

# Guidelines for Application

## **Graduate School of Mathematics, Kyushu University (Master's Course, Doctoral Course)**

### **International Programs in Mathematics**

Special Screening for Admission  
in October, 2012

Graduate School of Mathematics, Kyushu University

Motooka 744, Nishi-ku, Fukuoka 819-0395, Japan

TEL: +81-92-802-4402

FAX: +81-92-802-4405



**International Master's Program in Mathematics**

**International Doctoral Program in Mathematics**

**These two programs offer a wide range of lectures, with topics ranging from pure mathematics such as algebra and geometry to applied mathematics such as probability, statistics, and computational mathematics. The doctoral students may also participate in long-term internships (more than three months) at Japanese firms, provided that they meet the required conditions.**

**For details, please visit the following websites:**

**Graduate School of Mathematics**

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

<http://www.math.kyushu-u.ac.jp/eng/entryexams/view/1>

**Kyushu University**

<http://www.isc.kyushu-u.ac.jp/g30/index.html>

<http://www.isc.kyushu-u.ac.jp/g30/programs-g.html>

**For information on financial aid, please visit the following websites:**

<http://www.isc.kyushu-u.ac.jp/intlweb-e/admission/index.htm>

<http://www.isc.kyushu-u.ac.jp/intlweb-e/student/page1-34/page010.htm>

<http://www.isc.kyushu-u.ac.jp/intlweb-e/student/page1-34/page011.htm>

## Master's Program

**Those applying for the 2012 International Master's Program in Mathematics, the Graduate School of Mathematics at Kyushu University, should follow the following procedures. The course will commence on Monday, October 1, 2012. All lectures and guidance will be given in English.**

**If you are interested in the application, please make contact with a professor or an associate professor of our graduate school whose area of expertise most closely matches your research topic, prior to the application. The list of our staffs can be found on pages 13-14 and on our web page <http://www.math.kyushu-u.ac.jp/eng/teachers/index>.**

### **1. Department and number of students for admission**

Department	Course	Number accepted
Department of Mathematics	Mathematics	5

Mathematics Course offers guidance on researches in Mathematics and Mathematical Sciences and on writing a Master's Thesis. A successful student will be awarded a Master's Degree in Mathematics (Master of Mathematics).

### **2. Qualification for application**

Applicants must be citizens of countries other than Japan and satisfy one of the following requirements:

- (1) Those who have completed 16 years of formal education in countries other than Japan (including those who are expected to complete such education by September 2012).
- (2) Those who have completed 15 years of formal education in countries other than Japan, and are judged by the Graduate School to have obtained all necessary credits with excellent academic records.
- (3) Those who are evaluated in an individual screening of requirements for admission of the Graduate School to

have an academic ability equal to or surpassing those who have graduated from a university, and who will be 22 years old or over on September 30, 2012.

(Note) “(3) Those who are evaluated in an individual screening of requirements for admission of the Graduate School ...” applies to those applicants who do not satisfy requirements (1) or (2), and who have completed a course at an institution with educational functions equivalent to those of a university.

**(Note) Preliminary qualification examination for application**

Applicants who qualify under (2) or (3) 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 Affairs Office, Graduate School of Social and Cultural Studies, by the deadline specified below, after receiving an approval from his/her planned supervisor.

Applicants who have passed the qualification examination are qualified to take the entrance screening examination, and the application form and other relevant documents submitted by such applicants shall be accepted after payment of the screening fee is confirmed. Documents submitted by those who have been judged to be “not qualified” for application as a result of the preliminary examination shall be returned.

- Application period: March 5 (Mon.) to March 16 (Fri.), 2012
- Notification of qualification examination result: March 30 (Fri.), 2012

**3. Documents to be submitted**

- (1) Application form and curriculum vitae (use the form specified by the Graduate School)
- (2) Official academic transcript, graduation certificate (or certificate that confirms expected graduation), and recommendation letter issued by the institution from which the applicant last graduated (copies not accepted)
- (3) Recommendation letter issued by the applicant’s supervising professor, a member of teaching staff, or a supervisor in the employing body who has personal knowledge of the applicant and who is familiar with the details of the applicant’s academic accomplishments (The letter must be in a sealed envelope as it is confidential.)
- (4) Bachelor’s thesis (A copy is acceptable. If the thesis is written in a language other than Japanese or English, an abstract in Japanese or in English should be attached. In case the applicant cannot submit his/her Bachelor’s thesis, submit a document in which the applicant’s major academic activities and research achievements are described instead.)
- (5) Hand written report on the following two themes (Use 2-5 sheets of A4-size paper.)
  - a. Mathematical theorems or theories that you think interesting, or Mathematics textbooks that you have read or are

reading together with the summary of their contents.

- b. Research plan in the graduate school, including the reason why you chose the specified professor as your planned supervisor.

(6) Certificate of English language ability, unless the applicant is a native speaker of English (If the applicant has taken a standardized English proficiency test, such as TOEFL (Test of English as a Foreign Language), IELTS (International English Language Testing System, Academic Module) or Cambridge ESOL Examinations (FCE, CAE or CPE), submit the applicant's official score.)

(7) Copy of your passport

(8) Certificate of alien registration (submitted only by those currently residing in Japan)

(9) 3 photos of yourself (taken within 3 months, 5.5 cm × 4.5 cm, to be affixed to the application form)

(10) Receipt of payment of screening fee (Submit a copy of the receipt issued by the bank upon payment of your screening fee in the method described in item 4 below.)

(Note) Applicants who are subject to a preliminary examination must submit the certificate of research history (prepared by the President or the Dean of the university from which the applicant last graduated or by the head of the institution the applicant belongs to), in addition to the documents specified above.

(Notes for preparing documents)

- a. All documents should be prepared either in Japanese or in English. (Use of a word processor or PC is acceptable except for the hand written report mentioned in (5).)
- b. If any of the necessary documents is prepared in a language other than Japanese or English, a Japanese or English translation should be attached.

#### **4. Screening Fee**

Pay the screening fee by telegraphic transfer.

All necessary expenses for the telegraphic transfer shall be borne by the remitter.

Write "Screening Fee" in the space for "Purpose of Remittance", as well as your name, nationality and the name of the program to which you wish to be admitted (2MA) in the space for "Message to Payee".

Screening Fee	30,000 yen
Bank	Sumitomo Mitsui Banking Corporation
Branch	Fukuoka Branch
Account Type	Saving Account
Account Number	7119240
Account Holder	Kyushu University, National University Corporation
SWIFT Code	SMBC JP JT

(Note)

- Entrance screening fee is not required for students under MEXT scholarship.
- Payment must be made on or after March 12 (Mon.), 2012.

**5. Application period:** April 2 (Mon.) to April 27 (Fri.), 2012

Note that all documents must arrive by April 27, 2012.

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

Student Affairs Office, Graduate School of Social and Cultural Studies, Kyushu University  
744 Motoooka, Nishi-ku, Fukuoka 819-0395, Japan

(Notes for submitting documents)

- a Write “Application form for Master’s Course of the Graduate School of Mathematics enclosed” in red on the front of the envelope.
- b The application form and other related documents shall be accepted from 8:30 a.m. to 5:00 p.m. on weekdays, except national holidays. All documents must be sent via air registered mail, such as DHL, FedEX, OCS or EMS. Make sure the documents arrive before the deadline.

**7. Procedures for screening**

Screening of applicants is conducted mainly based on the documents submitted. Academic examination by telephone or internet will be arranged when necessary. In that case, academic examination shall be given on the applicants’ specialized subjects, and English language, in written or oral form. Applicants applicable to such academic examination will be informed of the method and schedule after their application documents have been accepted.

## **8. Notification of screening result and enrollment procedure**

The application ID numbers of successful applicants will be posted on the website as follows. The result will also be mailed on the same date to the address written on the application form.

- (1) Website: <http://www.math.kyushu-u.ac.jp/eng/>
- (2) Date and time: May 31(Thur.), 2012, 10:00 a.m. (Japan time)
- (3) Confirmation of your intention to enroll: Once you are admitted, and if you still wish to enroll at Kyushu University, make sure to send the signed form for Confirmation of Intention to Enroll, enclosed in your result announcement document, to the address below by the designated date via fax or mail. If you mail the confirmation form, use air registered mail, such as DHL, FedEx, OCS or EMS.

Mailing Address: Student Affairs Office, Graduate School of Social and Cultural Studies, Kyushu University  
744 Motoooka, Nishi-ku, Fukuoka 819-0395, Japan  
Fax: +81-92-802-5791

- (4) Procedure for enrollment: See the “Enrollment Procedure Guidelines” enclosed with the acceptance letter.
- (5) Admission fee, tuition: Admission fee: 282,000 yen (to be paid by the end of September 2012)  
Tuition: 267,900 yen per semester (total 535,800 yen annually)

(Note) The payment amounts above are subject to change. If amounts are revised at the time of or after enrollment, the new amounts will be applied after such revision. Students under MEXT scholarship are not required to make the payments.

## **9. Miscellaneous remarks**

- (1) The documents submitted such as application forms and the screening fee paid will not be returned.
- (2) If any false statement is found in any of the application documents after admission, the admission may be cancelled.
- (3) For more details of the screening, please contact:

Student Affairs Office, Graduate School of Social and Cultural  
Studies, Kyushu University  
744 Motoooka, Nishi-ku, Fukuoka 819-0395, Japan  
TEL: +81-92-802-5786  
FAX: +81-92-802-5791  
E-mail: [hbddaiga@jimu.kyushu-u.ac.jp](mailto:hbddaiga@jimu.kyushu-u.ac.jp)

## Doctoral Program

Those applying for the 2012 International Doctoral Program in Mathematics, the Graduate School of Mathematics at Kyushu University, should follow the following procedures. The course will commence on Monday, October 1, 2012. All thesis work will be carried out in English.

If you are interested in the application, you are required to make contact with a professor or an associate professor of our graduate school whose area of expertise most closely matches your research topic, prior to the application. The list of our staffs can be found on pages 13-14 and on our web page <http://www.math.kyushu-u.ac.jp/eng/teachers/index>.

### 1. Department and number of students for admission

Department	Course	Number accepted
Department of Mathematics	Mathematics	3

In Mathematics course, students are expected to carry out researches on Mathematics and Mathematical Sciences from theoretical viewpoints aiming at being an educator and/or a researcher of Mathematics after completion. A successful student will be awarded a Doctoral Degree in Mathematics (Doctor of Mathematics). Students may also participate in long-term internships (more than three months) at Japanese firms, provided that they meet the required conditions.

### 2. Qualification for application

Applicants must be citizens of countries other than Japan 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 2012.
- (2) Those who are evaluated in an individual screening of requirements for admission of the Graduate School to

have an academic ability equal to or surpassing that of a holder of a Master's degree, and who will be 24 years old or over on September 30, 2012.

(Note) “(2) Those who are evaluated in an individual screening of requirements for admission of the Graduate School ...” applies to those applicants who do not satisfy requirement (1), and who have completed a course at an institution with educational functions equivalent to those of 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 Affairs Office, Graduate School of Social and Cultural Studies, by the deadline specified below, after receiving an approval from his/her planned supervisor.

Applicants who have passed the qualification examination are qualified to take the entrance screening examination, and the application form and other relevant documents submitted by such applicants shall be accepted after payment of the screening fee is confirmed. Documents submitted by those who have been judged to be “not qualified” for application as a result of the preliminary examination shall be returned.

- Application period: March 5 (Mon.) to March 16 (Fri.), 2012
- Notification of qualification examination result: March 30 (Fri.), 2012

**3. Documents to be submitted**

- (1) Application form and curriculum vitae (use the form specified by the Graduate School)
- (2) Official academic transcript (of all applicable undergraduate and graduate course work), completion certificate (or certificate that confirms expected completion), and recommendation letter issued by the institution from which the applicant last graduated (copies not accepted)
- (3) Recommendation letter issued by the applicant's supervising professor, a member of teaching staff, or a supervisor in the employing body who has personal knowledge of the applicant and who is familiar with the details of the applicant's academic accomplishments (The letter must be in a sealed envelope as it is confidential.)
- (4) Master's thesis (A copy is acceptable. If the thesis is written in a language other than Japanese or English, an abstract in Japanese or in English should be attached. In case the applicant cannot submit his/her Master's thesis, submit a document in which the applicant's major academic papers and research achievements are listed instead.)
- (5) Certificate of English language ability, unless the applicant is a native speaker of English (If the applicant has taken a standardized English proficiency test, such as TOEFL (Test of English as a Foreign Language), IELTS

(International English Language Testing System, Academic Module) or Cambridge ESOL Examinations (FCE, CAE or CPE), submit the applicant's official score.)

- (6) Copy of your passport
- (7) Certificate of alien registration (submitted only by those currently residing in Japan)
- (8) 3 photos of yourself (taken within 3 months, 5.5 cm × 4.5 cm, to be affixed to the application form)
- (9) Receipt of payment of screening fee (Submit a copy of the receipt issued by the bank upon payment of your screening fee in the method described in item 4 below.)

(Note) Applicants who are subject to a preliminary examination must submit the documents below, in addition to the documents specified above.

- a. Research plan: 2 sets (Write horizontally in A4-size paper with approx. 1,300 words in English about what you intend to study after enrolling. One photocopied version may be accepted.)
- b. Certificate of research history (Submit a certificate showing the outline of the research prepared by the head of the institution the applicant belongs to.)

(Notes for preparing documents)

- a. All documents should be prepared either in Japanese or in English. (Use of a word processor of PC is acceptable.)
- b. If any of the necessary documents is prepared in a language other than Japanese or English, a Japanese or English translation should be attached.

#### 4. Screening Fee

Pay the screening fee by telegraphic transfer.

All necessary expenses for the telegraphic transfer shall be borne by the remitter.

Write "Screening Fee" in the space for "Purpose of Remittance", as well as your name, nationality and the name of the program to which you wish to be admitted (3MA) in the space for "Message to Payee".

Screening Fee	30,000 yen
Bank	Sumitomo Mitsui Banking Corporation
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Account Type	Saving Account
Account Number	7119240
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744 Motoooka, Nishi-ku, Fukuoka 819-0395, Japan

(Notes for submitting documents)

- a. Write “Application form for Doctoral Course of the Graduate School of Mathematics enclosed” in red on the front of the envelope.
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- (2) Date and time: May 31 (Thur.), 2012, 10:00 a.m. (Japan time)
- (3) Confirmation of your intention to enroll: Once you are admitted, and if you still wish to enroll at Kyushu University, make sure to send the signed form for Confirmation of Intention to Enroll, enclosed in your result announcement document, to the address below by the designated date via fax or mail. If you mail the confirmation form, use air registered mail, such as DHL, FedEx, OCS or EMS.

Mailing Address: Student Affairs Office, Graduate School of Social and Cultural Studies, Kyushu University  
744 Motoooka, Nishi-ku, Fukuoka 819-0395, Japan  
Fax: +81-92-802-5791

- (4) Procedure for enrollment: See the "Enrollment Procedure Guidelines" enclosed with the acceptance letter.
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## 9. Miscellaneous remarks

- (1) The documents submitted such as application forms and the screening fee paid will not be returned.
- (2) If any false statement is found in any of the application documents after admission, the admission may be cancelled.
- (3) For more details of the screening, please contact:

Student Affairs Office, Graduate School of Social and Cultural Studies, Kyushu University 744 Motoooka, Nishi-ku, Fukuoka 819-0395, Japan TEL: +81-92-802-5786 FAX: +81-92-802-5791 E-mail: <a href="mailto:hbddaiga@jimu.kyushu-u.ac.jp">hbddaiga@jimu.kyushu-u.ac.jp</a>
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## List of Staffs of the Graduate School of Mathematics, Kyushu University

### Professors

Name	Research Keywords
Hirokazu ANAI* <sup>1</sup>	Computer Algebra
Shin-ichiro EI	Nonlinear Analysis
Yasuhide FUKUMOTO	Fluid Mechanics
Takashi HARA	Mathematical Physics
Norio IWASE	Topology
Yoshiyuki KAGEI	Partial Differential Equations
Kenji KAJIWARA	Mathematical Physics, Theory of Nonlinear Integrable Systems
Masanobu KANEKO	Number Theory
Atsushi KATSUDA	Differential Geometry
Hidefumi KAWASAKI	Optimization, Game Theory, Origami Math
Shuichi KAWASHIMA	Partial Differential Equations
Miyuki KOISO	Differential Geometry
Hideki KOSAKI	Functional Analysis
Yoshiyuki MAESONO	Mathematical Statistics
Taku MATSUI	Mathematical Physics
Masanori MORISHITA	Arithmetic Topology
Ryuei NISHII	Data Science
Takaaki NOMURA	Geometric Harmonic Analysis
Hiroyuki OCHIAI	Algebraic Analysis, Representation Theory, Special Function
Kanzo OKADA	Applied Mathematics
Hirofumi OSADA	Probability Theory
Osamu SAEKI	Topology, Singularity Theory, Differential Topology, DNA Knots
Tomoyuki SHIRAI	Probability Theory
Tsuyoshi TAKAGI	Cryptography, Information Security, Computational Number Theory
Setsuo TANIGUCHI	Stochastic Analysis
Shu TEZUKA	Computational Statistics
Masato TSUJII	Dynamical Systems
Masato WAKAYAMA	Representation Theory
Yasuo WATATANI	Theory of Operator Algebras
Lin WENG	Algebraic and/or Arithmetic and/or Complex Geometry, Number Theory
Masaaki YOSHIDA* <sup>2</sup>	Analytic Ordinary Differential Equations

\*1: Invited Professor from Fujitsu Laboratories Ltd. Applicable only to the Doctoral Course.

\*2: To retire on 31<sup>st</sup> March, 2013.

## Associate Professors

Name	Research Keywords
Kang-Chi CHO	Algebraic Geometry, Complex Differential Geometry
Yasuro GON	Number Theory
Kazuhiro HIKAMI	Mathematical Physics
Yasuaki HIRAOKA	Applied Mathematics for Information and Life Sciences
Fumio HIROSHIMA	Analysis
Hiroto HYAKUTAKE	Mathematical Statistics
Yutaka ISHII	Dynamical System Theory
Joe KAMIMOTO	Complex Analysis, Partial Differential Equations
Naoyuki KAMIYAMA	Discrete Optimization
Masato KIMURA	Applied Mathematics, Numerical Analysis, Free Boundary Problems
Takuya KONNO	Number Theory, Arithmetic Theory of Automorphic Forms
Osamu MARUYAMA	Computer Science, Bioinformatics
Hiroki MASUDA	Stochastic Process
Toshihiko MASUDA	Operator Algebra
Yoshihiro MIZOGUCHI	Software Science, Graph Transformation, Theory of Computing
Tetsu MIZUMACHI	Nonlinear Partial Differential Equations
Kaori NAGATOU	Numerical Verification
Shunsaku NII	Dynamical Systems
Yoshiyuki NINOMIYA	Statistics
Yukio OTSU	Differential Geometry
Craig PASTRO <sup>*3</sup>	Hopf Algebra, Quantum Groups, Theoretical Computer Science
Daisuke TAGAMI	Numerical Analysis
Yuichiro TAGUCHI	Number Theory
Masahito TAKASE	History of Modern Mathematics, Theory of Functions of Several Complex Variables
Toshie TAKATA	Topology, Quantum Groups
Yuichiro TAKEDA	Algebraic Geometry, Topology
Atsushi TERO	Mathematical Model
Yoshimichi UEDA	Functional Analysis, Free Probability Theory
Hiroshi YOSIDA	Formal Language, Multicell

\*3: Staff of the International Education Center, Kyushu University.

**Application Form**  
**Kyushu University International Programs in Mathematics**  
**Autumn 2012**

<b>Application ID Number:</b> (Leave this space blank. The space will be filled out by the University.)					
<b>1. Name in Alphabet</b>	<b>Family Name</b>	<b>First Name</b>	<b>Middle Name</b>		
<b>2. Name in Kanji (if any)</b>					
<b>3. Date of Birth (YYYY/MM/DD)</b>					
<b>4. Sex (Male:1 / Female: 2)</b>					
<b>5. Marital Status</b>					
<b>6. Nationality</b>					
<b>7. Present Status (with the name of the university attended or employer)</b>					
<b>8. Chosen Program (Master's Program or Doctoral Program)</b>					
<b>9. Residence Status in Japan<sup>#1</sup></b>					
<b>10. First Language</b>					
<b>11. Current Address</b>	<b>Address</b>				
	<b>TEL<sup>#2</sup></b>				
	<b>FAX<sup>#2</sup></b>				
	<b>E-mail (required)</b>				

**Photograph**

Attach your photograph (waist up, head uncovered and front view) here. Write your name and nationality in block letters on the back of the photo.

5.5cm □ 4.5cm

<b>12. Parental Contact Information</b>	<b>Name</b>	
	<b>Relationship to the Applicant</b>	
	<b>Address</b>	
	<b>TEL<sup>#2</sup></b>	
	<b>FAX<sup>#2</sup></b>	
	<b>E-mail</b>	
<b>13. Score Reports of English Proficiency Tests</b>	<b>Examination<sup>#3</sup></b>	
	<b>Date Taken</b>	
	<b>Score</b>	
<b>14. Research Topics</b>		
<b>15. Title of (Bachelor's or Master's) Thesis</b>		
<b>16. Name of Planned Supervisor</b>		

#1: If you do not have a residence status in Japan, write "No Residence Status" in the space.

#2: Include the country code before the phone number and fax number.

#3: Write the name of the standardized English proficiency test that you have taken, such as TOEFL (Test of English as a Foreign Language), IELTS (International English Language Testing System, Academic Module) or Cambridge ESOL Examinations (FCE, CAE or CPE), together with the category if any.

<b>Name in Alphabet</b>	
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**Curriculum Vitae: Educational Background**

(Describe your complete educational background from elementary to your most recent educational level.)

<b>Category</b>	<b>School Name</b>	<b>Location (City/Country)</b>	<b>Period of Schooling/ Requisite year of schooling</b>	<b>Period of Attendance (YYYY/MM – YYYY/MM)</b>
<b>Elementary Education</b>				
<b>Secondary Education (Junior High School)</b>				
<b>Senior Secondary Education (High School)</b>				
<b>University (undergraduate level)</b>				
<b>University (graduate level) and/or other</b>				

<b>Name in Alphabet</b>	
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**Curriculum Vitae: Employment Record (if any)**

<b>Name of organization</b>	<b>Location</b>	<b>Period of employment (YYYY/MM – YYYY/MM)</b>	<b>Position</b>	<b>Type of work</b>