Big Data in Support of Arctic Sustainable Development Goals and Pan-Arctic International Cooperation in FBAS 2023

Session Brochure

Beijing International Conventional Center

7th September 2023

FBAS 2023 平行分会

大数据支持北极可持续发展和泛北极国际合作

会议手册

北京国际会议中心

2023 年 9 月 7 日

Agenda of Arctic SDG and International Cooperation in FBAS 2023

Theme: Big Data in Support of Arctic Sustainable Development Goals and Pan-Arctic International Cooperation

Time: 13:15-15:15 (Beijing Local Time), September 7, 2023 (Thursday)
08:15-10:15(Helsinki Time), September 7, 2023 (Thursday)
07:15-09:15（Geneva Time）, September 7, 2023 (Thursday)
01:15-03:15（Boston Time）, September 7, 2023 (Thursday)

Venue: Beijing International Conventional Center, Room: 307

Co-Chairs:

QIU Yubao, *International Research Center of Big Data for Sustainable Development Goals (CBAS), China*
XU Qingchao, *University of Chinese Academy of Sciences (UCAS), China*

Experts Invited:

LI Xin, *Chinese Academy of Sciences, China*
CHU Wenbo, *Group on Earth Observations (GEO)*

13:15-13:25 **Opening**

GUO Huadong, *International Research Center of Big Data for Sustainable Development Goals, China*
GAO Feng, *Ministry of Foreign Affairs, China*

13:25-14:05 **Keynote Presentation**

Scientific cooperation and sustainable development (10')
***Paul BERKMAN**, Harvard University, U.S.*
GEO Cold Regions Initiative (10')
***Massimo MENENTI**, Delft University of Technology, the Netherlands*
Digital Arctic-Environment and Ecosystem (10')
***LI Yifan**, UArctic-HIT-TC, China*
Digital geomorphology and sustainable development of the Arctic (10')
***YANG Jian**, Shanghai Institute of International Studies, China*

14:05-14:30 **Opinion Presentation**

Data and Knowledge for SDG13 climate actions (5')
***Paola De SALVO**, Group on Earth Observations (GEO)*
Energy transition and sustainability in Arctic Nations (5')
***DUAN Fengjun**, The Canon Institute for Global Studies, China*
Green Economy modelling tools, reliable metrics and measurements for achieving Arctic Sustainable Development Goals (5')
***Alina STEBLYANSKAYA**, Harbin Engineering University, China*
Policy Practices of Arctic Indigenous Traditional Knowledge (5')
***QU Feng**, Liaocheng University, China*
Gap analysis of the existing Arctic Science Co-Operations (AASCO) (5')
***Hanna K Lappalainen**, Helsinki University, Finland*

14:30-15:10 **Panel Discussion**

Theme: Big Data in Support of Arctic Sustainable Development Goals and Pan-Arctic International Cooperation
Chair: *CHU Wenbo, Group on Earth Observations (GEO)*
Panel List: *all member*

15:10-15:15 **Conclusion (Closing)**

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Big Data in Support of Arctic Sustainable Development Goals and Pan-Arctic International Cooperation

Science, technology and innovation are important tools to support the realization of Sustainable Development Goals (SDGs). The cutting-edge digital technology, e.g., big data, can facilitate multi-dimensional, -disciplinary and -scale monitoring and evaluation of sustainable development indicators, and help us to fully understand the current challenges and find appropriate solutions for sustainable development.

In the context of global warming, the warming rate of the Arctic is three times more than that of the global average, which profoundly affects global climate change and the process of sustainable development goals. The sustainable development of the Arctic has always been one of the core issues of Arctic governance and is closely related to the 2030 Sustainable Development Goals of the United Nations. In order to strengthen data-, science- and nature-based approaches in the Arctic region, promote international cooperation by the cross-integration of multi-disciplinary knowledge for the Arctic sustainable development. For this reason, the International Research Center of Big Data for Sustainable Development Goals (CBAS), the University of Chinese Academy of Sciences (UCAS) and Group on Earth Observations Cold Regions Initiative (GEO CRI) jointly call for this session-"Big Data in Support of Arctic Sustainable Development Goals and Pan-Arctic International Cooperation".

This session invites experts in the fields of Arctic data, environment, energy, sustainable development, humanities and social sciences and international cooperation. The session will discuss how big data can play a positive and multi-disciplinary role in the sustainable development. The session will be presented through invited keynote presentations, opinion presentations and panel discussions, to discuss the demand for big data and its international cooperations for the Arctic environment, energy, humanities and social sciences.

The session will explore new ways and opportunities for big data to support the Arctic sustainable development and further promote international science cooperation, build multi-disciplinary research road map based on big data, and supporting for the global implementation of sustainable development goals.

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07:15-09:15(Geneva Time), September 7, 2023 (Thursday)

01:15-03:15（Boston Time）, September 7, 2023 (Thursday)

Session Venue： Beijing International Conventional Center, Room: 307

Special Guest Speakers:

GUO Huadong, Member of the Chinese Academy of Sciences, the Director General of the International Research Center of Big Data for Sustainable Development Goals (CBAS).

GAO Feng, the special representative for Arctic affairs of the Ministry of Foreign Affairs, has served as the special negotiator for climate change of the Ministry of Foreign Affairs for a long time, and has witnessed major events such as the World Climate Conference in Copenhagen in 2009 and the World Climate Conference in Paris in 2015. Since November 2016, he has been China's first special representative for Arctic affairs.

Session Conveners：

Dr. QIU Yubao, Research Professor at the International Research Center of Big Data for Sustainable Development Goals (CBAS), and the Aerospace Information Research Institute Chinese Academy of Sciences (AIR-CAS). He is currently the director of Digital Environment Division in CBAS, and co-lead (PoC) of the Group on Earth Observations Cold Regions Initiative (GEOCRI) and co-chair to the High Mountain and Cold Regions (HiMAC WG) Working Group of the “Digital Belt and Road" Program.

Dr. XU Qingchao, Associate Professor of University of Chinese Academy of Sciences (UCAS); Research Fellow & Director of the Center for Arctic Sustainability Studies at China Institute for Innovation and Development Strategy (CIIDS), Chinese Academy of Sciences (CAS).

Commentary Experts Invited：

Dr. LI Xin is currently a professor at Institute of Tibetan Plateau Research (ITP), Chinese Academy of Sciences (CAS) and the Director of National Tibetan Plateau Data Center at ITP/CAS. His primary research interests include land data assimilation, remote sensing and integrated modeling of hydrological and cryospheric processes in river basin scale. He received the B.S. degree in GIS and Cartography from Nanjing University in 1992 and the Ph.D. degree in Remote Sensing and GIS from CAS in 1998. He was a member of WCRP GEWEX (World Climate Research Programme/The Global Energy and Water Exchanges) scientific steering committee, and is a member of the International Science Advisory Panel of Global Water Futures programme.

CHU Wenbo is the Work Programme Officer at the Group on Earth Observations (GEO) Secretariat. She coordinates the development and implementation of the GEO Work Programme activities. She coordinated the data sharing efforts within GEO between 2014-2017, first as a seconded expert and later as a staff member. Before joining GEO, she was the Deputy Director of Division of the National Science and Technology Infrastructure Center in China. She led several research projects on policies and mechanisms for Science and Technology resource sharing between 2007-2013. She received a master's degree in Engineering in Tsinghua University in 2007. She is also a certified Project Management Professional.

Main Content:

1. Opening Speech (13:15-13:25)

Guest Speakers:

GUO Huadong: International Research Center of Big Data for Sustainable Development Goals, China

GAO Feng Ministry of Foreign Affairs, China

2. Keynote Presentation (13:25-14:05) (Moderator: QIU Yubao)

Presentation 1 (13:25-13:35)

Title: Scientific cooperation and sustainable development

Speaker: Dr. Paul Arthur BERKMAN, Faculty Associate, Program on Negotiation at Harvard Law School (Associate Director of Science Diplomacy, Harvard-MIT Public Disputes Program); Fulbright Arctic Chair 2021-2022, United States Department of State and Norwegian Ministry of Foreign Affairs; Professor of Practice in Science Diplomacy, Fletcher School of Law and Diplomacy Tufts University; Director, Science Diplomacy Center, Tufts University. Paul Arthur Berkman is science diplomat, polar explorer and global thought leader applying international, interdisciplinary and inclusive processes with informed decisionmaking to balance national interests and common interests for the benefit of all on Earth across generations.

Presentation 2 (13:35-13:45)

Title: GEO Cold Regions Initiative (GEOCRI)

Speaker: Dr. Massimo MENENTI, Professor in Optical and Laser Remote Sensing, Department of Geoscience and Remote Sensing, Faculty of Civil Engineering, Delft University of Technology. Prof.dr.dott. Massimo Menenti is an internationally renowned scientist in the fields of earth observation and global terrestrial water cycle. He held senior research positions in The

Netherlands, France, USA, China and Italy and has coordinated many large European projects with participants from Europe, Asia, America and Africa. His best-known achievements have been attained in the aspects of surface parameter retrievals from remote sensing, remote sensing-based evapotranspiration (ET) estimation, time series analysis of remote sensing products and the application of remote sensing technology in hydrology and climate models. Prof. Menenti initiated the use of RS to assess and monitor crop water requirements and irrigation performance in the late '80s confirmed by the numerous publications in the field. He is one of the earliest researchers in using laser radar technology to measure surface aerodynamic roughness. He initiated the use of time series analysis techniques to extract information from satellite data. He presented the surface energy balance index (SEBI) theory for ET estimation, which is the prototype of the following S-SEBI, SEBS and SEBAL models.

Presentation 3 (13:45-13:55)

Title: Digital Arctic-Environment and Ecosystem

Speaker: Dr. LI Yifan, was a Senior Research Scientist with Environment & Climate Change Canada before 2013 and has become a professor at the School of Environment, Harbin Institute of Technology since then. He also held adjunct professor positions in Dalian Maritime University, China, and University of Ryerson and University of Regina, Canada. In 2021, Dr. Li was selected as the member of the Norwegian Scientific Academy for Polar Research. At the present, Dr. Li is the co-Editor of the Springe Book Series "From Pole to Pole", the Director of the UArctic-HIT Training Centre, the first regional center of the UArctic, the Vice Chair of the Specialized Committee for Polar Environment and Ecosystem, Chinese Society for Environmental Sciences (SCPEE-CSES), the Chief Scientist of the Polar Academy, Harbin Institute of Technology (PA-HIT). His research has focused on long-range transport of persistent organic pollutants (POPs), the emissions, monitoring, and modeling of POPs and Chemicals of Emerging Concern (CECs), and indoor environment and human health.

Presentation 4 (13:55-14:05)

Title: The needs of global governance and Integration & compatibility of the world digital landscapes

Speaker: Dr. YANG Jian is a senior research fellow at Shanghai Institutes for International Studies (SIIS), Director of the Shanghai Institute for International Organization and Global Governance at Shanghai University of Finance and Economics, Deputy Director of the China-Nordic Arctic Research Center, and Vice Chairman of the Pacific Society of China. He is also a member of the Arctic Circle Mission Council on GlobalArctic and chairman of the academic steering committee of the polar research center at South China Business College.

3. Opinion Presentation (14:05-14:30) (Moderator: XU Qingchao)

Presentation 1 (14:05-14:10)

Title：Data and Knowledge for SDG13 climate actions

Speaker: Paola De Salvo, Italian National, after receiving her Master's degree in Environmental Biology cum laude, from the University of Roma Tre, Rome Italy, she started her Geospatial career within the International Institute of Aerospace Survey and Earth Science (ITC) in the Netherlands. She later brought her GIS and Remote Sensing competencies to the United Nations Specialized Agencies of Food and Agriculture Organization (FAO) and World Food Programme (WFP) to ensure Earth Observations are used for decision making in developing countries. After 12 years of applying her skills within the UN System, she transitioned to the private sector where she worked for Esri Inc, as a solution engineer in support of United Nations and NGO GIS / Remote Sensing related projects. Believing in the power of Open Earth Observations Data and Knowledge she joined the Group on Earth Observations (GEO) Secretariat as an Information Technology Officer coordinating GEOSS Platform and GEO Knowledge Hub development, implementation and users uptake.

Presentation 2 (14:10-14:15)

Title: Energy transition and sustainability in Arctic Nations

Speaker: Dr. DUAN Fengjun, he received his PhD from the Department of Urban and Environmental Sciences of Peking University. He is serving as a senior research fellow at the Canon Institute for Global Studies (CIGS). Before joining CIGS, he has been a researcher at the Center for Spatial Information Science of the University of Tokyo, Japan Science and Technology Corporation, and the Disaster Prevention Center of Kyoto University, an assistant professor at the School of Engineering of the University of Tokyo, a researcher at Ocean Policy Research Foundation. His main research fields include ocean resources development and environment protection, and energy system and climate change.

Presentation 3 (14:15-14:20)

Title: Green Economy modelling tools, reliable metrics and measurements for achieving Arctic Sustainable Development Goals

Speaker: Dr. Alina STEBLYANSKAYA, Associate Professor, Doctor of Engineering and Management, Visiting Scholar of Central Institute of Economics and Mathematics of Russian Academy of Sciences and Russian Jiaotong University; Director of the Russia-China Committee for Cooperation in Science, Technology and Innovation of the Russian National public social organization "Russian Transport Research Institute", member of the Association "System Economics". He has been engaged in energy economy, environmental economics, Belt and Road digital economy cooperation, green energy finance, complex economics research for a

long time. Harbin Engineering University "Green Technology Management and science and technology entrepreneurship Research Center" Xinghai team member.

Presentation 4 (14:20-14:25)

Title: Policy Practices of Arctic Indigenous Traditional Knowledge

Speaker: Dr. QU Feng, the founding Director, and Professor of Arctic Studies Center at Liaocheng University, and a professor in archaeology at the Nanjing Normal University, China, He received PhD in anthropology from University of Alaska Fairbanks. He focuses his research on Arctic anthropology and ethnography, environmental history, ecological cosmologies, and TEK.

Presentation 5 (14:25-14:30)

Title: Gap analysis of the existing Arctic Science Co-Operations (AASCO)

Speaker: Hanna K Lappalainen, PhD, Docent, Pan-Eurasian Experiment (PEEX) Program Secretary General at the University of Helsinki, Institute for Atmospheric and Earth System Research (INAR) (FI) and the Lead of the Atmosphere and Climate Competence Center (ACCC) Impact Program. She has a long-term experience of coordinating large-scale research projects and, at the moment she is coordinating the Arena for the gap analysis of the existing Arctic Science Co-Operations (AASCO) project funded by Prince Albert Foundation. She is a Co-Leader of the Universities of Arctic network “Arctic-boreal Hub”. She has received NASA Goddar Team Award EOS-AURA satellite OMI-Team in 2005 and an International Eurasian Academy of Sciences, IEAS, Silver medal in 2015. Lappalainen is a representative of Finland in the SAON ROADS Advisory Board, a national delegate of ISAC - The International Science Initiative in the Russian Arctic (ISIRA), Co-chair of the of the Artic-GEOSS-High Mountain and Cold Regions HiMAC (2020-), Academy Member of IEAS. She obtained her PhD. from the University of Helsinki, Finland, and has been engaged in analysis of the atmospheric biogenic volatile organic compounds and plant phenology.

4. Panel Discussion (14:30-15:10) (Moderator: CHU Wenbo)

4.1 Panel Discussion (14:30-15:00)

Topic: Big Data in Support of Arctic Sustainable Development Goals and Pan-Arctic International Cooperation

Panel list: All member.

4.2 Audience questions (15:00-15:10) (onsite only)

5. Session Conclusion (Closing) (15:10-15:15)

FBAS 2023“北极可持续发展与国际合作”分会

日程

主题： 大数据支持北极可持续发展和泛北极国际合作

地点： 北京国际会议中心 307

时间： 2023 年 9 月 7 日（星期四）13:15-15:15（北京时间）
2023 年 9 月 7 日（星期四）08:15-10:15（赫尔辛基时间）
2023 年 9 月 7 日（星期四）07:15-09:15（日内瓦时间）
2023 年 9 月 7 日（星期四）01:15-03:15（波士顿时间）

召集人：

邱玉宝 *可持续发展大数据国际研究中心 中国*
徐庆超 *中国科学院大学 中国*

点评专家：

李 新 *中国科学院青藏高原所 中国*
褚文博 *地球观测组织（GEO）*

13:15-13:25 开场致辞

郭华东 *可持续发展大数据国际研究中心 中国*
高 风 *中华人民共和国外交部 中国*

13:25-14:05 主旨报告

科学合作与可持续发展（10'）
Paul Berkman *哈佛大学 美国*

地球观测组织全球寒区计划（GEOCRI）（10'）
Massimo Menenti *代尔夫特理工大学 荷兰*

数字北极环境与生态（10'）
李一凡 *哈尔滨工业大学 中国*

全球治理的需求与世界数字地貌的一体性和兼容性（10'）
杨剑 *上海国际问题研究院 中国*

14:05-14:30　观点报告

面向气候行动目标（SDG13）的数据与知识（5’）
Paola De Salvo *地球观测组织（GEO）*

北极国家的能源转型与可持续发展（5’）
段烽军 *佳能全球战略研究所 中国*

绿色经济建模工具，实现北极可持续发展目标的可靠指标和测量（5’）
Alina Steblyanskaya *哈尔滨工程大学 中国*

北极原住民传统生态知识的政策性实践（5’）
曲枫 *聊城大学 中国*

现有北极科学合作的差距分析（AASCO）(5’)
Hanna K Lappalainen *赫尔辛基大学 芬兰*

14:30-15:10　专题讨论

主题: 大数据支持北极可持续发展和泛北极国际合作
主持: ***褚文博*** *地球观测组织(GEO)*
嘉宾: *所有专家*

15:10-15:15　总结（闭幕）

联系方式：党萌 dangmeng@cbas.ac.cn

FBAS2023 平行分会

大数据支持北极可持续发展和泛北极国际合作

科学、技术和创新是支撑可持续发展目标实现的重要手段，以大数据为代表的前沿数字技术，可以实现对可持续发展指标多维度、多学科、多尺度的监测和评估，帮助我们在充分了解当前所面临挑战的同时，为可持续发展找到合适的解决方案。

在全球变暖的大背景下，北极变暖速率是全球平均速率的三倍以上，深刻地影响着全球气候变化和可持续发展进程。北极可持续发展问题一直是北极治理的核心议题之一，与联合国 2030 可持续发展目标息息相关。为在北极地区加强基于数据、科学和自然的方法，促进多学科知识在北极地区可持续发展的交叉融合，可持续发展大数据国际研究中心（CBAS）、中国科学院大学（UCAS）和地球观测组织全球寒区观测计划（GEOCRI）共同设立“大数据支持北极可持续发展和泛北极国际合作（Big Data in Support of Arctic Sustainable Development Goals and Pan-Arctic International Cooperation）”分会。

此次分会特别邀请了北极数据、环境、能源、可持续发展、人文社科及国际合作领域等专家，通过特邀报告、观点报告和专题讨论形式，探讨大数据如何在北极可持续发展中发挥积极作用，讨论北极环境、能源、人文社科等对国际合作和大数据的需求，探索大数据支持北极可持续发展的新途径、新契机，进一步促进国际科学合作，形成基于大数据的多学科交叉支撑北极可持续发展的研究建议，为促进可持续发展目标的全球实施提供助力。

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2023 年 9 月 7 日（星期四）01:15-03:15（波士顿时间）

分会地点：北京国际会议中心 307

特邀致辞嘉宾：

郭华东，中国科学院院士，可持续发展与大数据国际研究中心主任。

高风，外交部北极事务特别代表，曾长期担任外交部气候变化特别谈判代表，亲历了 2009 年哥本哈根世界气候大会和 2015 年巴黎世界气候大会等重大活动。2016 年 11 月起，出任中国首任北极事务特别代表。

分会召集人：

邱玉宝，博士，中国科学院可持续发展目标大数据国际研究中心(CBAS)、中国科学院空天信息创新研究院(AIR-CAS)研究员，任 CBAS 数字环境研究室主任，地球观测组织全球寒区计划（GEOCRI）联合负责人(PoC)和“数字丝路”计划秘书长及高山寒区工作组(HiMAC WG)联合主席。

徐庆超，博士，中国科学院大学副研究员；中国国家创新与发展战略研究会研究员、北极可持续发展研究中心主任。

特邀评论专家：

李新博士，中国科学院青藏高原研究所研究员，国家青藏高原科学数据中心主任，国家杰出青年科学基金获得者。1992 年毕业于南京大学大地海洋科学系，1998 年在中国科学院兰州冰川冻土研究所获博士学位。在流域集成研究、陆面数据同化、冰冻圈遥感与信息系统研究方面取得了创新性科研成绩，获得甘肃省自然科学一等奖、甘肃省科技进步一等奖、中国科学院杰出科技成就奖等省部级奖励。

褚文博，地球观测组织(GEO)秘书处工作计划（GEO WP）官员，负责 GEO 工作计划活动的发展和协调实施。2007 年获得清华大学工程学硕士学位，2007 年至 2013 年主持多项科技资源共享政策与机制研究项目，2014-2017 年期间，借调到 GEO 秘书处任科技专家，后进入秘书处工作，负责协调 GEO 内部的数据共享工作。曾任国家科技基础条件平台中心副处长。

会议主要内容：

1、开场致辞（13:15-13:25）

郭华东　可持续发展大数据国际研究中心

高　风　中华人民共和国外交部

2、主旨报告（13:25-14:05）（主持：邱玉宝）

报告 1（13:25-13:35）

题目：科学合作与可持续发展

报告人：Paul Arthur Berkman，博士，哈佛法学院谈判项目教员，科学外交官、极地探险家和全球思想领袖。曾担任 2021-2022 年富布赖特北极教席，塔夫茨大学弗莱彻法律与外交学院科学外交实践教授及塔夫茨大学科学外交中心主任。主张运用国际的、跨学科和包容的流程和明智决策，以平衡国家利益和全球共同利益，造福地球上的世世代代。

报告 2（13:35-13:45）

题目：地球观测组织全球寒区观测计划（GEOCRI）

报告人：Massimo MENENTI，博士，代尔夫特理工大学土木工程学院地球科学与遥感系光学与激光遥感领域教授，他是地球观测和全球陆地水循环领域的国际知名科学家，曾在荷兰、法国、美国、中国和意大利担任高级研究职位，并与来自欧洲、亚洲、美洲和非洲的参与者协调了许多大型欧洲项目。作为最早使用激光雷达技术测量表面气动粗糙度的研究人员之一，在 80 年代后期开始使用遥感来评估和监测作物需水量和灌溉性能，该领域的许多出版物证实了这一点。提出了地表能量平衡指数(SEBI)理论用于估算 ET，这是后来 S-SEBI、SEBS 和 SEBAL 模型的原型。

报告 3（13:45-13:55）

题目：数字北极环境与生态

报告人：李一凡，博士，挪威极地科学院院士，哈尔滨工业大学教授、博士生导师，大连海事大学讲座教授，Springe 系列丛书《From Pole to Pole》联合主编，北极大学第一个区域中心——UArctic-HIT 培训中心主任，中国环境科学学会极地环境与生态系统专业委员会副主任，哈尔滨工业大学极地科学院首席科学家。研究重点领域为持久性有机污染物（POPs）和新兴关注化学品（CECs）的排放、监测和建模，POPs 长距离迁移进入北极通道、以及室内环境及其对人类健康的影响。1989 年获加拿大滑铁卢大学博士学位，1992 年加拿大多伦多大学博士后出站，原加拿大环境与气候变化部资深研究员，加拿大 Regina 大学、加拿大 Ryerson 大学兼职教授。

报告 4（13:55-14:05）

题目：全球治理的需求与世界数字地貌的一体性和兼容性

报告人：杨剑，博士，上海国际问题研究院研究员。中国太平洋学会副会长，上海国际组织与全球治理研究院副院长，中国-北欧北极研究中心副主任，上海财经大学法学院博士生导师。兼任北极圈大会“北极全球化指导委员会”委员，南国商学院极地研究中心学术委员会主任。

3、观点报告（14:05-14:30）（主持：徐庆超）

报告 1（14:05-14:10）

题目：面向气候行动目标（SDG13）的数据与知识

报告人：Paola De Salvo，地球观测组织(GEO)秘书处，担任信息技术官员，协调 GEOSS 平台和 GEO 知识中心的开发、实施和用户管理。她以优异成绩获得意大利罗马第三大学环境生物学硕士学位，先后在荷兰国际航空航天测量与地球科学研究所(ITC)、联合国粮食及农业组织(FAO)和世界粮食计划署(WFP)工作，并担任 Esri 公司方案工程师，支持联合国和非政府组织的 GIS/遥感相关项目。近年来，她积极在发展中国家决策中推动地理信息系统和遥感能力服务，在地球观测组织（GEO）实施和推广地球观测开放数据和知识（Knowledge Hub）。

报告 2（14:10-14:15）

题目：北极国家的能源转型与可持续发展

报告人：段烽军，博士，日本佳能全球战略研究所主任研究员。历任日本科学技术振兴机构研究员、京都大学防灾研究所研究员、东京大学工学系研究科助理教授、海洋政策研究财团研究员。主要研究领域包括海洋开发与环境保护、能源与气候变化。1995 年毕业于北京大学城市与环境科学系，1998 年进入东京大学空间信息科学研究中心从事博士后研究工作。

报告 3（14:15-14:20）

题目：绿色经济建模工具，实现北极可持续发展目标的可靠指标和测量

报告人：Alina Steblyanskaya（阿丽娜），博士，哈尔滨工程大学副教授。长期从事能源经济，环境经济学、一带一路数字经济合作，绿色能源金融，复杂经济学的研究。俄罗斯科学院中央经济与数学研究所和俄罗斯交通大学访问学者；俄罗斯全国公共社会组织俄罗斯运输研究院"俄中科学、技术和创新合作委员会"主任、“系统经济学”协会成员；以及哈尔滨工程大学“绿色技术管理与科技创业研究中心”兴海团队成员。

报告 4（14:20-14:25）

题目：北极原住民传统生态知识的政策性实践

报告人：曲枫，博士，聊城大学北冰洋研究中心主任、教授，南京师范大学考古文博系教授。研究方向为北极人类学与民族志学、北极环境史、生态宇宙观及传统生态知识。于美国阿拉斯加大学获人类学博士学位。

报告 5（14:25-14:30）

题目：现有北极科学合作的差距分析（AASCO）

报告人：Hanna K Lappalainen, 博士，泛欧亚实验计划(PEEX)秘书长，赫尔辛基大学大气与地球系统研究所（INAR）和大气与气候能力中心(ACCC)领导人，北极大学网络“Arctic-boreal Hub”联合负责人。2005 年获美国宇航局戈达尔团队奖，2015 年获国际欧亚科学院银奖。从事大气生物源性挥发性有机化合物和植物物候分析。

4、专题讨论（14:30-15:10）(主持：褚文博)

4.1 专题讨论（14:30-15:00）

主题：大数据支持北极可持续发展和泛北极国际合作

嘉宾：所有专家

4.2 观众提问（15:00-15:10）（仅现场）

5、会议总结（闭幕）（15:10-15:15）