

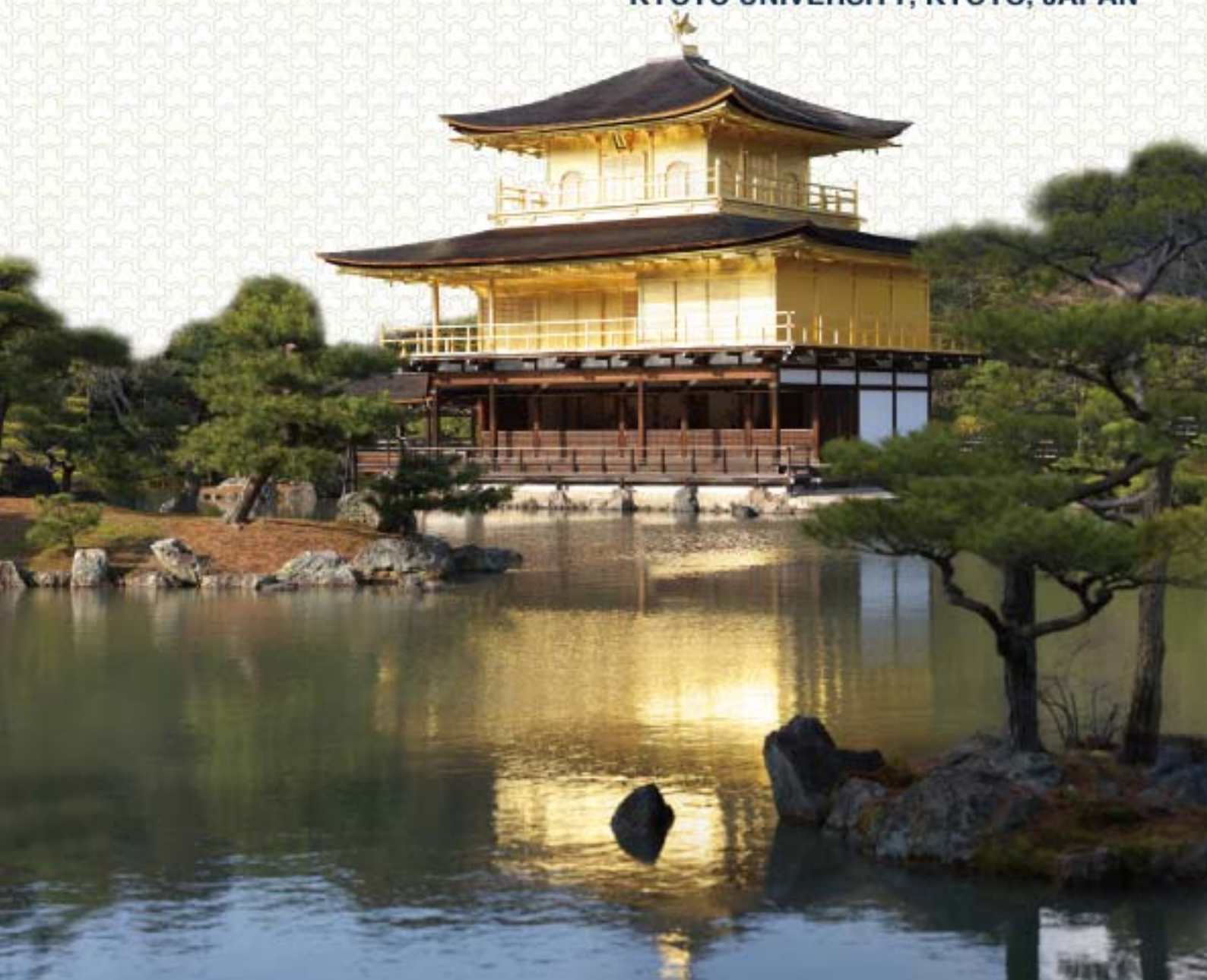
**SECOND CIRCULAR**



# The First **ICSU** **World Data System** Conference

– Global Data for Global Science –  
September 3-6, 2011

KYOTO UNIVERSITY, KYOTO, JAPAN



# Introduction

---

The WDS Scientific Committee is pleased to invite WDS Members and interested parties to *The First ICSU World Data System conference: Global Data for Global Science* on 3-6 September 2011 to be held in Kyoto. This will be the first international gathering of the WDS community and the perfect occasion to launch this ambitious programme. It will be also a unique opportunity to share common experiences and achievements and promote the importance of data management and long term data stewardship.

The ICSU World Data System (WDS) came officially to existence through a decision of the 29<sup>th</sup> General Assembly of the International Council for Science (ICSU) in October 2008 guided by the following strategic vision:

*"...WDS will support ICSU's mission and objectives, ensuring the long-term stewardship and provision of quality-assessed data and data services to the international science community and other stakeholders."*

The WDS has committed to advance the universal and equitable access to scientific data and information and to encourage multidisciplinary science. As you will discover in the programme of this conference, two dedicated sessions—one on *Data Publication (S7)* and *another one on Data Intensive Multidisciplinary Sciences (S5)*—will strive to address these challenges with a focus on multidisciplinary data in the field of disasters and their impacts on society.

Another pressing challenge facing science is the integration of scientific data from all disciplines—including the social sciences— in order to create an integrated framework for scientists to produce openly accessible scientific knowledge useful to society. This vision guides the transition from isolated data centres and services to a common globally interoperable distributed data system, incorporating emerging technologies and new scientific data activities. The *Application of information technologies to Data Systems (S6)* session will provide an opportunity to highlight scientific and technological advances that could facilitate the achievement of the World Data System.

This conference will inaugurate a series of biennial WDS Conferences which will evolve to provide WDS Members with a forum for discussions and a unique platform to participate in the development of the System.

We look forward to your participation.

## 1. Conference organizers

### Conveners of the Conference

- MINSTER, Jean-Bernard, Scripps Institution of Oceanography, UCSD
- WATANABE, Takashi, Solar-Terrestrial Environment Laboratory, Nagoya University
- IYEMORI, Toshihiko, WDC for Geomagnetism, Kyoto, Kyoto Univ.

### Scientific Organizing Committee (SOC)

- MINSTER, Jean-Bernard, Chair - Scripps Institution of Oceanography, UCSD
- CHEN, Robert - National Institute of Standards and Technology
- CLARK, David - National Geophysical Data Centre, NOAA
- DIEPENBROEK, Michael - World Data Centre for Marine Environmental Sciences
- GENOVA, Francoise - Strasbourg Astronomical Data Centre
- HARRIS, Ray - ICSU ad-hoc Strategic Coordinating Committee for Information and Data
- HORTA, Luiz - Large Scale Biosphere-Atmosphere Experiment in Amazonia, INPE
- MOKRANE, Mustapha - International Council of Science
- NEILAN, Ruth - Central Bureau of the International GNSS Service, JPL
- RICKARDS, Lesley - Permanent Service for Mean Sea Level, BODC
- WATANABE, Takashi - Solar-Terrestrial Environment Laboratory, Nagoya University
- YAN, Baoping - Computer Network Information Centre, CAS
- ZGUROVSKY, Michael - National Technical University, Kiev Polytechnic Institute, Ukraine

### Local Organizing Committee (LOC)

- IYEMORI, Toshihiko, Chair - WDC for Geomagnetism, Kyoto, Kyoto Univ.
- WATANABE, Takashi, Vice Chair - Solar Terrestrial Environment Laboratory, Nagoya Univ.
- ASHINO, Toshihiro - Toyo University
- ISHII, Mamoru - National Institute for Information and Communications Technology
- KADOKURA, Akira - National Institute of Polar Research
- KANAO, Masaki - National Institute of Polar Research
- KITAMOTO, Asanobu - National Institute of Informatics
- KUNISAWA, Takashi - Tokyo University of Science
- MURATA, Takeshi - National Institute for Information and Communications Technology
- MURAYAMA, Yasuhiro - National Institute for Information and Communications Technology
- NOSÉ, Masahito - WDC for Geomagnetism, Kyoto, Kyoto University
- OGINO, Tatsuki - Solar Terrestrial Environment Laboratory, Nagoya University
- OHISHI, Masatoshi - National Astronomical Observatory



- SHINOHARA, Iku - Japan Aerospace Exploration Agency
- TOH, Hiroaki - WDC for Geomagnetism, Kyoto, Kyoto University
- TSUBOI, Seiji - Japan Agency for Marine-Earth Science and Technology
- TSUDA, Toshitaka - Research Institute for Sustainable Humanosphere, Kyoto University

### **Regional Organizing Committee at Kyoto University**

- IYEMORI Toshihiko; HAYASHI Hiroo; KOYAMA Nobuyuki;
- MATSUMURA Mitsuru; NOSE Masahito; ODAGI Yoko;
- OSHIMAN Naoto; SAITO Akinori; SHIBATA Kazunari;
- SUGIYAMA Junji; SUZUKI Shingo; TAKEDA Masahiko;
- TAKEUCHI Noriko; TOH Hiroaki; TSUDA Toshitaka;
- UENO Satoru

## **2. Sponsor, Co-sponsors, Supports**

### **Sponsored by:**

- ICSU WDS International Programme Office
- ICSU-WDS Scientific Committee
- Science Council of Japan

### **Co-sponsored by:**

- Disaster Prevention Research Institute, Kyoto University
- Graduate School of Science, Kyoto University
- National Institute of Information and Communications Technology
- National Institute of Polar Research
- Research Institute for Sustainable Humanosphere, Kyoto University
- Solar-Terrestrial Environment Laboratory, Nagoya University

## **3. Venue**

The conference will take place at the Kyoto University Clock Tower Centennial Hall on the main campus of Kyoto University, which is located at the north-east part of the city. Kyoto is often called the "Japanese heartland", and it is said that it is impossible to know the real Japan without knowing Kyoto. For over 1,000 years, Kyoto was the capital of Japan, the heart of culture and politics. Furthermore, Kyoto is unique within Japan in that it was virtually untouched during World War II, leaving a myriad of temples, shrines and a castle intact. This legacy has

been recognized by UNESCO, which has designated seventeen separate sites within Kyoto's borders as World Cultural Heritage sites.

Natural scenery, temples, shrines, towns and houses intermingle with a poignant historical beauty in Kyoto. Tea ceremony, Japanese flower arrangement, Nishijin-brocade, and many other unique Japanese traditional cultures and industries continue to thrive in Kyoto.

## Weather

Average temperatures in early September in Kyoto range from a high of 30 degrees to a low of 20 degrees – still in summer and good for drinking beer at the restaurant on a river in downtown area.

## Access:

### **From Kansai International Airport (KIX) to Kyoto Station:**

- Take Kansai Airport Express train "Haruka" operated by West Japan Railway Company.
- Airport Limousine bus service to "Hachijo" Exit of Kyoto station is available.
- You can access directly to your hotel by Shuttle Ominibus service.

### **From Osaka International (Itami) Airport (ITM) to Kyoto Station**

- There exists Airport Limousine bus service to "Hachijo" Exit of Kyoto station at every 20 minutes.
- You can access directly to your hotel by Shuttle Ominibus service.

### **From Kyoto station to the clock tower of Kyoto University**

- The bus terminal is just outside of the north exit of the station.
- You can most easily come to the meeting place by taking taxi. Taxies are always waiting for passengers just outside of the both "Main" (called "Karasuma") and "Hachijo" exits of the station.



## 4. Conference Schedule

Date	Morning 09:00-12:30		Lunch 12:30-14:00	Afternoon 14:00-17:00	Evening
Friday 2 Sept				Registration (15:00 -)	
Saturday 3 Sept	Registration	<ul style="list-style-type: none"> <li>Opening Talks (S1)</li> <li>What is ICSU WDS (S2)</li> </ul>		<ul style="list-style-type: none"> <li>Partnership and coordination (S3)</li> <li>Activity Reports of WDS Members (S4.1)</li> </ul>	<ul style="list-style-type: none"> <li>Ice Breaker</li> <li>Poster viewing</li> </ul>
Sunday 4 Sept	<ul style="list-style-type: none"> <li>Activity Reports of WDS Members (S4.2)</li> <li>Why join and how to influence WDS (Panel discussion)</li> </ul>		Poster viewing	<ul style="list-style-type: none"> <li>Data Intensive Multi-Disciplinary Sciences (S5)</li> </ul>	SOC+LOC  Poster viewing
Monday 5 Sept	<ul style="list-style-type: none"> <li>Application of information technologies to Data Systems (S6)</li> </ul>		Poster viewing	<ul style="list-style-type: none"> <li>Data Publication (S7)</li> </ul>	Banquet
Tuesday 6 Sept	<ul style="list-style-type: none"> <li>WDS Members' and Partners' Forum</li> <li>Summary (S8)</li> </ul>			Possible associated Meetings: <ul style="list-style-type: none"> <li>GRDI2020</li> <li>GEO</li> </ul>	
Wednesday 7 Sept	WDS-SC #5			WDS-SC #5	
Thursday 8 Sept	WDS-SC #5			WDS-SC #5	

## 5. Detailed Programme

### Saturday 3 Sept

---

**10:00 – 11:00**

#### Session 1 (S1): Opening Talks

Convener: Bernard Minster

- Representative of Kyoto University 10 min
- Representative of Science Council of Japan 10 min
- Representative of NICT 10 min
- Representative of ICSU 10 min
- Practical announcement (LOC) 10 min

**11:00 – 11:15 Break**

**11:15 – 12:30**

#### Session 2 (S2): What is ICSU WDS

Convener: Takashi Watanabe

This session consists of keynote presentations by the chair of WDS Scientific Committee and WDS International Programme Office.

- **What is ICSU WDS**, *Bernard Minster* (30min + 15min discussion)
- **Action Plan of WDS-IPO**, *Executive Director of WDS-IPO* (20 min + 10min discussion)

**12:30 – 14:00 Lunch**

**14:00 – 15:00**

#### Session 3: (S3) Partnership and coordination

Convener: Mustapha Mokrane

ICSU has been stimulating and coordinating scientific data and information since the 1950s when the World Data Centres were established as part of the International Geophysical Year of 1957. In recent years ICSU and its partners have engaged in a number of activities to improve universal and equitable access to data and information. The World Data System as a flagship initiative in this area needs to establish and maintain strong partnership and proper coordination with other organizations such as CODATA. This session will highlight the importance of these partnerships in the light of the recommendations of the interim report of the ICSU Strategic Coordinating Committee in Information and Data (SCCID)

- **Strategic coordination of ICSU data activities**, *Peter Fox* (20 min + 10min discussion)
- **WDS CODATA partnership on data management**, *Robert Chen* (20min + 10min discussion)

**15:00 – 15:15 Break**



**15:15 – 16:30**

### **Session 4 (Part 1): Activity Reports of WDS members**

Convener David Clark and Akira Kadokura

The ICSU World Data System is made up of organizations and institutions involved in a wide variety of data activities. The WDS members include, but are not limited to government organizations, academic institutions, national and international non-governmental organizations and components of the United Nations. This variety of members coupled with the geographic and discipline diversity contributes to the unique nature of the WDS. This diversity will be key factor in developing a successful system to meet the needs of ICSU and the global scientific community. This session will consist of invited and contributed oral papers and invited and contributed posters.

- **WDS Membership status**, Lesley Rickards (15min + 10min discussion)
  - WDS Members activity report 1 (15min + 10min discussion)
  - WDS Members activity report 2 (15min + 10min discussion)

**16:45 – 19:45 Poster viewing & Ice Breaker**

## **Sunday 4 Sept**

---

**09:00 – 11:00**

### **Session 4 (Part 2): Activity Reports of WDS Members**

Convener Lesley Rickards and TBD

- WDS Members activity report 3 (15min + 10min discussion)
- WDS Members activity report 4 (15min + 10min discussion)
- WDS Members activity report 5 (15min + 10min discussion)
- WDS Members activity report 6 (15min + 10min discussion)

**11:00 – 11:30 Break and Poster viewing**

**11:30 – 12:30**

- **Why join and how to influence WDS** (Panel discussion, 60min)

**12:30 – 14:00 Lunch**

**14:00 – 15:30**

### **Section 5 (S5): Data Intensive Multi-Disciplinary Science**

**Co-convended with ICSU Integrated Risk Disaster Research (IRDR) programme**

Conveners TBD

Encouraging and enabling multi-disciplinary sciences is one of the important activities of WDS. This session will highlight the need for constructive cooperation links between WDS and multi-

disciplinary research programmes and data systems such as IRDR (Disaster Research), GEOSS (Earth Observations), IVOA (Astronomy) or IODE (Oceanography). This session is co-convened with the ICSU Integrated Risk Disaster Research (IRDR) programme —addressing the challenge of natural and human-induced environmental hazards - recognizing that IRDR has great interdisciplinary data needs and the potential for leaving a strong data legacy for research activities. An important challenge for WDS and IRDR will be to promote and advance the open and equitable access to data and information about disasters.

Examples of topics are: Collaboration between WDS and international research programmes or data systems; Multi-disciplinary data analysis (examples & proposals); Data Systems for multi-disciplinary data usage; The role of WDS in enabling open and equitable access to data and information about disasters.

- **Disaster loss data**, *Speaker TBD from IRDR* (20min + 10min discussion)
- **Sharing Data and information about disasters: Tohoku earthquake and tsunami example**, *Speaker TBD* (20min + 10min discussion)
  - Invited oral presentation 1 (15min + 10min discussion)

**15:30 – 16:00 Break and Poster viewing**

**16:00 – 17:00**

- Invited oral presentation 2 (15min + 10min discussion)
- Invited oral presentation 3 (15min + 10min discussion)

## **Monday 5 Sept**

---

**09:00 – 12:30**

### **Session 6 (S6): Application of information technologies to Data Systems**

Convener: Michael Zgurovsky and Baoping Yan

In this session, emphasis is placed on recent results and methods of informatics (including data integration, data mining, knowledge extraction, etc), networks, communication engineering, and computer science in the context of WDS.

Examples of topics are: Network technologies (Virtual Observatories, Cloud, etc), Data assimilation, Data curation, Data mining technologies, Ontology system for field crossing data usage, Data visualization, Long-term data preservation, handling large-scale databases.

- **Keynote from NICT**, *Yasuhiro Murayama* (20min + 10min discussion)
  - Invited oral presentation 1 (15min + 10min discussion)
  - Invited oral presentation 2 (15min + 10min discussion)

**10:30 – 11:00 Break and Poster viewing**

- Invited oral presentation 3 (15min + 10min discussion)
- Invited oral presentation 4 (15min + 10min discussion)
- Invited oral presentation 5 (15min + 10min discussion)

**12:30– 14:00 Lunch**

**14:00 – 15:30**

### **Session 7 (S7): Data Publications**

Convener: Michael Diepenbroek and TBD

The new ICSU World Data System (WDS) is a global federated system for long term data archives and data related services covering a wide range of scientific disciplines from natural to social sciences. A strong focus of the WDS lies on data publication services, which have an overall positive impact on the quality and availability of scientific data. This session will highlight concepts and developments in data publishing including data publication system, linkages between journals and data archives, data citation, certification and accreditation of data archives, linkage between journals and data archives and data citation. This session will consist of oral and poster papers. Several invited papers (oral) will be included.

Examples of topics are: Trustworthiness of data archives (certification and accreditation), data publication workflows (incl. cross-linking issues between journal & data archives), peer review models and QA/QC procedures, persistent identifier & catalogues, bibliometrics, data citation issues (syntax, granularity etc.), user experiences, expectations, and needs, new concepts (linked data, open data, clouds), views from related initiatives & communities.

- Invited oral presentation 1 (15min + 10min discussion)
- Invited oral presentation 2 (15min + 10min discussion)

**15:30 – 16:00 Break and Poster viewing**

**16:00 – 17:30**

- Invited oral presentation 3 (15min + 10min discussion)
- Invited oral presentation 4 (15min + 10min discussion)

**19:00 – 21:00 Conference Banquet**

## ***Tuesday 6 Sept***

---

**09:00 – 11:00**

### **ICSU WDS Members' and Partners' Open Forum**

Conveners: Robert Chen and Ruth Neilan

The open forum will provide an occasion to ICSU WDS Members and Partners to establish a dialogue within the community and with the WDS Scientific Committee on issues related to their activities and linked to the WDS. This forum will provide a good link with the WDS Scientific Committee meeting organized after the conference.

**11:00 – 11:30 Break**

**11:30-12:00**

### **Session 8 (S8): Summary of the conference**

Convener: Bernard Minster

## 6. Abstract submission

**DEADLINE: JUNE 3, 2011**

### Format and submission

Abstract should be prepared in English and submitted with the requested information from the web page: <http://wds-kyoto-2011/abstract.html>

Figures, photos and tables should not be included in the abstract. If you have any problems in submitting with the system, please contact the LOC: [loc@wds-kyoto-2011.org](mailto:loc@wds-kyoto-2011.org)

### Notification of acceptance of submitted papers

After the review of submitted papers by the SOC, the results (accepted or rejected, poster or oral) will be communicated to authors by June 13.

## 7. Posters

Format of the posters and dimensions are 90cm(W)x120cm(H)

Posters will be displayed in International Hall III

Posters viewing sessions are indicated in the programme:

- Saturday 17:00–19:45
- Sunday 12:30–14:00
- Monday 12:30–14:00

**POSTERS WILL IMPERATIVELY BE REMOVED ON MONDAY 5 SEPTEMBER AT 16:30 LATEST. AS THE ROOM WILL BE USED FOR THE CONFERENCE BANQUET.**

## 8. Publication

A special issue of [Data Science Journal](#) is planned for the presented papers. Instructions for preparation of manuscripts will be announced on the conference website.

## 9. Travel grants

Travel support is available for several invited speakers from foreign countries, and for students living in Japan. If you wish to benefit from a travel grant, please get into touch with the LOC. Please note that it is not possible to fulfil all requests because of budget limitation.

## 10. Registration

Registration fee covers the reception, the ice breaker, soft drinks at coffee breaks and the abstract book. The registration system will be available on **July 1, 2011** on the conference website: <http://wds-kyoto-2011/>.

### Registration fee for participants:

- |  |            |
|--|------------|
| • Online Registration (until August 26, 2011)  | 10,000 JPY |
| • On-site Registration (after August 26, 2011) | 15,000 JPY |
| • Students/Accompanying Person Registration    | 3,000 JPY  |

### Method of payment:

- Credit cards and bank transfer are accepted for online registration.
- For on-site registration, both cash and credit card will be accepted.

Please contact to LOC for further requests.

## 11. Call for Exhibitions

### Call for Exhibitors

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

- Date: 3-5 September 2011
- Place: Meeting room at the clock tower
- Exhibition Fee: 50,000 yen
- Booth type: approximately 3m x 2m floor space.

Please contact LOC for details.

Each exhibitor is provided with:

- Table and chairs
- Free internet access
- AC100V 50Hz outlet
- Free conference registration (including banquet and coffee breaks) for 2 people and a free abstract volume.

### Registration and payment for exhibitors:

The on-line registration system will be available on **July 1st** on the conference website:

<http://wds-kyoto-2011/>.

**REGISTRATION DEADLINE FOR EXHIBITORS: July 31 2011**

**Number of exhibitors will be limited to 6 on a first-come-first-served basis.**

## 12. Travel Information

### Access to Kyoto

#### From Kansai International Airport (KIX) to Kyoto Station

- Take Kansai Airport Express train "Haruka" operated by [West Japan Railway Company](#). The station is in the airport. It runs every 30 - 60 minutes and takes about 75 minutes to Kyoto station. The reserved seat ticket costs 3,290 or 3,690 yen (variable by season), and the non-reserved seat ticket 2,980 yen.
- [Airport Limousine bus service](#) to "Hachijo" Exit of Kyoto station is available. It runs about every 30-50 minutes. and takes about 90 min.. The cost is 2500 yen.
- You can access directly to our office by Shuttle Ominibus service. The cost is 3500 yen. Please refer to the links below for more detailed information and reservation.
  - [MK Skygateshuttle](#)
  - [Yasaka Kansai Airport Shuttle](#)

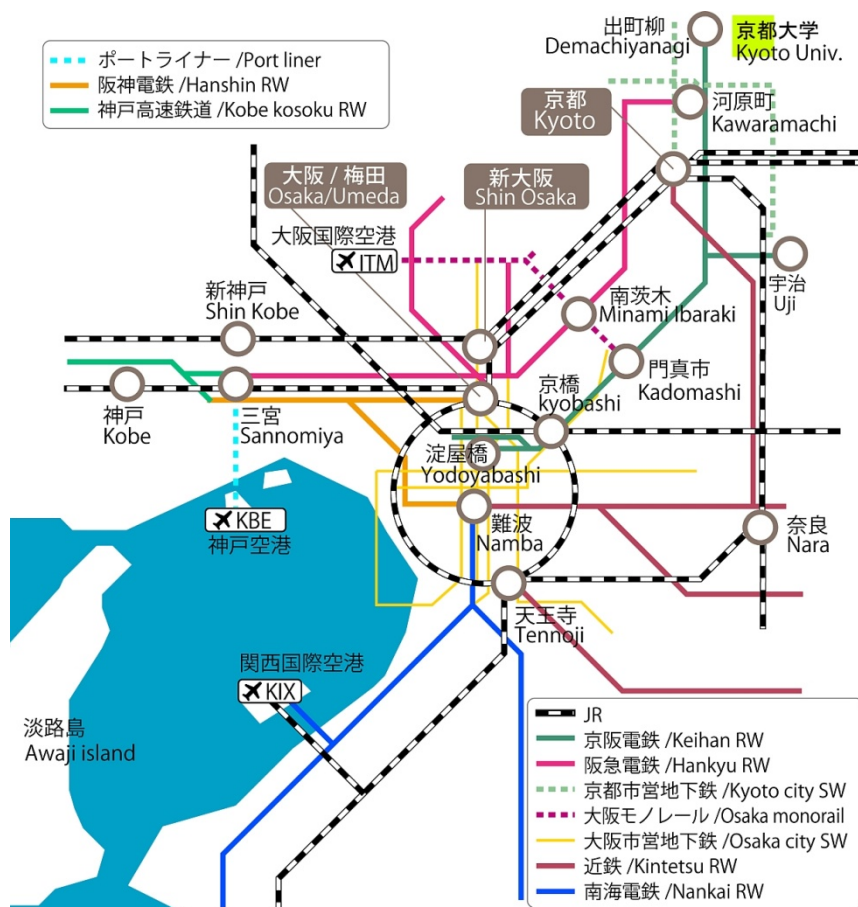
Kansai Airport website: <http://www.kansai-airport.or.jp/en/index.asp>



## From Osaka International (Itami) Airport (ITM) to Kyoto Station

- There exists [Airport Limousine bus service](#) to "Hachijo" exit of Kyoto station at every 20 minutes. The bus stop is in front of the airport exit. It takes about 50 min., and the cost is 1280 yen.
- You can access directly to our office by Shuttle Ominibus service. The cost is 2300 yen. Please refer to the link below for more detailed information and reservation.
  - [MK Skygateshuttle](#)

Osaka Airport website: <http://osaka-airport.co.jp/en/>



## From Kyoto station to Kyoto University

- The bus terminal ([Map](#) including Japanese) is just outside of the north exit of the station. From bus stop No."A2" of the terminal, you should get on [the city bus](#) of Route No.17 for "Ginkakuji and Kinrin Shako" ([Timetable](#) in which blue, green and red columns show the schedule on Weekdays, Saturdays and Holidays, respectively). It runs about every 15 minutes. You get off at "Hyakumanben" bus stop. It takes about 35 min., and the cost is 220 yen which you pay on your getting off. The bus has an English voice/character guide, but you should not expect that the driver understands English.
- You can most easily come to the clock tower by taking taxi. Taxis are always waiting for passengers just outside of the both "Main" (called "Karasuma") and "Hachijo" Exits of the station. Please show the "Kyoto Univ. Area Map" below to the taxi driver. It takes about 20 min. and the cost is about 2,000 yen. No tipping is necessary in Japan.



Kyoto Univ. Area Map

### 13. Accommodations

A list of URLs is available from the conference web site, where you can find and make reservation of your hotel room by yourself.

A block of rooms will be also available through the registration page after July 1st.

### 14. Other Practical Information

#### Currency and Money Exchange

The unit of Japanese currency is “yen”. There are four kinds of bills (10,000 yen, 5,000 yen, 2,000 yen, 1,000 yen) and six kinds of coins (500 yen, 100 yen, 50 yen, 10 yen, 5 yen, 1 yen). Only Japanese yen (JPY) is acceptable at ordinary stores and restaurants. The exchange rate of Japanese yen is about 81-84 yen to one US dollar as of March 2011. You can buy Japanese yen at international airport exchange centres or at authorized city banks in Japan.

#### VAT

VAT (value added tax) of 5% is included in all goods purchased in Japan.

#### Traveller's Checks and Credit Cards

Traveller's checks are accepted only by airport, leading banks, and major hotels; and the use of traveller's checks is not popular in Japan. VISA, MasterCard, Diners Club, and American Express are widely accepted at shops and restaurants in urban areas. Many ATMs in Japan do not accept foreign credit cards for cash advances. We recommend you to exchange your currency into yen when you arrive at the Kansai (KIX) or Itami (ITM) airport or obtain yen in your own country.

## Visa

A visa is required for citizens of countries that do not have visa-exempt agreements with Japan. Please contact the nearest Japanese Embassy or Consulate for visa requirements. Detailed information is available through the Web site of the Ministry of Foreign Affairs of Japan [http://www.mofa.go.jp/j\\_info/visit/visa/index.html](http://www.mofa.go.jp/j_info/visit/visa/index.html) . For those who need invitation letters for visa arrangements, please contact the LOC.

## Electricity

Electricity is supplied at 100 volts, 60 Hz AC in western Japan including Kyoto and Osaka.

## Useful URL

[http://www.jal.com/world/en/guidetojapan/tourist\\_information.html](http://www.jal.com/world/en/guidetojapan/tourist_information.html)

## 15. Information and the website

<http://wds-kyoto-2011>

## 16. More information contact

For accommodation, or transportation, please contact the LOC:

[loc@wds-kyoto-2011.org](mailto:loc@wds-kyoto-2011.org)

For science sessions, paper submission, or abstract, please contact SOC:

[soc@wds-kyoto-2011.org](mailto:soc@wds-kyoto-2011.org)

