

International Graduate Program for Advanced Science

# 2012 GRADUATE SCHOOL OF SCIENCE, TOHOKU UNIVERSITY





Tohoku University was founded in 1907 and is one of the oldest Universities of Japan. The School of Science began its history with the foundation of the University, and the Graduate School of Science started later in 1953. The Graduate School of Science is composed of six departments including Mathematics, Physics, Astronomy, Geophysics, Chemistry, and Earth Sciences. These departments cover the full spectrum of basic natural science. A number of research laboratories, including those on earthquake, planetary science, giant molecule research, belong to the School of Science. In addition, it has close relationship with some highly advanced research institutes at Tohoku University, such as Institute for Materials Research and Research Center for Neutrino Science. According to Thomson Reuters ESI (Essential Science Indicators) 2011 ranking of citations, Physics at Tohoku University is ranked second in Japan and tenth in the world, for example.

Tohoku University adopted an "Open-door" policy and was quick to invite students from foreign countries. One student from India and another from China enrolled as early as 1911. Moreover, Tohoku University was the first national university to admit women. The enrollment of international students has steadily increased, and now the University is internationally known as an institution providing extensive opportunities for the best and brightest students from around the world. Another policy of the University is "Research-first," which in our interpretation means performing high-level research at the University provides the best education for the students.

The International Graduate Program for Advanced Science (IGPAS) was initiated in October 2004 as one of the first International Priority Graduate Programs supported by the Ministry of Education, Culture, Sports, and Technology (MEXT). The lecture courses are taught in English, and the students are not required to learn the Japanese language although they are encouraged to learn it for daily life. Scholarships and housing opportunities are available to make campus life easier for students. Since its establishment in 2004, 31 students from 19 countries have earned Master of Science degrees, and 24 have earned Ph.D. degrees, as of September 2011.

#### **Student Voice**



1<sup>st</sup> year doctoral student in Physics Research Center for Neutrino Science (RCNS) Graduated from Tsinghua University, China in 2009

**XU Benda from China** 

Four years ago, when I was about to graduate from Tsinghua University, I came to know about the neutrino experiments going in Kamioka, Japan. I found my interest turned into experimental physics and particle physics, which made me apply for IGPAS to do the great neutrino experiment at Tohoku University

Currently I work for the Kamioka Liquid-scintillator Anti-Neutrino Detector (KamLAND), Tohoku's research facility for international collaboration of neutrino physics experiment carried out by scientists from Japan, US and EU. I am enthusiastic to work in the sense of global cooperation for intellectual wealth. In the group work of KamLAND, I get all that I value best, motivated and fulfilled.

Sendai is a beautiful and peaceful city that everyone will love. Although it is one of the metropolises, people in Sendai are very friendly. It is an ideal place to live and study.



### **1**.PROGRAM DETAILS

IGPAS is a 5-year graduate program combining a 2-year master's program and a 3-year doctoral program.

Each student is affiliated with one of 6 departments: Mathematics, Physics, Astronomy, Geophysics, Chemistry, and Earth Sciences.

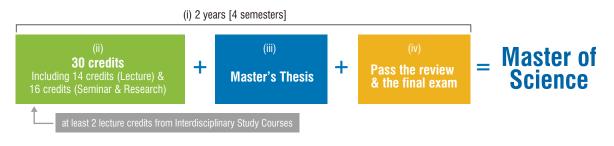
Each department determines its own curriculum and course requirements. Availability of classes varies



depending on the semester and/or departments. Students may consult their supervisor about their research plan each semester before registration.

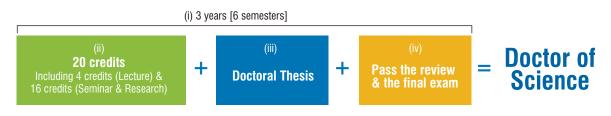
#### **Master's Program**

The master's program consists of a series of lectures, seminars and thesis research. To complete the program and to be awarded a Master of Science degree, students must fulfill the following requirements under the supervision of an academic advisor: (i) 2 years of enrollment, (ii) completion of 30 or more academic credits, including at least 2 credits from interdisciplinary-study classes and 16 credits from seminars and research. In addition, it is required to (iii) submit a master's thesis in English and (iv) pass the review and final examination. In regards to (i), however, students who receive approval from their supervisor and department may complete the program in less than the stipulated period of time if approved.



#### **Doctoral Program**

The doctoral program focuses more on research than the master's program does. To complete the program and to be awarded a Doctorate of Science degree, students must fulfill the following requirements under the supervision of an academic advisor: (i) 3 years of enrollment, (ii) completion of 20 or more academic credits, including 16 credits from seminars and research. In addition, it is required to (iii) submit a doctoral thesis in English, and (iv) pass the review and final examination. In regards to (i), however, students who receive approval from their supervisor and department may complete the program in less than the stipulated period of time if approved.





### **2.**ELIGIBILITY FOR IGPAS

Applicants for IGPAS must satisfy <u>ONE</u> of the following conditions.

Those who do not meet condition (i) must contact the IGPAS Admissions Office by **November 14, 2011** to confirm if they are eligible to apply under condition (ii) or (iii). Some of them may be required to take a preliminary screening in advance of the application

#### Master's Program -

- (i) Those who have graduated, or will graduate, from a university<sup>[1]</sup> by September 30, 2012.
- (ii) Those who have completed, or are expected to complete, a total of 15 years of school education<sup>[2]</sup> by September 30, 2012 and have been recognized by the Graduate School of Science to have performed well in classes related to the field of study.
- (iii) Those who have reached 22 years of age by September 30, 2012 and have been recognized by the Graduate School of Science, through individual qualification examinations, to have a scholastic ability equivalent or superior to those who have graduated from a university.

#### **Doctoral Program** -

- (i) Those who have earned, or will earn, a master's degree by September 30, 2012.
- (ii) Those who have engaged in research activities for at least 2 years at an educational or research institution after graduation from a university<sup>[1]</sup> and have been recognized by the Graduate School of Science on the basis of their research performance to have a scholastic ability equivalent or superior to those who have earned a master's degree.
- (iii) Those who have reached 24 years of age by September 30, 2012 and have been recognized by the Graduate School of Science through individual qualification examinations to have scholastic ability equivalent or superior to those who have earned a master's degree.

#### Footnotes

- [1] The term "graduated from a university" means a total of 16 years of educational programs, which consists of **12 years** of school education and a 4- year undergraduate (bachelor) program.
  - e.g. Educational programs in Japan: Elementary (primary) school ------ 6 years Junior high (secondary) school ------ 3 years Senior high (higher secondary) school ------ 3 years University (undergraduate) ----- 4 years ------
- [2] The term "complete a total of 15 years of educational programs" means completion of a 3-year undergraduate (bachelor) program, or finishing the 3rd year of an undergraduate program, in addition to **12 years** of school education.





## **3.**FEES AND EXPENSES

As of 2011, the application fee is 30,000 JPY, the admission fee is 282,000 JPY, and the tuition is 267,900 JPY per semester (535,800 JPY per year). Students may apply for admission and/or tuition fee waivers, but the competition for the waivers is very tight.

Overall living expenses in Sendai, including rent, utilities, food, transportation, and so forth, may range from 80,000 to 150,000 JPY depending on conditions. For visa application, incoming students may need to have a financial support or enough savings to bear expenses incurred during your stay in Japan.

## **4.**FINANCIAL SUPPORT

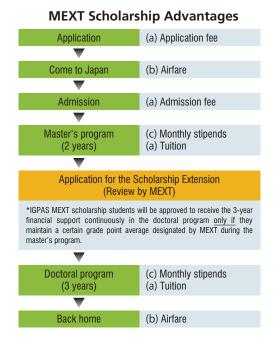
#### Master's Program: MEXT scholarship for 8 students

IGPAS is one of the educational programs selected by the Ministry of Education, Culture, Sports, Science and Technology (MEXT or *Monbukagakusho*) to be assigned priority positions for Japanese government scholarships, or MEXT scholarships, **by University Recommendation**. MEXT grants qualified students 5 years of financial support: 2 years of financial support for the master's program followed by 3 years of financial support for the doctoral program, as shown below (as of 2011).

- (a) Exemption from application, admission and tuition fees.
- (b) Roundtrip airfare between the nearest international airport in the country of the student's nationality and Japan.
  - -to come to Japan for admission
  - -to return home after completion of the program (on request if going back to the home country)
- (c) Monthly stipend of 154,000 JPY as a master's student and 155,000 JPY as a doctoral student.

Applicants for MEXT scholarship must satisfy <u>ALL</u> of the following conditions in addition to the eligibility requirements for IGPAS. see 2.ELIGIBILITY FOR IGPAS

- (i) Those who will come to Japan from a foreign country newly for IGPAS admission.
- (ii) Those who were born on or after April 2, 1977.
- (iii) Those who intend to complete the master's and doctoral programs within five years from admission.
- (iv) Those who satisfy the application requirements designated by MEXT.



\*The application guidelines for the MEXT scholarship by University Recommendation will not be available until the end of October, 2011. In the meantime, please refer to 2.Qualifications (1)-(9) of the latest application guideline for the MEXT Scholarship by Embassy Recommendation for 2012.

http://www.mext.go.jp/a\_menu/koutou/ryugaku/boshu/1304055.htm

(v) Those whose grade point average is higher than the criterion designated by MEXT.

#### **Doctoral Program**

No governmental or institutional scholarships available via IGPAS 2012.



## **5.**APPLICATION AND SELECTION

#### Applicaton -

#### Step 1: Find a potential supervisor among the faculty members in the field of your interest.

Applications will not be accepted without the consent of a faculty member as a prospective supervisor. The supervisor must be a professor, associate professor, or lecturer (senior assistant professor) who is affiliated with or has eligibility to accept students of the Graduate School of Science, Tohoku University. To look for faculty members, refer to the following:

- Graduate School of Science, Tohoku University 2008 (the latest brochure) http://www.sci.tohoku.ac.jp/docs/world-wide/e\_pamph2008.pdf [1.43MB]
   Departmental websites
- http://www.sci.tohoku.ac.jp/english/organization/index.html
- Academic Research Staff at Tohoku University http://db.tohoku.ac.jp/whois/TunvTopE.html

#### Step 2: Contact the faculty members directly via email to obtain their consent.

To contact the faculty members, it is strongly advised to:

- gather information about the faculty members and their field of research in advance by looking at their publications, research papers, and personal websites.
- include "IGPAS 2012" in the subject line of the email.
- provide as much of your academic background as possible.

#### Step 3: Prepare the required documents for application. See 6. APPLICATION DOCUMENTS

#### Step 4: Send the application to the IGPAS Admissions Office.

All documents should be enclosed together, sent **via airmail**, and received by the IGPAS Admissions Office by **November 30, 2011 JST.** 

#### Selection ·

Applications will be forwarded to the examining committee of each department. The examiner will inform you of the method and schedule for the examination via email by the end of December, 2011.

From those who have applied for a MEXT scholarship and passed screening for IGPAS master's program, the IGPAS Committee will select and recommend 8 candidates to MEXT. The results of admission to IGPAS and the nomination for MEXT scholarships will be announced between *February 1 and 15, 2012*.



INTERNATIONAL GRADUATE PROGRAM FOR ADVANCED SCIENCE



### **6.**APPLICATION DOCUMENTS

- Download the forms marked with "+" from the IGPAS website.
- Each document should be typed in English.
   Attach an English translation of the documents written in a language other than English.
- Materials submitted will not be returned.

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1	Form 1: Application for Admission
2	Form 2: Statement of Reason for Applying for the Program
3	◆ Form 3: Research Proposal
4	Form 4: Summary of Past Research
5	Form 5: Two Recommendation Letters *1
6	Form 6: Official Recommendation Letter This letter must contain the official seal of an academic/research institution with which you are currently affiliated or in which you have last been enrolled.
7	Certificate(s) of (expected) graduation or photocopy of diploma(s) *2
8	Official academic transcript(s) * <sup>2</sup>
9	Document(s) to prove academic ability issued/written within the last 5 years e.g. bachelor and/or master thesis in full with an abstract, research papers published in journals or conference proceedings, papers submitted to undergraduate/graduate courses related to the field of research, score report from the Graduate Record Examination (GRE)* <sup>3</sup> , and/or equivalent materials
10	<ul> <li>Document(s) to prove English ability</li> <li>e.g. score reports from an internationally recognized English Proficiency examination*4         <ul> <li>est of English as a Foreign Language (TOEFL)*3,</li> <li>International English Language Testing System (IELTS),</li> <li>College English Test (CET) in China</li> <li>letter of English proficiency from an English instructor*5,</li> <li>certificate to prove that the medium of instruction are/were English*6, and/or equivalent materials</li> </ul> </li> </ul>
11	Curriculum vitae
12	Photocopy of passport of the page(s) with personal information and photograph
13	<b>Proof of citizenship</b> other than passport e.g. photocopy of census register, citizenship card, or birth certificate

#### Optional

#### Supporting materials

e.g. certificate(s) of honor, president/dean's list, and/or scholarship

\*1 Form 5 and attached letter should be sealed in an envelope by each reference and sent to the IGPAS Admissions Office with other application documents by the applicant, not directly from the references.

- \*2 From undergraduate and graduate programs only if applicable.
- \*3 The institution codes (or DI code) of the Graduate School of Science, Tohoku University are 7115 for GRE and 0373 for TOEFL.
- \*4 Results, certificate or score report, from an English proficiency examination other than TOEFL, IELTS, and CET must be accompanied by a description of the method, content, and grading system of the exam in English (e.g. bulletin, brochure, printouts of the website, etc.).

\*5 A letter of English proficiency certification must be written and signed by your English instructor who is affiliated with a university or language school you have attended. It should be a one-page letter providing as much information as possible (e.g. what kind of courses you have taken, how the courses were organized, and the instructor's evaluation of your performance).

\*6 A certificate of medium of instruction must be an original certificate with the official seal of the university in which you are currently or have enrolled.

#### International Graduate Program for Advanced Science

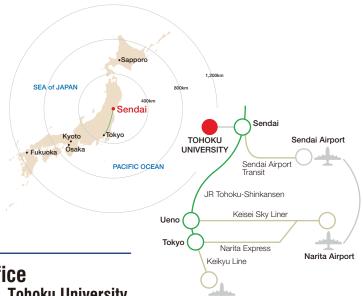
# **2072** GRADUATE SCHOOL OF SCIENCE, TOHOKU UNIVERSITY

### **KEY DATES**

Application Period November 1 – November 30, 2011

Notification Period February 1 – February 15, 2012

First Day of Fall 2012 Semester October 1, 2012



Haneda Airport

### **CONTACT INFORMATION**



IGPAS Admissions Office Graduate School of Science, Tohoku University 6-3 Aramaki-Aza-Aoba, Aoba-ku, Sendai 980-8578, JAPAN

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