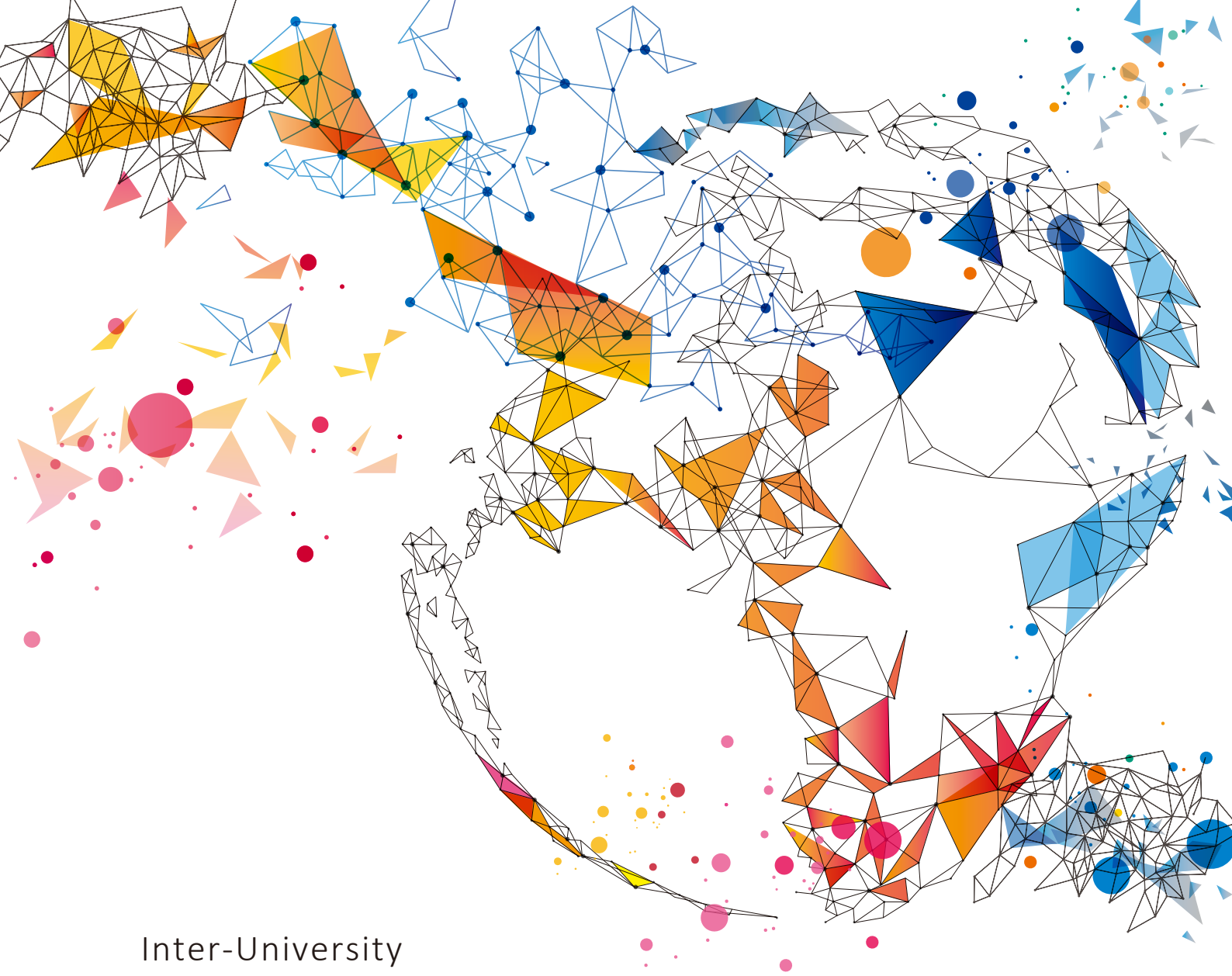


Inter-University
Research Institute Corporation

Research Organization of Information and Systems

ROIS

Research Organization of Information and Systems

2024 – 2025

- National Institute of Polar Research
- National Institute of Informatics
- The Institute of Statistical Mathematics
- National Institute of Genetics
- Joint Support-Center for Data Science Research

Developing Initiatives That “Only ROIS Can

Since the launch of ChatGPT in November of 2022, the pace of technological advancements and the development of new applications involving generative AI have been accelerating worldwide. The impact of generative AI is expected to be equal to, if not greater than, that of the Internet. However, despite AI’s ability to execute certain tasks with relative ease, the application of generative AI faces challenges in various domains. Recognizing this, ROIS is committed to harnessing AI technology in a practical manner and is actively developing applications to address these challenges. Last September, the Science Council of Japan hosted a public symposium entitled “The Challenges and Future of Generative AI,” with the aim of fostering in-depth discussions on the possibilities for generative AI and its implications for modern society from diverse perspectives, including language, imagery, and video as well as legal considerations. This event attracted an unprecedented number of participants and led to a request from a publisher to compile the symposium’s proceedings into a book. The book has been read by far more people than expected.

As I begin my second year as President, ROIS research institutes and the Joint Support-Center for Data Science Research (ROIS-DS) are undergoing a significant transformation. ROIS remains steadfast in its commitment to developing innovative solutions true to its mission by fostering institutional collaborations.

The National Institute of Polar Research (NIPR) is currently engaged in efforts to drill the oldest ice cores to date, estimated to be over one million years old, at Dome Fuji II Camp. In addition, NIPR plans to use Starlink satellite communication links to realize a high-speed, low-latency network for more advanced observations at the Syowa Station, as well as for global and both Arctic and Antarctic observations. Through these initiatives, NIPR also plans to expand the possibilities for international collaborative research and space-based observations.

The National Institute of Informatics (NII) operates SINET6, the world's fastest 400-Gbps ultra-high-speed network infrastructure, and GakuNin RDM, a research data-management platform that supports open science in Japan. In addition, NII supports the activities of LLM-jp, a public–private consortium whose goal is to build open-source Japanese-language large language models (LLMs) and, as part of these efforts, established the Research and Development Center for Large Language Models in April 2024.

The Institute of Statistical Mathematics (ISM) is Japan's only comprehensive research institute dedicated to cutting-edge and fundamental research in the field of statistical mathematical science. ISM has been working to clarify the missions of its three constituent departments:

Contents

the Department of Advanced Data Science, the Department of Fundamental Statistical Mathematics, and the Department of Interdisciplinary Statistical Mathematics. The Research Center for Material Informatics in the Department of Advanced Data Science has taken on the unprecedented challenge of developing an open-source polymer database containing more than 100,000 types of polymer materials integrated with the world’s first system to successfully automate the calculation of the physical properties of polymers using RadonPy.

The National Institute of Genetics (NIG), whose mission is to unravel the countless mysteries in the life sciences, promotes environmental genomics research that uses novel methods to elucidate changes in the global environment and ecosystems. NIG also conducts research on “blue carbon,” which contributes to CO_2 absorption in marine ecosystems, as well as applied research on green biotechnology using microalgae.

In addition to overseeing these four research institutes, in April 2024, I became the director of ROIS-DS, which was established as a joint-use collaborative research hub to advance “data science” on a national level and to address both scientific and social challenges. The goal of ROIS-DS is not only to offer fully mature data-sharing and data-analysis services, as we have up to now, but also to establish an incubator function for developing new services in advance of future demand. In April 2024, we launched the Center for Research and Development on Data Lake as a platform for storing and analyzing vast amounts of data, and in June, ROIS was selected by the Cabinet Office’s Cross-ministerial Strategic Innovation Promotion Program to develop a medical data-management system to promote the utilization of medical data and medical LLMs.

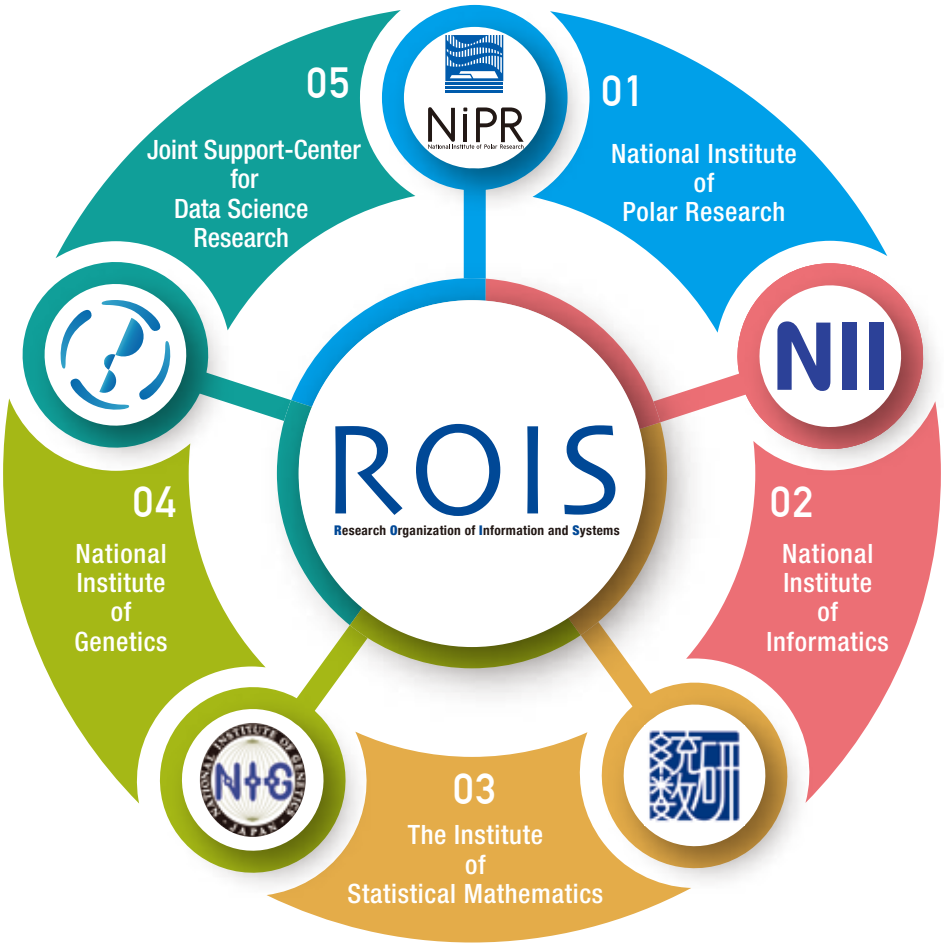
As can be seen from the above, we are ready to undertake a series of new initiatives in the coming years. We remain committed to managing ROIS in a manner that ensures that our research activities effectively support the activities of universities, companies, and other organizations. We look forward to your continued support.

Leveraging ROIS’ unrivaled digital and statistical prowess to take on challenges

Masaru Kitsuregawa

President of the Research Organization of Information and Systems

About the Research Organization of Information Systems (ROIS)



The Research Organization of Information and Systems (ROIS), consisting of four distinguished research institutes, aims to solve complex phenomena and issues relating to life, the Earth, the natural environment, and human society by reframing these issues from the perspective of information and systems while advancing data science to conduct integrated research that transcends disciplinary boundaries. In 2016, ROIS established the Joint Support-Center for Data Science Research (ROIS-DS) as a joint-use collaborative research hub to advance data science on a national level and to address both scientific and social challenges.

In line with its mission to support resource-sharing and joint research among all universities, ROIS promotes cutting-edge research in specialized fields through joint research that transcends university boundaries by providing researchers nationwide with access to large-scale, state-of-the-art equipment and facilities, big data, valuable materials, and analytical methods. Unparalleled in the world, ROIS is a unique Japanese research organization that drives contributions to the field of education through the cultivation of data scientists and the advancement of digital transformation in education.

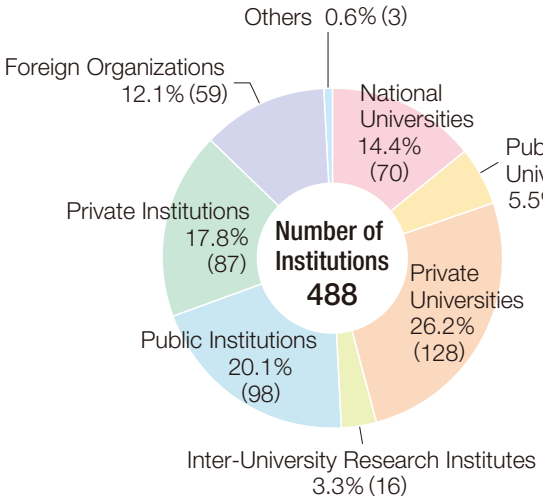
In addition, the four research institutes play a pivotal role in supporting the Graduate University for Advanced Studies (SOKENDAI) as parent institutes for the Graduate Institute for Advanced Studies. Many of our researchers engage in graduate-level education through this scheme, combining research and teaching while leveraging the cutting-edge research environments of their respective institutions.

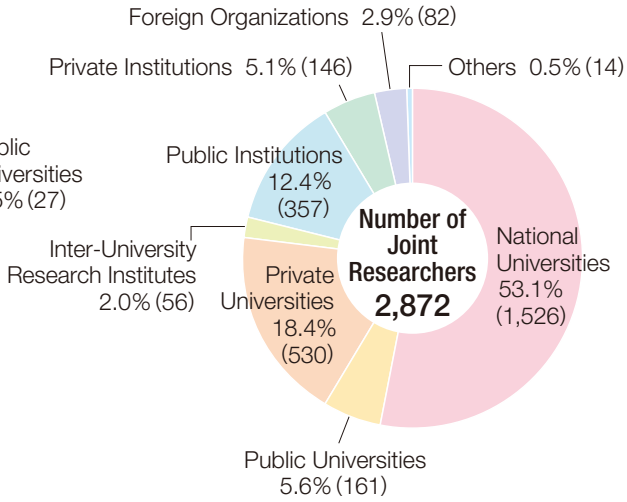
ROIS
Research Organization of Information and Systems

Number of Staff As of April 1, 2023

Research & Academic Staff 525 (Including URAs)	Technical Staff 316	Administrative Staff 414

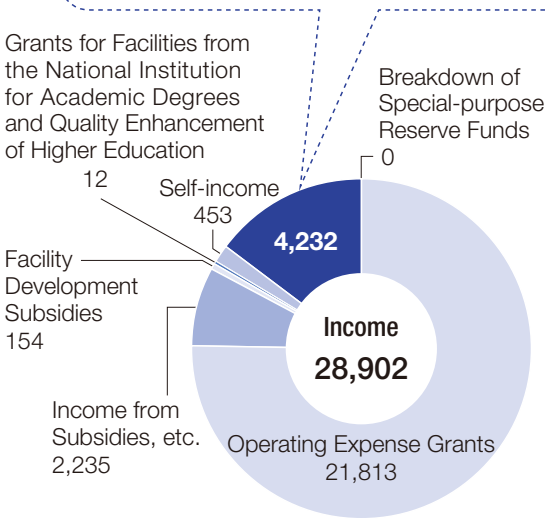
Number of Institutions and Joint Researchers Enrolled in Joint Research Project (FY2022)

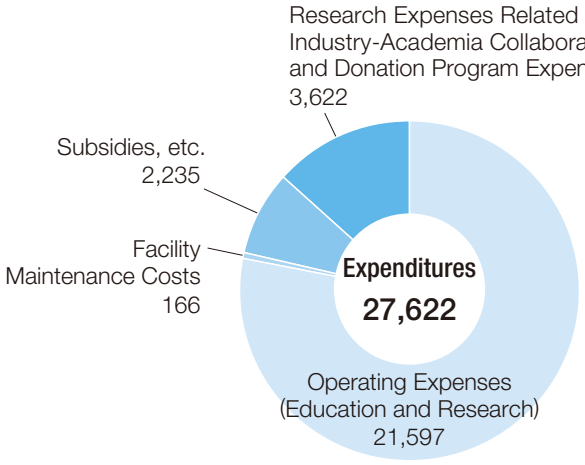




Income and Expenditures (FY2023)

Unit: JPY 1 million (rounded down)





National Institute of Polar Research

Japan's Core Institution for Polar Research and Observation

The Arctic and Antarctic respond sensitively to shifts in the global environment, resulting in changes that, in turn, can dramatically impact the future of humanity. Accordingly, it is becoming more and more critical to perform observations and conduct research on polar regions. The National Institute of Polar Research (NIPR) conducts comprehensive research in the field of polar science based on data obtained from field surveys in polar regions, leveraging and combining the strengths of each of the five research groups established within the Division for Advanced Research Promotion: the Space and Upper Atmospheric Sciences Group, the Meteorology and Glaciology Group, the Geoscience Group, the Bioscience Group, and the Polar Engineering Group. In addition, as an inter-university research institute, NIPR provides researchers around Japan with the infrastructure for Arctic and Antarctic observation and promotes polar science through joint use of the institution, for example, by public solicitation of collaborative research projects and the provision of samples, materials, and information. Furthermore, as a parent institute of the Graduate Institute for Advanced Studies, NIPR provides graduate education in polar science and cultivates researchers with advanced research skills and competence as field scientists.

Antarctic

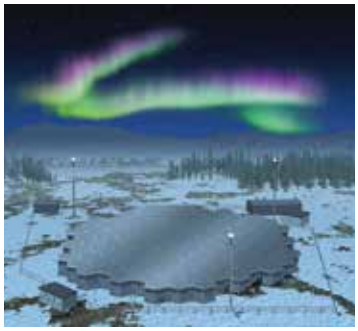
As the core organization responsible for operations in Antarctic research expeditions, NIPR conducts both monitoring and research observations. Additionally, NIPR plays a variety of roles in planning and developing

Panoramic view of Dome Fuji II Camp (DF2) in the Antarctic interior and preparations for drilling at DF2 (right). Efforts are underway to drill the world's oldest ice core, estimated to be over one million years old.

observation projects, coordinating with relevant organizations, organizing observation teams, providing pre-departure training, transporting supplies and fuel, managing safety, and handling public relations. NIPR also maintains and operates several Antarctic observation stations, including the Syowa Station and Dome Fuji II Camp. Additionally, NIPR fosters international collaborative research efforts, promotes the use of ships and aircraft as observation platforms, and supports various observation activities in the Antarctic region, all while working to protect the local environment.

Arctic

NIPR conducts extensive field observation-based research in the Arctic region to understand environmental changes and their impact on ecosystems. This research focuses on the atmosphere, snow and ice, the ocean, the terrestrial environment, and the upper atmosphere. NIPR has established research stations in the Arctic, including the Ny-Ålesund Research Station on the Svalbard Islands in Norway, which serves as a joint-use facility for Japanese researchers and for international collaborative projects. Additionally, NIPR leads Japanese Arctic research efforts as the representative institute of the Arctic Challenge for Sustainability II (ArCS II) project. Furthermore, as a member of the European Incoherent Scatter Scientific Association, NIPR participates in the international operation of EISCAT radars in northern Scandinavia and on the Svalbard Islands and contributes to the development of EISCAT_3D, the world's most advance large-scale atmospheric radar.

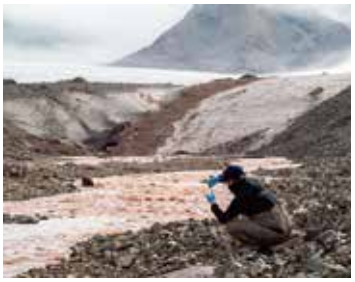


Schematic of the EISCAT_3D radar under development. First light is scheduled for FY2024.

Joint Usage / Research

Arctic Challenge for Sustainability II (ArCS II) project

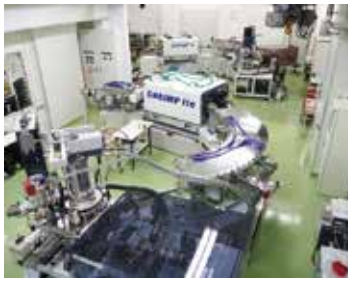
ArCS II is a national Arctic research project in which NIPR serves as the representative institute. ArCS II aims to realize a sustainable society by facilitating cutting-edge research on the state and mechanisms of environmental change in the Arctic and to improve the precision of weather and climate prediction. It also provides international stakeholders with scientific knowledge that can serve as the basis of legislation and policy, which are needed for the formulation of international rules in the Arctic.



Sampling on glaciers.

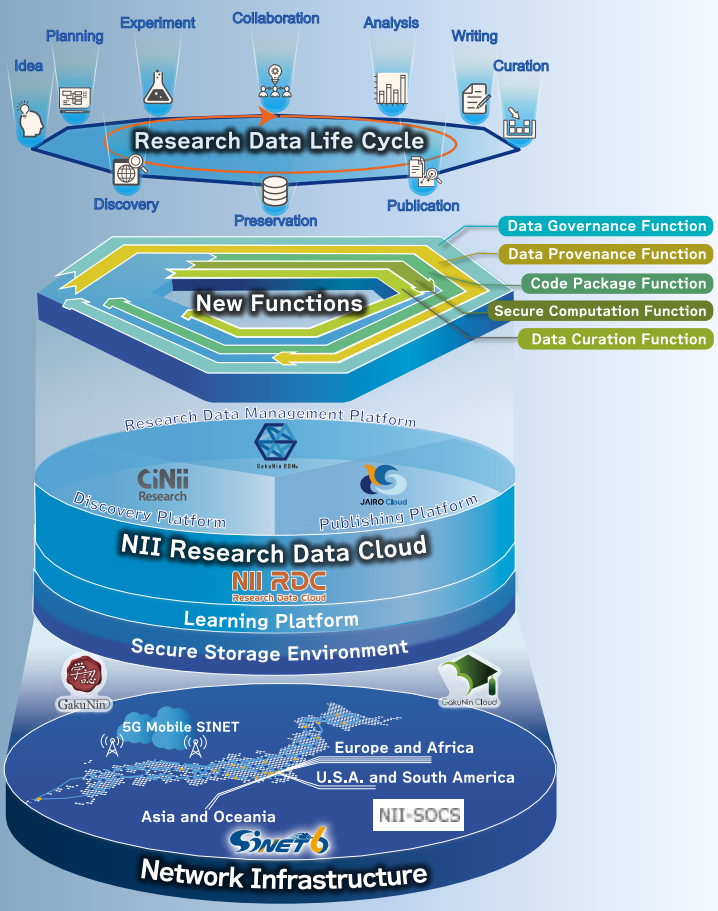
Providing Specimens and Facilities for Polar Research

NIPR provides a wide range of resources and support for polar science research, including the use of instruments such as the Sensitive High Resolution Ion MicroProbe (SHRIMP) to analyze meteorites, rock, and minerals (Polar Science Resources Center); the use of the Polar Science Computer System (Communications and Computing Science Center); collaborative research using ice cores (Ice Core Research Center); and shared use of the large-scale radars installed in both the Artic and Antarctic (Advanced Radar Research Promotion Center).



SHRIMP, a secondary ion mass spectrometer.

NII National Institute of Informatics



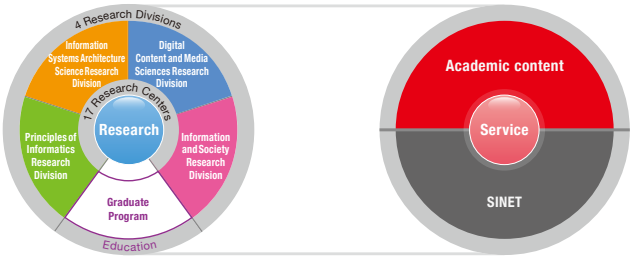
Weaving Information into Knowledge and Creating Future Value

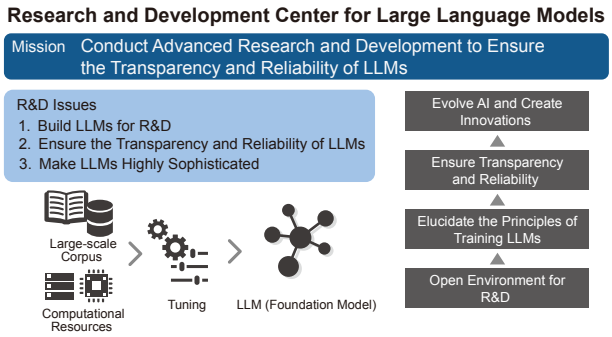
Informatics is a new academic field that impacts all aspects of society, integrating not only computer science and information engineering but also disciplines such as the humanities, social sciences, and life sciences. Comprising four research divisions and 17 research facilities (centers), The National Institute of Infomatics (NII) promotes comprehensive research ranging from fundamental informatics to cutting-edge themes such as artificial intelligence, big data, the Internet of Things (IoT), and information security and is Japan's only academic research institute dedicated to "creating future value" in this new field. Other key focuses of NII include international collaboration with overseas universities and research institutions and the fostering of industry–government–academia partnerships to facilitate the application of research findings in real-world contexts. NII also contributes to graduate-level education through participation in the Graduate University for Advanced Studies (SOKENDAI), collaboration with other graduate schools, and hosting of special joint-use researchers. One of NII's core initiatives is the development and operation of the Science Information Network (SINET), in collaboration with universities, research institutions, and the research community. NII is working to establish a research-data infrastructure and academic research platform that promotes open science by utilizing SINET's ultra-high-speed, highly reliable, and highly functional network to develop and provide a federated authentication system and to support the introduction and utilization of cloud computing. In addition, NII is contributing to efforts to establish infrastructure

for an information security system based on inter-university cooperation with the aim of helping national university corporations and other entities to respond promptly to a range of unforeseen incidents and circumstances.

Launch of the Research and Development Center for Large Language Models in 2024

Generative AI has the potential to help resolve various social issues and even improve the productivity of the entire country. Accordingly, companies and research institutes around the world are actively building various generative AI models, including large language models (LLMs), and developing services that utilize generative AI. At the same time, there are concerns about the "transparency" of AI systems (e.g., what sources are being used to answer questions) and the "reliability" of answers provided by AI (e.g., the possibility that the answers are untrue). For this reason, the government has established the new Research and Development Center for Large Language Models tasked with studying and developing LLMs by leveraging the talents of industry and academia. Along with promoting the development of open LLMs proficient in Japanese and related research, the center will also promote cutting-edge R&D to ensure the transparency and reliability of LLMs.

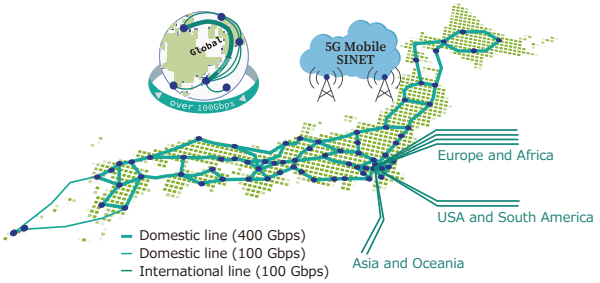




Joint Usage / Research

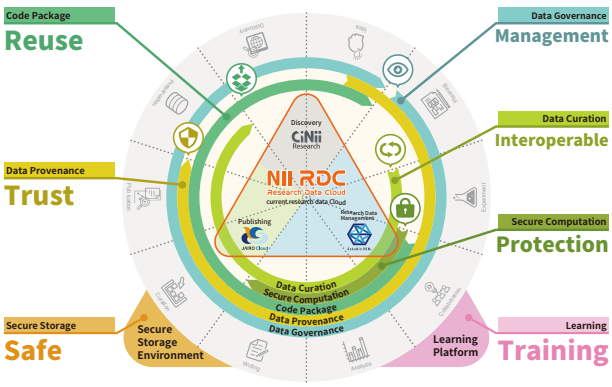
The Upgraded SINET6 Scientific Information Infrastructure

To manage the ever-increasing volume of research data, NII upgraded its scientific information infrastructure to SINET6 in April 2022, establishing the world's fastest 400-Gbps ultra-high-speed network. In April 2024, the data transmission speed between Japan and Europe was increased from 100 to 400 Gbps to accommodate the growing data-exchange needs among major research facilities and international institutions. In addition, NII has established an innovative and secure environment that integrates ultra-high-speed wired and wireless systems through the deployment of 5G high-speed mobile access technology to support wide-ranging IoT-related research and various virtual private network (VPN) technologies tailored to the specific needs of different research activities.

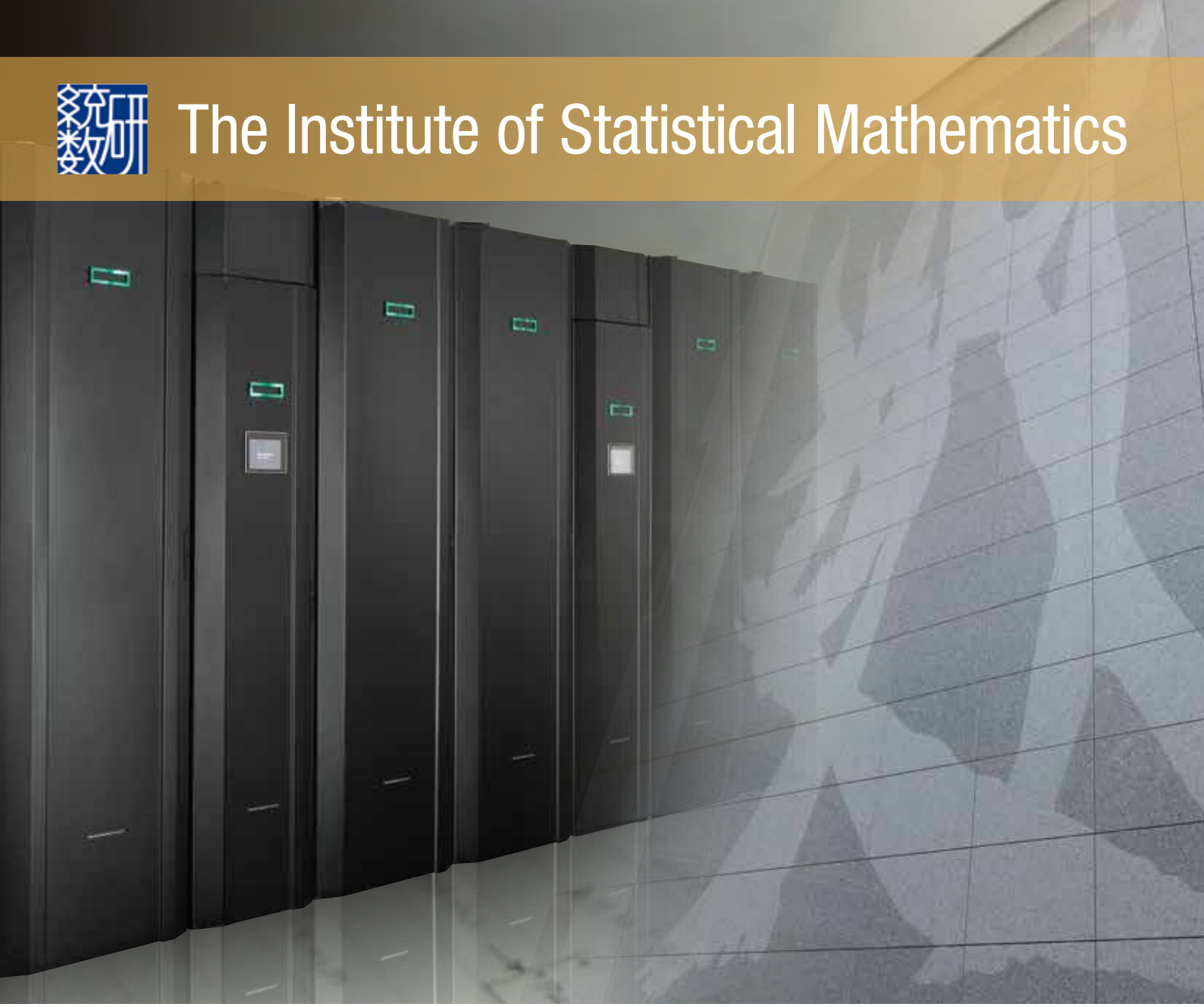


NII Research Data Cloud (NII RDC)

NII RDC comprises three key platforms for research data management (GakuNin RDM), publishing (JAIRO Cloud), and discovery (CiNii Research). To promote open science in a wide range of fields, over the next few years, these common platforms will be upgraded in terms of data governance, data provenance, code package, secure computation, secure storage, data curation, and learning.



The Institute of Statistical Mathematics



Multidisciplinary Research in Statistical and Mathematical Sciences and Professional Development in Statistics

As Japan's core research institute for statistical and mathematical sciences based on large-scale and complex data, the Institute of Statistical Mathematics (ISM) promotes cutting-edge research and conducts world-class research in a manner that is both sustainable and innovative.

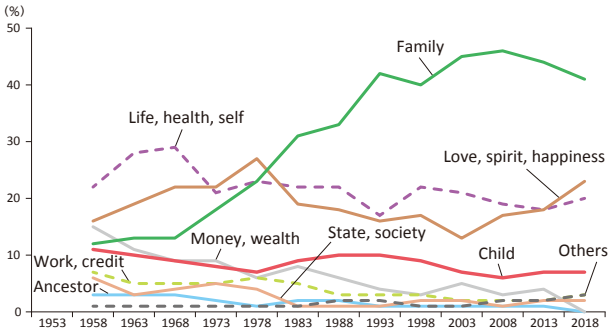
Interdisciplinary Cutting-edge Research

Taking advantage of the cross-disciplinary nature of statistical and mathematical sciences, ISM is developing the Network Of Excellence (NOE), the aim of which is to foster network-type collaborative research involving a broad range of domestic and overseas institutions. These efforts have resulted in wide-ranging collaborations between industry and academia and have contributed to advances in science, academics, and society, including the first demonstration of predictive control of fusion plasma by a digital twin, the use of sparse modeling to image black holes, machine learning to predict new quasicrystals, research aimed at realizing a faster and more accurate earthquake early warning system, simulations of pandemics, and "Japanese National Character Survey" over the past 70 years. In March 2024, ISM reorganized its core research systems to enhance its ability to support critical research with greater flexibility. As part of this restructuring, the Department of Advanced Data Science with two centers was established under the direct supervision of the Director-General. ISM aims to foster collaborative research by organically integrating the Research Center for Statistical Machine Learning, which was

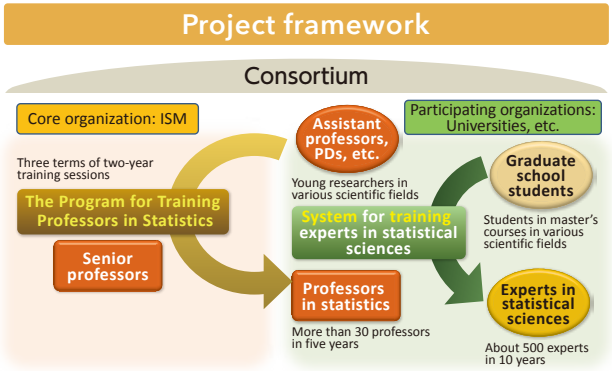
founded to advance key areas in the statistical and mathematical sciences, and the Research Center for Materials Informatics, which focuses on domain-specific research to operate as a virtual laboratory, which will serve as the world's leading hub for the synergistic development of machine learning theory, methodologies, and applications.

Fostering Experts to Meet the Needs of Today's Society

ISM is committed to cultivating talent capable of applying statistical thinking at various levels through the Project for Fostering and Promoting Statistical Thinking. To address the growing demand for professionals with statistical expertise, ISM trains data scientists with knowledge and skills in the statistical and mathematical sciences (leading data analytics talent) as well as specialists in medical-statistics data science. Additionally, ISM is presently implementing the Project for Training Experts in Statistical Sciences, which aims to support rapidly expanding data-science education initiatives at universities nationwide, and the Program for Training Professors in Statistics, a two-year program designed to train young faculty members at national, public, and private universities across Japan to become experts in statistics education and research.



ISM has conducted and analyzed "Japanese National Character Survey" every five years since 1953. This graph indicates the particulars of the change in "The most important thing in life (1958-2018)."

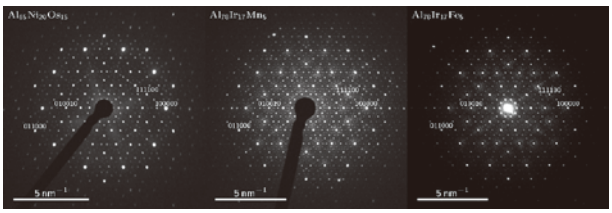


Framework of the Project for Training Experts in Statistical Sciences.

Joint Usage / Research

First Quasicrystals Discovered by a Machine Learning Algorithm

Quasicrystals are unique materials that do not have the translational symmetry of ordinary periodic crystals, but do have a high degree of order in their atomic arrangement. A research team from ISM, Tokyo University of Science, and the University of Tokyo has developed a novel machine learning algorithm to predict chemical compositions that form thermally stable quasicrystals. For the first time in the nearly 40-year history of quasicrystal research, three new quasicrystals have been discovered based on predictions made by this groundbreaking algorithm.



Electron diffraction patterns of the quasicrystals discovered by the machine learning algorithm (from left to right: $Al_{65}Ni_{20}Os_{15}$, $Al_{78}Ir_{17}Mn_5$, and $Al_{78}Ir_{17}Fe_5$).

Supercomputer Systems and Information Resources

ISM provides resources/environments for collaborative research to the domestic and international research communities through Supercomputer System for Statistical Science, Super computer System for Data Assimilation, and Communal Cloud Computing System. As Japan's only library dedicated to statistical science, ISM Library maintains a large collection of relevant journals and books both in print and digital formats.

Supercomputer System for Statistical Science (left), Communal Cloud Computing System (center), and Supercomputer System for Data Assimilation (right).

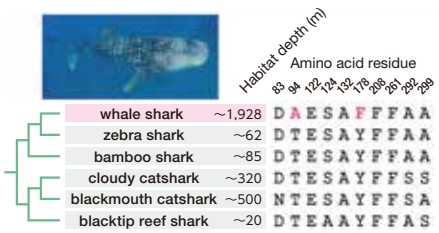
National Institute of Genetics

Activity of Biological Organisms Is Based on Genetic Information

Genetic information is the source of life, which evolves as it is passed on to the next generation. Genetics aims to unravel the mystery of life from the perspective of genetic information. The National Institute of Genetics (NIG) conducts state-of-the-art research on cell function, development/differentiation, evolution/biodiversity, and genome/bio information; simultaneously, it pioneers new research in the life sciences. Furthermore, NIG, as an inter-university research institute, operates research infrastructure projects: the BioResource Project, Advanced Genomics Project, Bioinformation and DNA Data Bank (DDB) Project, and Phenotype Research Promotion Project. Through these efforts, NIG provides academic and industrial communities engaged in the life sciences with access to research infrastructures and opportunities for joint research in genetics. Furthermore, NIG has, in collaboration with NII and the Joint Support-Center for Data Science Research (ROIS-DS), launched the BioData Science Initiative (BSI) designed to serve as a hub for activities nationwide.

Lifestyle of Marine Megafauna Illuminated by DNA Informatics-based Investigations

A group at NIG analyzed the light sensor rhodopsin of

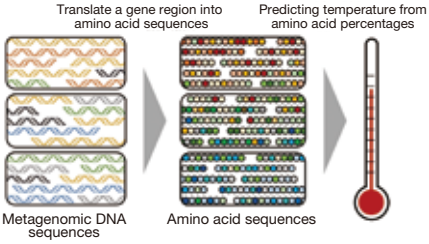


Molecular sequence collection allowed the detection of amino acid residues unique to whale shark that alter the function of rhodopsin (red letters).

whale shark that occasionally dives into deep sea and revealed an unprecedented amino acid substitution enabling the efficient reception of attenuated light. This comparative sequence analysis, combined with in vitro experiments, highlights a non-invasive solution for studying elusive animals.

"Metagenomic Thermometer" Predicting Environmental Temperatures Based on Metagenomic Sequences

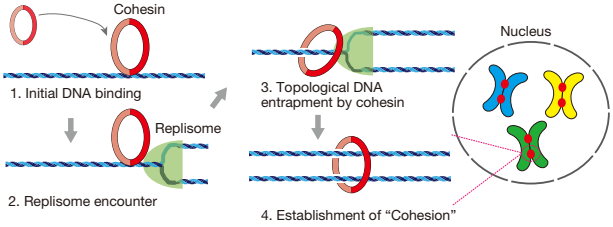
Another group at NIG has developed a "Metagenomic Thermometer," which predicts environmental temperatures by analyzing the DNA of microorganisms in any given habitat. This approach offers new insights into how environmental conditions influence life at a microbial level and could have wide-reaching implications in environmental science, biotechnology, and human health.



The Metagenomic Thermometer uses metagenomic DNA sequences as input and can predict environmental temperatures.

Cohesion Establishment Tested with Purified Yeast Proteins

Sister chromatid cohesion is a vital chromosomal structure required for proper chromosome segregation. Another group at NIG has biochemically reconstituted the process of cohesion establishment by coordinating purified cohesin and DNA replication proteins in a test tube.



A model for the establishment of sister chromatid cohesion.

Joint Usage / Research

Support for Sequencing and Analyzing Genetic Information

The Advanced Genomics Center provides state-of-the-art sequencing technologies and genomic research tools to facilitate joint-use and collaborative research that satisfies the needs of academia and industry for advanced genome analysis. Nucleotide sequence data from genomic analyses are archived at the Bioinformation and DDBJ Center and are provided to researchers worldwide as open data. In addition, NIG provides supercomputer system services optimized for information analysis in the life sciences.

Provision of state-of-the-art sequencing tools and information analysis technologies.

Bioresource Initiatives and Phenotype Research

The Genetic Resource Center develops and analyzes model organism strains that are important for life science research. Working with the National BioResource Project (NBRP), the center not only maintains and distributes these strains, but also compiles and provides databases of genetic resource information on these strains. The Phenotype Research Center provides genetic research tools and resources developed by NIG and the use of NIG facilities as a beneficiary-paid service.

Development of bioresources and use of facilities.

Joint Support-Center for Data Science Research

Center Introductions

Database Center for Life Science (DBCLS)
Promoting open science in the life science field and R&D for life science database integration.

Polar Environment Data Science Center (PEDSC)
Promoting resource-sharing to provide valuable data and analytical support for those data on changes in the polar environment and Earth system over a long-time axis from the past to the present.

Center for Social Data Structuring (CSDS)
Maintaining databases on social survey data, public survey microdata, and social big data for university researchers. Also creating communities for data usage to promote empirical research for solutions to various social challenges, including the environment, public security, and the economy.

Center for Open Data in the Humanities (CODH)
Creating a new academic field for humanities based on data science (digital humanities), as well as forming and enhancing research hubs beyond organizational boundaries by promoting data-centric openness.

Center for Genome Informatics (CGI)
Supporting data analysis to obtain biologically significant information from a large amount of genome and transcriptome data making full use of cutting-edge bioinformatics technology.

Center for Data Assimilation Research and Applications (CARA)
Solving problems in various sciences and industries through the data assimilation techniques.

Center for Juris-Informatics (CJI)
Based on two disciplines,namely, “Law supported by AI” and “Law control of AI”, the Center for Juris-Informatics is creating a new academic field called “juris-informatics”and building a global research center on juris-informatics by production of databases related with juris-informatics and investigation of usage of such databases.

Center for Research and Development on Data Lake (DLRD)
Establishment of a framework for systematic collection and provision of high-quality, diverse, large-scale data that is safe, secure, and sustainable, with the aim of accelerating AI research, especially generative AI models in a wide range of fields such as medicine, materials science and so on.

Providing New Services to Satisfy Today's Needs and Fostering the Development of Innovative Academic Fields

The Joint Support-Center for Data Science Research (ROIS-DS) was established in 2016 as a joint-use collaborative research hub to advance data science on a national level and to address both scientific and social challenges.
Starting in 2024, ROIS-DS will enhance its incubation function to foster the development of innovative services. In addition to continuing to provide fully mature data-sharing and data-analysis services, ROIS-DS will adapt and expand these services to proactively address emerging future needs.
ROIS-DS aims to venture beyond the framework of ROIS's four constituent institutes to pioneer new services, such as integrating biotechnology and environmental technology with digital technologies in order to foster the development of innovative scientific fields.
This new phase represents the evolution of ROIS-DS into an incubation organization with a scope broader than just data science. Specifically, the ROIS-DS aims to establish centers capable of flexibly supporting research efforts in emerging academic fields.

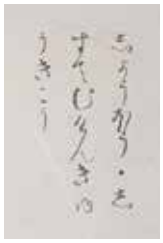
Report Meeting for Research Results of ROIS-DS-JOINT (Online)

These meetings serve as a forum to disseminate information about the center's activities and the results of open-call joint research. The fourth meeting held in FY2023 was hosted online (videos of presentations can be found on the ROIS-DS website). The first session comprising keynote speeches and reports on center activities as well as the second session featuring poster presentations using video chat tools resulted in lively discussions on the accomplishments of daily activities and collaborative research.

An online tool (SpatialChat Ltd.) enabled visitors to freely explore the poster area.

Use of AI for Data-driven Research on Japanese Culture —Recognition and Generation of Cursive Script

Books written during the Edo period (classical text) are written in *kuzushiji* (cursive); however, it is estimated that only several thousand Japanese people today (about 0.01% of the population) can properly read *kuzushiji*. To facilitate utilization of the large volume of historical materials preserved in Japan, ROIS-DS has been conducting research on technology that can recognize and convert *kuzushiji* into modern characters, resulting in the development of an AI-based application called Miwo, along with other tools. That said, even if people are able to read *kuzushiji*, the number of people who can write *kuzushiji* with a brush remains limited. For Japanese people to become truly familiar with *kuzushiji*, it is important that they be able to write these cursive characters.
To this end, the Center for Open Data in the Humanities (CODH) has developed a method using AI and other techniques to automatically cut out old typeset characters from digital images of *Sagabon*, which are said to be some of the most beautiful books in the history of Japanese publishing. Additionally, CODH has launched Soan, a service that enables users to convert modern Japanese texts into *kuzushiji* images based on the dataset of old typeset characters and share these images with others.



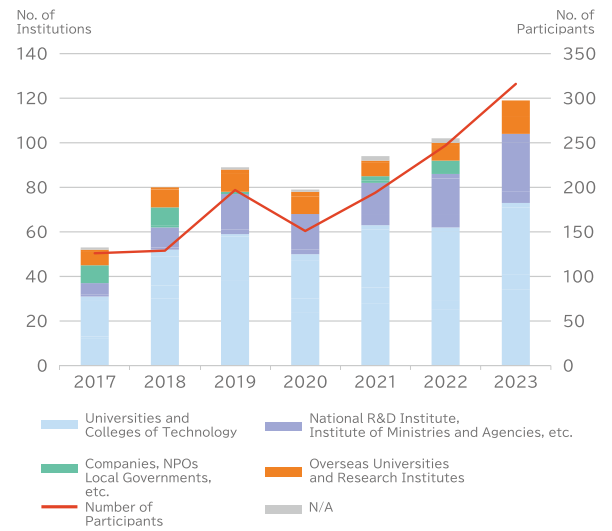
Kanji characters for ROIS converted to classical *kuzushiji*.

Joint Usage / Research

Data Science Collaboration Program "ROIS-DS-JOINT"

Every year, ROIS-DS invites applications for the open-call ROIS-DS-JOINT research program, which offers researchers throughout the country opportunities to share research and conduct joint research on various themes hosted by the various centers affiliated with ROIS-DS.
Two programs are offered: "Joint Research" conducted with researchers, using the resources of ROIS-DS-affiliated centers, and "Joint Research Meetings" held to facilitate the exchange of information related to data-science research through workshops and the like.
Since the first call for proposals in 2017, the program has seen an increasing number of joint research participants and institutions and has consistently satisfied the needs for data-driven research from a diverse array of domestic and international institutions.

Number of Institutions and Participants in ROIS-DS-JOINT



❶ Inter-University Research Institute Corporation Research Organization of Information and Systems

ROIS Head Office
Hulic Kamiyacho Bldg. 2F, 4-3-13
Toranomon, Minato-ku,
Tokyo 105-0001, Japan
https://www.rois.ac.jp/en/

❷ National Institute of Polar Research

10-3 Midori-cho, Tachikawa,
Tokyo 190-8518, Japan
https://www.nipr.ac.jp/english/

❸ National Institute of Informatics

2-1-2 Hitotsubashi, Chiyoda-ku,
Tokyo 101-8430, Japan
https://www.nii.ac.jp/en/

❹ The Institute of Statistical Mathematics

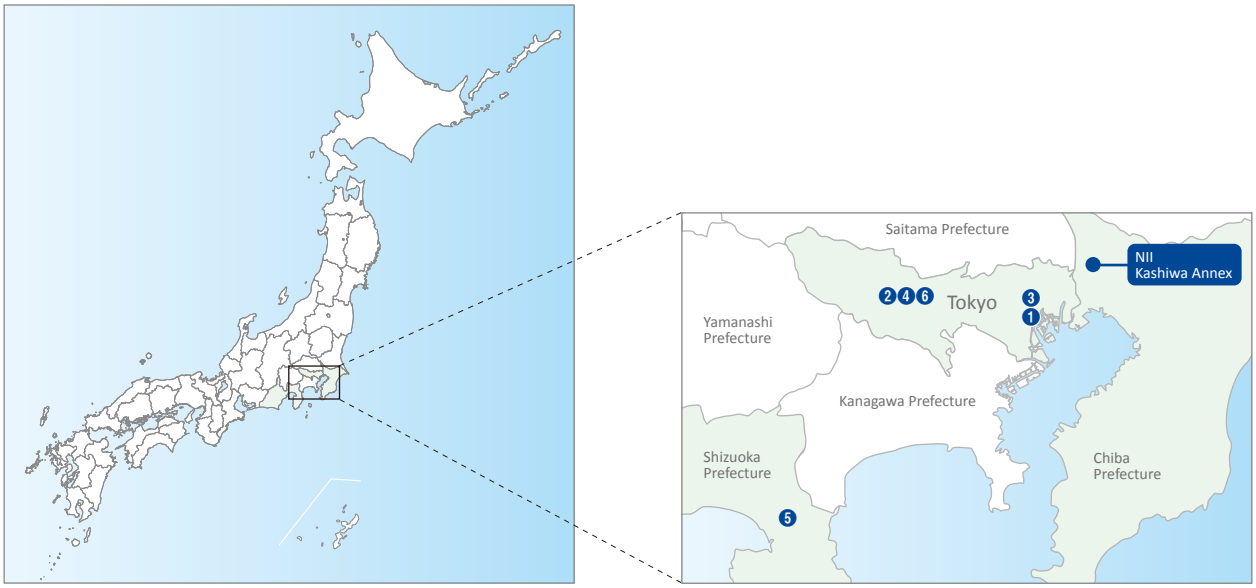
10-3 Midori-cho, Tachikawa,
Tokyo 190-8562, Japan
https://www.ism.ac.jp/index_e.html

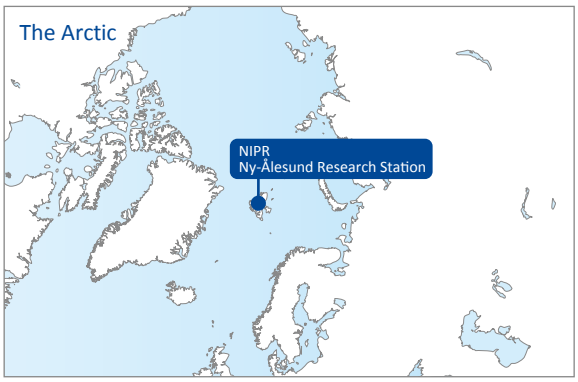
❺ National Institute of Genetics

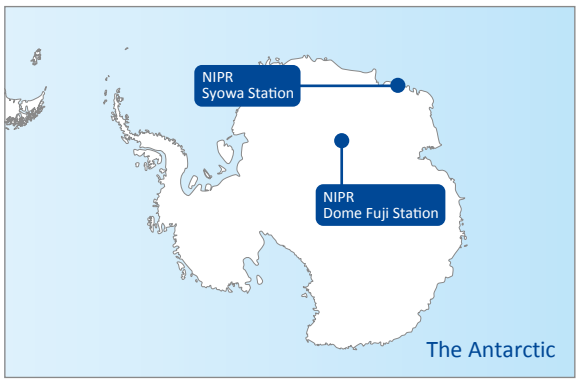
1111 Yata, Mishima,
Shizuoka 411-8540, Japan
https://www.nig.ac.jp/nig/

❻ Joint Support-Center for Data Science Research

Data Science Building,
10-3 Midori-cho, Tachikawa,
Tokyo 190-0014, Japan
https://ds.rois.ac.jp/en/







大学共同利用機関法人
情報・システム研究機構
Research Organization of Information and Systems

https://www.rois.ac.jp/en/
Phone: +81-3-6402-6200
brochure 202502