: CENTRAL SIBERIAN PLATEAU CASE STUDY
36	Irina REPINA	INTERCOMPARISON OF SURFACE HEAT TRANSFER IN THE ARCTIC FOR MULTIPLE REANALYSES, SATELLITE DATA AND FIELD OBSERVATIONS
37	Nina SARNELA	ARCTIC AEROSOLS AND PARTICLE FORMATION IN NORTHERN GREENLAND
38	Elena SHALINA	NEW SNOW DEPTH DISTRIBUTION OVER ARCTIC SEA ICE FROM HISTORICAL DATA

39	Zeeshan SHIRAZI	RELATIONSHIP BETWEEN INTER-ANNUAL WILDFIRE DENSITY AND ET/PET RATIO IN SOUTH CHINA
40	Andrey SKOROKHOD	REACTIVE GASES OVER CENTRAL SIBERIA: OBSERVATIONS AND BALANCE
41	Jonas SVENSSON	LIGHT-ABSORBING IMPURITIES IN SURFACE SNOW FROM SODANKYLÄ,,, SUBARCTIC FINLAND 2009-2015
42	Aki VIRKKULA	VARIATIONS OF AEROSOL OPTICAL PROPERTIES DURING A POLLUTED WINTER PERIOD IN NANJING, CHINA
43	Nadezhda VOROPAY	DYNAMICS OF ARIDITY IN PREDBAIKALIE AT PRESENT CLIMATE CHANGES
44	Kai WANG	TWO-YEAR COMPARISON OF METHANE FLUX MEASUREMENTS USING STATIC CHAMBER AND EDDY COVARIANCE TECHNIQUES ON AN ALPINE WETLAND ON THE QINGHAI-TIBETAN PLATUAU
45	Xinfeng WANG	EMISSIONS OF NITRATED PHENOLS IN FINE PARTICLES FROM BIOMASS BURNING
46	Tonghua WU	OBSERVED NON-UNIFORM WARMING ON THE QINGHAI-TIBETAN AND MONGOLIAN PLATEAU FROM 1961 TO 2013
47	Xingdong WANG	SPATIO-TEMPORAL ANALYSIS OF GREENLAND SNOWMELT USING MICROWAVE RADIOMETRIER DATA (1988-2014)
48	Zheng XU	NITROUS ACID IN A POLLUTED SUBTROPICAL ATMOSPHERE: SEASONAL VARIABILITY, DIRECT VEHICLE EMISSIONS AND HETEROGENEOUS PRODUCTION



49	Weixin XU	INVESTIGATION OF MACKENZIE RIVER DISCHARGE AND NDVI RELATIONSHIP
50	Chao YAN	POSITIVE MATRIX FACTORIZATION ON CI-API-TOF SPECTRA – TOWARD THE UNDERSTANDING OF FORMATION MECHANISMS OF HIGHLY OXIDIZED MULTIFUNCTIONAL COMPOUNDS IN A BOREAL FOREST ENVIRONMENT
51	Tumen CHIMITDORZHIEV	A COMPARISON OF ALOS PALSAR INTERFEROMETRY AND FIELD GEODETIC LEVELING FOR MARSHY SOIL THAW/FREEZE MONITORING
52	Leonid GOLUBYATNIKOV	PRELIMINARY ESTIMATE OF METHANE EMISSION DURING ICE THAW FROM SOUTHERN TUNDRA LAKES IN WESTERN SIBERIA
53	Yuqin LIU	A STUDY OF CHARACTERISTICS OF WATER CLOUDS OVER HYYTIÄLÄ BASED ON CLOUDSAT/CALIPSO DATA
54	Xiaojing SHEN	PARTICLE CLIMATOLOGY IN CENTRAL EAST CHINA RETRIEVED FROM MEASUREMENTS IN PLANETARY BOUNDARY LAYER AND IN FREE TROPOSPHERE AT A 1500-M-HIGH MOUNTAINTOP SITE
55	Anastasiya TIMOKHINA	THE ISOTOPIC COMPOSITION OF ATMOSPHERIC CO <sub>2</sub> AND CH <sub>4</sub> OVER CENTRAL SIBERIA
56	Irina VITKOVSKAYA	SOME RESULTS OF SPACE MONITORING OF VEGETATION COVER OF KAZAKHSTAN ARID AND SEMI-ARID ZONES BY LONG TERM SERIES OF VEGETATION INDEXES
57	Tingting WU	CLOUD DETECTION BASED ON TEXTURE FEATURE AND SUPPORT VECTOR MACHINE

58	Guangli XIU	ATMOSPHERIC HULIS-CARBON IN PM2.5 AND PM1 IN SHANGHAI: IMPLICATION FOR HAZE POLLUTION
59	Likun XUE	PARTICULATE NITRATE AND SULFATE AT URBAN AND MOUNTAIN SITES IN THE NORTH CHINA PLAIN: DECADAL CHANGE FROM 2005-2015 AND FORMATION MECHANISMS
60	Jian GAO	THE CHARACTERISTICS AND SOURCES OF PARTICLE MATTERS IN HEAVY POLLUTION EPISODES IN NORTH CHINA
61	Natalia KHARLAMOVA	CLIMATE AS A FACTOR OF SUSTAINABLE DEVELOPMENT ALTAI-SAYAN MOUNTAIN COUNTRY
62	Amit KUMAR	GEOSPATIAL STRATEGY FOR ADVERSE IMPACT OF URBAN HEAT ISLAND VIA SURFACE TOPOGRAPHY USING LANDSAT ETM+ SENSORS
63	Vadim RAKITIN	TOTAL COLUMN OF CARBON MONOXIDE AND METHANE OVER EURASIA: LONG-TERM TRENDS, SEASONAL AND WEEKLY VARIATIONS ANALYSIS BASED ON GROUND-BASED AND SATELLITE SPECTROSCOPIC OBSERVATIONS
64	Yuqi TANG	AERODYNAMIC PARAMETERS ESTIMATION FOR A HIGH-RISE REGION OF SHANGHAI
65	Evgeny ZAROV	MICROLANDSCAPE STRUCTURE OF SOUTH TUNDRA LANDSCAPES BASED ON A FIELD SURVEY
66	Fanny MYLLÄRI	OBSERVATION OF NEW PARTICLE FORMATION IN FLUE GAS PLUME OF COAL-FIRED POWER PLANT
67	Xinyue ZHONG	SPATIONTEMPORAL VARIABILITY IN SNOW PHENOLIGY OVER EURASIAN CONTINENT DURING 1966-2012

PROCESSING / MODELING		
Poster No.	Full Name	Poster Title
68	Xiangyu AO	PRELIMINARY EVALUATION OF AN URBAN LAND SURFACE MODEL IN SHANGHAI
69	Rossana BOSSI	VOC MEASUREMENTS AT VILLUM RESEARCH STATION, NORTH GREENLAND, WITH PTR-TOF-MS
70	Xuemeng CHEN	ON THE IONISING CAPACITY IN THE LOWER ATMOSPHERE AND ITS CONNECTION TO AIR ION OBSERVATION
71	Xuemeng CHEN	APPLICATION OF THE AEROSOL DIFFUSION SPECTROMETER TO MEASURE ATMOSPHERIC NEW PARTICLE FORMATION
72	Natalia CHUBAROVA	A NEW PARAMETERIZATION OF THE UV IRRADIANCE ALTITUDE DEPENDENCE FOR CLEAR-SKY CONDITIONS AND ITS APPLICATION FOR THE UV INTERACTIVE TOOL
73	Inna GUBENKO	MATHEMATICAL SIMULATION OF THE PARAMETERS OF THE ATMOSPHERIC ELECTRIC FIELD DURING THUNDERSTORMS BASED ON THE CUMULONIMBUS ELECTRIZATION MODEL
74	Xin HUANG	COMPREHENSIVE MODELLING STUDY ON NEW PARTICLE FORMATION AT THE SORPES STATION IN NANJING
75	Lasse JOHANSSON	DEVELOPMENT OF AIR QUALITY MODELLING SYSTEM IN LANGFANG BASED ON SENSOR MEASUREMENTS AND DATA FUSION

76	Alexander KISLOV	URBAN AMPLIFICATION OF THE GLOBAL WARMING: DIAGNOSTIC, MODELLING, FORECASTING
77	Jenni KONTKANEN	A SIMPLE PROXY FOR THE CONCENTRATIONS OF MONOTERPENES AND THEIR OXIDATION PRODUCTS IN BOREAL FOREST
78	Zhijun LI	SPATIAL AND TEMPORAL DISTRIBUTIONS OF DISSOLVED OXYGEN UNDER ICE IN LAKE VALKEA-KOTINEN, FINLAND
79	Xiao LIN	QUANTIFYING SNOW ALBEDO RADIATIVE FORCING AND ITS FEEDBACK USING SATELLITE OBSERVATIONS
80	Xiaolu LING	A PRELIMINARY STUDY OF IMPROVING GLOBAL LEAF AREA INDEX (LAI) ESTIMATION BASED ON DATA ASSIMILATION RESEARCH TESTBED AND THE COMMUNITY LAND MODEL VERSION 4
81	Anna LINTUNEN	TREE WATER RELATIONS DURING WINTER
82	Siqiong LUO	EFFECTS OF THE SOIL FREEZE–THAW PROCESS ON THE REGIONAL CLIMATE OF THE TIBET PLATEAU
83	Tero MIELONEN	DOES INCREASING TEMPERATURE INCREASE CARBONACEOUS AEROSOL DIRECT RADIATIVE EFFECT?
84	Mari MÄKI	DECOMPOSING PROCESSES REGULATE BVOC EMISSIONS FROM BOREAL SOIL DURING FALL
85	Xueli SHI	SIMULATED IMPACTS OF DIFFERENT VEGETATION LANDCOVER DATASETS ON THE HIGH-LATITUDE LAND SURFACE CLIMATE
86	Juha-Pekka TUOVINEN	METHANE FLUXES ON SIBERIAN PERMAFROST TUNDRA: UNRAVELLING INDIVIDUAL LAND COVER TYPES FROM EDDY COVARIANCE DATA

87	Filippo XAUSA	IMPLEMENTATION OF A NEW SIZE-SEGREGATED AEROSOL NUMBER EMISSIONS MODULE IN GLOBAL CLIMATE MODELING
88	Yong XUE	IMAGE FUSION OF AATSr AOD PRODUCTS BASED ON THE MAXIMUM LIKELIHOOD ESTIMATE METHOD
89	Lijun YU	ESTIMATING METHANE UPTAKE FROM GLOBAL FOREST AND GRASSLAND BY A STATISTICAL MODEL
90	Alla YUROVA	REALTIVE VORTICITY AS A DYNAMIC FACTOR OF THE ARCTIC SEA ICE
91	Wei ZHANG	A CATCHMENT MODEL COUPLING THE CYCLING PROCESSES OF WATER, CARBON AND NITROGEN: ATTEMPTS OF ESTABLISHMENT AND VALIDATION
92	Putian ZHOU	SIMULATING OZONE DRY DEPOSITION AT A BOREAL FOREST WITH A MULTI-LAYER CANOPY DEPOSITION MODEL
93	Maria CHEREPOVA	METHANE COLUMN ABUNDANCE AND SURFACE CONCENTRATION VARIATIONS OVER EUROASIA
94	Xinlei HAN	HAZE DETECTION BY USING MODIFIED NORMALIZED DIFFERENCE HAZE INDEX IN BEIJING, TIANJIN AND HEBEI PROVINCE
95	Nadezhda MOLOKITINA	ICE FOR NATURAL GAS STORAGE
96	Mingchang WANG	INVERSION OF VEGETATION COMPONENTS BASED ON THE SPECTRAL MIXTURE ANALYSIS USING HYPERION DATA
97	Cenk DONMEZ	MODELLING OF HYDROLOGICAL RESPONSES TO CLIMATE-INDUCED CHANGES IN A SEMI-ARID WATERSHED

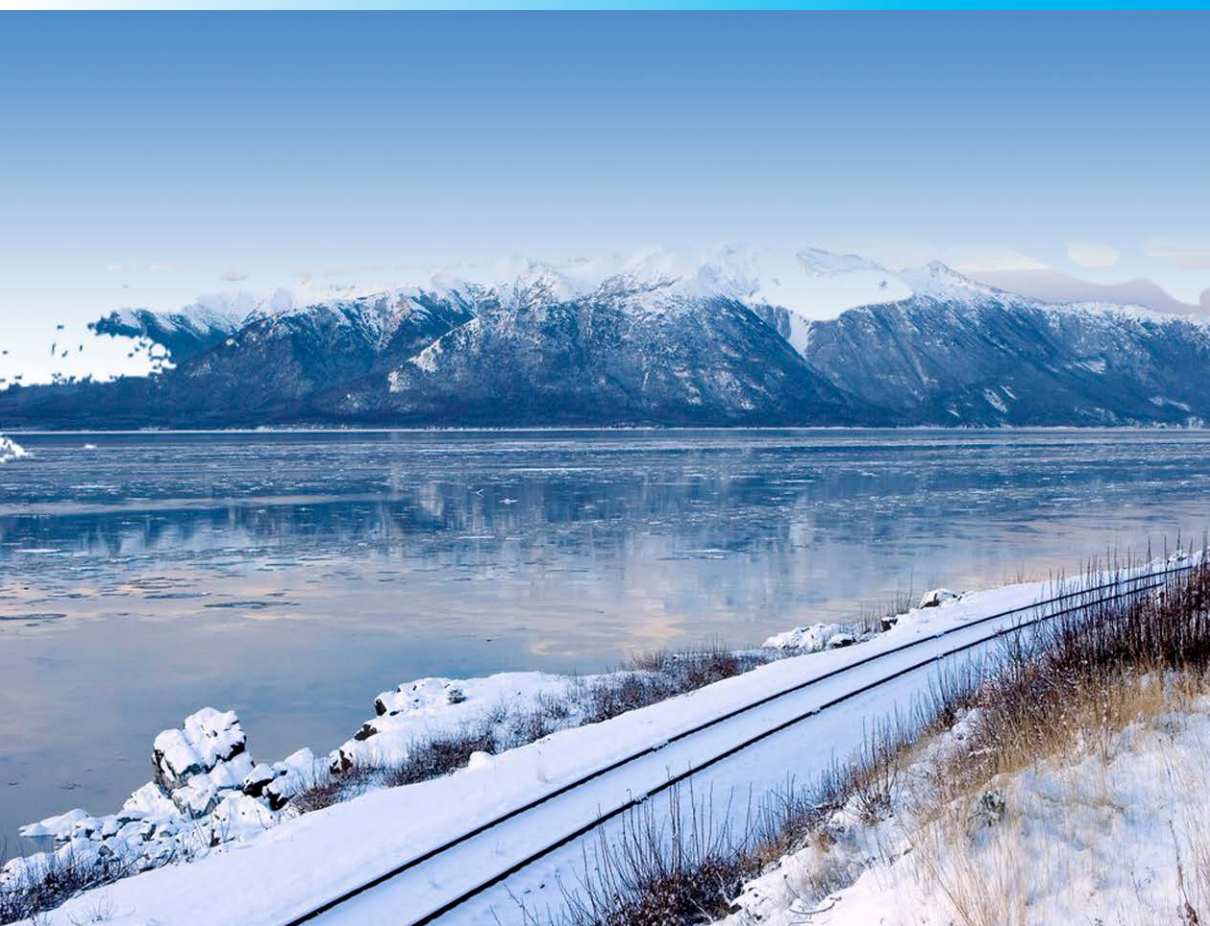


98	Xiangrui KONG	A PRELIMINARY VIEW ON ADSORPTION OF ORGANICS ON ICE AT TEMPERATURES CLOSE TO MELTING POINT
99	Tingting LI	FIELD-SCALE SIMULATION OF METHANE EMISSIONS FROM COASTAL WETLANDS IN CHINA USING AN IMPROVED VERSION OF CH4MODWETLAND
100	Minghuai WANG	UNCERTAINTIES IN SATELLITE-DERIVED RAIN SUSCEPTIBILITY TO AEROSOLS
101	Yuntao WANG	VARIABILITY IN ESTUARINE SALINITY AND INUNDATION WITH CHANGING CLIMATE
102	Huiling YUAN	ASSESSMENT AND HYDROLOGIC APPLICATIONS OF THE LATEST SATELLITE-GAUGE PRECIPITATION ESTIMATES OVER THE HUIHE RIVER BASIN

### OTHER RELATED THEMES

Poster No.	Full Name	Poster Title
103	Fang CHEN	ASSESSING NITROGEN DIOXIDE FROM BIOMASS BURNING IN SOUTH AND SOUTHEAST ASIA
104	Li ZHANG	ASSESSING THE CARBON AND WATER FLUXES IN GLOBAL RANGELANDS
105	Sha ZHANG	ANALYSIS ON CORRELATION BETWEEN NPP OF DIFFERENT VEGETATION TYPE AND AIR TEMPERATURE, PRECIPITATION LAI AND NDVI IN EAST ASIAN MONSOON REGION: A CASE IN HEBEI PROVINCE

# *GENERAL INFORMATION*





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## About Beijing

Beijing, or Peking, is the capital city of the People's Republic of China and the country's political, cultural and international exchange center. Located in North China, it is the country's political center and a busy capital with a population of over 15 million people. As the seat of power of Chinese emperors throughout the centuries, Beijing is steeped in history, including the 26 traditions of the Ming and Qing Dynasties (1368-1911). Reigning as both an ancient capital of Imperial China and the modern capital of a thriving nation, Beijing retains plenty of evidence of its royal past, with aristocratic parks, temples, and palaces (all open to the public). Beijing is home to an incredible cultural display of art and historical artifacts in more than 50 museums. Folk traditions flourish in theaters, delicious dining is available in exotic settings, and cultural centers with fascinating demonstrations of centuries-old art and craft-making abound. Nowhere else can you get a more concentrated impression of the old and new China. Beijing is the treasure trove of Chinese culture, where many of the sights that make China a world-class destination

are located. For more information, please visit <http://www.chinadaily.com.cn/beijing/>.

### **Geographic location**

Beijing is located at 39.56 degrees north latitude and 116.2 degrees east longitude. Covering an area of 16,807.8 square kilometers, Beijing lies on the north end of the North China Plain, surrounded by mountains to its west, north and northeast. To its southeast is a plain that slopes gradually to the Bohai Sea.

### **Climate and temperature**

Beijing has a temperate, semi-humid continental climate, characterized by short springs and autumns, hot and rainy summers, along with cold and dry winters. The average annual temperature is 10°C to 12°C, with average low temperatures ranging from -7°C to 4°C in January; and an average high temperature of 25°C to 26°C in July, but the temperature can drop to as low as -27.4°C in the winter and soar to 42°C in the summer. There are about 180-200 frost-free days each year and 75 percent of the municipality's annual precipitation occurs in the summer, usually with rainstorms in July and August.

### **Population**

By 2011, Beijing had a population of 20.186 million residents, including 12.779 million permanently registered residents. People from all of China's 56 ethnic groups reside in the city. Most hail from the Han ethnic group. The main religions practiced by residents are Buddhism, Taoism, Islam and Christianity, along with various sects of each religion.

### **Districts**

There are 14 districts and two counties under Beijing's administration: Dongcheng, Xicheng, Chaoyang, Haidian, Fengtai, Shijingshan, Mentougou, Tongzhou, Shunyi, Daxing, Pinggu, Fangshan, Changping and Huairou districts and Miyun and Yanqing counties.

### **City trees and flowers**

The city trees of Beijing are the Chinese scholar tree and arborvitae; its city flowers are the China rose and chrysanthemum.

### **Time zone**

Beijing is located in Greenwich Mean Time Zone +8:00; China's country telephone code is 0086 and Beijing's city telephone code is 010.

### **Language**

Mandarin Chinese is the country's official language.

### **Electricity**

The electric current used in China is 220V 50Hz. The hotels can provide 220V and 110V (shavers only) power outlets. Please note that plug adapters and converters might be required.

### **Currency and exchange**

The currency used in China is the Renminbi Yuan (RMB or ¥) and the value is pegged to the US dollar with current exchange rate of US\$ 1: RMB 6.4628 (April 2016). The Yuan is divided into 10 jiao or 100 fen. Notes come in denominations of ¥100, 50, 20, 10, 5 and 1. Make sure you exchange your left over Yuan before returning home because it can be exchanged only within China's borders. Euro and US Dollar can be exchanged at your hotel or the banks. The exchange rate is more or less the same across China. Traveler's cheques might only be exchanged at the Bank of China. Banks usually open at 9:00 a.m. and close at 5:00 p.m. Monday to Sunday. Currency exchange services are available for the following foreign currencies: US Dollar,





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British Pound Sterling, Euro, Japanese Yen, Australian Dollar, Canadian Dollar, Hong Kong Dollar, Swiss Franc, Danish Krone, Norwegian Krone, Swedish Krone, Singapore Dollar, Malaysian Ringgit, and Macao Pataca. Major credit cards are well accepted at various establishments, such as American Express, Diners Club, JCB, Master Card and Visa.

## **ATM Machine**

Beijing is a very ATM friendly city. There are many banks with many ATMs. Only about 50% of these accept foreign cards. The main foreign-friendly ATMs are controlled by the Bank of China. Bank of China ATMs work in both Chinese and English (depending on your card), use the latest equipment, and are pretty easy to find. Also, the connection to the overseas banking network tends to have a high down time.

## **Insurance**

The organizers do not accept any liability for personal accidents or loss or damage to the private property of any participants during the conference indirectly arising from attending the conference. It is advisable that participants take adequate travel and health insurance before leaving their own countries.

## **Safety and Security**

In general China is a very safe country. However, be aware of pickpockets and watch out when crossing the streets. Passports should be kept in the hotel safe till the departure day. Also note the serial numbers of your traveler's checks if you are carrying those. We also recommend having copies of your passport and credit cards with you in case of loss or theft.

## **Tipping**

Gratuities are not customary in China. However, in hotels and during group travels, tipping is practiced for porters, tour guides and drivers.

## **Smoking**

Anti-smoking campaigns are becoming stronger and stronger. But you might still find people smoking in the local restaurants and bars.

## **Transportation**

**Public Bus** - About 23,000 public buses run on nearly 700 routes in Beijing. Generally, the buses operate between 6:00 and 22:00 to midnight. Their frequency varies but a bus should arrive every five to ten minutes. Please prepare small bills in case of no-change bus lines. It would be very crowded in rush hours at 7:00-9:00 and 17:00-19:00.



**Subway** - The Beijing Subway has seen unprecedented construction in recent years, greatly easing traffic congestion in the Chinese capital. By the end of 2012, including a new line and extensions to lines, the city boasted a network of 15 lines, covering 11 districts, with 221 stations and 442 km of track. The Beijing Subway is the busiest on the Chinese mainland in terms of passenger volume, and the largest in terms of operational length. It is estimated the total operational length of the Beijing system will reach 1,050 km by the end of 2020, with 30 lines and some 450 stations, according to the Beijing government. Subway/light-rail trains

arrive every few minutes, generally from 5:15 am to 11:40 pm. Route signs are bilingual; useful maps showing station exits are located at the center of every platform, and all stops are announced on the trains in English and Chinese.

**Taxis** in Beijing have several colors. All of them show a taximeter inside. You can easily find them in every part of the city. With more than 67,000 taxis, they are a convenient way to get around.

Basic rates:

13 yuan (within 3 kilometers) +2.3 yuan/km +3 yuan (5 am to 11 pm);

13 yuan (within 3 kilometers) +2.3 yuan/km +3 yuan + 20 percent (11 pm to 5 am).

## About RADl



The Institute of Remote Sensing and Digital Earth (RADl) is a comprehensive research institute under the Chinese Academy of Sciences (CAS). It was established in September 2012 through merging two CAS institutes: Institute of Remote Sensing Applications (IRSA) and Center for Earth Observation and Digital Earth (CEODE).

RADl was founded as a major initiative of the CAS “Innovation 2020” program. The consolidation will pool the advantages of both institutes in the fields of remote sensing and Digital Earth to promote the development of cutting-edge scientific research, and to meet national strategic demands. The Strategic Positioning of RADl includes exploring leading technologies in Earth observation, geospatial information science, and the mechanisms

for acquiring and distributing remote sensing information; constructing and operating major Earth observation infrastructures and the spaceborne-airborne-ground Earth observation technology system; and enhancing its capacity for providing resource-environment spatial information at regional and global levels by creating a Digital Earth scientific platform, thereby building itself into a comprehensive, world-class research institute.



## About PEEEX

The Pan-Eurasian Experiment (PEEX) is a multidisciplinary, multi-scale research and infrastructure initiative aimed at resolving the major uncertainties in Earth System Science and global sustainability in the Arctic and boreal regions of northern Eurasia. It comprises a network of 400 researchers from 20 different countries.

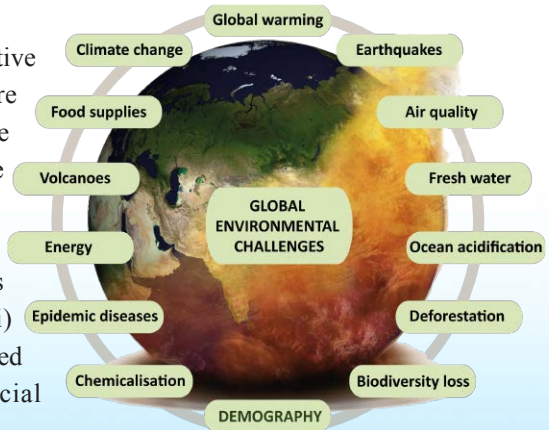
The focus areas of the PEEEX initiative are as follows.

(1) *Research agenda*: to understand the Earth system and the influence of environmental and societal changes, including climate change, demographic development and use of energy resources, in pristine and industrialized Northern Eurasian environments and China.

(2) *Research infrastructures*: to establish and sustain a network of long-term, continuous and comprehensive ground-based, airborne and seaborne research infrastructures together with satellite data (observation component), and develop joint data archives (data component). Secondly, to implement the validated and harmonized data products in models of appropriate spatial and temporal scales and topical focus (modeling component).

(3) *Knowledge transfer*: to educate the next generation of multidisciplinary experts and scientists; to distribute new knowledge and data products to scientific communities and the public sector; to deliver tools, scenarios and assessments for climate policy makers and authorities; and to increase public awareness of climate change impacts in the Northern Eurasian region.

(4) *Impact on society*: to apply innovative research knowledge and infrastructure services for producing: (i) as reliable scenarios and assessments as possible to support practical solutions; (ii) early warning systems for the sustainable development of societies (demography development), and (iii) technological innovations for globalized environmental, technological or social processes.





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## Getting from your hotel

All conference hotels are within easy walking distance of BICC. Please remember to carry the names of the hotel and venue in Chinese to show to the driver.

## Doctor / Ambulance

International SOS provides medical advice, assistance and referrals for travellers abroad. For more information, please visit <https://www.internationalsos.com>. Call for assistance +86 10 64629100

## Official Conference Hotels

### V-Continent Beijing Parkview Wuzhou Hotel

北京北辰五洲皇冠国际酒店

No. 8 North Si Huan Zhong Road,  
Chaoyang District, Beijing 100101, China

北京朝阳区北四环中路 8 号

Tel: +86 10 84982288

### Beijing North Star Continental Grand Hotel

北京北辰五洲大酒店

No. 8 Beichen East Road, Chaoyang  
District 100101, China

北京朝阳区北辰东路 8 号

Tel: +86 10 84985588









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