



Graduate School of
MATHEMATICAL SCIENCES
THE UNIVERSITY OF TOKYO





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A Message from the Dean



Tetsuji TOKIHIRO

Dean of the Graduate School of Mathematical Sciences

The University of Tokyo

The Graduate School of Mathematical Sciences was established in 1992 in order to foster a culture of mathematics and mathematical sciences from an international standpoint, as well as to contribute to the overall development of society. It is a unified graduate school for mathematics and related areas and the Graduate School of Mathematical Sciences is in full charge of mathematics education at the University of Tokyo.

We accept each year 53 graduate students for the Master program and 32 for the Ph.D. program. The courses of the Graduate School cover all fields of mathematical sciences including algebra, geometry, analysis and applied mathematics. The courses and seminars are given in English when there are students who do not speak Japanese. Besides these courses, we invite many researchers from outside of the Graduate School of Mathematical Sciences to teach application-oriented subjects including economics, finance and information technology. We have courses to train students in actuarial and statistical sciences, which are directly connected to real world experience. Students conduct research in an independent and fulfilling environment, supported by their thesis advisors. They study as independent scholars with free and ample access to various facilities. For example, the library of the Graduate School of Mathematical Sciences is one of the best libraries in mathematics in the world. The graduates of the School work at universities and colleges, research institutes, government ministries, finance and insurance institutions, information technology companies, and so forth. They actually contribute to the development of society in various fields. The Graduate School grew out of two independent departments of mathematics that existed within the University of Tokyo: one in the Faculty of Science on the Hongo campus and the other in the College of Arts and Sciences on the Komaba Campus. All the faculty members of these two departments joined in the new graduated school in 1992. We have our building of the Graduate School of Mathematical Sciences at the southeast edge of the Komaba Campus since 1995.

Presently, the number of tenured professors and associate professors of the Graduate School of Mathematical Sciences is about 56. Besides tenured professors and associate professors, we have visiting professors and overseas visiting professors. Members of the Graduate School conduct leading-edge research in all fields of mathematical sciences, from algebra, geometry, and analysis to applied mathematics. The long tradition of advanced scholarly research since before the merger of the two departments of mathematics helps the Graduate School of Mathematical Sciences function as an international research center. We host over 150 researchers from around the world each year and there are many overseas exchange students. Thus the Graduate School of Mathematical Sciences plays a role of an international hub in mathematics. In 2005, we established the Tambara Institute of Mathematical Sciences in Gunma Prefecture, a mountain villa devoted to

seminars and summer schools with a full hostel service, as a venue for international researchers to meet and interact.

Even in these 20 years, we experienced a new stage in the evolution of mathematics. There has been tremendous progress in areas where mathematics and other branches of sciences collude, and mathematical knowledge has become the backbone of various sciences like physics, biology, chemistry, information theory, engineering, economics, etc. These developments show the importance of collaborations with other branches of sciences as well as with the society.

We are intimately collaborating with the Kavli Institute for the Physics and Mathematics of the Universe (Kavli IPMU) which is the first institute in Todai Institutes for Advanced Study (TODIAS). It was founded in 2007 by the World Premier International Research Center Initiative (WPI) of the Japanese government. It received a very high international evaluation and it became a member of the Kavli institutes in 2012. At present, 6 faculty members at Kavli IPMU have joint appointments with the Graduate School of Mathematical Sciences.

Within the University of Tokyo, the department of mathematics has a long history. It was founded in 1881 and it has always managed to keep its long tradition of sustaining a high academic level. It has maintained a rich library collection, a common research room, and has succeeded in sending graduates to fulfill a wide variety of roles in society. In keeping with these fine traditions, the Graduate School of Mathematical Sciences aims at fulfilling its social duty by offering excellent education and by producing outstanding research results. All members of the Graduate School of Mathematical Sciences will make every effort to meet these exciting challenges.



Brief History

April 1877

The University of Tokyo is established, and the Department of Mathematics, Physics and Astronomy is placed in the Faculty of Science.

September 1881

The Department of Mathematics, Physics and Astronomy is divided into three separate departments.

May 1949

The College of Arts and Sciences is added to the University of Tokyo, in which a separate Department of Mathematics is established.

March 1953

The present-day Graduate School is formed, in which the members of the Department of Mathematics in the Faculty of Science and the Department of Mathematics in the College of Arts and Sciences begin educating graduate students.

April 1962

The Department of Pure and Applied Sciences is established in the College of Arts and Sciences.

April 1992

A new Division of Mathematical Sciences of the Graduate School is formed, consisting of a single Department of Mathematical Sciences combining all the mathematics faculty in the University.

August 1995

The first phase of the construction of a new building for the Department of Mathematical Sciences is completed.

March 1998

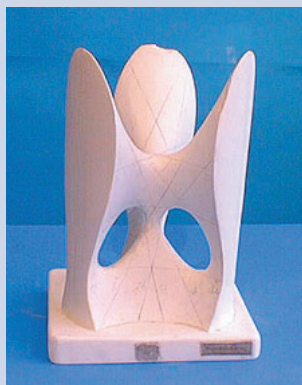
The second phase of the construction of the new Mathematical Sciences building is completed.

April 2004

All National Universities were transformed into National University Corporations, including The University of Tokyo.

April 2013

The “Interdisciplinary Center for Mathematical Sciences” was established at the Graduate School of Mathematical Sciences.



Faculty

Professors

Name	Field of Interest	Keywords
AIDA, Shigeki	Probability theory	stochastic analysis, Malliavin calculus, rough path
ARAI, Toshiyasu	Mathematical Logic	In proof theory we are concerned with formal proofs in mathematics. I study mainly ordinal analysis. It is a field in proof theory, in which we associate ordinals with formal theories, thereby we are trying to unravel hidden structures in theories.
FURUTA, Mikio	Low Dimensional Topology, Global Analysis	4-dimensional manifold, gauge theory
GIGA, Yoshikazu	Nonlinear Analysis	Navier-Stokes equations, calculus of variation, viscosity solutions, level set method, nonlinear parabolic partial differential equations, crystal growth
HIRACHI, Kengo	Differential geometry, Several complex variables	parabolic geometries, CR geometry, conformal geometry, Bergman kernel, strictly pseudoconvex domains
INABA, Hisashi	Mathematical Population Dynamics, Mathematical Biology, Mathematical Demography	structured population dynamics, mathematical models for demography and epidemiology
ISHIGE, Kazuhiro	Partial Differential Equations	asymptotic analysis and geometric analysis for solutions to parabolic equations
KANAI, Masahiko	Geometry	rigidity of foliations and group actions
KAWAHIGASHI, Yasuyuki	Operator Algebras, Mathematical Physics	von Neumann algebras, subfactors, conformal field theory, tensor categories
KAWAZUMI, Nariya	Topology, Riemann Surfaces	moduli spaces of Riemann surfaces, mapping class groups, Goldman-Turaev Lie bialgebras
KIDA, Yoshikata	Discrete Groups, Ergodic Theory	orbit equivalence relations, measured groupoids, amenability, and rigidity
KOBAYASHI, Toshiyuki	Lie Theory, Representation Theory, Geometric Analysis	unitary representation, discontinuous groups, homogeneous spaces, visible actions on complex manifolds, minimal representations, branching laws, semisimple Lie group, algebraic analysis
OGATA, Yoshiko	Mathematical Physics	quantum statistical physics
OGUISO, Keiji	Algebraic Geometry	Calabi-Yau manifolds in wider sense
SAITO, Norikazu	Numerical Analysis, Applied Analysis	finite element method, finite difference method, nonlinear partial differential equation
SAITO, Shuji	Arithmetic geometry, algebraic geometry, algebraic K-theory	higher dimensional class field theory, algebraic cycles, motives, motivic cohomology
SAITO, Takeshi	Arithmetic Geometry	étale cohomology, ramification, local fields
SHIHO, Atsushi	Arithmetic Geometry	crystals, p-adic cohomology, rigid geometry
TAKAGI, Shunsuke	Algebraic Geometry, Commutative Algebra	Frobenius splitting, F-singularities, singularities of the minimal model program, local cohomology
TAKAYAMA, Shigeharu	Complex Geometry	adjoint bundle, singular Hermitian metric, multiplier ideal sheaf
TOKIHIRO, Tetsuji	Applied Mathematics	integrable systems, ultradiscrete systems, mathematical modeling

Faculty

Name	Field of Interest	Keywords
TSUJI, Takeshi	Number Theory, Arithmetic Geometry	p-adic Hodge theory, p-adic representation, log algebraic geometry
WILLOX, Ralph	Mathematical Physics, Integrable Systems	integrable discrete systems, integrability detectors, soliton cellular automata, discretization techniques
YAMAMOTO, Masahiro	Inverse problems, Industrial mathematics	uniqueness and conditional stability for inverse problems, regularization methods, numerical approach, mathematical solutions for problems in industry, collaboration with industry
YOSHIDA, Nakahiro	Theoretical Statistics, Probability Theory	limit theorems for semimartingales, asymptotic expansion, Malliavin calculus, statistics for stochastic differential equations, asymptotic decision theory, higher-order asymptotic theory, nonsynchronous estimation, statistical computing

Associate Professors

Name	Field of Interest	Keywords
ABE, Noriyuki	Representation Theory	reductive groups, modular representations
ASUKE, Taro	Differential Topology	foliations, geometric structures, characteristic classes
GONGYO, Yoshinori	Algebraic Geometry, Complex Geometry	minimal model program, canonical bundles, birational maps, adjunction formulas
HASEGAWA, Ryu	Theoretical Computer Science	lambda calculus, type theory, category theory, proof theory
HAYASHI, Shuhei	Dynamical Systems	hyperbolicity, homoclinic bifurcations, ergodic theory
IMAI, Naoki	Arithmetic Geometry	Galois representation, moduli space
IRIE, Kei	Geometry and Topology	symplectic geometry, Morse-Floer theory
ITO, Kenichi	Partial Differential Equations	Schrödinger equations, scattering theory, spectral theory
IWAKI, Kohei	Ordinary Differential Equations Special Functions, Mathematical Physics	exact WKB analysis, Painleve equations, topological recursion
KASHIWABARA, Takahito	Partial Differential Equations, Numerical Analysis	Navier-Stokes equations, finite element method, non-standard boundary conditions
KATO, Akishi	Mathematical Physics	conformal field theory, string theory, integrable systems
KITAYAMA, Takahiro	Topology	3-dimensional manifolds, character varieties, torsion invariants
KOIKE, Yuta	Mathematical Statistics, Probability Theory	asymptotic statistics, financial econometrics, high-dimensional statistics, high frequency data, statistics for stochastic processes
MATSUI, Chihiro	Mathematical Physics, Statistical Mechanics	quantum solvable models, solvable stochastic processes
MATUMOTO, Hisayosi	Representation Theory	Whittaker vectors, generalized Verma modules, unitary degenerate series
MATSUO, Atsushi	Groups, Lie Algebras and Integrable Systems	infinite-dimensional Lie algebras, vertex operators, monstrous moonshine, conformal field theories, quantum groups

Faculty

Name	Field of Interest	Keywords
MIEDA, Yoichi	Number Theory	Shimura varieties, Langlands correspondence, rigid geometry
MITAKE, Hiroyoshi	Partial Differential Equation	viscosity solution approach to asymptotic problems in front propagation, dynamical system and related topics
MIYAMOTO, Yasuhito	Nonlinear Partial Differential Equations	nonlinear parabolic and elliptic partial differential equations, bifurcation analysis, qualitative studies of solutions
SAKAI, Hidetaka	Special Functions, Integrable Systems, Ordinary Differential Equations	Painlevé equations, difference equations
SAKASAI, Takuya	Topology	mapping class groups, moduli spaces of Riemann surfaces, 3-dimensional manifolds
SASADA, Makiko	Probability Theory	hydrodynamic limit, interacting particle system
SEKIGUCHI, Hideko	Non-Commutative Harmonic Analysis	semisimple Lie groups, unitary representations, Penrose transforms
SHIMOMURA, Akihiro	Analysis	functional analysis, evolution equations, functional equations
SHIRAISHI, Jun'ichi	Solvable Lattice Models	elliptic quantum groups
TANAKA, Hiromu	Algebraic Geometry	minimal model program, positive characteristic
TERADA, Itaru	Algebraic Combinatorics	Young diagrams, Robinson-Schensted correspondences, group representations
UEDA, Kazushi	Geometry	mirror symmetry
YONEDA, Tsuyoshi	Mathematical Fluid Dynamics	Navier-Stokes equations, Euler equations, turbulence, Coriolis force
YOSHINO, Taro	Geometry of Lie groups and Lie algebras	Clifford-Klein forms, discontinuous groups proper action, topological blow-up

Assistant Professors

Name	Field of Interest	Keywords
ASOU, Kazuhiko	Mathematics Education	e-Learning, video-on-demand, instructional design
BAO, Yuanyuan	Low dimensional Topology	knot, trivalent graph, Heegaard Floer homology, $gl(1 1)$ -quantum invariant
GOCHO, Toru	Differential Geometry	topological field theory, symplectic manifolds
KIYONO, Kazuhiko	Topology	group action, gauge theory, Atiyah-Singer index theorem
KONNO, Hokuto	Geometry and topology	4-dimensional manifold, group of diffeomorphisms
MASE, Takafumi	Integrable systems, Discrete dynamical systems	discrete integrable systems, integrability criteria for nonlinear discrete dynamical systems
NAKAMURA, Yusuke	Algebraic Geometry	birational geometry, minimal model theory, singularity theory, birational geometry in positive characteristic

Faculty

Project Professor

Name	Field of Interest	Keywords
FUJIWARA, Takeo	Condensed Matter Physics, Applied Mathematics	electronic structure of condensed matter, simulation, computation of large systems
KATSURA, Toshiyuki	Algebraic geometry	algebraic variety, positive characteristic, Abelian variety, Calabi-Yau manifold, K3 surface, Enriques surface
KOHNO, Toshitake	Topology, Mathematical Physics	braid groups, quantum groups, conformal field theory
MURATA, Noboru	Machine Learning	signal processing, pattern recognition, statistical learning theory, information geometry
OHTA, Yoshihiro	Applied Mathematics	mathematical biology, cellular automata

Kavli Institute for the Physics and Mathematics of the Universe (KAVLI IPMU)

Professors

Name	Field of Interest	Keywords
ITO, Yukari	Algebraic Geometry	resolution of singularities and the McKay correspondence
KAPRANOV, Mikhail	Algebra, Algebraic Geometry and Category Theory	operads, moduli spaces, secondary polytopes, algebro-geometric model spaces of paths and loops, Hall algebras, derived geometry
NAKAJIMA, Hiraku	Geometry and representation Theory	geometric representation theory, quiver varieties, gauge theory, moduli spaces
TODA, Yukinobu	Algebraic Geometry	derived category of coherent sheaves, Bridgeland stability conditions, Donaldson-Thomas invariants

Associate Professors

Name	Field of Interest	Keywords
ABE, Tomoyuki	Arithmetic Geometry	p-adic cohomology, arithmetic D-module, ramification theory
MILANOV, Todor	Representation Theory, Algebraic Geometry	quantum cohomology, Gromov-Witten invariants, mirror symmetry, period integrals, Kac-Moody Lie algebras, vertex algebras, integrable systems
YAMAZAKI, Masahito	High energy theory, mathematical physics, integrable models	string theory, quantum field theory, gauge theory, supersymmetry

Social Cooperation Program Mathematical Innovation in Data Science

Project Professor

Name	Field of Interest	Keywords
NAKAGAWA, Junichi	Industrial mathematics	data science

Project Associate Professor

Name	Field of Interest	Keywords
TAKEUCHI, Tomoya	Industrial Mathematics	inverse problems, optimization, optimal control, variational analysis, machine learning

Project Assistant Professor

Name	Field of Interest	Keywords
YAMAMOTO, Hiroko	Nonlinear partial differential equations	nonlinear parabolic and elliptic partial differential equations, reaction-diffusion equations

Graduate School and students from abroad

Graduate School of Mathematical Sciences at The University of Tokyo has about 200 graduate students. The Graduate School of Mathematical Sciences accepts well-qualified students from around world. Approximately 12% of our graduate student body is international. Since the reorganization of our department in 1992, 106 foreign students have obtained Master's Degree, and 78 PhD degree so far, as in the table below.

The education of mathematicians for academia and society of the future is at the heart of our mission. Our wide range of courses at graduate level offers a rigorous training in mathematics. Our Graduate Program has a tradition that it encourages original research already from Master's Program.

Our department has a long and rich history in The University of Tokyo. Department of Mathematics has become an independent department since 1881. The present organization is Graduate School of Mathematical Sciences, which was reorganized in 1992 as an expanded integration of mathematics departments.

Some of pioneering mathematicians from our department include T. Takagi (one of the five committee members of the first Fields Medals, 1936), K. Kodaira (the fifth recipient of the Fields Medal, 1954) and K. Ito (the first recipient of the Gauss prize, 2006). Our graduate school appoints about 55 faculty advancing mathematical knowledge by novel and insightful research that is world-leading.

Number of Students from abroad

Nationality / Region	Enrollment (as of May 1, 2020)		Degrees Conferred (1994.3~2020.3)	
	Master's Course	Ph.D. Course	Master's Degree	Ph.D.
Australia	0	0	1	1
Bangladesh	0	0	1	1
Brazil	0	2	2	1
Cambodia	1	0	0	0
Chile	0	0	1	0
China	10	7	69	52
Denmark	0	0	0	2
France	0	0	1	1
Germany	0	0	3	0
Greece	0	0	0	1
Israel	0	0	1	0
Mongolia	0	0	5	4
Philippines	0	0	0	1
Poland	0	0	1	0
Republic of Korea	0	2	7	4
Russia	0	1	0	0
Spain	1	0	1	1
Taiwan	0	0	3	3
Thailand	0	0	3	1
Turkey	0	0	1	1
Ukraine	0	0	1	1
United Kingdom	0	0	1	1
USA	0	0	2	0
Uzbekistan	0	0	1	0
Vietnam	0	0	1	2
Total	12	12	106	78

Interdisciplinary Center for Mathematical Sciences (ICMS)

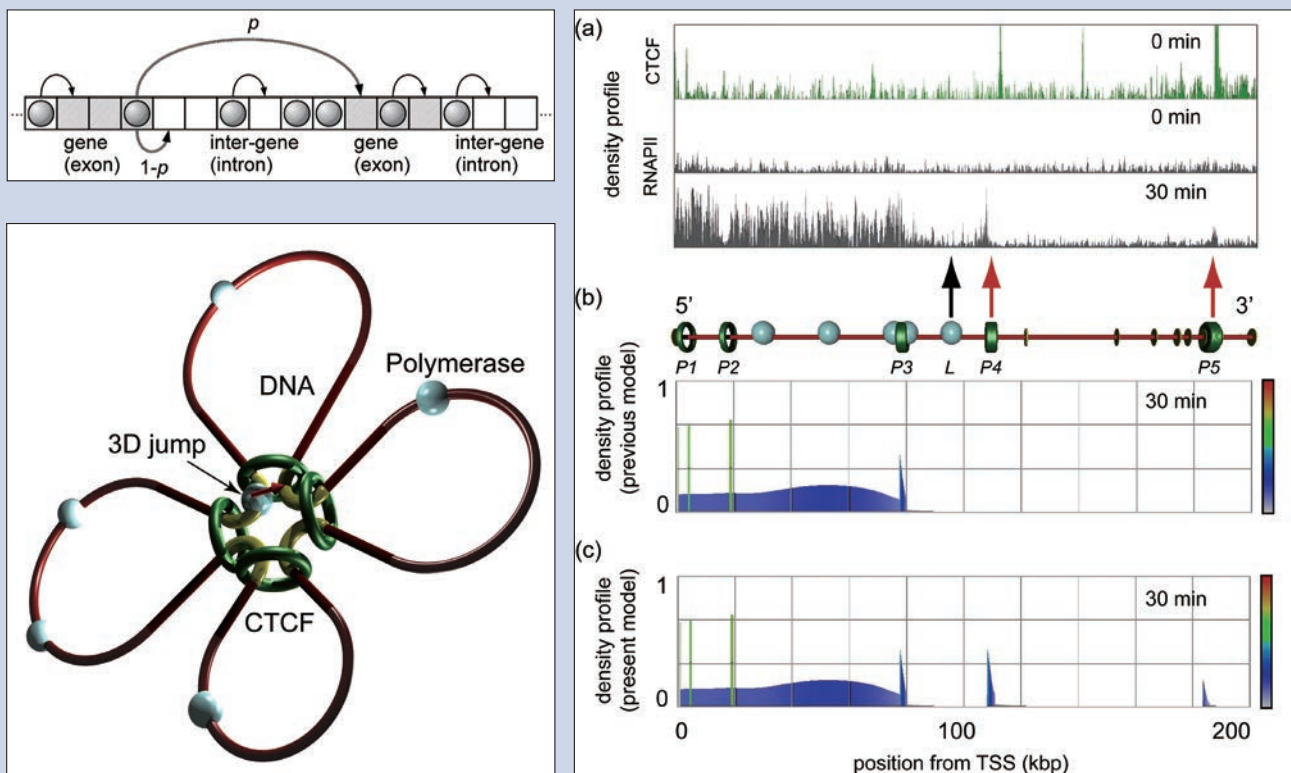
The center was established in April 2013 with the aim of promoting and facilitating interdisciplinary research and education in mathematics, in cooperation with all industrial and other scientific fields.

Mathematics is often said to provide a common language for all scientific disciplines. It also, however, offers very effective tools that scientists, in an enormous variety of fields, can use in their endeavour to describe the world at large. As a result, the mathematical sciences have become indispensable as the foundation for any scientific and technological nation. The symbiotic relationship between mathematics and its various areas of application is ever expanding, as more and more areas of science and industry become dependent on new mathematical tools and especially on mathematically trained scientists. The purpose of the ICMS is to conduct mathematical research, for applications, and to develop educational programs with this aim in mind, in cooperation with experts from various scientific disciplines and industry.

The ICMS comprises two sections: the scientific cooperation section and the industrial cooperation section. Each section is composed of a number of faculty members of the Graduate School of Mathematical Sciences as well as of other graduate school of the University of Tokyo.

Some of the research programs, centers and conferences supported by ICMS in 2013, are listed below.

- (1) The Leading Graduate Course for Frontiers of Mathematical Sciences and Physics
- (2) The Institute for Biology and Mathematics of Dynamical Cell Processes
- (3) The Kavli Institute for the Physics and Mathematics of the Universe
- (4) The "Coop with Math Program"
- (5) The "JSPS Asian Science Seminar: Discrete Mathematics and its Application"
- (6) The "Symposium on Mathematics for Various Disciplines 10"



Path-preference cellular-automaton model for traffic flow through transit points and its application to the transcription process in human cells
Yoshihiro Ohta, Akinobu Nishiyama, Yoichiro Wada, Yijun Ruan, Tatsuhiko Kodama, Takashi Tsuboi, Tetsuji Tokihiro, and Sigeo Ihara



1. About FMSP

The Leading Graduate Course for Frontiers of Mathematical Sciences and Physics (FMSP) is part of the MEXT “Leading Graduate School Doctoral Program,” which aims to “revolutionize graduate school education by developing world-class, quality-controlled academic degree programs, where learning is achieved with no walls separating academia from industrial and governmental sectors, and with coherency between the Master’s and Doctoral programs, in order to turn competent students into perceptive and creative global leaders in all realms of industry, academia and government.

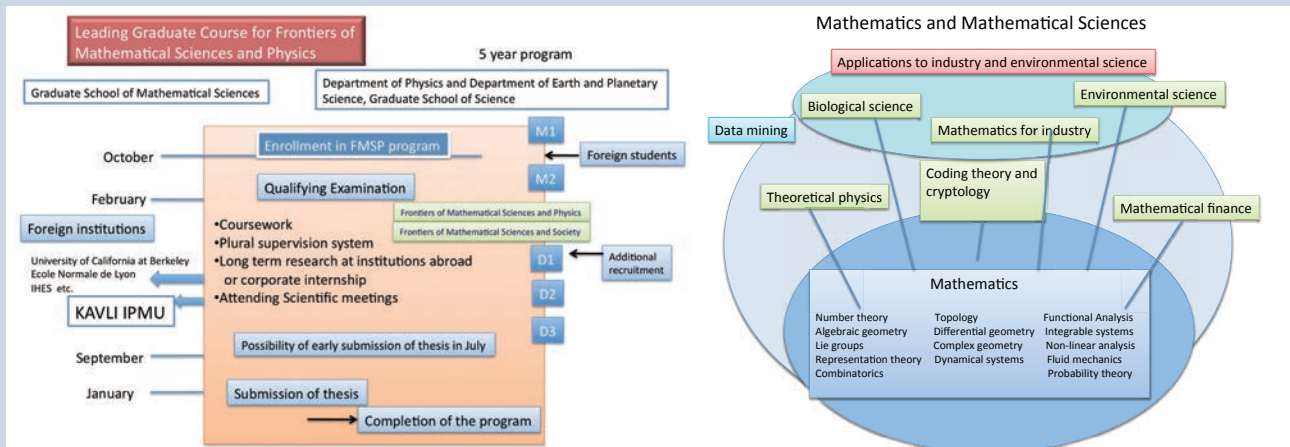
The FMSP program is provided through the joint efforts of the Graduate School of Mathematical Sciences, the Department of Physics and the Department of Earth and Planetary Science of the Graduate School of Science together with the Kavli Institute for the Physics and Mathematics of the Universe, the University of Tokyo and was approved in the “only-one” category on October 1, 2012.

To join the FMSP program, one must be a graduate student belonging to one of the following three departments:

- Graduate School of Mathematical Sciences, the University of Tokyo,
- Department of Physics, Graduate School of Science, the University of Tokyo,
- Department of Earth and Planetary Science, Graduate School of Science, the University of Tokyo.

The enrollment in the FMSP program starts, in principle, in October of the first year of the Master Course. There is an additional recruitment of students enrolling in the first year of the Doctor course.

We aim to establish a new interdisciplinary learning environment based on training in advanced mathematics.



2. Features of the FMSP program

(i) The plural supervision system

Each student in this program is assigned a secondary supervisor, in addition to their main supervisor. Thanks to this system FMSP students are able to get advice about their research from wider viewpoints.

(ii) Financial supports of FMSP students

FMSP students receive a monthly grant of 150,000 yen, beginning in the latter half of their first year in the Master’s program until the end of the Master’s program and a monthly grant of 200,000 yen from the beginning of the Doctor’s program. The grant will continue to be given until each student receives their PhD degree, provided that their period of benefit during their Doctoral studies does not exceed three years.

(iii) Qualifying Examination

FMSP students will submit their master thesis in January in the second year of the Master course and take a Qualifying Examination, whereupon those to be accepted in the FMSP course for their Doctoral years will be selected.

(iv) Required activities for the Doctoral years

To complete the FMSP course, students must take part in one of the two activities listed below:

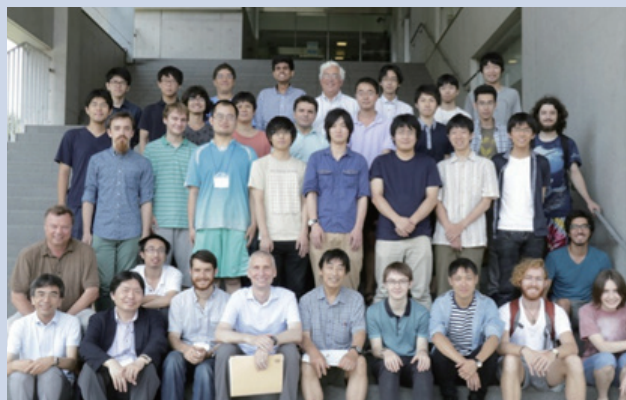
- Research at institutions abroad
- A corporate internship

3. Coursework and activities beyond the boundaries of research areas

For the purpose of acquiring depth and width in the synergy between mathematics and various sciences, we need to have a global viewpoint, beyond the boundaries of research areas. From this point of view, in the FMSP program we organize course works “Frontiers of Mathematical Sciences and Physics” and “Frontiers of Mathematical Sciences and Society”. We also organize seminars and tutorial workshops, removing traditional boundaries between disciplines. We set up various occasions such as “study groups”, where students learn about problems in industry and work together on these problems.



The 9th East Asian School of Knots and Related Topics, Jan. 14 - Jan. 17, 2013



Tokyo-Berkeley Summer School “Geometry and Mathematical Physics”, July 21-July 31, 2015

4. Fostering talents that are competitive at the international level

We have been supporting students studying abroad by various programs. The Kavli IPMU has a satellite at University of California, Berkeley. By making use of such international network, we support FMSP students to pursue research at institutions abroad for a long period. We will organize international workshops and seminars by inviting researchers from abroad by the FMSP program. FMSP offers an international research environment and it will be a gateway to international experience for FMSP students to attend such activities and to discuss with researchers from abroad.



Discussions with visitors stimulate young researchers.

Lectures and Seminars

Lectures

Algebra	Introduction to Algebra, Algebraic Geometry, Number Theory, Automorphic Functions, Analytic Number Theory, Applied Algebra
Global Geometry	Introduction to Global Geometry, Differential Geometry, Topology, Global Analysis, Complex Manifolds, Dynamical Systems
Basic Analysis	Introduction to Basic Analysis, Linear Differential Equations, Spectral Theory, Algebraic Analysis, Stochastic Analysis, Functional Analysis
Mathematical Structures	Introduction to Mathematical Structures, Algebraic Structures, Group Structures, Lie Algebras, Infinite Dimensional Structures, Representation Theory
Mathematical Analysis	Introduction to Mathematical Analysis, Nonlinear Analysis, Stochastic Processes, Numerical Analysis, Mathematical Statistics, Mathematical Control Theory
Discrete Mathematics	Introduction to Discrete Mathematics, Mathematical Logic, Foundations of Mathematics, Information Theory, Computational Mathematics, Combinatorics
Others	Special Lectures on Mathematical Sciences

Seminars

Master's Program:

Interdisciplinary Seminar, Basic Seminar, Advanced Seminar, Multi-Disciplinary Seminar

Ph.D. Program:

Ph.D. Seminar on Mathematical Sciences, Special Advanced Seminar

Degrees

Master of Mathematical Sciences

Ph.D. (Mathematical Sciences)



Facilities

Library

- The present collection includes:
about **164,000** volumes and **1,700** periodicals.
The library is used by a large number mathematicians from all over the world.

International Exchange

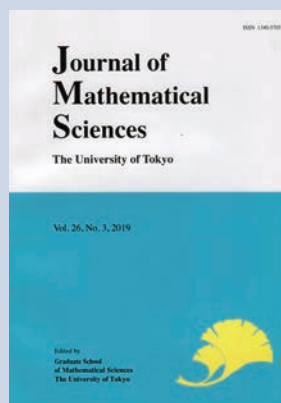
- Foreign visitors between April 2017-March 2020
Long-term (more than one month) **16** visitors
Short-term (less than one month) **314** visitors

Number of Students (per year)

- Undergraduate students : **45**
- Master's program : **53** (with at least **6** foreign students)
- Ph.D. program : **32** (with at least **3** foreign students)

Publications

- Journal of Mathematical Sciences
- Preprint series
- Lecture Notes in Mathematical Sciences
- Annual Report



Seminars for Researchers

The Departmental Colloquium is held once every month. It had a long history as the “Friday Colloquium” before the formation of the new department. Speakers include distinguished experts in various areas of mathematical sciences as well as members of the department. The talks are expected to be accessible to non-specialists in the field and students are encouraged to attend to broaden their mathematical background.

In addition, the following research seminars are organized by the staff of the department according to their specialties. Most of them are held on a weekly basis and last for an hour or two. They provide opportunities for mathematicians in the Tokyo area to meet and talk face to face. Currently these include the seminars listed below.

- Algebraic Analysis
- Algebraic Geometry
- Analysis
- Applied Analysis
- Applied Mathematics
- Arithmetic of Automorphic Forms
- Classical Analysis
- Demography and Mathematical Biology
- Discrete mathematical modelling seminar
- Functional Analysis
- Geometric Complex Analysis
- Geometry
- Harmonic Analysis
- Integrable Systems
- Kavli IPMU Komaba Seminar
- Lie Groups and Representation Theory
- Mathematical Finance
- Mathematical Past of Asia
- Mathematical sciences and society
- Mathematics for Various Disciplines
- Number Theory
- Numerical Analysis
- Operator Algebra
- PDE Real Analysis
- Probability
- Probability and Statistics
- Real and Harmonic Analysis
- Topology
- FMSP Lectures



Colloquium



Seminar on Geometric Complex Analysis



Common Room

Access

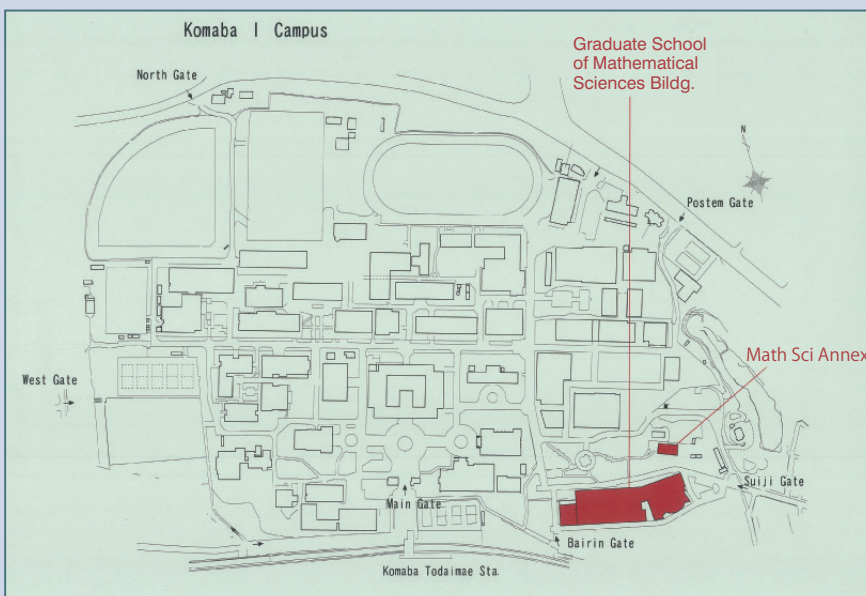
Komaba Campus

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Location: Mathematical Sciences Building
2 min. walk from Komaba-todaimae Station
(Keio Inokashira Line)

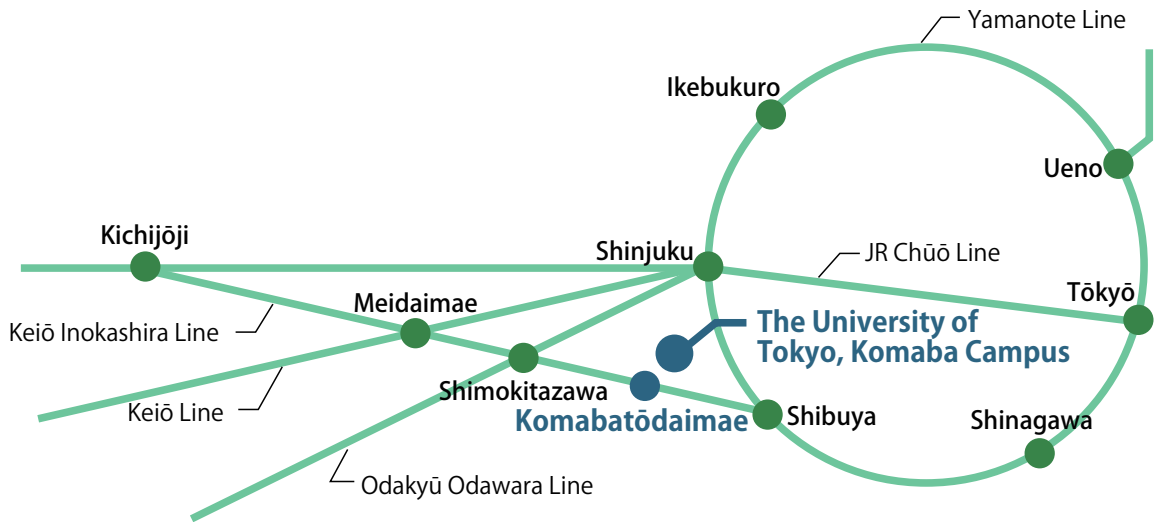
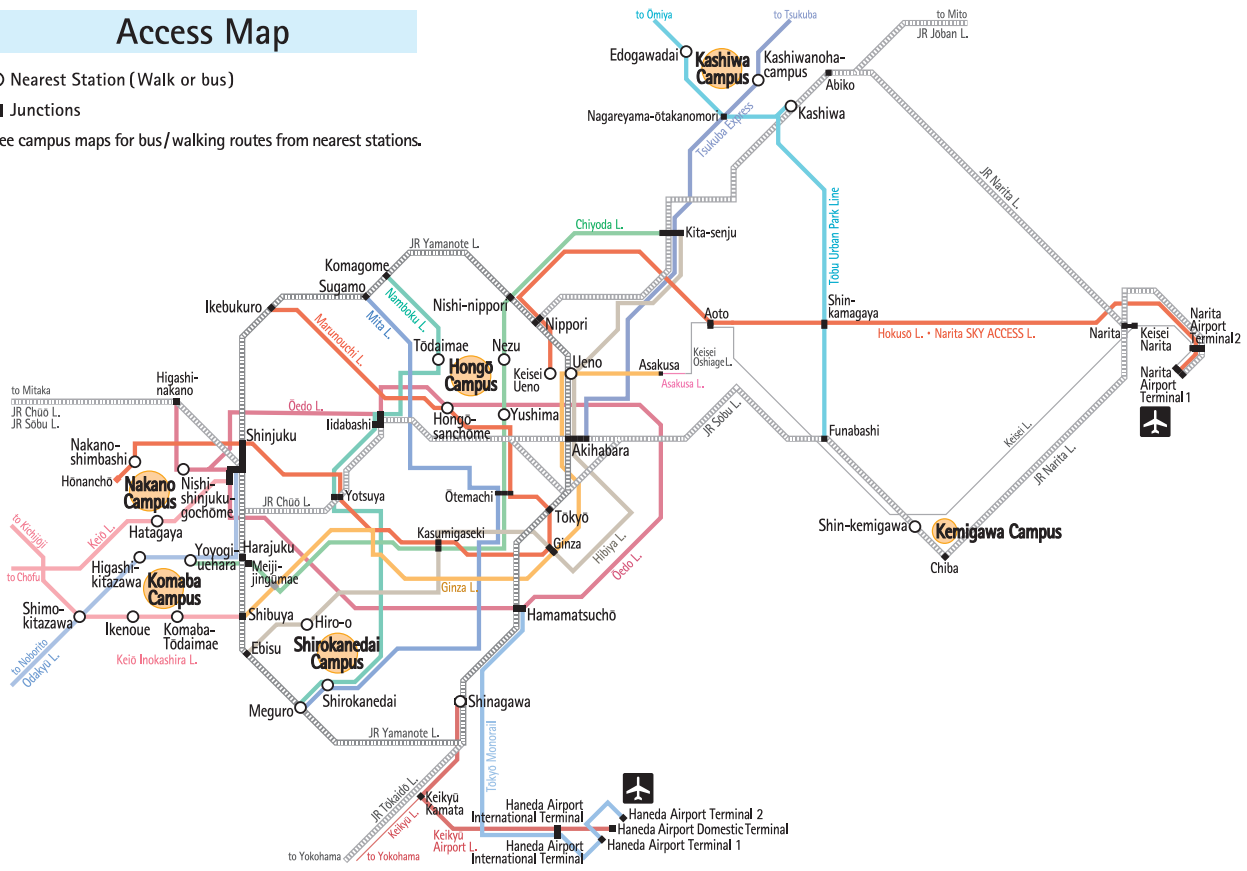


Access Map

○ Nearest Station (Walk or bus)

■ Junctions

See campus maps for bus/walking routes from nearest stations.





**Graduate School of Mathematical Sciences
The University of Tokyo**

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