

This is an English version of the application guideline. If you would like to apply for it, please make contact in advance with a professor of our graduate school whose specialized field matches your research field. The list of professors can be found in our web page.

<http://www.math.kyushu-u.ac.jp/eng/teachers/index>.

**2018**  
**Graduate School of**  
**Mathematics,**  
**Kyushu University**  
**Doctoral Course**

**Guideline for Special Screening of**  
**International Students for**  
**Admission in October, 2018**



## 1. Department and number of students to be admitted

Department	Courses	Number of Students	Note
Mathematics	Mathematics	A few	The number shall not exceed the quota for the department in the Graduate School of Mathematics.
	Functional Mathematics	A few	

## 2. Qualification for application

Applicants must be citizens of countries other than Japan with Status of Residence “Student” (including those who are expected to acquire this status after being admitted), and satisfy one of the following requirements:

- (1) Those who hold or are to receive a degree equivalent to a Master’s Degree in countries other than Japan by September 30, 2018.
- (2) Those who are evaluated to have an academic ability equal to or surpassing that of a holder of a Master’s Degree in a Preliminary qualification examination of the Graduate School (see the note below), and who will be 24 years old or older by September 30, 2018.

(Note) “(2) Those who are evaluated to have an academic ability equal to ....” applies to those applicants who do not satisfy (1), and who have completed a course at an educational institute equivalent to a graduate school.

### (Note) Preliminary qualification examination for application

Applicants who qualify under (2) above must submit themselves to a Preliminary qualification examination for application. Such an applicant must submit the application form and other relevant documents to the Student Support Office, Graduate School of Science by the deadline specified below, after receiving an approval from his/her prospective supervisor.

Applicants who have passed the qualification examination are qualified to take the entrance examination, and the application form and other relevant documents submitted by the applicants will be accepted.

Examination card and relevant documents will be sent to applicants after payment of the application fee is confirmed. The application documents submitted by those who have been judged as “not qualified” shall be returned.

- Application period for the Preliminary qualification examination for application:  
July 9 (Mon) to July 13 (Fri), 2018
- Announcement of the Preliminary qualification examination for application result will be notified to applicants promptly.

### 3. Documents to be submitted

- (1) Application form and Resume (use the form provided by the Graduate School)
- (2) Academic Transcript and Certificate of Completion (or expected completion) issued by the educational institution from which the applicant last graduated (copies not accepted)
- (3) Master's thesis (A copy is acceptable. If the thesis is written in a language other than Japanese or English, a summary of Master's thesis written in Japanese or in English must be attached. For applicants who cannot submit Master's thesis, submit documents of research achievement such as academic papers.)
- (4) Certificate of Japanese or English language ability
- (5) Copies of both sides of Resident Card or Residence Certificate (only for those living in Japan)
- (6) Application fee (30,000 yen). The Application fee is not required for students who are currently Japanese Government MEXT Scholars.

Application fee must be paid either (i) at a convenience store or (ii) by credit card after registering at the following website ("e-shiharai site", <https://e-shiharai.net/>). (Payment (i) at a convenience store is available only in Japan.)

For details of the payment method, please refer to "How to make the payment for the Application fee at a convenience store, by credit card, Union Pay or Alipay" on page 9 of this guideline. The transfer fee should be covered by the applicant.

(i) Payment at convenience stores

Paste "入学検定料・選考料・取扱明細書 (Certificate of payment of Application fee)" on "『入学検定料・選考料・取扱明細書』貼付用台紙" (Form for submission of the Certificate of payment of Application fee) and submit it with other application documents.

(ii) Payment by credit card

Submit the printed "Result" page with other application documents.

(iii) Payment period: July 17 (Tue), 2018 to July 27 (Fri), 2018

(Note) For inquiries regarding e-shiharai site such as the steps, applicants should check the information on the website (<https://e-shiharai.net/Syuno/FAQ.html>), "FAQ" or "Common questions", and if you have any further questions, please ask E-service support center directly.

- Application fee for those who intend to go on to the Doctoral Course of Graduate School of Mathematics from a Master's Course of Kyushu University is as follows.

Those who satisfy one of the following are exempt from application fee.

1. Those who will complete a Master's Course at Kyushu University in September, 2018, and intend to go on to the Doctoral Course of Graduate School of Mathematics.
2. Those who will complete the second year of 5-years doctoral course at Kyushu University obtaining the master's degree in September, 2018, and intend to go on to the Doctoral Course of Graduate School of Mathematics.

3. Those who will complete a professional degree course of a graduate school at Kyushu University in September, 2018, and intend to go on to the Doctoral course of Graduate School of Mathematics.
  4. Under 3 requirements above, those who have completed a Master's Course within last one year and satisfy any of the following:
    - (1) Those who complete a Master's Course etc. during 2018 due to a leave of absence or study abroad.
    - (2) Those who complete a Master's Course etc. during 2018 due to the autumn enrollment.
- (Note) If you have any questions, please make contact in advance with the Student Support Office, Graduate School of Science.

- (7) Two photos of the applicant (taken within three months), should be attached to the application form.
- (8) A self-addressed and stamped (82 yen) envelope, for sending the examination card and other documents to the applicant. The envelope is not necessary for those who are students of the Kyushu University. Applicants who take the Preliminary qualification examination for application are required to submit two envelopes.

**(Note) Applicants who take the Preliminary qualification examination for application are required to submit the following documents in addition to the documents above.**

- a. Research plan: two sets (Write horizontally on A4 size papers with approx. 2,000 characters in Japanese or 1,300 words in English, about the applicant's intended research after entering the Graduate School.)
- b. Certificate of research history (prepared by the president or the dean of the educational institution from which the applicant last graduated).

(Notes for preparing documents)

- 1) Documents must be written either in Japanese or in English. (Documents prepared by word processors are acceptable.)
- 2) In case any of the documents are written in a language other than Japanese or English, attach Japanese or English translation.

**4. Application period:** July 23 (Mon) to July 27 (Fri), 2018

**5. Application documents should be sent to:**

Student Support Office, Graduate School of Science,  
Kyushu University, 744 Motoooka, Nishi-ku, Fukuoka 819-0395, Japan

(Notes for submitting documents)

1. Write “Application form for Doctoral Course of the Graduate School of Mathematics enclosed” in red on the front of the envelope.
2. The application form and other related documents can be accepted in person at Student Support Office, Graduate School of Science, from 8:30 a.m. to 5:00 p.m. on weekdays, except national holidays. When mailing the documents, use a registered mail and make sure the documents arrive before the deadline.

## **6. Screening process**

Screening is based on documents submitted, and examination will be conducted if needed.

- (1) The examination consists of a written examination or an oral interview about specialized course, foreign language and Japanese language.
- (2) Details of the examination will be notified after the application documents are received.

## **7. Date of examination**

August 21 (Tue), 2018

## **8. Place of examination**

Graduate School of Mathematics, Kyushu University  
744 Motooka, Nishi-ku, Fukuoka 819-0395, Japan

(For details, see “Information” enclosed with the examination card.)

## **9. Announcement of screening result and enrollment procedure**

- (1) Date and time: August 29 (Wed), 2018, 10:00 a.m.
- (2) Method of notification: The result will be posted on the public notice board at the entrance hall of West 1- C-2F in Ito campus, and also surface mailed to all successful applicants. The application ID numbers of successful applicants will also be posted on the website of the Faculty of Mathematics (<http://www.math.kyushu-u.ac.jp/>) after 10:00 a.m. No direct inquiries about the result (such as by phone or by e-mail) will be accepted.
- (3) Procedure for enrollment: See the “Enrollment Procedure Guidelines” enclosed with the acceptance letter.
- (4) Admission fee, tuition:

Admission fee: 282,000 yen (to be paid by the end of September, 2018)

Tuition: 267,900 yen (annual total 535,800 yen)

(Note) The amounts above are subject to change without prior notice.

Foreign students under Japanese Government MEXT Scholarship are not required to make the payments for the admission fee or for the tuition.

## 10. Brief description of the courses

The Doctoral Course consists of two courses.

### ○ Mathematics Course

In Mathematics Course, students are to perform their own research in mathematics. The main goal is to become researchers and/or educators in mathematics. Those who complete this course will receive the degree of the Doctor of Philosophy in Mathematics.

### ○ Functional Mathematics Course

In Functional Mathematics Course, students are to acquire broader mathematical knowledge and to learn how to apply them to the real world. The goal is to become a person who can lead the future society by making use of expertise in mathematics, especially its logical thinking and general versatility. Those who complete this course will receive the degree of the Doctor of Philosophy in Functional Mathematics. Following are required as compulsory subjects.

#### 1. Internship in Functional Mathematics

This is a long-term internship program (over 3 months), which is intended to understand how to leverage mathematics and how to attune themselves to the real world by undertaking work experience.

#### 2. Special Lectures in Functional Mathematics

Researchers and technical experts who are working in the front lines of the mathematics fields give lectures.

※ Transfer between the above two courses is not allowed in principle.

## 11. Applicants with Disabilities

Kyushu University provides consultation for applicants with disabilities who may require special arrangements during the entrance examinations or in classes after enrollment.

Please contact the Student Support Office of Graduate School of Science prior to the application process as soon as possible as it sometimes takes extra time to decide on the arrangements depending on the situation.

No special arrangements will be made, if there is no contact by July 13, 2018.

## 12. Period-extension System

Kyushu University has introduced the Period-extension system. This system enables those who are employed or have disabilities or other difficulties to complete a Doctoral course over longer period than the regular period. Once declaration is acknowledged, the total tuition fee will be the same as that for the regular period. In addition, the application details of this system will be explained detailed upon notification of the entrance formalities.

### **13. Miscellaneous remarks**

- (1) Any documents submitted, such as application forms, will not be returned and screening fee will not be reimbursed.
- (2) An admission may be cancelled, if there is any wrongdoing or misconduct related to application documents.
- (3) For more details of the screening, please contact the address at the bottom of this page.

#### **o Use of Personal Information**

1. Personal information provided for your application will be used exclusively for Kyushu University's screening process and the following purposes:
  - (1) The addresses, names, etc. of the successful applicants may be used for enrollment procedures, etc.
  - (2) Academic transcript that issued by the previous university will be used for financial aid when those are in first grade.
2. Academic records and other personal information used for screening of applicants may be used, in a form in which the individual is unidentifiable, for surveys and research concerning the screening of applicants for the Graduate School of Mathematics.
3. Personal information provided for your application will not be used for any other purposes or provided to a third party without your permission, except in cases stipulated in Article 9 of the Act on the Protection of Personal Information Held by Incorporated Administrative Agencies, etc.

<p>Student Support Office, Graduate School of Science, Kyushu University 744 Motooka, Nishi-ku, Fukuoka 819-0395, Japan Phone (+81)-92-802-4038 Email <a href="mailto:rixgksien@jimu.kyushu-u.ac.jp">rixgksien@jimu.kyushu-u.ac.jp</a></p>
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## List of faculty of the Graduate School of Mathematics, Kyushu University

### Professors

Name	Research Keywords
Katsuki FUJISAWA	Optimization Software, Graph Analysis, High-performance Computing
Yasuhide FUKUMOTO	Fluid Mechanics
Takashi HARA	Mathematical Physics
Fumio HIROSHIMA	Quantum Field Theory, Operator Theory and Spectral Analysis, Functional Integrations
Yuzuru INAHAMA	Stochastic Analysis, Rough Path Theory
Norio IWASE	Topology, Algebraic Topology
Yoshiyuki KAGEI ***	Partial Differential Equations
Kenji KAJIWARA	Discrete Differential Geometry, Integrable Systems
Masanobu KANEKO	Number Theory
Atsushi KATSUDA	Differential Geometry
Hidefumi KAWASAKI **	Optimization Theory, Game Theory, Origami Mathematics
Shinichi KOBAYASHI	Number Theory
Miyuki KOISO	Differential Geometry
Yoshihiko MAESONO	Mathematical Statistics
Hiroki MASUDA	Mathematical Statistics, Stochastic Process
Taku MATSUI	Mathematical Physics
Yoshihiro MIZOGUCHI	Software Science, Graph Transformation, Theory of Computing
Masanori MORISHITA	Arithmetic Topology
Ryuei NISHII *	Data Science
Takaaki NOMURA *	Geometric Harmonic Analysis
Hiroyuki OCHIAI	Algebraic Analysis, Representation Theory, Special Function
Hirofumi OSADA	Probability Theory
Osamu SAEKI	Topology, Singularity Theory, Differential Topology, DNA Knots
Tomoyuki SHIRAI	Probability Theory
Toshio SUMI ※	Topology, Transformation Groups
Setsuo TANIGUCHI ※	Stochastic Analysis
Masato TSUJII	Dynamical Systems
Yasuo WATATANI *	Theory of Operator Algebras
Lin WENG	Algebraic and/or Arithmetic and/or Complex Geometry, Number Theory

※: Those who are affiliated with the Faculty of Arts and Science.

\*: Those who will retire on the end of March, 2019.

\*\* : Those who will retire on the end of March, 2021.

\*\*\*: Those who will not accept new students in October 2018.



## Associate Professors

Name	Research Keywords
Takuro ABE	Arrangements of Hyperplanes, Algebraic Geometry
Hayato CHIBA	Differential Equations, Dynamical Systems, Functional Analysis
Kang-Chi CHO **	Algebraic Geometry, Complex Differential Geometry
Yasuro GON	Number Theory
Kazuhiro HIKAMI	Mathematical Physics
Kei HIROSE	Computational Statistics, Machine Learning
Yutaka ISHII	Dynamical System Theory
Shizuo KAJI	Topology, Algebraic topology, Applied topology
Joe KAMIMOTO	Complex Analysis, Partial Differential Equations
Naoyuki KAMIYAMA	Discrete Optimization
Takuya KONNO	Number Theory, Arithmetic Theory of Automorphic Forms
Toshihiko MASUDA	Operator Algebras
Shunsaku NII	Dynamical Systems
Yukio OTSU	Differential Geometry
Pierluigi CESANA	PDEs, Calculus of Variations, Gamma-convergence, Materials Science
Shingo SAITO ※	Classical Real Analysis, Multiple Zeta Values, Actuarial Science
Hirofumi SASAHIRA	Topology, Gauge Theory, Floer Theory
Daisuke TAGAMI	Numerical Analysis
Ryo TAKADA	Nonlinear Partial Differential Equations, Harmonic Analysis
Toshie TAKATA	Topology, Quantum Groups
Yuichiro TAKEDA	Algebraic Geometry, Topology
Atsushi TERO	Mathematical Model
Hayato WAKI	Continuous Optimization, Optimization Software
Masaya YASUDA	Elliptic Curve Cryptography, Homomorphic Encryption, Algebraic Geometry
Hiroshi YOSHIDA	Mathematical Biology on Regeneration

※: Those who are affiliated with the Faculty of Arts and Science.

\*\* : Those who will retire on the end of March, 2021.