Research Organization of Information and Systems

The Institute of Statistical Mathematics

2025
-2026

Message from Director-General

My name is Satoshi Yamashita. I assumed office as Director-General of the Institute of Statistical Mathematics (ISM) in April 2025. Since its founding in June 1944 as an institute under the direct control of the Ministry of Education, the ISM has contributed, over its 80-year history, to the development of the statistical and mathematical sciences. As society has evolved, the role of ISM has been risen and expanded, as reflected in its reorganization into a National Inter-University Research Institute in 1985; into an Inter-University Research Institute in 1989; and then into an Inter-University Research Institute Corporation in 2004. But the essence of the statistical and mathematical sciences remains unchanged. Our perspective on the nature of research—to discover the truth by identifying and clarifying facts, reality, and phenomena—has been passed down unchanged through generations of researchers.

Recent years have seen the rapid evolution of AI and machine learning technologies, as well as advances in data science. These advances have impacted every aspect of our society. The ISM has helped establish the theoretical foundations for such leading-edge technologies and facilitated the progress of research on machine learning, statistical inference, and data-driven decision-making techniques. We have been striving to return our findings and knowledge in the statistical and mathematical sciences to society by promoting cross-disciplinary research and reinforcing ties to both academia and industry through the Research Center for Statistical Machine Learning and the Research Center for Materials Informatics. Moving forward, we plan to continue exploring new frontiers in data science while striving to find broader applications for our research results.

For my four-year term as the Director-General, I intend to fulfill the following three objectives to drive growth and progress at the ISM.

The first is to establish strong and stable financial foundations. In line with our mission as the Inter-University Research Institute—to contribute to the advancement of knowledge and academic research—we are working to promote various joint research and to improve the research environment. It is therefore essential to secure sustainable financial foundations and to increase the degree of freedom of research activities. I plan to establish stable financial foundations primarily by improving operational efficiency and strengthening external financial support.

The second is to review and simplify our operating procedures, various committees, regulations, and so on at the ISM, which have grown increasingly complex over the past 20 years. The ISM has introduced various systems and committees to ensure organizational transparency and excellence in its research activities, but evolving circumstances compel us to reassess these systems and committees. I will seek to streamline various systems and to improve operational efficiency to create an environment in which researchers can focus on their research.

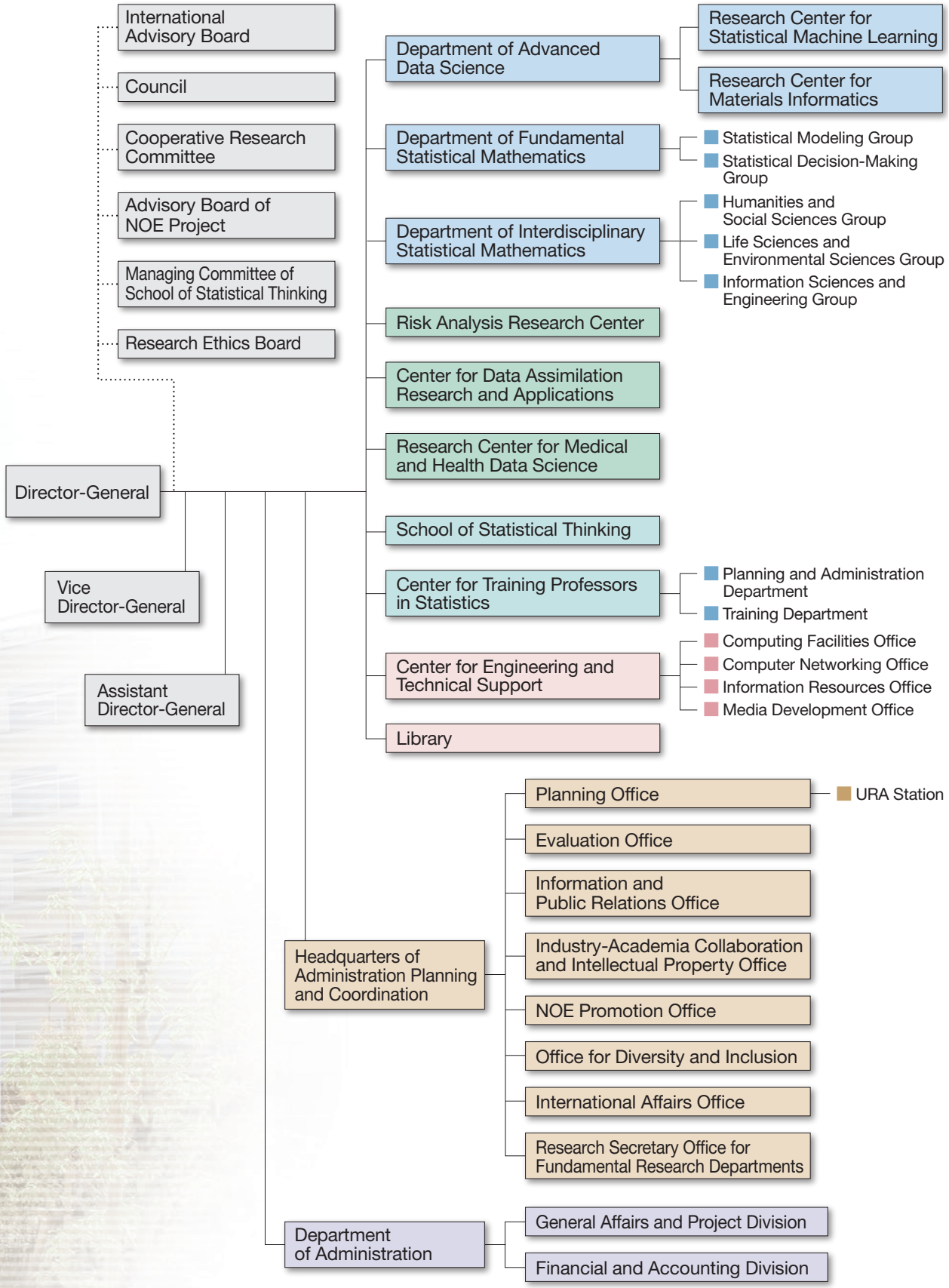
The third is to enhance the standing of the Institute of Statistical Mathematics. The ISM plays a key role in the field of the statistical and mathematical sciences—not just in Japan, but internationally. Delivering our research results to society and strengthening understanding and awareness of the value of the statistical and mathematical sciences are both important for the future of both academia and industry. To enable continuing growth of the ISM, I will seek to strengthen ties to domestic and overseas research institutions and, thereby, the presence of the ISM.

I am committed, alongside the staff, to making every effort to fulfill these objectives. On that basis, I ask for your continuing understanding and support for the research activities undertaken at ISM.

Satoshi Yamashita
Director-General
The Institute of Statistical Mathematics

Organization Diagram

(As of July 1, 2025)



Institute Overview

Department of Advanced Data Science

We established Department of Advanced Data Science with two centers for cross-disciplinary research in advanced academic fields and for collaborative research in specific fields. We will form a world-class research base that will generate synergistic development of theory, methods, and practice in statistical and mathematical sciences. The base will bring together researchers in statistical and mathematical sciences and other sciences to promote academic fusion, the development of new fields, and open innovation, transcending the boundaries of disciplines, organizations, and national borders.

Research Center for Statistical Machine Learning

We promote fundamental research on statistical machine learning, and advance research on various topics ranging from deep learning and next-generation foundational models as core technologies of artificial intelligence to the theories and methods of mathematical optimization as a basis for machine learning technology. Furthermore, we will drive cooperative projects forward in scientific and industrial fields, where advanced statistical machine learning can be distinctively demonstrated, including astronomical data science in collaboration with the National Astronomical Observatory.

Research Center for Materials Informatics

We are establishing a globally unique research hub that integrates advanced statistical machine learning technologies, researchers from academia and industry in the field of materials science, and a world-class materials database. The research goals include the creation of innovative technologies in materials informatics and the development of new materials that contribute to solving environmental and energy issues and promoting sustainable development in society.

Department of Fundamental Statistical Mathematics

We conduct research activities on the development and utilization of statistical models, and on the theory and applications of statistical inference and underlying optimization. We also aim to contribute to the development of statistical mathematical science by constructing its mathematical foundations, aiming at the fusion of these research fields and the pioneering of new research fields.

Statistical Modeling Group

A variety of statistical models have been proposed for diverse types of data. Especially in recent years, there is a growing need to extract detailed insights by taking advantage of the increasing size and complexity of data, and therefore, it is required to develop statistical models that are more flexible and more versatile, and to establish computational methods to use such models. This research group conducts research activities on the development and utilization of such statistical models.

Statistical Decision-Making Group

In order to make rational decisions from data, it is important to make reasonable statistical inferences, such as estimation, testing, and model selection, based on appropriate statistical models. In addition, for statistical inference, the optimization of minimizing the loss associated with the inference is important. This research group conducts research activities on the theory and applications of such statistical inference and optimization.

Department of Interdisciplinary Statistical Mathematics

We promote research on the theory and application of statistical mathematics across three academic domains: namely, (1) humanities and social sciences, (2) life sciences and environmental sciences, and (3) information science and engineering. By applying methodologies developed in one field to others, we advance interdisciplinary research, aiming to generate new insights and contribute to solving real-world problems.

Humanities and Social Sciences Group

We seek to develop statistical methods across diverse fields including social surveys, linguistics, psychology, economics and finance. Through acquiring and modeling heterogeneous data and conducting mathematical analysis of decision-making, we aim to uncover the unknown structures of humanities and social phenomena, thereby enhancing understanding and prediction accuracy.

Life Sciences and Environmental Sciences Group

Based on statistical mathematics, we tackle complex challenges in biology, medicine, and environmental science. Aiming to conserve biodiversity and elucidate disease mechanisms, we advance cutting-edge research by leveraging probability theory and mathematical modeling, pursuing both theoretical development and practical application.

Information Sciences and Engineering Group

We will utilize advanced statistical methods to pursue applications and methodological research in physical science, engineering, and information science. We will tackle challenges such as data assimilation, machine learning, and differential privacy through statistical mathematics, applying theory to solve engineering problems and aiming for technological innovation.

Risk Analysis Research Center

We are conducting research projects to scientifically mitigate the risks that modern society is facing. Our project activities include the following: data analysis related to seismology, environmental science and resource management;

research on the theoretical and practical aspects of analyzing spatiotemporal data; development of mathematical and computational statistical methods for risk analysis; and data collection and linkage. Additionally, we operate a research network organization on risk analysis to facilitate interdisciplinary research with the shared objective of establishing a safe and resilient society.

Center for Data Assimilation Research and Applications

Our research focuses on data assimilation methods, which are crucial for combining numerical simulations and observational data. First, we study the theory and methods of sequential Bayesian filters. Next, we develop emulators and study methods for modeling time and space domains. Using supercomputers, we develop data assimilation algorithms and conduct applied research on these methods in various fields. Through these efforts, we contribute to the construction of simulation models that predict the future, the design of efficient observation systems, and the realization of online control of actual systems.

Research Center for Medical and Health Data Science

We promote statistical mathematics and data science research in the fields of medicine, drug discovery, healthcare, and public health. We aim to lay the foundation for the development of methodologies and practical research in statistics and machine learning in various fields of medicine, based on the fundamental statistical mathematics and computer science that form the basis of data science. Furthermore, our research center aims at constructing a research network of the academic community of this field, as well as offering advanced statistical education programs.

Professional Development

School of Statistical Thinking

The mission of the School of Statistical Thinking is to plan and implement various programs for statistical thinking, from extension courses to a professional development program. The researchers affiliated with the school are often involved with specific data analysis projects, which help them to gain hands-on knowledge of data science. We expect such an researcher will play an active role as a leading researcher in various area with expertise in data science.

Center for Training Professors in Statistics

The Center has established the nationwide consortium of universities and promotes the Project for Training Experts in Statistical Sciences to address the critical shortage of professors in statistics, which form the core of data science. Within 5 years from the start of the project, the Center will develop at least 30 university professors in statistics, who will train experts in statistical sciences at member universities of the consortium. The Center aims to establish a virtuous cycle of professional development.

Research Support

Center for Engineering and Technical Support

The Center for Engineering and Technical Support assists academics and their collaborators in many ways: managing computer systems and networks, editing and publishing journals, maintaining the library, and managing tutorial programs.

- The Computing Facilities Office is in charge of managing computer facilities and scientific software.
- The Computer Networking Office is responsible for computer networking and its infrastructure, and network security.
- The Information Resources Office is responsible for maintaining a library and an electronic repository, and is in charge of planning statistical tutorial programs open to the public.
- The Media Development Office is in charge of publishing and editing of research results and PR brochures.

URA Station

The URA Station plans and manages initiatives to promote joint research and academic exchange with universities and institutes in Japan and abroad. Working closely with researchers and administrative/technical staff, URAs support research strategy, industry–academia collaboration, grant management, research analysis, and outreach. Through these efforts, the Station str engthens coordination and support functions, enhancing the Institute's role as an Inter-University Research Institute.

Space Weather Reanalysis Data Project

■ Space weather

Radiation and magnetic fields in space, which are disturbed due to solar activity, have an impact on satellites, aviation, and ground power transmission networks. These disturbances in space are referred to as Space Weather. Predicting Space Weather is one of the important disaster prevention challenges in modern society. Today, under the leadership of the World Meteorological Organization (WMO), Space Weather forecasting is conducted by meteorological agencies in various countries. In Japan, the National Institute of Information and Communications Technology (NICT) is responsible for this forecasting task.

■ Space weather numerical models

Numerical models have been developed for Space Weather forecasting as well. The numerical models deal with the behavior of ionized gases (solar wind) emitted from the sun, which affect the ionized gases and electromagnetic fields around the Earth.

Space Weather numerical models were developed in the 1990s to study the physical processes of Space Weather phenomena. These models are now used for forecasting. However, the precision of Space Weather numerical models remains insufficient compared to meteorological numerical models. One reason for this is the substitution of several physical mechanisms causing Space Weather phenomena with empirical parameters.

■ Space weather reanalysis

We have endeavored to determine these empirical parameters through data assimilation. The application of data assimilation to Space Weather numerical models has not yet been widely practiced worldwide. Figure 1 illustrates the result (distribution of ionospheric electrical conductivity). This result produces the highest reproducibility of ionospheric observations by numerical models.

The calculations we performed, optimizing and recalculating the model, are referred to as Space Weather reanalysis data. This data is indispensable for studying the physical processes of Space Weather phenomena, where observational data is extremely limited. However, a challenge remains in overcoming the time-consuming nature of Space Weather numerical model calculations, especially for the practical implementation of iterative data assimilation.

■ New developments

As a solution to the computational time issue in Space Weather numerical models, Kataoka of National Institute of Polar Research (now at Okinawa Institute of Science and Technology) and others developed the emulator that estimates ionospheric variations from the solar wind parameters for these models using machine learning techniques based on multiple Space Weather reanalysis data. Additionally, leveraging Space Weather forecasting data stored at NICT, more advanced emulators have been created. This development was announced in a press release by NIPR (https://www.nipr.ac.jp/english/info/notice/20240227.html). Through this emulator, it becomes possible to estimate the characteristics of space weather phenomena inductively and provide instantaneous numerical forecasts. Leveraging the advantages of both global reanalysis data and local, inductive emulators will be crucial for future research and forecasting in Space Weather.

Shigeru Fujita

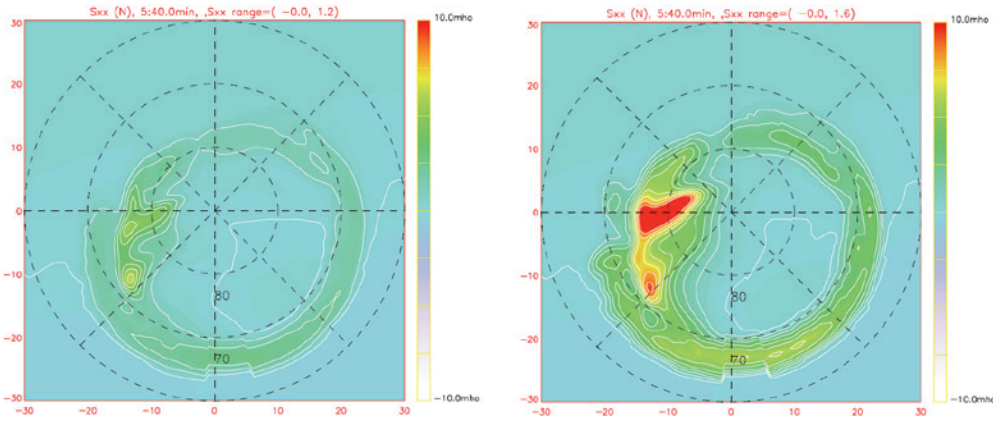


Figure 1: Ionospheric Pedersen conductivity distribution in the northern hemisphere in 2015/09/20 event obtained in the numerical model. The center is the geomagnetic north pole. Bottom, right, top, and left of each figure designate midnight (0H), 05H, noon (12H), and 18H, respectively. Dotted concentric circles denote geomagnetic latitudes of 80, 70, and 60 degrees. (left) before the data assimilation, (right) after assimilation.

Fusion of Deep Learning and Kernel Methods

■ Representation of probability distributions through kernel mean embeddings

Kernel methods, which analyze data by embedding data into a feature space to utilize higher-order statistic, were developed around the year of 2000. Subsequently, a method known as kernel mean embedding was developed to represent not just data but probability distributions, advancing kernel methods to various probabilistic inferences (Reference).

In probabilistic inference, conditional distributions are often handled, and an extension called "conditional mean embedding" is used. When input and output variables are given, conditional mean embedding maps these variables into a high-dimensional (often infinite-dimensional) feature space via kernels, providing a nonparametric and flexible representation of the conditional distribution. This method has been proven effective in probabilistic inference tasks and causal inference tasks.

However, there are several issues with conditional embedding. Firstly, the computation of the Gram matrix inversion required by standard estimation methods becomes impractical with large data sets. Secondly, the performance in applications depends on the choice of hyperparameters, such as the smoothness of the kernel, and inappropriate settings can degrade performance. Additionally, applying standard methods for selecting hyperparameters, such as cross-validation, is challenging in this case.

■ Conditional mean embedding combined with deep learning

To address these issues, we propose an effective integration of conditional mean embedding with deep learning. The core idea is based on viewing the computationally intensive inverse matrix calculation as a regression problem that can be solved with neural networks (Figure 1). This approach not only avoids the inverse matrix computation but also leverages the superior feature learning capabilities of deep learning. Our method can be implemented simply by modifying the error function to use a kernel function, compared to standard neural network training procedures. Additionally, we provide a method for appropriately selecting kernel parameters for the output variables.

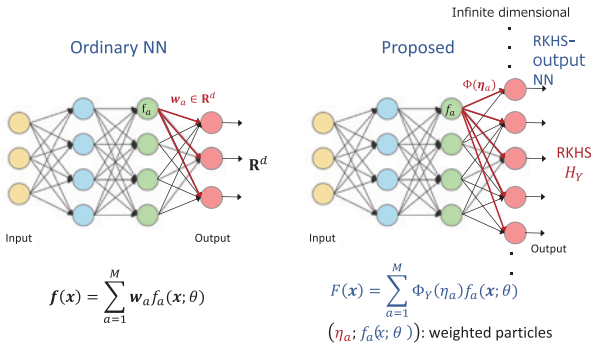


Figure 1: (Left) Ordinary neural network. (Right) Feature-space-valued neural network.

■ Application to distributional reinforcement learning

We not only demonstrate that our proposed method yields results comparable to other methods in standard conditional density estimation tasks but also apply it to distributional deep reinforcement learning. While the traditional reinforcement learning uses the expected sum of rewards as the evaluation, the distributional reinforcement learning estimates the distribution of the sum of rewards to learn policies, showing high effectiveness in literature. Our method, when applied to estimating the distribution of reward sums, enables learning more suitable policies than conventional methods like CDQN and MMDQN in experimental benchmarks of simple control problems (Figure 2).

Reference: K. Muandet, K. Fukumizu, B. Sriperumbudur. Kernel Mean Embedding of Distributions: A Review and Beyond (Foundations and Trends in Machine Learning), Now Publishers 2017.

Kenji Fukumizu

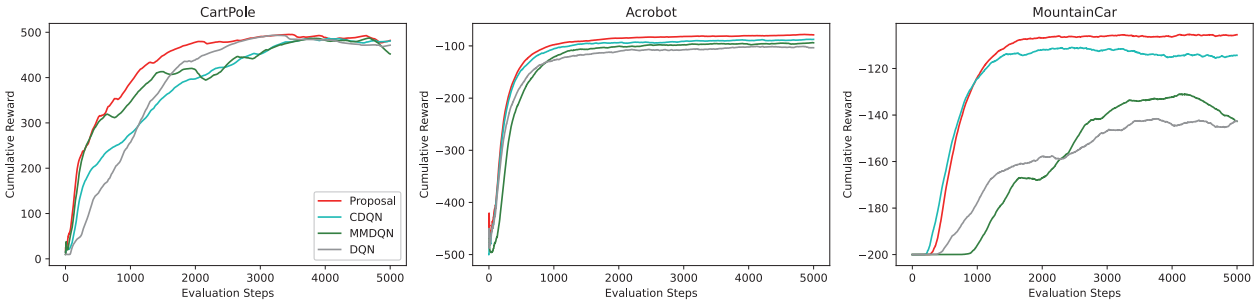


Figure 2: Comparison of the algorithms with three different data sets. The horizontal axis is the number of observations, and the vertical axis is the cumulative reward. The proposed method (red line) performs better than or as well as the compared methods.

NOE (Network Of Excellence) Project

In 2005, the Institute of Statistical Mathematics (hereafter "ISM") launched an initiative to build an academic network in the field of risk research based on the Network Of Excellence (NOE) concept. The primary objective was to connect research resources, encompassing human expertise, equipment, facilities, and research environments, through a collaborative network, to promote interdisciplinary research and foster the creation of new academic fields.

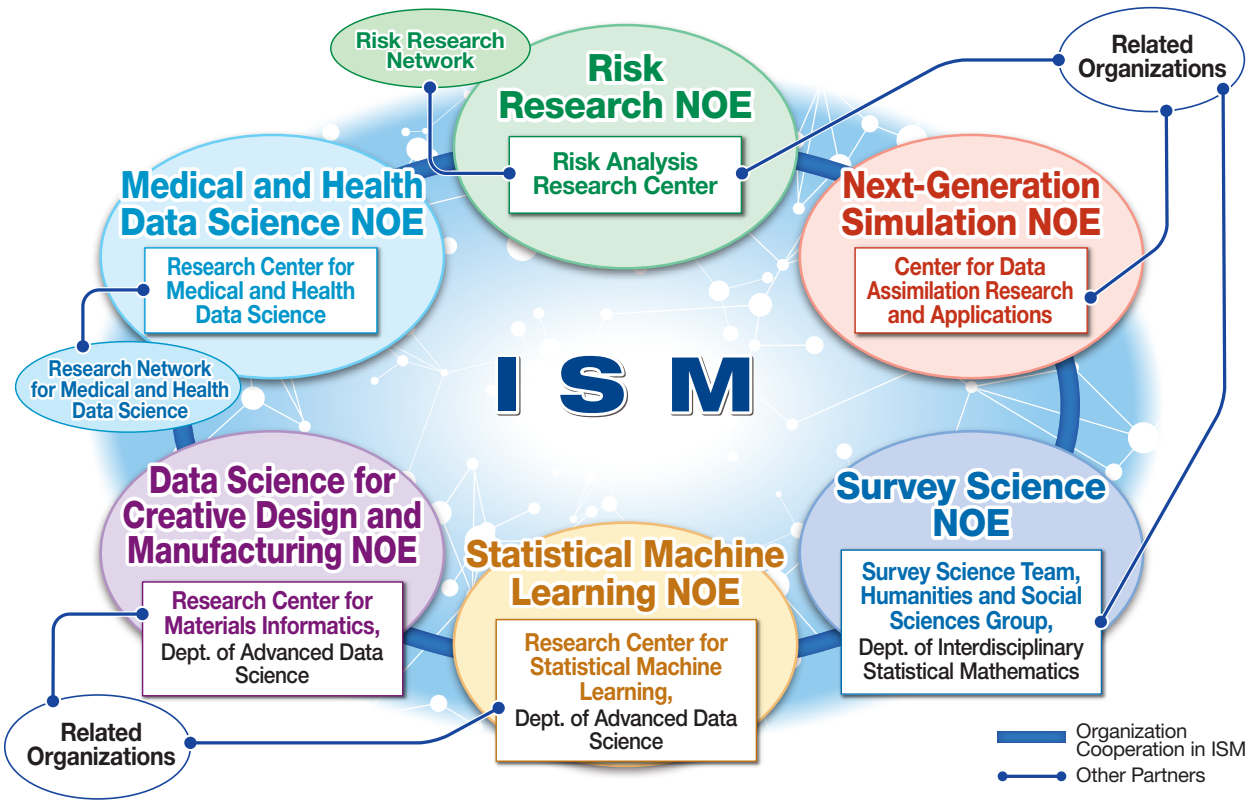
In 2010, ISM officially launched the NOE project, assigning the central mission of establishing the NOE in Statistical Mathematics. Since then, as an Inter-University Research Institute, ISM has served as a central hub of this network, responding to the evolving needs of academic communities and promoting a new style of collaboration, known as network-style collaborative research, intended to catalyze interdisciplinary integration and foster collaborative research that serves as a seed for creating new fields.

The structure and scope of the NOE project have been continuously refined to meet the needs of academic communities.

Today, ISM has established NOEs across six key domains: Risk Research; Next-Generation Simulation; Survey Science; Statistical Machine Learning; Data Science for Creative Design and Manufacturing; and Medical and Health Data Science, through which ISM promotes research and educational activities.

Through active collaborations with a wide range of external partners in academia, government, and industry, ISM has expanded the project to encompass not just efforts to solve specific scientific problems, but to pioneer new scientific methodologies (data science—the fourth paradigm) for our modern knowledge-based society.

https://www.ism.ac.jp/noe/project/en/



Relationship Diagram of the NOE Project (As of April 1, 2025)

Project for Fostering and Promoting Statistical Thinking

Japanese higher education is exhibiting a deplorable lack of production capacity in terms of data scientists. Hoping to gain a little traction on this problem, ISM established the School of Statistical Thinking, into which we integrated all of our educational resources. The following are the principal projects.

■ Research Collaboration Startup

This program is mainly aimed at supporting applied scientists and other non-experts. Expert statisticians affiliated with the Institute give them advice. Some cases have developed into official research collaborations.

■ Open-type Professional Development Program

There are two categories under this program: one is 'workshop' and the other is 'intensive training for young researchers'. The former accepts research meetings related to human resource development, while the latter allows young researchers to stay at ISM and conduct intensive joint research with faculty members.

■ Data-scientist-type Researcher Training Project (SOKENDAI)

The School of Statistical Thinking is cooperating in the SOKENDAI (the Graduate University for Advanced Studies) project to provide data-science training for postdoctoral researchers affiliated with other institutions.

■ Leading DAT and Tutorial Courses

Leading DAT is a program aimed at training data scientists with the knowledge and skills in statistical mathematics required by modern society. It holds a variety of courses ranging from basic to advanced statistics.

We also provide various tutorial courses. The courses cover a wide range of fields from basic to applied statistics.

https://www.ism.ac.jp/lectures/kouza.html

■ Statistical Mathematics Seminar Series

The Institute holds weekly seminar series on statistical mathematics every Wednesday. The seminars are led by in-house and external lecturers to showcase their latest studies. These lectures are delivered in a hybrid style, combining in-person and online elements. To view the seminar schedule and learn more about the program, please visit the Institute of Statistical Mathematics website.

https://www.ism.ac.jp/index_e.html

A hybrid seminar held in a seminar room

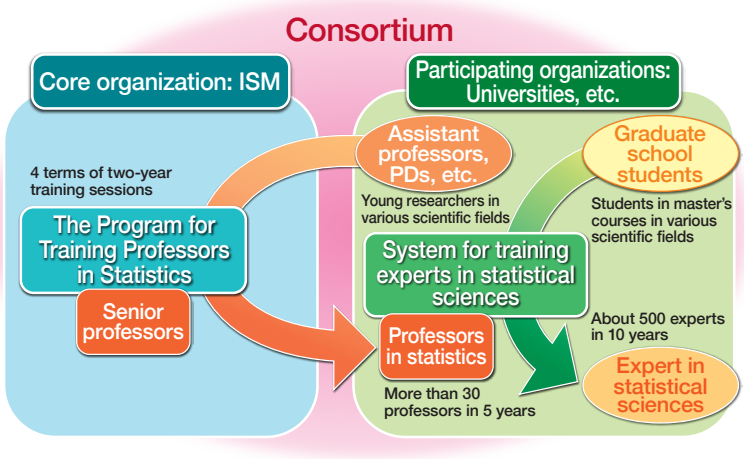
Project for Training Experts in Statistical Sciences

■ Project Objectives

Many universities have recently established data science departments and faculties. This has led to a shortage of expert faculty members in statistics, which are the core of data science. To address this issue, the Institute of Statistical Mathematics (ISM) has launched the "Project for Training Experts in Statistical Sciences" with the support of the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

In this pioneering project, ISM trains young researchers in various academic fields at universities and research institutes across Japan to become "professors in statistics". These professors in statistics will give lectures on statistics, which is the foundation of data analysis, to master students of graduate schools and supervise academic research using statistics, which will develop "experts in statistical sciences" at universities and research institutes nationwide. Then these experts will leverage statistics to contribute to academic research and industrial promotion.

The goal of the project is to establish a virtuous cycle of professional development in the field of statistics. This project strives to develop at least 30 professors in statistics over the 5-year project period and to train approximately 500 experts in statistical sciences over a 10-year period, including the project period.



Project framework

■ Project Evaluations

In 2023, the Ministry of Education, Culture, Sports, Science and Technology conducted an interim evaluation of the project. The project received the highest overall rating of 'S', indicating progress beyond the original plan and further excellent results are expected with the continuation of the project. The consortium's activities were highly evaluated, including the fact that the results to date far exceeded its initial targets. In September 2023, the project was awarded the 19th Statistical Activity Award of the Japan Statistical Society. If the project's initiatives proceed smoothly, then the major roadblock of the "shortage of professors in statistics" will surely be overcome. The project was recognized as a highly commendable activity in the field of statistics at large.

Completion Ceremony for Training Program

Virtual Laboratory

In November 2024, we launched a new initiative to establish a “Virtual Lab” co-creation hub, bringing together researchers from industry, academia, government, and international institutions. This project aims to promote open innovation in data-driven science by transcending boundaries of fields, organizations, and nations.

In this initiative, researchers at the Institute of Statistical Mathematics (ISM) set strategic objectives and build virtual laboratories by gathering experts from both inside and outside the institute. As the first phase, four virtual labs have been established:

1. Statistical Machine Learning Co-Creation Lab — A collaborative platform where domestic and international researchers work together to tackle ambitious research challenges in statistical machine learning.
2. Transdisciplinary Statistical Mathematics Lab — Led by young researchers, this lab fosters integration between statistical mathematics and various scientific fields, serving as a creative hub for the development of cutting-edge statistical methodologies that advance diverse sciences.
3. ISM-MCC Frontier Materials Design Hub — An industry-academia co-creation virtual lab in partnership with Mitsubishi Chemical Corporation, focusing on developing machine learning platforms for materials informatics and accelerating the discovery of new materials.
4. JSR Smart Chemistry Lab — A collaborative virtual lab with JSR Corporation, dedicated to advancing machine learning-based approaches for innovative materials development.

By leveraging metaverse tools and other digital platforms, the project creates a robust and closely connected co-creation framework that goes beyond conventional competitive collaborative research, enabling the pursuit of challenging, pioneering research endeavors that would be difficult to achieve individually.

Operation of Virtual Labs Using Metaverse Tools

Graduate School Program

Organization

The Institute of Statistical Mathematics is one of the platforms of SOKENDAI (The Graduate University for Advanced Studies; the headquarters in Hayama, Kanagawa), which was opened in October 1988 to offer graduate education. Since its opening, the Institute has included the Department of Statistical Science and, since April 1989, has accepted students for education and research in doctoral programs. In 2006, the Institute adopted a five-year system, offering either a five-year education and research program, or a three-year education and research program starting from the third year of study. In April 2023, SOKENDAI has reorganized its educational structure and established the Statistical Science program under Graduate Institute for Advanced Studies.

Outline of Education and Research

The Statistical Science program, which is based on the Institute of Statistical Mathematics (ISM) serving as its underlying platform, aims to cultivate individuals who possess creative research skills to contribute to solving various important intricately-intertwined problems. To this end, the program conducts education and research related to the basis, mathematics and applications of data collection designs, modeling, inference and prediction, and equip students with the ability to extract information and knowledge from the real world based on the effective use of data.

Field of Education and Research	Contents
Advanced Data Science	We conduct educational and research activities in the theories, methods, and applications of advanced data sciences, focusing on statistical machine learning, mathematical optimization, and their applications in various sciences.
Fundamental Statistical Mathematics	We conduct education and research activities on the development and utilization of models that probabilistically represent the variation of diverse data, as well as on the theory and applications of statistical inference and optimization for making rational decisions from data.
Interdisciplinary Statistical Mathematics	We are dedicated to exploring the vast landscape of statistical mathematics, focusing on both its foundational theories and methodologies. Our interdisciplinary educational and research activities are designed to equip students with the skills to apply these principles across a diverse range of fields, including humanities and social sciences, biological, medical, and environmental sciences, as well as engineering and information sciences. This approach prepares students to tackle complex problems in various domains using the power of statistical analysis.

Features of Education and Research

- Statistical Science program is one of the few comprehensive doctoral programs in statistical science in Japan, and has accepted students from a wide range of academic fields. Education and research in all aspects of statistical science is conducted by faculty members specializing in a variety of fields, from theory to application.
- The Institute of Statistical Mathematics, the platform for the program, is equipped with a world-class super computer, as well as a variety of software, including original statistical software developed by the Institute.
- The Institute of Statistical Mathematics has an extensive library covering a wide variety of journals and books on statistical and mathematical sciences.
- The Institute of Statistical Mathematics, as a joint research institute, frequently holds research meetings and seminars presented by visiting professors and researchers from Japan and abroad. Students are encouraged to participate in these seminars and interact with the presenters.
- Students have the opportunity to participate in different research projects through collaborations with other universities and research institutes.

Requirements for Graduation in/after AY 2023

3-year doctoral program

To be enrolled at the Graduate Institute for Advanced Studies for more than three years (excluding the period of leave of absence).

To earn at least 16 credits, including 12 credits of Dissertation Work in Advanced Studies ⅢA~VB.

Requirements for Graduation in/after AY 2023

■ 5-year doctoral program

To be enrolled at the Graduate Institute for Advanced Studies for more than five years (excluding the period of leave of absence).

To earn at least 42 credits, including 20 credits of Dissertation Work in Advanced Studies IA ~VB.

To receive the necessary research guidance and pass an examination for a doctoral thesis.

To make full payment for the tuition fee (excluding students with the exemption of the tuition fee).

Number of Students (As of July 1,2025)

■ 5-year doctoral course : Quota,2

Year of enrollment	2021	2022	2023	2024	2025
Number of students	1	0	1	0	3

■ 3-year doctoral course : Quota,6

Year of enrollment	2018	2019	2020	2021	2022	2023	2024	2025
Number of students	1 ①	3 ③	1 ①	1 ①	8 ⑦	9 ⑥	4 ②	2 ①

* The figures in circles indicate those who are employed by other organizations.

Degrees Awarded

Fiscal year	2018	2019	2020	2021	2022	2023	2024
Doctor of Philosophy	5	5	4	7	10	7	5

Target students

The Department seeks students who are strongly interested in statistical science and aspire to resolving ongoing problems and forging new fields of knowledge. We welcome particularly those who seek to move beyond existing academic frameworks and create new systems of learning, and who are willing to engage thoroughly in the task of using insights in the various related fields to develop statistical science in the broad sense, that is, a discipline that uses data on uncertain phenomena to draw inferences and take action.

Admission criteria

- Statistical science is an interdisciplinary field that draws on a variety of related disciplines. As such, the Department welcomes applicants from other disciplines.
- The Department judges whether applicants have the basic competence necessary to obtain the degree.
- Five-year doctoral program: Applicants are required to attend a written examination and an interview examination. The Department then forms a comprehensive judgment based on factors, such as the applicant's mathematical and English abilities, their desired research theme, and their motivation toward research.
- Third-year applicants: Applicants are required to attend an interview examination. The Department then forms a comprehensive judgment based on different factors, such as the applicant's desired research theme, the contents of their research (Master's thesis and other academic papers), their basic knowledge on statistical science, and whether they have the qualities to be a researcher.

Facilities and Equipment

Computational Resources (As of July 1, 2025)

The Institute operates three computing systems for shared use by institute members and external collaborators.

The Supercomputer System for Statistical Science is designed for analyzing large-scale datasets. The current system, HPE Cray XD2000, was introduced in March 2024 and has been fully operational since June 2024. HPE Cray XD2000 is a distributed-memory parallel computer with a total theoretical peak performance of 1.563 PFLOPS. The system is liquid cooled and consists of 212 computing nodes. Each node has two 96-core CPUs (AMD EPYC 9654) and 768 GB memory.

The Supercomputer System for Data Assimilation, which was launched in March 2023, is operated for advancing the analysis of large-scale data without parallel programming. This is a distributed shared-memory computer with a large memory, which can be accessed from any CPU. This system is equipped with two HPE Superdome Flex computing nodes and has a total theoretical computing performance of 154.8 TFLOPS. Each node is equipped with 32 28-core CPUs (Intel Xeon Platinum 8280L) with a main memory of 48 TB, and an SSD with 880 TB of usable capacity.

The Communal Cloud Computing System, introduced in March 2021, provides a computing environment that is easy for each user to use and customize. This system is equipped with 64 computing nodes (HPE ProLiant DL385 Gen 10 Plus; total theoretical computing performance of 154.0 TFLOPS), and each node has two 32-core CPUs (AMD EPYC 7452), 1 TB of main memory, and an SSD with 20 TB of usable capacity.

In the main office building, the primary local area network (LAN) consists of an Ethernet network using 10GBase-SR for the main trunk and 1000Base-T for branches. The personal computers in researchers' offices and the supercomputer system are all connected to this network. A wireless LAN system is also available in the immediate area of the building occupied by ISM. These LAN systems enable distributed processing and allow computing resources and statistical data to be used effectively. Comprehensive network security methods have been implemented, such as a firewall system, anti-virus software, and an intrusion prevention system. To encourage joint research with researchers both in Japan and abroad, the network is connected to the Internet through SINET6 (100Gbps).

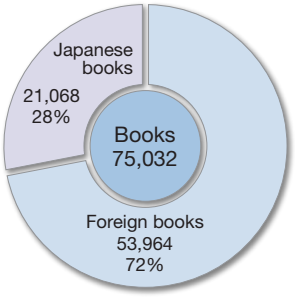
Supercomputer System for Statistical Science (HPE Cray XD2000)

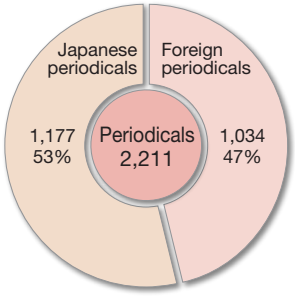
Library and Materials (As of April 1, 2025)

We have a large number of major Japanese/foreign journals covering a wide variety of fields including statistics, mathematics, computer science and informatics. In addition, we also have a large library consisting of books on humanities, social science, biology, medical science, science and engineering.

Besides contributed to Japanese and foreign publications, we also have a collection of journals that we publish ourselves: Annals of the Institute of Statistical Mathematics (English; Springer), Proceedings of the Institute of Statistical Mathematics (Japanese), ISM Survey Research Report (Statistical Researches mainly related to the Japanese National Character), Computer Science Monographs, Cooperative Research Reports (for collaborative research projects), Research Memorandum, ISM Reports on Statistical Computing, and ISM Report on Research and Education.

All materials are properly catalogued and can be searched from the web in order to meet the needs of researchers working in a wide of fields. We also accept photocopy requests.





Finance and Buildings

Administration Subsidy and Others (2024)

Type	Personnel expenses	Non-personnel expenses	Total
Expenditure	629,367	665,984	1,295,351

Unit: 1,000JPY

Accepted External Funds (2024)

Type	Items	Income
Joint research	25	60,648
Joint research division	2	20,000
Subcontracted research, Trustee business	26	563,170
Contract researchers	—	—
Academic consulting	2	1,820
Contribution for scholarship	3	4,908
Total	58	650,546

Unit: 1,000JPY

Grants-in-Aid for Scientific Research "KAKENHI" (2024)

Research Category	Items	Amount Granted
Grant-in-Aid for Transformative Research Areas (A)	2	41,340
Grant-in-Aid for Transformative Research Areas (B)	—	—
Grant-in-Aid for Scientific Research (S)	—	—
Grant-in-Aid for Scientific Research (A)	3	20,930
Grant-in-Aid for Scientific Research (B)	11	42,120
Grant-in-Aid for Scientific Research (C)	23	29,123
Grant-in-Aid for Challenging Research (Exploratory)	1	2,080
Grant-in-Aid for Challenging Research (Pioneering)	1	5,590
Grant-in-Aid for Early-Career Scientists	10	12,130
Grant-in-Aid for Forming an Independent Foundation	1	1,950
Grant-in-Aid for Research Activity Start-up	3	3,640
Grant-in-Aid for JSPS Fellows	1	1,170
International Collaborative Research	1	4,160
Total	57	164,233

Unit: 1,000JPY

Site and Buildings (As of July 1, 2025)

Site Area	62,450m^2
Area for Buildings (total)	16,209m^2

Organization

Number of Staff (As of September 1, 2025)

Type	Director-General	Professor	Associate Professor	Assistant Professor	Administ-rative Staff	Technical Staff	Total
Director-General	1						1
Department of Advanced Data Science Research Center for Statistical Machine Learning		3	3	1			7
Department of Advanced Data Science Research Center for Materials Informatics		2	1	1			4
Department of Fundamental Statistical Mathematics		7	8	2			17
Department of Interdisciplinary Statistical Mathematics		11	7	1			19
School of Statistical Thinking				1			1
Center for Engineering and Technical Support						10	10
Headquarters of Administration Planning and Coordination					1		1
Department of Administration					14		14
Total	1	23	19	6	15	10	74

*The number under Technical Staff at the Center for Engineering and Technical Support include two staffs member who retired because of age but was reemployed in a different position.
*The director is included in the number of professors. (Department of Interdisciplinary Statistical Mathematics)

Staff (As of September 1, 2025)

Director-General.	Satoshi YAMASHITA	Vice Director-General	Yoshinori KAWASAKI	Vice Director-General	Ryo YOSHIDA
		Vice Director-General	Genta UENO	Vice Director-General	Kazuhiro MINAMI
		Assistant Director - General	Satoshi ITO	Assistant Director - General	Hiori KINO

Department of Advanced Data Science Research Center for Statistical Machine Learning

Director Kenji FUKUMIZU

Prof.	Shiro IKEDA	Prof.	Hideitsu HINO	Prof.	Kenji FUKUMIZU
Project Prof.	Kazuo MUROTA	Assoc. Prof.	Tasuku SOMA	Assoc. Prof.	Han BAO
Assoc. Prof.	Ching-pei LEE	Assist. Prof.	Tam LE	Project Assist. Prof.	Donghao ZHU
Project Assist. Prof.	Tongtong FANG	Project Assist. Prof.	Shinji FUJITA	Project Researcher	Yuto TANIMOTO
Visiting Prof.	Arthur GRETTON	Visiting Prof.	Dino SEJDINOVIC	Visiting Assoc. Prof.	Alex LUEDTKE
Visiting Assoc. Prof.	Masaaki IMAIZUMI	Visiting Assoc. Prof.	Tsutomu TAKEUCHI	Visiting Assoc. Prof.	Makoto YAMADA

Department of Advanced Data Science Research Center for Materials Informatics

Director Ryo YOSHIDA

Prof.	Hiori KINO	Prof.	Ryo YOSHIDA	Assoc. Prof.	Stephen WU
Project Assoc. Prof.	Masato OHNISHI	Project Assoc. Prof.	Liu CHANG	Assist. Prof.	Yoshihiro HAYASHI
Project Assist. Prof.	Keiko SHINODA	Project Researcher	Ziwei WANG	Project Researcher	Kaoru KIMURA
Project Researcher	Minoru KUSABA	Project Researcher	Aiko TAKAHASHI	Project Researcher	Yoh NOGUCHI
Project Researcher	Tomu HAMAKAWA	Project Researcher	Erina FUJITA	Project Researcher	Hironao YAMADA
Visiting Prof.	Junichiro SHIOMI	Visiting Prof.	Junko MORIKAWA		

Department of Fundamental Statistical Mathematics

Director Hironori FUJISAWA

Statistical Modeling Group

Prof.	Kengo KAMATANI	Prof.	Jiancang ZHUANG	Prof.	Shuhei MANO

Department of Fundamental Statistical Mathematics

Prof.	Daichi MOCHIHASHI	Assoc. Prof.	Shogo KATO	Assoc. Prof.	Takaaki SHIMURA
Assoc. Prof.	Ikuko FUNATOGAWA	Assoc. Prof.	Daisuke MURAKAMI	Visiting Prof.	Mihoko MINAMI
Visiting Prof.	Genso WATANABE				

Statistical Decision-Making Group

Prof.	Satoshi ITO	Prof.	Yoshiyuki NINOMIYA	Prof.	Hironori FUJISAWA
Assoc. Prof.	Mirai TANAKA	Assoc. Prof.	Bruno FIGUEIRA LOURENÇO	Assoc. Prof.	Masayuki HENMI
Assoc. Prof.	Keisuke YANO	Assist. Prof.	Akira OKAZAKI	Assist. Prof.	Akifumi OKUNO
Visiting Prof.	Yuji SHINANO	Visiting Prof.	Katsuki FUJISAWA		

Department of Interdisciplinary Statistical Mathematics

Director Yoshinori KAWASAKI

Humanities and Social Sciences Group

Prof.	Yoshinori KAWASAKI	Prof.	Yoosung PARK	Prof.	Satoshi YAMASHITA
Assoc. Prof.	Tadahiko MAEDA	Assist. Prof.	Nobuo SHIMIZU	Project Assist. Prof.	Mika ICHINO
Project Researcher	Hiroka HAMADA	Project Researcher	Aguru ISHIBASHI	Project Researcher	Xiaoxing WANG
Project Researcher	Yasuhiro TANAKA	Visiting Prof.	Takatoshi IMADA	Visiting Prof.	Koken OZAKI
Visiting Prof.	Toru KIKKAWA	Visiting Prof.	Yoshimichi SATO	Visiting Prof.	Wataru MATSUMOTO
Visiting Prof.	Kazufumi MANABE	Visiting Assoc. Prof.	Yusuke INAGAKI	Visiting Assoc. Prof.	Naoko KATO
Visiting Assoc. Prof.	Taisuke FUJITA				

Life Sciences and Environmental Sciences Group

Prof.	Koji KANEFUJI	Prof.	Hisashi NOMA	Prof.	Shigeyuki MATSUI
Prof.	Atsushi YOSHIMOTO	Assoc. Prof.	Jun ADACHI	Assoc. Prof.	Kenichiro SHIMATANI
Assoc. Prof.	Yumi TAKIZAWA	Visiting Assoc. Prof.	Chieko ISHIGURO	Visiting Assoc. Prof.	Masahiro KOJIMA
Visiting Assoc. Prof.	Haruhisa FUKUDA				

Information Sciences and Engineering Group

Prof.	Genta UENO	Prof.	Shin'ya NAKANO	Prof.	Tomoko MATSUI
Prof.	Kazuhiro MINAMI	Assoc. Prof.	Shinsuke KOYAMA	Assoc. Prof.	Fumikazu MIWAKEICHI
Assoc. Prof.	Takao MURAKAMI	Visiting Prof.	Masako KAMIYAMA	Visiting Prof.	Toshikazu KITANO
Visiting Prof.	Tadahiko SATO	Visiting Prof.	Kazuyuki NAKAMURA	Visiting Prof.	Tomoyuki HIGUCHI
Visiting Assoc. Prof.	Hiroshi KATO	Visiting Assoc. Prof.	Masaya SAITO	Visiting Assoc. Prof.	Hiromichi NAGAO
Visiting Assoc. Prof.	Shunichi NOMURA	Visiting Assoc. Prof.	Yosuke FUJII	Visiting Assoc. Prof.	Takashi YAMAMOTO
Visiting Lecturer	Yusaku OHKUBO	Visiting Lecturer	Tran DUC VU		

Risk Analysis Research Center

Director Shogo KATO Vice Director Daisuke MURAKAMI

Prof.	Koji KANEFUJI	Prof.	Kengo KAMATANI	Prof.	Yoshinori KAWASAKI
Prof.	Jiancang ZHUANG	Prof.	Yoshiyuki NINOMIYA	Prof.	Hironori FUJISAWA
Prof.	Tomoko MATSUI	Prof.	Kazuhiro MINAMI	Prof.	Daichi MOCHIHASHI
Prof.	Satoshi YAMASHITA	Prof.	Atsushi YOSHIMOTO	Project Prof.	Yosihiko OGATA
Project Prof.	Satoshi KURIKI	Project Prof.	Kunio SHIMIZU	Assoc. Prof.	Stephen WU
Assoc. Prof.	Shogo KATO	Assoc. Prof.	Shinsuke KOYAMA	Assoc. Prof.	Kenichiro SHIMATANI
Assoc. Prof.	Takaaki SHIMURA	Assoc. Prof.	Yumi TAKIZAWA	Assoc. Prof.	Mirai TANAKA
Assoc. Prof.	Ikuko FUNATOGAWA	Assoc. Prof.	Masayuki HENMI	Assoc. Prof.	Daisuke MURAKAMI
Assoc. Prof.	Takao MURAKAMI	Assoc. Prof.	Keisuke YANO	Project Assoc. Prof.	Takao KUMAZAWA
Assist. Prof.	Akira OKAZAKI	Assist. Prof.	Akifumi OKUNO	Project Assist. Prof.	Yuanyuan NIU
Project Assist. Prof.	Yujie XUE	Project Assist. Prof.	Wenting ZHANG	Project Assist. Prof.	Shotaro YAGISHITA
Project Researcher	Chanh MINH TRAN	Project Researcher	Hinata KIKUCHI	Visiting Prof.	Masakazu ANDO

Visiting Prof.	Shinsuke ITO	Visiting Prof.	Makoto ITOH	Visiting Prof.	Tetsuya IWASA
Visiting Prof.	Masao UEKI	Visiting Prof.	Yukihiko OKADA	Visiting Prof.	Aitaro KATO
Visiting Prof.	Takashi KAMEYA	Visiting Prof.	Kenichi KAMO	Visiting Prof.	Shuichi KAWANO
Visiting Prof.	Takafumi KUBOTA	Visiting Prof.	Masashi KONOSHIMA	Visiting Prof.	Naoki SAKAI
Visiting Prof.	Noriyoshi SAKUMA	Visiting Prof.	Takayuki SASAJIMA	Visiting Prof.	Natsuki SANO
Visiting Prof.	Yo SHEENA	Visiting Prof.	Hideyoshi SHIMAZU	Visiting Prof.	Yasutaka SHIMIZU
Visiting Prof.	Kiyomi SIRAKAWA	Visiting Prof.	Kazuyuki SUZUKI	Visiting Prof.	Takenori TAKAHASHI
Visiting Prof.	Rinya TAKAHASHI	Visiting Prof.	Isao TAKABE	Visiting Prof.	Hideatsu TSUKAHARA
Visiting Prof.	Hiroshi TSUDA	Visiting Prof.	Tetsuji TONDA	Visiting Prof.	Katsutoshi NAGASHIMA
Visiting Prof.	Hiroaki NAGAFUJI	Visiting Prof.	Kazuyoshi NANJO	Visiting Prof.	Shunji HASHIMOTO
Visiting Prof.	Hisayuki HARA	Visiting Prof.	Peter SUROVY	Visiting Prof.	Masaaki FUKASAWA
Visiting Prof.	Satoshi FUJII	Visiting Prof.	Toshio HONDA	Visiting Prof.	Hiroshi MATSUZOE
Visiting Prof.	Sadaaki MIYAMOTO	Visiting Prof.	Hitoshi MOTOYAMA	Visiting Prof.	Hirokazu YANAGIHARA
Visiting Prof.	Yoshiki YAMAGATA	Visiting Prof.	Nakahiro YOSHIDA	Visiting Prof.	Yasushi YOSHIDA
Visiting Prof.	Takaaki YOSHINO	Visiting Prof.	Toshinao YOSHIBA	Visiting Assoc. Prof.	Takeo ISHIBE
Visiting Assoc. Prof.	Takaki IWATA	Visiting Assoc. Prof.	Yuma UEHARA	Visiting Assoc. Prof.	Bogdan Dumitru ENESCU
Visiting Assoc. Prof.	Yu OTAKE	Visiting Assoc. Prof.	Teppei OGIHARA	Visiting Assoc. Prof.	Takayuki OKUNO
Visiting Assoc. Prof.	Takaaki KOIKE	Visiting Assoc. Prof.	Yuta KOIKE	Visiting Assoc. Prof.	Tatsuhiko SAIGO
Visiting Assoc. Prof.	Ayaka SAKATA	Visiting Assoc. Prof.	Seisho SATO	Visiting Assoc. Prof.	Shonosuke SUGASAWA
Visiting Assoc. Prof.	Katsurako SONODA	Visiting Assoc. Prof.	Masaaki TAKADA	Visiting Assoc. Prof.	Junichi TAKAHASHI
Visiting Assoc. Prof.	Yuta TANOUE	Visiting Assoc. Prof.	Junchao ZHANG	Visiting Assoc. Prof.	Hiroshi TSURUOKA
Visiting Assoc. Prof.	Hideaki NAGAHATA	Visiting Assoc. Prof.	Shunichi NOMURA	Visiting Assoc. Prof.	Keiichi FUKAYA
Visiting Assoc. Prof.	Keisuke FUKUI	Visiting Assoc. Prof.	Yuta MITSUI	Visiting Assoc. Prof.	Masumi YAMADA
Visiting Assoc. Prof.	Yuuki RIKIMARU	Visiting Assoc. Prof.	Hayafumi WATANABE	Visiting Lecturer	Naofumi ASO
Visiting Lecturer	Tomoaki IMOTO	Visiting Lecturer	Tetsuya TAKABATAKE	Visiting Lecturer	Naomi TAMURA
Visiting Lecturer	Koyomi NAKAZAWA	Visiting Assist. Prof.	Masayuki KANO	Visiting Assist. Prof.	Toshiyuki SHIMONO
Visiting Assist. Prof.	Kazuharu HARADA	Visiting Assist. Prof.	Hikaru YAMAGUCHI		

Center for Data Assimilation Research and Applications

Director Genta UENO　　Vice Director Shin'ya NAKANO

Prof.	Genta UENO	Prof.	Shin'ya NAKANO	Project Prof.	Shigeru FUJITA
Assoc. Prof.	Daisuke MURAKAMI	Project reseacher	Zhiheng LIN		

Research Center for Medical and Health Data Science

Director Shigeyuki MATSUI　　Vice Director Fumikazu MIWAKEICHI

Prof.	Shigeyuki MATSUI	Prof.	Satoshi YAMASHITA	Project Prof.	Shinto EGUCHI
Project Prof.	Mayumi OKA	Project Prof.	Tosiya SATO	Assoc. Prof.	Masayuki HENMI
Assoc. Prof.	Fumikazu MIWAKEICHI	Project reseacher	Kiyomi TANOUE	Project reseacher	Kosuke NAKAZONO
Visiting Prof.	Manabu AKAZAWA	Visiting Prof.	Yoichi ITO	Visiting Prof.	Takeshi EMURA
Visiting Prof.	Senichiro KIKUCHI	Visiting Prof.	Ken KIYONO	Visiting Prof.	Kunihiko TAKAHASHI
Visiting Prof.	Masataka TAGURI	Visiting Prof.	Hisateru TACHIMORI	Visiting Prof.	Satoshi TERAMUKAI
Visiting Prof.	Satoshi HATTORI	Visiting Prof.	Michiko WATANABE	Visiting Assoc. Prof.	Ryoichi KIMURA
Visiting Assoc. Prof.	Koki MIMURA				

School of Statistical Thinking

Director Hideitsu HINO

Vice Director Keisuke YANO　　Vice Director Satoshi KURIKI

Prof.	Shiro IKEDA	Prof.	Yoshinori KAWASAKI	Prof.	Hideitsu HINO
Prof.	Hironori FUJISAWA	Prof.	Kazuhiro MINAMI	Project Prof.	Satoshi KURIKI

Staff

School of Statistical Thinking

Assoc. Prof.	Kenichiro SHIMATANI	Assoc. Prof.	Masayuki HENMI	Assoc. Prof.	Fumikazu MIWAKEICHI
Assoc. Prof.	Keisuke YANO	Assist. Prof.	Masato SHIRASAKI	Assist. Prof.	Akira OKAZAKI
Assist. Prof.	Akifumi OKUNO	Assist. Prof.	Nobuo SHIMIZU	Project Assist. Prof.	Daisuke ONO
Project Assist. Prof.	Tadahaya MIZUNO	Visiting Prof.	Osamu KOMORI	Visiting Prof.	Masayuki YOKOYAMA
Visiting Assoc. Prof.	Kei TAKAHASHI				

Center for Training Professors in Statistics

Director Masato CHINO

Prof.	Genta UENO	Prof.	Yoshinori KAWASAKI	Project Prof.	Manabu IWASAKI
Project Prof.	Hideki ORIGASA	Project Prof.	Naoki KAMIYA	Project Prof.	Naoto KUNITOMO
Project Prof.	Tosiya SATO	Project Prof.	Yasunori SAWAMURA	Project Prof.	Kunio SHIMIZU
Project Prof.	Masakazu JIMBO	Project Prof.	Masato CHINO	Project Prof.	Hiroko NAKANISHI
Project Prof.	Tetsuhisa MIWA	Project Prof.	Kazuo MUROTA	Project Prof.	Shotaro AKAHO
Project Prof.	Masahiro MIZUTA	Project Assoc. Prof.	Masayoshi TAKAYANAGI	Assist. Prof.	Taishi HASHIMOTO
Visiting Assoc. Prof.	Ken ISHIBASHI	Visiting Assoc. Prof.	Kota OHNO	Visiting Assoc. Prof.	Chiang CHIFA
Visiting Assoc. Prof.	Kazue NAGAI	Visiting Assoc. Prof.	Hiroyasu MATSUSHIMA	Visiting Assoc. Prof.	Ryota YUASA
Visiting Lecturer	Masako OKAMOTO	Visiting Lecturer	Hiroyuki SATO	Visiting Lecturer	Teruki SANADA
Visiting Lecturer	Yusuke TAJIMA	Visiting Lecturer	Yu ZHAO	Visiting Lecturer	Jun TSUCHIDA
Visiting Lecturer	Hayato NISHI	Visiting Lecturer	Kazuki YOSHIDA	Visiting Assist. Prof.	Takayuki ONOJIMA
Visiting Assist. Prof.	Yutaro KABATA	Visiting Assist. Prof.	Jiaming JIANG	Visiting Assist. Prof.	Hirotsugu SEIKE
Visiting Assist. Prof.	Shoma TAMORI	Visiting Assist. Prof.	Tenichi CHO	Visiting Assist. Prof.	Tadashi NAKANISHI
Visiting Assist. Prof.	Yoshio NAKANO	Visiting Assist. Prof.	Ryoya FUKASAKU		

Center for Engineering and Technical Support

Director Shin'ya NAKANO

Vice Director Fumikazu MIWAKEICHI　Vice Director Takao MURAKAMI　Deputy Manager Kazuhiro NAKAMURA

Unit Leader of Computing Facilities Office	Mitsuru HAYASAKA	Unit Leader of Computer Networking Office	Kazuhiro NAKAMURA
Unit Leader of Information Resources Office	Noriaki MIYAZONO	Unit Leader of Media Development Office	Hiroki IKEDA

Library

Head Shin'ya NAKANO

Headquarters of Administration Planning and Coordination

Chief Director Satoshi YAMASHITA

Director of Planning Office	Yoshinori KAWASAKI	Director of Evaluation Office	Yoshihiko MIYASATO
Vice Director of Evaluation Office	Yoshinori KAWASAKI	Director of Information and Public Relations Office	Yoshihiko MIYASATO
Vice Director of Information and Public Relations Office	Genta UENO	Director of Industry-Academia Collaboration and Intellectual Property Office	Ryo YOSHIDA
Director of NOE Promotion Office	Ryo YOSHIDA	Director of Office for Diversity and Inclusion	Genta UENO
Director of International Affairs Office	Kengo KAMATANI	Director of Research Secretary Office for the Fundamental Research Departments	Satoshi ITO
Vice Director of Research Secretary Office for the Fundamental Research Departments	Hiroshi TAKAGI		

URA Station

Kozo KITAMURA	Motoi OKAMOTO	Keisuke HONDA

Department of Administration

General Manager Shuji SUZUKI

General Affairs and Project Division

Manager Taiji SATO　Deputy Manager Hiroshi TAKAGI

Head, General Affairs and Project Team	Ryohei MOGI	Head, Personnel Administration Team	Yusuke KASAKAWA
Head, Research Promotion Team	Isao SAKUMA		

Financial and Accounting Division

Manager Yoshihito IGO　Deputy Manager Hiroaki ARAI

Specialist	Takuya SAITO	Specialist	Akiko MAEKAWA
Head, Budget and Account Settlement Team	Hiroaki ARAI	Head, Accounting and Contract Team	Ichiro KAWAJI

Council of The Institute of Statistical Mathematics (As of July 1, 2025)

Makoto AOSHIMA	Professor, University of Tsukuba
Satoru IGUCHI	Professor, National Astronomical Observatory of Japan
Shinobu OGI	Executive Vice President, NTT DATA Mathematical Systems Inc
Kenji KAJIWARA	Director, Institute of Mathematics for Industry, Kyushu University
Fumiyasu KOMAKI	Professor, The University of Tokyo
Masashi SUGIYAMA	Director, RIKEN Center for Advanced Intelligence Project. / Professor, The University of Tokyo
Akiko TAKEDA	Professor, The University of Tokyo
Hiroshi MARUYAMA	Corporate Executive Fellows, Kao Corporation
Toshiaki WATANABE	Professor, Dean of Faculty of Sosial Data Science, Hitotsubashi University
Yoshinori KAWASAKI	Professor (Vice Director-General, ISM)
Ryo YOSHIDA	Professor (Vice Director-General, ISM)
Genta UENO	Professor (Vice Director-General, ISM)
Kazuhiro MINAMI	Professor (Vice Director-General, ISM)
Satoshi ITO	Professor (Assistant Director-General, ISM)
Kenji FUKUMIZU	Professor (Director of Research Center for Statistical Machine Learning, ISM)
Hironori FUJISAWA	Professor (Director of Department of Fundamental Statistical Mathematics, ISM)
Hideitsu Hino	Professor (Director of School of Statistical Thinking, ISM)
Shin'ya Nakano	Professor (Director of Center for Engineering and Technical Support, ISM)

Cooperative Research Committee (As of July 1, 2025)

Takuya KAWABATA	Head, The 3rd Lab., Department of Observation and Data Assimilation Research, Meteorological Research Institute, Japan Meteorological Agency
Takafumi KUBOTA	Professor, School of Management & Information Sciences, Tama University
Takaaki KOIKE	Associate Professor, Graduate School of Economics, Hitotsubashi University
Aki-Hiro SATO	Professor, Department of Data Science, Graduate School of Data Science, Yokohama City University
Toshinao YOSHIBA	Professor, Graduate School of Management, Tokyo Metropolitan University
Kengo KAMATANI	Professor (Department of Fundamental Statistical Mathematics, ISM)
Shin'ya NAKANO	Professor (Department of Interdisciplinary Statistical Mathematics, ISM)
Tasuku SOMA	Associate Professor (Department of Advanced Data Science, ISM)
Mirai TANAKA	Associate Professor (Department of Fundamental Statistical Mathematics, ISM)

Advisory Board of NOE Project (As of July 1, 2025)

Satoshi ITOH	Chief Coordinator, Foundation for Computational Science
Naonori UEDA	Deputy Director, RIKEN Center for Advanced Intelligence Project (AIP)
Masafumi KAMACHI	Director, Ocean Eyes Co., Ltd.
Yoshimichi SATO	Dean and Professor, Faculty of Humanities, Kyoto University of Advanced Science
Asuka MIYABASHIRA	President, Japan Pharmaceutical Manufacturers Association (JPMA)
Shingo WATANABE	Director-General, Institute for Monetary and Economic Studies, Bank of Japan

Managing Committee of School of Statistical Thinking (As of July 1, 2025)

Hideishu HINO	Director (School of Statistical Thinking, ISM)
Yoshinori KAWASAKI	Professor (Vise Director-General, ISM)
Keisuke YANO	Vice Director (School of Statistical Thinking, ISM)
Satoshi KURIKI	Vice Director (School of Statistical Thinking, ISM)

Research Ethics Board (As of July 1, 2025)

Masayuki KANAI	Professor, School of Human Sciences, Senshu University
Keiko SATO	Associate Professor, Department of Health Informatics Graduate School of Medicine & School of Public Health, Kyoto University
Hitomi NAKAYAMA	Lawyer, Kasumigaseki-Sogo Law Offices
Yutaka KURIKI	Director, Social welfare corporation Kunitachi nursery school
Kazuhiro MINAMI	Professor (Department of Interdisciplinary Statistical Mathematics, ISM)
Hisashi NOMA	Professor (Department of Interdisciplinary Statistical Mathematics, ISM)
Yoo Sung PARK	Professor (Department of Interdisciplinary Statistical Mathematics, ISM)
Tadahiko MAEDA	Associate Professor (Department of Interdisciplinary Statistical Mathematics, ISM)

Professor Emeritus (As of September 1, 2025)

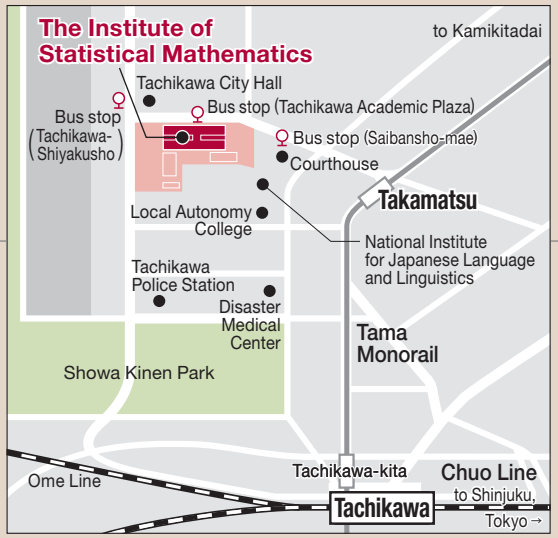
Sigeki NISIHIRA	Ryoichi SHIMIZU	Noboru OHSUMI	Masakatsu MURAKAMI
Kunio TANABE	Tadashi MATSUNAWA	Masami HASEGAWA	Takemi YANAGIMOTO
Yoshiaki ITOH	Yasumasa BABA	Katsuomi HIRANO	Masaharu TANEMURA
Makio ISHIGURO	Yosihiko OGATA	Hiroe TSUBAKI	Genshiro KITAGAWA
Nobuhisa KASHIWAGI	Takashi NAKAMURA	Yoshiyasu TAMURA	Tomoyuki HIGUCHI
Junji NAKANO	Shinto EGUCHI	Yoshihiko MIYASATO	Yukito IBA

History

1944	June	Based on a proposal submitted at an academic study conference in December 1943, the organization was founded as an institute under the direct control of the Ministry of Education. The purpose of the founding was to provide oversight for studies examining the principles of probability and their potential applications, as well as to facilitate, unify, and promote the publication of research results.
1947	April	The affiliated statistical specialists' school was opened.
	May	The Institute was divided into the First Research Department (fundamental theories), the Second Research Department (statistical theories for the natural sciences), and the Third Research Department (statistical theories for the social sciences).
1949	June	The Institute was placed under the control of the Ministry of Education following the enactment of the Ministry of Education Establishment Law.
1955	September	The Institute was reorganized into the First Research Department (fundamental theories), the Second Research Department (natural and social science theories), and the Third Research Department (operations research, statistical analysis theories). The laboratory system was adopted, comprising nine laboratories and a research guidance promotion room.
1969	October	New office building was constructed in Minato Ward.
1971	April	Fourth Research Department (informatics theories) was established.
1973	April	Fifth Research Department (prediction and control theories) was established.
1975	October	Sixth Research Department (statistical theories related to human behavior) was established.
1979	November	Construction of the Information Research Building was completed.
1985	April	Repositioned following regulatory changes as a National Inter-University Research Institute, the Institute was tasked with a new mission profile, including providing facilities and skills to other universities, in addition to conducting cutting-edge research on statistical mathematics. Accordingly, the Institute was reorganized into four basic research departments (Fundamental Statistical Theory, Statistical Methodologies, Prediction and Control, and Interdisciplinary Statistics) and two strategic centers (the Statistical Data Analysis Center, and the Statistical Education and Information Center). The affiliated statistical specialists' school was closed.
1988	October	Department of Statistical Science was established within the School of Mathematical and Physical Sciences, Graduate University for Advanced Studies (SOKENDAI).
1989	June	The Institute was reorganized as an Inter-University Research Institute based on National School Establishment Law.
1997	April	Affiliated Statistical Data Analysis Center was reorganized into the Center for Development of Statistical Computing; Statistical Education and Information Center was reorganized into the Center for Information on Statistical Sciences.
2003	September	Prediction and Knowledge Discovery Research Center was established.
2004	April	The Institute was reorganized into the Institute of Statistical Mathematics, part of the Research Organization of Information and Systems of the Inter-University Research Institute based on the National University Corporation Law. The Planning Coordination Chief System was abolished and the position of Vice Director-General was instituted instead. The Department of Statistical Science, the School of Mathematical and Physical Science, SOKENDAI, was reorganized to form the Department of Statistical Science, the School of Multidisciplinary Sciences.
2005	April	The research organization was reorganized into three research departments (the Department of Statistical Modeling, the Department of Data Science, and the Department of Mathematical Analysis and Statistical Inference). The affiliated Center for Development of Statistical Computing, the Center for Information on Statistical Sciences, and the Engineering and Technical Services Section were integrated into the Center for Engineering and Technical Support. The Risk Analysis Research Center was instituted.
2008	April	Research Innovation Center was established.
2009	October	The Institute was relocated to 10-3 Midori-cho, Tachikawa, Tokyo.
2010	June	Akaike Guest House was officially opened.
2011	January	Research and Development Center for Data Assimilation, and Survey Science Center were established.
2012	January	Research Center for Statistical Machine Learning, Service Science Research Center, and School of Statistical Thinking were established.

2017	January	Survey Science Center and Service Science Research Center were shuttered.
	July	Data Science Center for Creative Design and Manufacturing was established.
2018	April	Research Center for Medical and Health Data Science was established.
2019	March	Research and Development Center for Data Assimilation was shuttered.
2022	January	Center for Training Professors in Statistics was established.
2023	April	The Department of Statistical Science of the School of Multidisciplinary Sciences, SOKENDAI, was reorganized to establish the Statistical Science Program in the Graduate Institute for Advanced Studies.
2024	March	The research departments were reorganized into Fundamental Research Departments (the Department of Advanced Data Science, the Department of Fundamental Statistical Mathematics, and the Department of Interdisciplinary Statistical Mathematics). The Centers for Advanced Research (Research Center for Statistical Machine Learning and Research Center for Materials Informatics) were established in the Department of Advanced Data Science. Two NOE-type research centers, Research Center for Statistical Machine Learning, and Data Science Center for Creative Design and Manufacturing, were abolished. An Assistant Director-General position was appointed.
	April	Research Secretary Office for Fundamental Research Departments was established at the Headquarters of Administration Planning and Coordination. Tachikawa Administration Department of ROIS was abolished and reorganized as the Administration Department within the Institute.
2025	April	Center for Data Assimilation Research and Applications was established.

The Institute of Statistical Mathematics



Access to the ISM

◎ Tachikawa Bus
— Tachikawa Academic Plaza bus stop
— 5 min walk from Saibansho-mae or Tachikawa-Shiyakusho bus stop

◎ Tama Monorail
—10 min walk from Takamatsu Sta.

◎ JR Chuo Line
—25 min walk from Tachikawa Sta.

Research Organization of Information and Systems
The Institute of Statistical Mathematics
10-3 Midori-cho, Tachikawa, Tokyo 190-8562, Japan
Tel: +81-(0)50-5533-8500 Fax: +81-(0)42-527-9302
https://www.ism.ac.jp/