Earthquake Prints (Namazu-e)

In Japan, it had been believed that earthquakes are caused by catfish. After the Great Edo (Tokyo) earthquake of 1855, numerous prints of earthquakes and catfish were circulated. In this print, archived at the Earthquake Research Institute, the University of Tokyo, the God of earthquakes (Kashima Deity) is pressing a large catfish with a keystone. Smaller catfish that caused earthquakes apologize the Deity. The print was circulated as an amulet with people’s fear of earthquakes and wish to put down catfish.

7th General Assembly
of
Asian Seismological Commission
and
Seismological Society of Japan,
2008 Fall meeting

Second Circular
24-28 November, 2008  Tsukuba, Japan
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Invitation

Since the establishment of the Asian Seismological Commission in 1996, many earthquakes in Asia and Pacific region caused serious disasters to economy and society, and at the same time, provided significant lessons and knowledge to earthquake science. Today, with the booming of economy and rapid development of modern technology, earthquake disasters have started to threaten not only earthquake-prone regions but also the whole society. The great Sumatra-Andaman earthquake in 2004 generated tremendous tsunami disasters not only in Indonesia but also in the whole Indian Ocean. The 2006 Taiwan offshore earthquake caused not only ground shaking but also the destruction of optical cable under the sea causing seismic disaster in the cyber world as well. Earthquakes and earthquake disasters, which never recognize political boundaries, cultural differences, or academic disciplines, put us to work together and to go forward together.

In the last 12 years, development of earthquake science showed rapid development, bright future and significant potential to serve the sustainability of society. Advancements have occurred in seismological observation and interpretation, earthquake source modeling, seismic hazard and risk zonation, strong ground motion seismology and engineering seismology, earthquake forecast and study of earthquake predictability, earthquake early warning system, and seismotectonics. Interdisciplinary studies combining seismology, geodesy, geology, engineering, space science and technology, and computational technology have provided earthquake science with unprecedented opportunities for deepening our understanding of earthquakes and earthquake disasters. We are clear that there is still a long way to go to the solving of the scientific problems of earthquake prediction, the nonlinear response of engineering to seismic strong ground motions, and the preparation of extreme disasters. On the other hand, realistic philosophy is to make full use of our scientific knowledge for reducing earthquake disasters, and to make full use of the practical technologies to obtain the optimized results of the reduction of earthquake disasters.

The main theme of this ASC Assembly, 'Sharing of Up-to-date Science and Technology to Reduce Earthquake Disaster in Asia,' is to bridge science and technology, to bridge research and application, to bridge domestic efforts and international collaboration, and to bridge Asia-Pacific and the whole world. The goal is the capacity building in Asia-Pacific for the reduction of earthquake disasters. We chose Tsukuba as the venue of the ASC 2008 Assembly, partly due to the long tradition of Tsukuba to facilitate international cooperation, to organize the training of young professionals, to communicate with policy makers, public, and industry, and to assist the capacity building in the developing world.

The Seismological Society of Japan was established in 1880, as the first scientific society for seismology in the
world. After some intermittent periods, the current SSJ restarted the activity in 1918. Therefore SSJ jointly hosts the 2008 ASC Assembly in Tsukuba as a memorial activity of 60th anniversary of the restarted SSJ.

Taking the opportunity of the ASC 2008 General Assembly, we would like to express our sincere gratitude to the International Union of Geodesy and Geophysics (IUGG), the International Association of Seismology and Physics of the Earth’s Interior (IASPEI), and other organizations and institutions listed below, especially for the support to organize this important conference.

We hope and believe that this Assembly will be one of the most successful assemblies of ASC.

Zhu Chuanzhong
President of ASC

Kunihiko Shimazaki
President of SSJ

Committees

ASC Bureau (2001 — 2008)
President Prof. Zhu Chuanzhen (China)
Vice President Prof. Trieu Dinh Cao (Vietnam)
Member Prof. Kazuo Hirahara (Japan)
Secretary General Dr. R.K. Chadha (India)

Local Organizing Committee
Chairman Kunihiko Shimazaki (University of Tokyo)

Program Committee
Chairman Kazuo Hirahara
Co-chairman Takane Hori, Mamoru Kato
Members Mizuho Ishida, Yuzo Ishikawa, Mitsuhiko Matsuura, Kenji Satake, Shin Aoi, Yukitoshi Fukuhata, Yoshimari Hayashi, Hitoshi Hirose, Haruo Horikawa, Satoshi Ide, Tatsuya Ishiyama, Satoshi Ita, Yoshihiro Ito, Nobuki Kame, Yuko Kase, Hiroyuki Kuma, Hiroo Miyake, Toshiyasu Nagao, Kiwamu Nishida, Noriko Tsumura, Masumi Yamada

Assembly Secretary
Chairman Kazuro Hirahara
Members Takashi Funamura, Hiroshi Inoue, Yuzo Ishikawa, Tadashi Maruyama, Risuko S. Matsuura, Kenji Satake, Hiromi Takayama, Mikio Tobita, Tomiiichi Uetake, Yuji Yagi, Toshiaki Yokoi
c/o Seismological Society of Japan
email: asc2008@tokyoemail.ne.jp

ASC and SSJ

Asian Seismological Commission (ASC)
Asian Seismological Commission (ASC) was established in 1996 as a regional scientific organization affiliated to International Association of Seismology and Physics of the Earth’s Interior (IASPEI) and with administrative and scientific decisions consistent with general IASPEI guidelines. Its objectives have been identified as following:
- To promote scientific cooperation and exchange among its national members
- To upgrade research activities
- To strengthen disaster mitigation
- To cooperate with other international and regional organizations, ASC contains 2 sub-commissions: the Sub-commission on Earthquake Prediction and the Sub-commission on Education and Outreach. It is comprised of twenty-four member countries nowadays. Furthermore, it also welcomes all countries in the Asia and the Southern Pacific Regions that are willing to become the ASC National Members.

Past Meetings of ASC General Assembly
The 1st ASC General Assembly (ASC 1999), Xangshan, China
The 2nd ASC General Assembly (ASC 1998), Hyderabad, India
The 3rd ASC General Assembly (ASC 2000), Teheran, Iran
The 4th ASC General Assembly (ASC 2002), Kathmandu, Nepal
The 5th ASC General Assembly (ASC 2004), Yerevan, Armenia
The 6th ASC General Assembly (ASC 2006), Bangkok, Thailand
The 7th ASC General Assembly (ASC 2008), Tsukuba, Japan

Seismological Society of Japan (SSJ)
For about a century since 1880, the Seismological Society of Japan (SSJ) has contributed to advancing a broad range of science in Japan, related to earthquakes and the interior of the Earth. SSJ is a nonprofit scientific organization of over 2300 members, including researchers, teachers, and technicians who are associated with seismology, geophysics, earthquake engineering and other related disciplines. The missions of SSJ are:
- To promote researches on earthquakes and the interior of the Earth,
- To share and evangelize the results,
- To contribute toward the mitigation of earthquake disaster.
SSJ currently publishes "Zisin" (a peer reviewed research journal in Japanese), and co-publishes "Earth, Planets and Space (EPS)" (an international peer reviewed research journal) published cooperatively with other related geophysical societies in Japan.

Cospromors
Japan Society for the Promotion of Sciences
International Association of Seismology and Physics of the Earth's Interior
International Union of Geodesy and Geophysics
Tokyo Marine Kagami Memorial Foundation
City of Tsukuba
Commemorative Organization for the Japan World Exposition '70

Coorganizers
United Nations Educational, Scientific and Cultural Organization
United Nations Centre for Regional Development (Hyogo Office)
Asia Oceania Geosciences Society
Seismological Society of China
Science Council of Japan
Geodetic Society of Japan
Japan Association of Earthquake Engineering
Japan Society of Civil Engineers
Architectural Institute of Japan
Society of Geomagnetism and Earth, Planetary, and Space Sciences (SGEPPS)
Ministry of Education, Culture, Sports, Science and Technology (MEXT)
Geographical Survey Institute (GSI)
Japan Meteorological Agency (JMA)
National Research Institute for Earth Science and Disaster Prevention (NIED)
National Institute of Advanced Industrial Science and Technology (AIST)
Earthquake Research Institute, the University of Tokyo
Japan Agency for Marine-Earth Science and Technology (JAMSTEC)
Building Research Institute (BRI)
University of Tsukuba
Association for the Development of Earthquake Prediction
Time Table

June 1  Conference website opens
July 20 Grant application deadline (with abstract submission)
August 20 Abstract submission deadline
September 10 Program announcement
October 31 Online registration and Hotel reservation deadline

Tsukuba Science City

Tsukuba Science City, located about 50 km northeast of Tokyo, is the center of scientific activities in Japan, with about 18,000 researchers at about 300 government and private research organizations. Most national institutes related to seismological research are located in Tsukuba Science City, such as National Institute of Earth Science and Disaster Prevention, International Institute of Seismology and Earthquake Engineering, Public Work Research Institute, Geographical Survey Institute, University of Tsukuba, Japan Aerospace Exploration Agency, Meteorological Research Institute and Geological Survey of Japan.

Visitors to Tsukuba, particularly in autumn, can enjoy its natural environments. Leaves of numerous trees in Tsukuba are colored in late November. In addition to the national institutes mentioned above, participants may visit Mt. Tsukuba, one of the excellent view points of Kanto plain, and Lake Kasumigaura, the second largest freshwater lake in Japan.

Tsukuba International Congress Center (Epochal Tsukuba) is located in the center of Tsukuba City, only 10 minutes walk from Tsukuba Station. It was opened in 1999 and provides world-class facilities for international meeting. Blocks of rooms at several hotels in walking distance are reserved for the participants.

Tentative Program

Monday, November 24
9:00 — 17:00  ASC and SSJ * registration
9:30 — 18:30  SSJ sessions (Japanese language) **
* There will be designated registration desks for SSJ members who will NOT be attending ASC sessions. Please consult SSJ Newsletters for registration procedures.
** Sessions in Japanese language are administered by SSJ program committee. Abstract submission must be through SSJ submission system. ASC participants are welcome to attend both oral and poster sessions.

Tuesday, November 25
8:30 — 17:00  ASC registration
9:00 — 9:30  Opening ceremony
9:30 — 12:00  Plenary session (keynote speakers)
12:00 — 13:00  Lunch break
13:00 — 16:00  Parallel scientific sessions
16:00 — 18:00  Poster session
18:30 — 20:30  Welcome reception
Scientific Program

There are two categories of sessions. Several keynote speakers will provide invited talks in the Plenary Session. Regular Session is open to all participants and will comprise both oral and poster sessions. Sessions A01 to A03 are thematic sessions especially designed to accentuate events of joint meeting of ASC and SSJ. Some invited speakers for Regular Session will be selected by the program committee. Each author is asked to designate one session for his/her presentation in submission procedure. Program Committee may change their sessions, if necessary, and inform the authors. Two presentations (one oral and one poster, or two posters, excluding invited talk) can be submitted by an author.

Plenary Session

Convenors: Zhu Chuanzen (China), R.K. Chadha (India), Kunihiko Shimazaki (Japan), Kenji Satake (Japan) and Kazuo Hirahara (Japan)

This session will be composed of presentation by invited Keynote Speakers, highlighting the problems and challenges in the following issues:

- Progress in Realtime Seismology
- Megathrust Earthquakes and Tsunamis in Subduction Zone
- Assessment of Long-term Earthquake Occurrence Probability
- Predictive Simulation System for Crustal Activity

Regular Session

A01. Progress in Realtime Seismology
A02. Megathrust Earthquakes and Tsunamis in Subduction Zone
A03. Education, Outreach and Communication in Seismology and Disaster Mitigation
A04. Seismic Instruments and Networks
A05. Seismicity
A06. Crustal Movement
A07. Earthquake Dynamics and Earthquake Source Observations
A08. Earthquake Forecast and Prediction
A09. Electromagnetics and Earthquake Processes
A10. Geochemistry, Groundwater Hydrology related to Earthquakes
A11. Earthquake Ground Motions and Earthquake Disaster
A12. Exploration Geophysics
A13. Seismic Wave Propagation
A14. Computational Seismology
A15. Paleoseismology and Historical Seismology
A16. Tectonics
A17. Non-volcanic and Volcanic Low Frequency Earthquakes
A18. Crustal Structure and Crustal Earthquakes
A19. Earth’s Interior: Structure and Dynamics
A20. Seismology: General and Miscellaneous Contribution

Wednesday, November 25
8:30 — 17:00  ASC registration
9:00 — 12:00  Plenary session (keynote speakers)
12:00 — 13:00  Lunch break
13:00 — 16:30  Parallel scientific sessions
16:30 — 18:30  Poster session

Thursday, November 26
8:30 — 17:00  ASC registration
9:00 — 12:00  Parallel scientific sessions
12:00 — 13:00  Lunch break
13:00 — 15:00  Poster session
15:00 — 16:30  ASC general assembly and closing ceremony

Friday, November 28
Optional study trip (NEID, ERL, JMA)

Accompanying person’s program will be arranged and announced on the website.
Abstract Submission

Important dates:
Submission Deadline is 1700 JST (0800 UTC) on August 20th, 2008.
Grant Application Deadline is 1700 JST (0800 UTC) on July 20th, 2008.

Note: If you are applying for travel grant from the ASC-SSJ2008 organizer, you are obliged to submit both your abstract and grant application by this deadline.

Format and submission:
The abstract will be accepted in English only. The number of abstracts is limited to 2 for each contributing author unless you have been contacted by the program committee for invited talks. Abstracts must be submitted via our web site; no facsimile or email submissions is accepted.

The abstract should be one-page on A4 paper. The abstract should be prepared in PDF format, and specific format for the abstract is provided on the submission web site, which will open on June 1st, 2008. Figures can be included. Please access the ASC-SSJ 2008 official web site (http://wwwsoc.nii.ac.jp/SSJ/asc-ssj2008/) for a link to the submission system. Searching asc-ssj2008 on your favorite search engine would bring you to our web site.

When you submit the abstract, you are asked to input submission information on the submission system. Submission information includes session number, corresponding author’s information (title, name affiliation, mailing address, phone and fax number, e-mail address), type of presentation preferred (oral, poster, or either), equipment requested for presentation (overhead projector). Projector for PC will be equipped in every room for oral sessions.

The abstracts will not be accepted if they are not in the proper format, or insufficient submission information is provided. No facsimile or e-mail submission is accepted. Abstracts are reviewed by the program committee. The program committee holds the right to reject your contribution when sufficient scientific merit cannot be found in your abstract, and we notify you if your abstract is not accepted by the end of August. Accepted abstracts will be published in an abstract volume. Submission of an abstract implies that ASC and SSJ have permission to reproduce the abstracts in programs as well as reports related to the Assembly.

The sessions will comprise both oral and poster presentations. Authors who would prefer to make a poster presentation are asked to make this know when submitting their abstract. Due to limited time slots, authors who would prefer to make an oral presentation may be asked to make a poster presentation.

If you find any problem in submission, please contact asc-program@tokyo.email.ne.jp. Postal or other form of submission will be considered in case of technical difficulties.

Travel Grant

Application deadline: 1700 JST (0800 UTC) on July 20th, 2008

Only authors are eligible to apply. The authors who would like to apply for travel grant from the organizer should submit abstract early via our submission system. You will be asked whether or not you apply for travel grant in providing your submission information. Other information to evaluate your financial need (such as age, position, country, etc) is also asked. Program Committee will evaluate the abstract’s scientific contents and the financial need of the applicant. The results will be announced until August 20th, 2008. The fixed amounts will be reimbursed for airfare and for accommodation. The successful applicants should register online (before October 31st).
Registration

Registration fees

<table>
<thead>
<tr>
<th>Category</th>
<th>Online (before October 31)</th>
<th>Onsite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular participant</td>
<td>10,000 yen</td>
<td>25,000 yen</td>
</tr>
<tr>
<td>Students and young scientists</td>
<td>5,000 yen</td>
<td>10,000 yen</td>
</tr>
<tr>
<td>Accompanying persons</td>
<td>3,000 yen</td>
<td>7,000 yen</td>
</tr>
</tbody>
</table>

Registration fee includes abstract volume, daily coffee and welcome reception.

Registration website will open on June 1, 2008. Only credit card payment will be accepted. For those who have difficulty for using credit card, please contact LOC: asc2008@tokyoemail.ne.jp

Training Course

A pre-symposium training course immediately before the conference is being planned. Information will be uploaded at the ASC2008 website.

Call for Exhibitions

The ASC 2008 Local Organizing Committee invites all companies and organizations, who are interested in displaying exhibition of their products or services.

Date: 24 - 27 November 2008

Place: Multi-Purpose Hall and Conference Room 102, Tsukuba International Congress Center, 2-29-3, Takezono, Tsukuba, Ibaraki, 305-0032, Japan (Tel: +81-29861-0001)

Exhibition Fee: 300,000 yen per booth

Booth type: 3m × 2m floor space, 3 walls (3m × 1m) exhibition booth

Each exhibitor is provided with:

- 1 table (W180 × D60 × H70 cm) (max. 4 tables)
- 2 chairs (max. 4 chairs)
- 1 of 3 Amp AC 100V (50Hz) outlet
- Free wireless LAN
- Free assembly registration (reception and coffee breaks included) for 2 people and a free abstract volume
(Note that all presenting authors must pay for a regular delegate registration and may not use an exhibitor registration to present papers.)

* Company (Organization) name panel (plate) is not included. Each exhibitor should prepare name panel or plate of company (organization).

**Registration and Payment:** Send the EXHIBITION APPLICATION FORM (as attached) directly to the ASC 2008 Local Organization Committee via email: asc2008@tokyo.email.ne.jp or fax: +81-3-5803-9577. Seismological Society of Japan will issue invoices and receipts for the exhibition fee. Payment can be made by bank transfer to the bank account:

Bank: The Bank of Tokyo-Mitsubishi UFJ, Ltd. Hongo Branch
Account Holder: Seismological Society of Japan
Account Number: 1021141
SWIFT Code: D0TKJPJT
Bank Address: 3-33-5 Hongo, Bunkyo-ku, Tokyo, 113-0033, Japan

* Kindly specify “Exhibition Fee” when you transfer the payment.

**For inquiry, contact:**

The Seismological Society of Japan
Tokyo RS Bldg.,
6-25-12 Hongo, Bunkyo-ku, Tokyo, 113-0033, Japan
Tel.: +81-3-58039570, Fax: +81-3-5803-9577
E-mail: zisin@tokyo.email.ne.jp

**Registration Deadline:** 31 July, 2008
**Payment Deadline:** 31 August, 2008

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**EXHIBITION APPLICATION FORM**

7th General Assembly of Asian Seismological Commission
and Seismological Society of Japan, 2008 Fall meeting
(E-mail: asc2008@tokyo.email.ne.jp or Fax: +81-3-5803-9577)

Name of Company/Organization:
Address:
City, State, Postal Code:
Country:
Contact Person:
E-mail Address:
Phone:
Fax:

Number of booths:
(1 or 2; default 1)

Number of tables:
(0, 1, 2 or 4 per booth; default 1)

Number of chairs:
(0, 1, 2 or 4 per booth; default 2)

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**Travel Information**

**Passport and Visa**

Any foreign visitor who wishes to enter Japan must have a passport, which will remain valid during the period of stay.

National of most Asian countries are required to obtain a visa to enter Japan. Exceptions are: Singapore, Brunei, Republic of Korea, Taiwan, Hong Kong and Macau. To apply for a visa, the applicant must apply in person to a Japanese Embassy or a consulate, usually in his or her home country. The following documents must be submitted whatever the purpose of visit you are going to make:

(1) Valid passport;
(2) Two passport photos taken within the six months of the date of application;
(3) Two official visa application forms, available at the embassy or consulate;
(4) Invitation letter from Conference organizer.

To obtain the invitation letter, please check appropriate box at the registration form.

**Access to Tsukuba**

Narita Airport (NRT) is the nearest airport, which is located ~40 km to the south east of Tsukuba city or ~60 km to the east of central Tokyo. From other airports such as Kinki (KIX) or Chubu (NGO), connecting flights are available to either Narita or Hangeda (HND) airport.
Narita airport to Tsukuba by Bus
Airport bus runs 9 times a day (7:20 am, 9:05 am, 10:35 am, 12:50 pm, 14:30 pm, 16:15 pm, 17:30 pm, 18:45 pm and 20:10 pm) and it takes ~100 min and costs 2,540 yen. This is the most convenient way to reach Tsukuba.

Narita airport to Tokyo by Train
Narita express (60 min, 2,940 yen to Tokyo Station) or Keisei Skyliner (51 min, 1,920 yen to Nippori Station).
Tokyo to Tsukuba by Bus
Bus from Tokyo station (Yaesu-minami exit) takes about 65 min (1,150 yen) and from Haneda airport takes about 80 min (1,800 yen).

Tsukuba express connects Akihabara and Tsukuba terminals in 45 or 53 min (1,150 yen).

Hotel Lists

Note: Hotel reservation can be made through ASC2008 website, which will open on June 1.

Okura Frontier Hotel Tsukuba Epochal
Rate: Single 11,025 yen
Phone: +81-29-860-7700 Fax: +81-29-860-7701

Okura Frontier Hotel Tsukuba
Rate: Single 11,550 yen
Phone: +81-29-852-4412 Fax: +81-29-852-5623

Hotel Grand Shinonome
Rate: Single 8,400 yen
Phone: +81-29-856-2311 Fax: +81-29-856-2579
http://www.hg-shinonome.co.jp/ (Japanese only)

Hotel Matsushima
Rate: Single 7,500 yen, Twin 13,000 yen
Phone: +81-29-856-191 Fax: +81-29-856-2555

Gakuen Sakurai Hotel
Rate: Single 6,400 yen, Twin 10,800 yen
Phone: +81-29-851-3011 Fax: +81-29-851-3511
http://www.gakuen-hotel.co.jp/English/index.html
Other Practical Information

Currency and Money Exchange
The unit of Japanese currency is yen. Coins are available in denominations of 1, 5, 10, 50, 100 and 500 yen and bank notes in denominations of 1,000, 2,000, 5,000 and 10,000 yen. You can buy yen at foreign exchange banks and other authorized money exchangers. At the international airports, currency exchange counters are usually open during normal office hours. The exchange rate fluctuates daily depending on the money market.

Climate and Clothing
The mean minimum and maximum temperatures in November of Tsukuba are 4.1 and 15.4 degrees in Celsius. The dry cold wind known as "Tsukuba Oroshi" is a characteristic of the area to the south of Mt. Tsukuba. Hence jackets, sweaters and sometimes coats are needed.

Drinking Water
Tap water is safe to drink anywhere in Japan. Mineral water including major imported brands can be easily obtained from super markets, convenience stores and other similar places.

Hospitals
Medical systems and facilities in Japan are well established so that you can expect to receive a high standard medical treatment, should you have a problem with your health during your stay.

Electricity
The voltage used throughout Japan is uniformly 100 volts, A.C. There are two kinds of frequencies in use: 50 Hz in eastern Japan (including Tsukuba and Tokyo) and 60 Hz in western Japan. A convertible type of electrical appliance such as a hair dryer, travel iron and shaver will therefore be handy; otherwise a step-down transformer is required to convert the voltage. There are a columnar-shaped plugs or 3-pin plugs used in Japan but 2-flat-pin plugs are used instead. It is therefore advised to purchase a plug adapter beforehand.

Information and Website