

IAVCEI 2013



Scientific Assembly

2nd Circular

July 20 (Sat) - 24 (Wed), 2013, Kagoshima, Japan



Forecasting Volcanic Activity

Reading and translating the messages of nature for society

<http://www.iavcei2013.com/>

Greetings

Message from Chairman of the Organizing Committee



Toshitsugu Fujii,
Chairman of the Organizing Committee,
IAVCEI 2013
Emeritus professor of the University of Tokyo

Minami-dake of Sakurajima volcano, and the last largest eruption occurred on 12th January, 1914. During this eruption, lava flow issued from one of the fissures on the flank of Minami-dake was poured into the strait between Sakurajima and Osumi-peninsula, transforming Sakurajima from an isolated island to the part of the peninsula. The ash cloud drifted northeastward and fall out ash was detected even in Kamchatka. That was also the last largest eruption we experienced within 20th century in Japan. Several centenary programs are scheduled by Kagoshima city during a period from 2013 to the centennial anniversary of 2014, and this IAVCEI Scientific Assembly is a kind of kick-off event for the series of programs.

I would like to encourage many people from different countries to attend the Assembly and discuss broad aspects of research relevant to the study and understanding of volcanoes. I hope that all of you will take advantage of the beautiful location and the interesting volcanic setting.

Dear all,

It is a great pleasure to invite you to the IAVCEI 2013 Scientific Assembly in Kagoshima city. Kagoshima city is one of the Kyushu's largest cities, and is located across Kagoshima-bay only 8 km from the summit of Sakurajima volcano which is one of the most active volcanoes in Japan.

We counted almost one thousand explosive eruptions at Sakurajima volcano last year, and its activity continues, already counting 660 explosive eruptions at the beginning of this August. You may experience ash-fall during the assembly because summer wind often brings ash cloud toward the Kagoshima city.

Frequent historical eruptions have been recorded since the 8th century at

Message from President of IAVCEI



Ray Cas,
President of IAVCEI,
Monash University,
Melbourne, Australia.

Dear Colleagues,

On behalf of the IAVCEI Community, welcome to the 2013 IAVCEI Scientific Assembly in Kagoshima, Japan. The scientific program for this Kagoshima Scientific Assembly is an exciting and very comprehensive one, catering for very diverse research interests. The organisers of the conference and the scientific program are to be congratulated on their dedicated and excellent work in organising this conference in the aftermath of the massive Tōhoku earthquake and tsunami of 11th March, 2011, and the ensuing Fukushima nuclear disaster. These extreme events have come on top of the impact of the ongoing global financial crisis, and therefore the IAVCEI international

community is very grateful to Japan, its people and its scientific community for hosting this meeting under the extremely difficult circumstances experienced by all.

Japan is no stranger to extreme natural disasters, including major volcanic eruptions, volcanic related sector collapse and debris avalanche events, and earthquakes. Here in Kyushu, in southwestern Japan, one of its most active volcanoes, Sakurajima volcano erupts continuously on the doorstep of the host city for the conference, Kagoshima. Sakurajima is a very active stratovolcano that appears to have grown on the ring fault of the Aira Caldera that formed during a major explosive eruption about 22 ka. Not far away sits Mt Unzen, which erupted continuously from 1990 to 1995. On 3rd June 1992, 43 people, mostly Japanese media people, but including three volcanologists, Katia and Maurice Krafft and Harry Glicken, were killed by a block and ash flow event. In 1792, a sector of the Mayuyama lava dome edifice of Mt Unzen collapsed, and generated a tsunami that is estimated to have killed 15,000 people. Conference participants have the opportunity to participate in fieldtrips to these iconic volcanoes and others.

Unlike AGU and EGU meetings, which occur every year, in more or less the same venue, and have developed a sameness about them, IAVCEI Scientific Assemblies occur every 4 years in different, usually exotic locations, between the major IAVCEI General Assemblies, which are held as part of 4 yearly IUGG General Assemblies. Because these two conferences allow IAVCEI to organize scientific symposia, workshops and meetings covering the spectrum of cutting edge volcanological, geochemical and geophysical research relevant to the study and understanding of volcanoes, they represent the two most important international conferences for the IAVCEI community. These conferences provide opportunities to hear cutting edge volcanological research, to network with international colleagues and to welcome and encourage our young scientists to participate in the activities of the global IAVCEI community. In more recent years, the Cities on Volcanoes conferences have also grown in importance, with a focus on the impact of volcanic events on society, hazards, and civil management of volcanic crises. The IAVCEI and IUGG General Assemblies, like AGU and EGU conferences, bring together the broader "geophysical" community to address scientific problems from an interdisciplinary approach, as well as allowing each member association of IUGG, including IAVCEI, to present its own scientific program of symposia and workshops. They are enormously fruitful and insightful meetings in allowing interaction between the volcanological community with the seismology, hydrology, cryospheric, atmospheric, oceanographic, geodetic, and magnetism research communities. The next IUGG and IAVCEI General Assembly will be held in the beautiful city of Prague, in the Czech Republic, in 2015, so be sure to make this a "must attend" meeting in your diaries.

Finally, I welcome you all as members of IAVCEI. You will all automatically become members of IAVCEI when you attend CoV7. This is free, but we invite members to become donors to IAVCEI, to help it continue its numerous activities, including supporting conferences and the participation in these by early career researchers and scientists from developing countries.

I invite you to visit the IAVCEI website to find out more about IAVCEI and its activities: <http://www.iavcei.org>

Committees

Organizing Committee

Chair: Toshitsugu Fujii

Vice-chair: Kazuhiro Ishihara

Members:

Hirokazu Hirata, Masato Iguchi, Setsuya Nakada
Takeshi Oosaka, Takashi Saito, Arata Sengoku
Hidenori Shimomura, Toshikazu Tanada, Hiromiki Terada
Kohichi Uhira, Kozo Uto

Steering Committee

Chair: Kozo Uto

Vice-Chair: Masato Iguchi

Members:

Eisuke Fujita, Daisuke Fukushima, Jun-ichi Hirabayashi
Hideo Hoshizumi, Setuya Nakada, Mitsuhiro Nakagawa
Shigeru Nakao, Hiroshi Shinohara, Takahiro Yamamoto

Honorary Advisers

Shigeo Aramaki, Yuichiro Ito, Kosuke Kamo
Kiyoo Mogi, Hiroyuki Mori, Hiroki Yoshida

Scientific Committee

Chair: Setsuya Nakada (Japan)

Members:

Patrick Allard (France), Ray Cas (Australia), Kathy Cashman (USA)
Jennie Gilbert (UK), Agust Gudmundsson (UK/Iceland),
Jun-Ichi Kimura (Japan) Joan Marti (Spain), Steve McNutt (US),
Paolo Papale (Italy), Steve Sparks (UK)

Important Dates

Grant Application Deadline	January 31, 2013 February 15, 2013
Abstract Deadline	12:00 (noon of JST), January 31, 2013 12:00 (noon of JST), February 15, 2013
Field Trip Application Deadline	12:00 (noon of JST), May 1, 2013
Early Registration Deadline	12:00 (noon of JST), May 1, 2013
Conference	July 20-24, 2013

Venue and Access

About Kagoshima

Kagoshima is located at the southern tip of Kyushu, the southernmost of the four main islands in Japan. It has a warm climate and vast area spanning 600 kilometers from north to south. Situated in close proximity to China and South Korea, it has developed a unique history and culture due to economic and cultural influences from East Asia, as well as from Europe via sea trade.

Kagoshima is one of the main food supplying regions of Japan, producing high quality agricultural and marine produce. It is also the only prefecture in Japan that has rocket launching facilities.

With the Kyushu Shinkansen going into full operation since March 2011, Kagoshima became more accessible and the number of visitors and business people doubled. It now takes 4 hour 19 minutes to travel from the JR Shin-Osaka station in Kansai to Kagoshima Chuo station on "Sakura", the new Shinkansen train. In addition, Kagoshima airport, the hub of southern Kyushu, has regular international flights from Taipei, Shanghai and Seoul, which are in turn connected to nine major Japanese cities such as Tokyo, Osaka, and Nagoya, as well as eight islands of Kagoshima prefecture, via domestic flight.

Kagoshima City welcomes you with its wonderful grandiose view of Sakurajima, an active volcano, right in front of the city center. The former has grown into a major city in southern Kyushu with a population of approximately 606,000 people. The various city sights can be accessed via the street trams and sight-seeing buses. With magnificent scenery and delicious local food, the warm southern hospitality will make your stay and unforgettable one.

The IAVCEI 2013 Scientific Assembly welcomes you to this charming city.

Venue

Main Conference Hall (Friday-Wednesday)

Registration desk, poster session room and oral presentation rooms

Kagoshima Prefectural Citizens Exchange Center

Website: <http://www.kagoshima-pac.jp/inetEn/iEn/inet/welcome>

*14-50, Yamashitacho, Kagoshima City, Kagoshima Prefecture, Japan 892-0816



Sub Main Conference Hall (Friday-Wednesday)

Oral presentation rooms

Kagoshima Citizens Social Support Plaza

*15-1, Yamashitacho, Kagoshima City, Kagoshima Prefecture, Japan 892-0816
(A five story square building opposite the Kagoshima Prefectural Citizens Exchange Center)

* From JR Kagoshima Chuo Station

Taxi: The travel time will be 15 minutes.

Tram: From Kagoshima Chuo Station alight at Shiyakusho-mae (the City Hall) stop, the 8th station, and walk to the center. The tram fare will be 160 yen for adults

and the travel time is approximately 30 minutes.



* From JR Kagoshima Station
A 10-minute walk to the center.

* From Kagoshima Airport
Airport Limousine Bus: Take the bus going to Kagoshima City via Yoshino, via Ishiki or via Kagoshima Chuo station.
Alight at Kinsei-cho for the bus via Yoshino and via Ishiki and at Shiyakusho-mae (Kagoshima City Hall) for the bus via Kagoshima Chuo station. It will be a 10-minute walk to the center from Kinsei-cho and a 5-minute walk from Shiyakusho mae. The bus fare is 1,200 yen for adults and the total travel time will be approximately 60 minutes for the bus via Yoshino and Ishiki and 50 minutes for the bus via Kagoshima Chuo station.

Opening Ceremony (Saturday Morning)

Houzan Hall(Kagoshima Prefectural Culture Center)

*5-3 Yamashitacho, Kagoshima City, Kagoshima Prefecture, Japan, 892-0816

* From the Main Conference Hall
A 5-minute walk to Houzan Hall

* From JR Kagoshima Chuo Station
Taxi: The travel time is approximately 10 minutes.
Tram: Take the train from Kagoshima Chuo Station and alight at Asahi-dori, the 7th station, and walk to Houzan Hall. The tram fare is 160 yen for adults. The travel time will be approximately 25 minutes.

* From JR Kagoshima Station
A 15-minute walk to Houzan Hall.

* From Kagoshima Airport

Airport Limousine Bus: Take the bus going to Kagoshima City via Yoshino, via Ishiki or Kagoshima Chuo station. Alight at Kinsei-cho for the bus via Yoshino and Ishiki and at Shiyakusho-mae(Kagoshima City Hall) for the bus via Kagoshima Chuo station. It will be a 5-minute walk to Houzan Hall from Kinsei-cho and Shiyakusho-mae. The total travel time will be about 60 minutes for the bus via Yoshino and via Ishiki and about 50 minutes for the bus via Kagoshima Chuo station. The bus fare is 1,200 yen for adults.



Air Routes

There are direct flights to Kagoshima Airport from Shanghai, Seoul, and Taipei.

You can also fly into Kagoshima Airport using domestic flights from Narita International Airport, Haneda International Airport, Chubu Centair International Airport, Kansai International Airport, and Fukuoka International Airport.

Or, you can take the Bullet Train (JR Kyushu Shinkansen) from Osaka (JR Shin-Osaka Station) or Fukuoka (JR Hakata Station) and alight at Kagoshima Chuo Station.

1. From Narita International Airport, make a domestic connection from Tokyo Haneda Airport by taking the Airport Limousine Bus to Tokyo Haneda Airport.
2. From Haneda International Airport, take a domestic flight from the domestic terminal to Kagoshima Airport.
3. From Chubu Centair International Airport, take a domestic flight from the domestic terminal to Kagoshima Airport.
4. From Kansai International Airport, you can either take the direct flight (There are two Peach flights per day with a travel time of 70 minutes), or make a domestic connection from Osaka (Itami) International Airport by taking the Airport Limousine Bus to Osaka (Itami) International Airport.
5. From Fukuoka International Airport, take a bus or taxi to Fukuoka JR Hakata Station and take the Bullet Train (Kyushu Shinkansen) to Kagoshima Chuo Station. (There are 37 trains operating per day with a travel time of 77 to 107 minutes).



Air Lines to Kagoshima Airport

International

FROM	Airlines	Flights/Week	Flight Time: Min/To Kagoshima
Incheon, Korea	Korean Air Japan Airlines (JAL)	3	95
Shanghai, China	China Eastern Japan Airlines (JAL)	4	110
Taipei, Taiwan	China Airlines	3	130

Domestic

FROM	Airlines	Flights/Day	Flight Time: Min/To Kagoshima
Tokyo (Haneda Airport)	Japan Airlines (JAL) All Nippon Airways(ANA) Solaseed air Skymark airlines (SKY)	22	105
Chubu Centrai Airport	All Nippon Airways(ANA)	4	80
Osaka (Kansai International Airport)	Peach aviation(Peach)	2	75
Osaka (Itami Airport)	Japan Air Comuter (JAC) All Nippon Airways(ANA)	14	70
Fukuoka	Japan Air Comuter (JAC)	3	45 to 55
Naha, Okinawa	All Nippon Airways(ANA) Solaseed air	3	80

Registration

Deadlines

Early Registration	12:00 (JST), May 1, 2013
Late Registration	12:00 (JST), July 2, 2013

Pre-registration is encouraged and will entitle you to reduced fees. After the receipt of registration information and payment, the IAVCEI2013 Registration Desk will send an e-mail of confirmation which should be printed and presented at the conference registration desk at the venue.

Registration Fees

	Early Bird (Before May 1, 2013)	Late Registration (May 1 through July 2, 2013)	On-site Registration (After July 2, 2013)
IAVCEI Donor member VSJ Member			
General	JPY 45,000	JPY 55,000	JPY 75,000
Student or Senior	JPY 20,000	JPY 25,000	JPY 35,000
IAVCEI Non-donor member VSJ Non-member			
General	JPY 55,000	JPY 65,000	JPY 75,000
Student or Senior	JPY 25,000	JPY 30,000	JPY 35,000
Accompanying Person	JPY 20,000	JPY 25,000	JPY 30,000

IAVCEI Donor member: Life donor, Donor, or Honorary member, VSJ (Volcanological Society of Japan) member: Regular or supporting member

Senior: person aged 70 or more

Note: The Member's price is applicable only after you become a member of IAVCEI or VSJ. Before you register for this conference, be sure to register and become a member of IAVCEI or VSJ.

IAVCEI Registration Desk will refer to the Member List. If we cannot confirm your membership, the Non-Member Registration Fee will apply.

Registration fee includes:

1. – Conference registration
2. – Ice breaker (on July 19)
3. – Gala party (on July 22)
4. – Mid conference field trip (on July 22)
5. – Coffee breaks
6. – Congress bag and materials (not for accompanying persons)

Accompanying Person's fee includes:

1. - Ice breaker (on July 19)
2. - Gala party (on July 22)
3. - Mid conference field trip (on July 22)
4. - Coffee breaks

The Accompanying Person is not allowed to attend the scientific program.

Those who wish to attend IAVCEI 2013 should register online.

Click here for Online Registration
<https://www.gakkai-web.net/gakkai/ech/iavcei/index.html>

Procedure for Conference Registration
[procedure_conf121106.pdf](#)

Payment Methods

Payment can be made by credit card in Japanese Yen. Visa, MasterCard and JCB are accepted.

The IAVCEI 2013 Organizing Committee has entrusted Event & Convention House, Inc. with part of the management.

Please note that the drawer's name will appear as "KNT EVENT&CONVENTION" on your bank note.

If you wish to pay via bank transfer or Paypal, please contact the IAVCEI 2013 Registration Desk (see below).

Cancellation Policy

Written notification of cancellation must be received by the IAVCEI 2013

Registration Desk (iavcei2013reg@ech.co.jp) before a refund can be issued (notification by phone is not accepted).

An administrative charge will be deducted from the amount, based on the date the cancellation letter is received.

All refunds will be processed after the conference.

Registration fee & Party fee

Before May 2, 2013: A complete refund minus a JPY 10,000 administrative charge (per participant) will be given.

Before July 2, 2013: 50% refund.

After July 3, 2013: No refund will be given.

Field trip fee

Before June 15, 2013: A complete refund minus a JPY 10,000 administrative charge (per participant) will be given.

Before July 2, 2013: 50% refund.

After July 3, 2013: No refund will be given.

Accommodation

A variety of accommodations are within walking distance of the venues.

We will soon provide a link to the web site which offers a list of hotels specifically arranged for this conference operated by KNT, the official travel agent of IAVCEI2013.

You are free to make the hotel reservation through the KNT site or to use other hotel reservation services elsewhere.

Hotel Information



Airport Limousine Bus stop



【Hotel List】

1	Castle Park Hotel	9	KAGOSHIMA PLAZA HOTEL TENMONKAN	17	JR Kyushu Hotel Kagoshima
2	Richmond Hotel Kagoshima Kinseicho	10	Kagoshima Washington Hotel Plaza	18	HOTEL URBIC KAGOSHIMA
3	HOTEL SUNFLEX KAGOSHIMA	11	Hotel Lexton Kagoshima	19	Toyoko Inn Kagoshima Chuo-eki Nishi-guchi
4	remm KAGOSHIMA	12	Hotel Hokke Club Kagoshima	20	Kagoshima Sun Royal Hotel
5	Toyoko Inn Kagoshima Tenmonkan No2	13	SOLARIA NISHITETSU HOTEL KAGOSHIMA	21	KAGOSHIMA TOKYU HOTEL
6	Chisun Inn Kagoshima	14	KAGOSHIMA TOKYU INN	22	KAGOSHIMA DAHCHI HOTEL KAMOIKE
7	Sun Days Inn Kagoshima	15	HOTEL TAISEI ANNEX		
8	BlueWave Inn Kagoshima	16	Toyoko Inn Kagoshima Chuo-eki Higashi-guchi		

Scientific Program

Symposium 1: Magma Processes

- 1-1. Initiation and evolution of oceanic arcs into continental crust and IODP drilling
- 1-2: Frontiers in large igneous provinces research:
 - 1-2: a tribute to the life and career of John Mahoney
- 1-3. Volatile in magma processes
 - 1-3a. Cycles of volatiles at subduction zones
 - 1-3b. A halogen session
- 1-4. Magma processes in crust
 - 1-4a. Deep crustal processes in magmatic arcs
 - 1-4b. The crustal architecture of magmatic systems
 - 1-4c. Making andesite in oceanic and continental arcs
- 1-5. Generation, transportation, and emplacement of magma in continental crust
- 1-6. Insights into magma chamber processes and
 - 1-6. volcanic forecasting from combined petrological and timescale information
- 1-7. Geothermal activity
 - 1-7a. Geothermal energy utilization frontier
 - 1-7b. The dynamics of magma-geothermal systems

Symposium 2: Monitoring, Observation and Modeling of Volcanic Processes

- 2-1. Volcanic seismology
 - 2-1a. Volcanic tremor, seismic events and volcanic conduit dynamics:
 - 2-1a. understanding based on field observations, experiments, and modeling
 - 2-1b. Seismic triggering of volcanic eruptions and related activities
- 2-2. Imaging and monitoring of volcanic activity
 - 2-2a. High-level volcano monitoring and data interpretation
 - 2-2b. Electromagnetic and other geophysical methods for imaging and
 - 2-2b. monitoring on going activity
 - 2-2c. Imaging volcanoes and geothermal systems with muon radiography
 - 2-2d. Remote sensing in volcanology: monitoring, hazard assessment and validation
 - 2-2e. Terrain modeling of active volcanoes with photogrammetry, radar,
 - 2-2e. and LiDAR techniques
- 2-3. Stress, strain, and mass changes at active volcanoes
- 2-4. Volatile tracking of magma degassing processes and volcanic eruptions
- 2-5. Structure and properties of magmatic liquids
- 2-6. Dynamics of volcanic processes
 - 2-6a. Linking petrology, rheology, and numerical modelling
 - 2-6b. Controlling factors and complex behaviors
 - 2-6c. Open system volcanoes
 - 2-6d. Understanding sudden effusive-explosive transitions
- 2-7. Experimental volcanology

Symposium 3: Eruption Processes and Volcano Evolution

- 3-1. Origin, evolution and eruption of ocean island volcanoes
- 3-2. Monogenetic volcanism
- 3-3. Caldera
 - 3-3a. Context, formation, evolution, structure, unrest, products, hazard, resources
 - 3-3b. Changbaishan volcano
- 3-4. Evolution of eruptive craters, vents and conduits from feeding dikes, sills, and magma chambers
- 3-5. Volcanic plume dynamics
- 3-6. The complexity and diversity of pyroclastic fall out deposits
- 3-7. Pyroclastic density currents from source to sediment
- 3-8. Lahars: Flow, sediment transport and deposition processes from direct observations, deposits, theory and experiments
- 3-9. Lava flows
 - 3-9a. Advanced imaging and analysis of lava flows
 - 3-9b. Processes of pillow formation and constraints for eruption conditions and eruption environments
- 3-10. Active crater lakes
- 3-11. Carbon dioxide emission from volcanoes and tectonically active regions
- 3-12. Volcano-Ice interaction and planetary volcanism

Symposium 4: Volcanic Hazards, Risk and Environmental Impact

- 4-1. Forecasting the weather and climate effects of volcanic eruptions
- 4-2. Environmental and ecosystem impacts of persistent volcanic degassing and recent eruptions
- 4-3. Forecasting volcanic hazards
 - 4-3a. Probabilistic volcanic eruption hazards and risk
 - 4-3b. Forecasting short-term volcanic hazards: methods, paradigms, case studies, and practices
 - 4-3c. Real-time volcano hazard assessment
 - 4-3d. Forecasting and mapping medium/long-term volcanic hazards
- 4-4. Testing eruption forecasts from statistical, geophysical, and laboratory models
- 4-5. Open issues and missing links in volcanology and volcano physics
- 4-6. Responding to volcanic health hazards
- 4-7. Volcanic ash impacts, mitigation and warning
- 4-8. Recent eruption impacts and mitigation - a focus on both infrastructure and community volcanic hazard management
- 4-9. Databases in volcanology
 - 4-9a. Global volcano model
 - 4-9b. Data science/informatics and data assimilation in geosciences
- 4-10. Other topics related to education, tourism and geoparks

Field Trips

Mid-Conference Field Trip (on July 22)

Course No.	Course	Fee per person
M1	Ibusuki Course: Visit to Kaimondake volcano and Ikeda caldera	included in the registration fee
M2	Aira Course (A), Round trip of Aira caldera: Visit to Kirishima and Sakurajima volcanoes	
M3	Aira Course (B), Round trip of Aira caldera: Visit to Kirishima and Sakurajima volcanoes	

*M2 and M3 courses stop at the same site. Only the visiting order is different.

Capacity is limited in each course.

Registration is on a first come, first served basis.

Detailed information will be announced later.

Those who wish to apply for the **Mid-conference field trip (on July 22)** should register online.

Click here for Online Registration
<https://www.gakkai-web.net/gakkai/ech/iavcei/index.html>

Capacity is limited in each course. Registration is on a first come, first served basis.

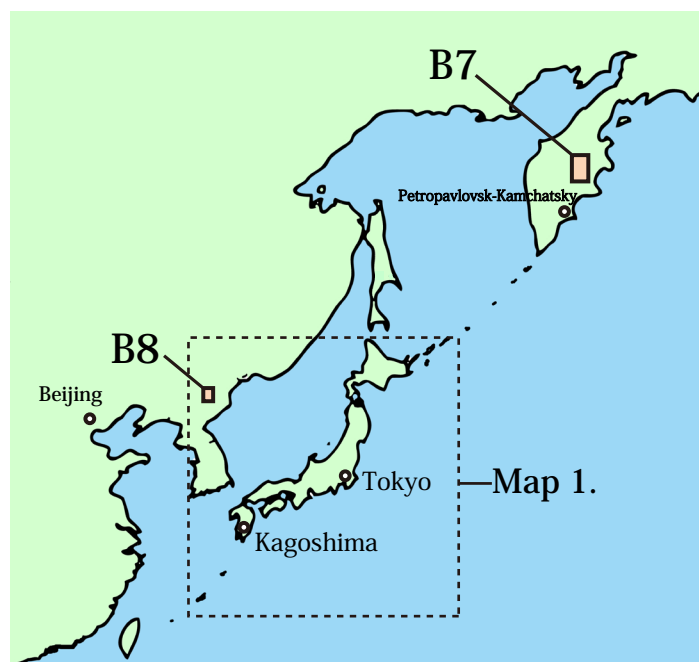
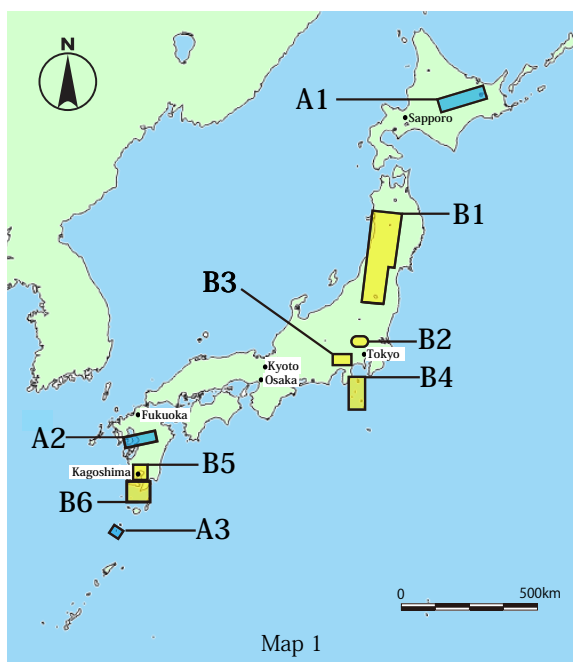
The steering committee will accommodate the trips and will soon announce to applicants which course they can participate.

Online registration is not available for the Pre-Field Trips and Post Field Trips.

Those who wish to apply for the **Pre-Conference Field Trips** or **Post-Conference Field Trips B1-B6** should fill in the application form (word file) and submit it to the IAVCEI 2013 Registration Desk **by May 1, 2013**. Those who can participate in each trip must pay the fee until May 15, 2013.

For **Post-Conference Field Trips B7 and B8**, please contact each contact person directly.

A deadline of the application for these trips will be **April 1, 2013**.



Application Form for Pre- and Post-Conference Field Trips (word file)
<http://www.iavcei2013.com/wd/fieldtrip.doc>

Cancellation Policy

Written notification of cancellation must be received by the IAVCEI 2013

Registration Desk (iavcei2013reg@ech.co.jp) before a refund can be issued (notification by phone is not accepted).

An administrative charge will be deducted from the amount based on the date the cancellation letter is received.

All refunds will be processed after the conference.



Field trip fee

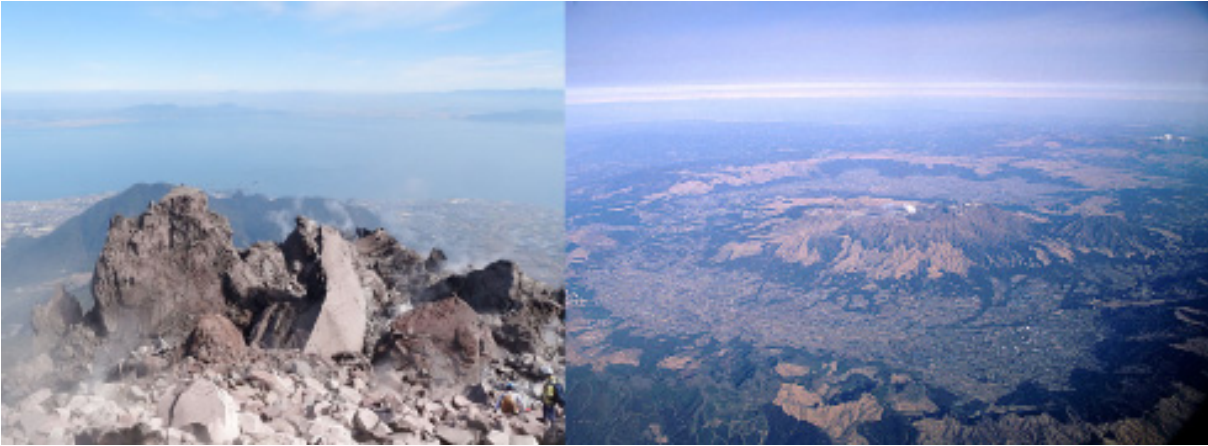
Before June 15, 2013: A complete refund minus a JPY 10,000 administrative charge (per participant) will be given.

Before July 2, 2013: 50% refund.

After July 3, 2013: No refund will be given.

Pre-Conference Field Trips

A1	<p>Calderas and active volcanoes in central to eastern Hokkaido Departure & Destination: Asahikawa; Kushiro Airport Date: July 13 (Sat.) - July 19 (Fri.), 2013 Cost: JPY 100,000 Including transportation from Asahikawa to Kushiro Airport, all meals and accommodations Participants: 10 (min) - 15 (max)</p>	
	<p>Leaders: Takeshi Hasegawa (Ibaraki Univ.), Hiroshi Kishimoto (Asia Air Survey Co. Ltd) and Mitsuhiro Nakagawa (Hokkaido Univ.)</p>	<p>Contact: Takeshi Hasegawa: hasegawt@mx.ibaraki.ac.jp</p>
<p>July 13 (Sat): Stay at Asahikawa city July 14 (Sun): Tokachi-dake volcano trekking (block-and-ash flows, active craters, snow-melt lahars), stay at Sounkyo hot spring July 15 (Mon): Ignimbrites from Akan volcano (composite caldera, proximal deposits of caldera-forming eruption, interfingering with exotic tephra), stay at Lake Akan July 16 (Tue): Me-akan trekking (post-caldera activity, young lava flows, historic eruptions), stay at Kawayu spring July 17 (Wed): Ignimbrites from Kutcharo caldera and post-caldera volcanoes (emplacement of ignimbrite, magmatic processes of caldera-forming eruption, active lava dome), stay at Kawayu spring July 18 (Thu): Mashu volcano products (Holocene caldera, zoned magma chamber, magma-water interaction), stay at Kushiro city July 19 (Fri): Subaqueous pyroclastic flows (short stop), head to Kushiro airport in the morning</p> <p>Hokkaido is situated at the junction of two arc-trench systems, the NE Japan and Kuril arcs, both of which have experienced intense volcanism since late Miocene. We will visit central and eastern Hokkaido, where locates at the southern end of the Kuril arc. We will focus on various types of younger volcanoes, calderas (Akan, Kutcharo and Mashu), a volcanic complex (Taisetsu-Tokachi volcano group), and post-caldera volcanoes (Me-Akan and Atosanupuri). These volcanoes have erupted tephra deposits that are widely distributed in Hokkaido. We will investigate these deposits to reconstruct the eruption sequences and magmatic processes. In addition, we will climb Tokachi-dake and Me-Akan volcanoes to investigate their respective structures. We will also focus on the snow-melt lahar associated with the AD 1926 eruption of Tokachi-dake volcano, which caused severe hazards and killed 144 people.</p> <p>The participants are required to book into a hotel at Asahikawa on July 13 (Sat.) and will be sharing rooms from July 14 to 18. Further details of the field trip will be announced after the application process.</p>		
<div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: center;">Photo. Me-akan volcano (left) and the outcrop of the Kutcharo pyroclastic flow deposits (right)</p>		

A2	<p>Unzen and Aso volcanoes, central Kyushu, Japan: New lava dome climb and 1991-95 pyroclastic flows (Unzen) and active crater and one of the largest caldera in Japan (Aso)</p> <p>Departure & Destination: Kumamoto; Kumamoto Date: July 15 (Mon.) - July 19 (Fri.), 2013 Cost: JPY 65,000 Including transportation from Kumamoto to Kumamoto, all accommodations and meals (except for first and second day's dinners) Participants: 18 (min) - 24 (max)</p>	
	<p>Leaders: Shinji Takarada (AIST), Yasuo Miyabuchi (Kumamoto Univ.), Hideo Hoshizumi (AIST) and Takeshi Matsushima (Kyushu Univ.)</p>	<p>Contact: Shinji Takarada: s-takarada@aist.go.jp</p>
<p>July 15 (Mon): JR Kumamoto Station (9:15) and Kumamoto Airport (10:00) - Oyatsu (Aso-4 ignimbrite) - Namino (Aso central cone tephra) - Daikanbo (overview) - Kario (Aso-4 lag breccia)</p> <p>July 16 (Tue): Nakadake central crater - Kusasenri - Komezuka (scoria cone) - ferry to Shimabara</p> <p>July 17 (Wed): Unzen Disaster Museum - Lahar Museum - Kita-Kamikoba (1991 block-and-ash flow and surge deposits) - Onokoba school (September 15, 1991 surge deposit) - Taruki plateau (Taruki debris avalanche deposit) - Minami Senbongi (1993 block-and-ash flow and surge deposits) - Unzen hot spring</p> <p>July 18 (Thu): Nita Pass (viewing point) - aerial tramway - Unzen (new lava dome climb) - Unzen fumarolic area - Unzen hot spring</p> <p>July 19 (Fri): Kureishibaru (19 ka low-aspect-ratio PF) - 1792 lava flow - Mutsugi (4 ka PF) - overview and 1792 Mayuyama debris avalanche deposit - ferry - JR Kumamoto Station (15:05)</p> <p>This trip will visit two active volcanoes, Unzen and Aso, in central Kyushu, southwestern Japan, to observe volcanic deposits and study their impacts on the residents around the volcanoes. The 1990-1995 eruption of Unzen volcano resulted in one of Japan's largest volcanic disasters in the 20th century. Shimabara city and its environs were damaged by repeated pyroclastic flows and lahars. We will climb the new lava dome, visit the devastated area, and observe the 1991-1995 dome-collapse type block-and-ash pyroclastic-flow and lahar deposits. Furthermore, we will examine older deposits around the volcano and discuss the growth history starting from 500 ka.</p> <p>Aso volcano, located about 70 km ENE of Unzen, is one of the most beautiful caldera volcanoes in the world. The caldera, which is 25 km north-south and 18 km east-west in diameter, was formed by four gigantic pyroclastic-flow eruptions from 270 to 90 ka. The post-caldera central cones initiated their eruptive activity just after the last caldera-forming eruption and have produced large volumes of fallout tephra layers and lava flows. Nakadake volcano, the only active central cone, is one of the most active volcanoes in Japan. Its recent activity is characterized by ash and strombolian eruptions and phreatic or phreatomagmatic explosions. This field trip will focus on the gigantic pyroclastic-flow deposits related to the caldera formation and the explosive and effusive post-caldera activity of the volcano.</p> <p>Field boots and gloves are needed for the new lava dome climb. Rain gear and sun protection cream are highly recommended.</p> <p>Meeting place: JR Kumamoto Station (9:00) or Kumamoto Airport (9:45) on July 15. Transportation from JR Kumamoto Station or Kumamoto Airport (July 15) to JR Kumamoto Station (July 19), round trip by ferryboat from Kumamoto to Shimabara, aerial tramway at Unzen summit area, Unzen Disaster Museum entrance fee, and all accommodations and meals (except dinner on the 1st and 2nd nights) are included.</p>		
		
<p>Photo. Heisei-Shinzan new lava dome and Mayuyama lava dome (behind), Unzen volcano (left) and aerial view of Aso caldera (right)</p>		

A3	<p>Suwanosejima- Lighthouse on the East China Sea: Ongoing strombolian activity and proximal facies of the 1813 eruption</p> <p>Departure & Destination: Kagoshima; Yakushima Date: July 15 (Mon.) - July 18 (Thu.), 2013 Cost: JPY 70,000 Including transportation during excursion from Kagoshima to Yakushima, all meals and accommodations Participants: 10 (min) - 15 (max)</p>	
	<p>Leaders: Taketo Shimano (Fuji Tokoha Univ.), Nobuo Geshi (AIST) and Hiroshi Yakiwara (Kagoshima Univ.)</p>	<p>Contact: Taketo Shimano: shimano@fuji-tokoha-u.ac.jp</p>

- July 15 (Mon): overnight at Kagoshima (Ferry Toshima)
- July 16 (Tue): Suwanosejima (10:00 pick-up by car), visit some outcrops of the 1813 eruptive deposits around the village and go to a local school for an introduction to the Suwanosejima culture and to the volcano by native students and field trip leaders, welcome party
- July 17 (Wed): Climb Otake volcano to see the active crater and the proximal deposit from the 1813 eruption and recent activity
- July 18 (Thu): pick-up by car - Port (departure), cruise around Suwanosejima and Tokara Islands (Nanashima 2 ship) - Yakushima (afternoon)

This field trip will visit Suwanosejima volcanic island, one of the most active volcanoes in Japan and sometimes called the "Lighthouse of East China Sea." This volcano has been active for more than 50 years, with strombolian to vulcanian activities that emit ash and ballistic ejecta. We will climb the summit of Mt. Otake, 799 m asl, to observe the current activities in the crater (very quiet as of October 2012). We will also visit some of the geophysical monitoring sites in the proximal area and examine the deposit from the 1813 eruption, the largest known eruption of this island. We will focus on some aspects of the proximal facies of the 1813 sub-plinian eruption, consisting of clastogenic lava flows and agglutinate, as well as the distal scoria-fall deposits.

We will take the local ferry "Toshima" from Kagoshima to Suwanosejima island. This boat will pass along the volcanic islands of the Kirishima-Ryukyu arc. We will return to Yakushima aboard the chartered boat "Nanashima 2," which will go around Suwanosejima, allowing us to see coastal volcanic deposits, and then cruise along the volcanoes of the Tokara islands toward Yakushima island; this area is one of the most popular natural heritage sites in Japan.

Note: The boat trip to Suwanosejima is frequently cancelled or its schedule changed due to bad sea conditions caused by typhoons. This field trip may also be cancelled, even immediately before it starts, if there is a risk of the boat trip being cancelled due to stormy weather. Field boots are needed for the climb. Rain gear and sun protection cream are also highly recommended. There are no shops and banks in Suwanosejima island, only some drink vending machines. The trip fee covers all three meals (mainly Japanese-style seafood) and 4 liters of water daily. Participants should bring any other provisions they would need. The trip ends on arrival at Miyanoura port in Yakushima island (afternoon of July 18). Participants can choose to return immediately to Kagoshima or stay overnight at Yakushima island, which is a famous world heritage site because of its deep forest of old cedar. There are several direct ship connections between Yakushima and Kagoshima. Additional information about the ship to Kagoshima, as well as optional tours and accommodations in Yakushima, will be provided.



Photo. The summit crater of Suwanosejima volcano (left) and tephra layers of AD 1813 eruption (right)

Detailed information will be announced.

Post-Conference Field Trips

B1	<p>Active volcanoes in Northeast Japan Departure & Destination: Kagoshima; Yakushima Departure & Destination: Koriyama; Akita Date: July 26 (Fri.) - July 30 (Tues.), 2013 Cost: JPY 75,000 Including transportation from Koriyama to Akita, all meals (except for lunch) and accommodations. Participants: 5 (min) - 15 (max)</p>	
	<p>Leaders: Masao Ban (Yamagata Univ.), Tsukasa Ohba (Akita Univ.) and Akihiko Fujinawa (Ibaraki Univ.)</p>	<p>Contact: Masao Ban: ban@sci.kj.yamagata-u.ac.jp</p>

- July 26 (Fri): Meet at JR Koriyama Station (9:00) - Bandai volcano - (1) Okinajima debris avalanche deposit - (2) the Bandai 1888 Eruption Memorial Museum - (3) the amphitheater formed in Bandai by the explosive sector collapse in AD 1888 - observation of the outcrop of the debris avalanche - hotel at the eastern foot of Azuma volcano
- July 27 (Sat): Depart from hotel - Azuma volcano - (1) trekking around the c. 6ka Azuma-Kofuji pyroclastic cone (fallout ejecta, including bread-crust bombs, agglutinate, and rootless lava, are observable) - (2) trekking around the Ohana crater (gigantic bread-crust bomb ejected in AD 1331) - hotel at the eastern foot of Zao volcano
- July 28 (Sun): Depart from hotel - Zao volcano - (1) tephra layers from 30ka~recent activities - (2) Goshikidake pyroclastic cone (< c. 2ka) and Okama crater lake (< AD1227) with AD 1895 hydrothermal pyroclastic eruption deposits - (3) pyroclastic density current deposits of 30ka~recent activities - (4) optional viewing of calc-alkaline basaltic lava flows - hotel at the eastern foot of Iwate volcano
- July 29 (Mon): Depart from hotel - (1) Yakehashiri lava of Iwate volcano - (2) hydrothermal eruption craters on the summit of Hachimantai volcano - (3) trekking on Akita Yakeyama volcano and viewing of hydrothermal eruption deposits - (4) observation of the active geothermal field around the Tamagawa hot spring - hotel near Lake Tazawako
- July 30 (Tue): Depart from hotel - (1) pyroclastic deposits near Tazawako caldera, with optional visit to a museum - (2) distant view of Megata and Toga volcanoes, with optional approach to the Megata maar lakeside - (3) outcrops of pyroclastic deposit from the Toga tuff ring and/or the Miocene pillow lava - JR Akita station (ca. 15:00) - on request, head to Akita airport (ca.16:00)

Northeast Japan, a mature island arc, has many stratovolcanoes along with some other volcano types. Eighteen of these volcanoes are active. Most of the stratovolcanoes in NE Japan are thought to follow a general evolutionary course consisting of (1) cone building, (2) caldera collapse, and (3) post-caldera stages. We will visit the following six active volcanoes and observe the geologic features of their activities during various evolutionary stages: the Iwate volcano, which is in the cone-building stage; the Bandai volcano, which is in the caldera-forming stage; and the Azuma, Zao, Akita-Yakeyama, and Hachimantai volcanoes, which are in the post-caldera stage. The latest eruptions took place in AD 1888 at Bandai, in AD 1977 at Azuma, in AD 1940 at Zao, in AD 1919 at Iwate, and in AD 1997 at Akita-Yakeyama. Among these, the 1888 eruption in Bandai is famous for a sector collapse that accompanied a debris avalanche phenomenon, which was the first ever reported in the world. Around Akita-Yakeyama, one can enjoy a spectacular view of a geothermal field. We will also visit Ichinomegata maar (80 to 60 ka), which features mantle xenoliths, and the Toga tuff ring.



B2	<p>Active volcano in central Japan: Asama Volcano Departure & Destination: Sakudaira; Karuizawa Date: July 26 (Fri.) - July 29 (Mon.), 2013 Cost: JPY 67,000 Including transportation from Sakudaira station to Karuizawa station, breakfasts and one evening meal, and accommodations. Participants: 10 (min) - 20 (max)</p>	
	<p>Leaders: Maya Yasui, Masaki Takahashi (Nihon Univ), Shigeo Aramaki (Inst. Env. Sci, Yamanashi) and Takashi Tsutsumi (Asama Jomon Museum)</p>	<p>Contact: Maya Yasui: yasui@chs.nihon-u.ac.jp</p>

- July 26 (Fri): Assemble at Sakudaira station (Nagano Shinkansen) at 10 am. Short lecture on volcanology, volcanic hazards, and archaeology at Asama Jomon Museum. Brief stops around Komoro area to see pumice flow deposits of ca.13ka.
- July 27 (Sat): One-day trek to Mt. Kurofu (2400m) to discuss the history of Asama volcano. The excursion will reach the edge of a gigantic horseshoe-shaped crater formed by a sector collapse in ca. 24 ka.
- July 28 (Sun) and 29 (Mon): Viewing of many outcrops that provide evidence for the discussion of the 1783 eruption style, including deposits of pumice fall, pyroclastic flows, and clastogenic lava. The mysterious Kambara pyroclastic flow/debris avalanche deposit of the 1783 eruption, which includes huge blocks up to 60m in diameter, will also be investigated. An archaeological excavation site buried by the devastating flow will be visited.

The excursion will end at the Karuizawa station (Nagano Shinkansen) on the evening of July 29.

Asama volcano, located near the Tokyo metropolitan area, is one of the most active volcanoes in Japan. It has had frequent vulcanian eruptions since the beginning of the 20th century, and small eruptions recently occurred in AD 2004 and 2009. We will investigate the eruptive history of the volcano, including stratovolcanoes, pyroclastic cones, and lava domes. Focusing on its famous, great eruption in AD 1783, we will discuss the eruption style based on the latest research on the proximal depositional processes of pyroclastic materials to form pyroclastic cones and clastogenic lava during a plinian eruption. We will also discuss how the volcanic edifice grows through such proximal processes.



Photo. Asama volcano (left) and its summit crater (right)

B3	<p>Fuji and Hakone volcanoes: Typical Japanese stratovolcanoes Departure & Destination: Haneda Airport; Narita Airport Date: July 25 (Thu) - July 28 (Sun), 2013 Cost: JPY 50,000 Including transportation from Haneda to Narita Airport, all meals and accommodations. Participants: 10 (min) - 20 (max)</p>	
	<p>Leaders: Takahiro Yamamoto, Akira Takada (AIST) and Kazutaka Mannen (Hot Spring Research Institute of Kanagawa Prefecture)</p>	<p>Contact: Takahiro Yamamoto: t-yamamoto@aist.go.jp</p>

- July 25 (Thu): Assemble at Haneda Airport - proceed to Hakone
- July 26 (Fri): Walk to Owakudani, an active fumarole of Hakone volcano - drive to the south flank of Fuji volcano - hike to the AD 1707 Hoei crater - observe tephra deposits at the southeast flank of Fuji - proceed to Yamanakako, Fuji
- July 27 (Sat): Drive to the north flank of Fuji volcano - observe the AD 864-866 lava flow - visit the Fuji Museum – return to Yamanakako
- July 28 (Sun): Depart from Yamanakako - arrive at Narita International Airport in the afternoon

Fuji and Hakone volcanoes, on the northern end of the Izu-Bonin-Mariana arc, are famous sightseeing spots in Japan because of the great views, hot springs, and many amusement facilities in their surrounding areas. However, both Fuji and Hakone are active volcanoes with potential hazards. The field trip will visit the AD 1707 Hoei crater and the AD 864-866 lava flows of Fuji volcano and the active fumarole vent of Hakone volcano.

The AD 1707 plinian eruption was the most explosive activity of Fuji volcano. The eruption began at the SE flank, and its fallout was dispersed eastward toward Tokyo. The volume of tephra was estimated to be 0.7 km³ DRE. The AD 864-866 lava flow was one of the most voluminous in Fuji volcano. The lava was extruded from fissure vents at the NW flank, and its volume reached 1.5 km³ DRE. Hakone volcano, located east of Fuji, is accompanied by a 10-km-diameter caldera and central cones. There are many hot springs within the caldera. We will visit the Owakudani tourist site and observe the fumarolic activity of Hakone volcano.



Photo. Mt. Fuji and the Hoei crater

B4	<p>Basaltic and rhyolitic island volcanoes in the Izu Islands Departure & Destination: Tokyo; Tokyo Date: July 26 (Fri.) - July 29 (Mon.), 2013 Cost: JPY 105,000 Including transportation, all meals (except breakfast on July 26) and accommodations. Participants: 10 (min) - 20 (max)</p>	
	<p>Leaders: Masashi Tsukui (Chiba Univ.), Yoshihisa Kawanabe (AIST), Jun'ichi Itoh (AIST), Koichiro Saito (JMA) and Hidefumi Watanabe(Tokyo Metropolitan Government).</p>	<p>Contact: Masashi Tsukui: tsukui@faculty.chiba-u.jp</p>

- July 26 (Fri): 7:30 a.m. at Takeshiba Pier Passenger Terminal (Tokyo) - high-speed jet ferry to Izu-Oshima - Mihara crater, 1778 central scoria cone, and 1986 lava flow - crater chains in 1986 fissure eruption - Motomachi (1986 lava flow)
- July 27 (Sat): "The great road cut" of Izu-Oshima tephra - 9th century Habu maar - Pre Izu-Oshima basement volcano - monitoring system for Izu-Oshima - Izu-Ōshima Museum of Volcanoes
- July 28 (Sun): "Akappage" (volcano with eroded flank) - high-speed jet ferry to Niijima - Fuji-mi Pass viewing point overlooking Niijima island (lunch) - Wakago area (basaltic hydromagmatic explosion breccia)
- July 29 (Mon): Habushi-Ura (rhyolitic pyroclastic flow and surge) - Omine (rhyolitic pyroclastic cone) - Mukaiyama (rhyolitic lava dome) - high-speed jet ferry - 6:00 p.m. arrival at Takeshiba Pier (Tokyo)

This trip visits two topographically and petrologically contrasting active volcanoes in the Izu islands, the basaltic Izu-Oshima and the rhyolitic Niijima volcano. Izu-Oshima has erupted more than a hundred times during the last 20,000 years. Its latest 12 eruptions in the past 1,500 years, including the caldera formation, have been well investigated. We will view a spectacular tephra sequence, the caldera topography, and a chain of fissure vents. In view of the continuing inflation of the volcanic edifice on the island, we will visit the well-equipped observation stations and see how data are monitored in preparation for any forthcoming eruption. Niijima volcano consists of more than 16 rhyolite lava domes. The recent products of dome-building eruptions, such as pyroclastic surge and flow deposits, fallout pumice, and dome lava, are exposed along the sea cliff and quarry. We will closely observe the pyroclastic materials and their depositional structures, which suggest eruptions in the shallow submarine to subaerial environment.



Photo. Niijima island (left) and tephra layers of Izu-Oshima volcano (right)

B5	<p>Kirishima and Sakurajima volcanoes and their source calderas in southern Kyushu Departure & Destination: Kagoshima; Kagoshima Date: July 25 (Thu.) - July 27 (Sat.), 2013 Cost: JPY 50,000 Including transportation from Kagoshima to Kagoshima, all meals and accommodations. Participants: 10 (min) - 20 (max)</p>	
	<p>Leaders: Tetsuo Kobayashi (Kagoshima Univ.), Takeshi Tameguri (Kyoto Univ.) and Mitsuru Okuno (Fukuoka Univ.)</p>	<p>Contact: Tetsuo Kobayashi: koba@sci.kagoshima-u.ac.jp</p>

- July 25 (Thu): Kagoshima to Sakurajima volcano and then back to Kagoshima - visit some view points, and observe the volcanic products of the 1914 eruption - visit the Sakurajima Volcano Research Center of Kyoto University - stay at Kagoshima
- July 26 (Fri): Kagoshima to Kirishima volcano - lacustrine deposits in the Kakuto caldera, small craters and lava flows, and the pumice fall deposit of the 2011 eruption of Shinmoedake volcano - stay at Maruo hot spring in the Kirishima area.
- July 27 (Sat): Kirishima to Tarumizu - thick plinian pumice deposit and overlying ignimbrites of the ca. 30 ka Aira eruption, and a clastic dike penetrating those tephra, which was probably formed during the 7.3 ka Akahoya eruption of the Kikai caldera - take the ferry to Kagoshima - Kagoshima Chuo-eki Station - travel by Japan Railway or airplane to your next destination.

This trip covers two active volcanoes in southern Kyushu, Kirishima and Sakurajima, where volcanic deposits and their impacts on residents can be observed. We also look at some large-scale ignimbrites and their source calderas. Sakurajima is a post-caldera volcano of the Aira caldera, which produced a vast ignimbrite plateau in southern Kyushu in ca. 30 cal KBP. Kirishima consists of more than 20 vents, which are also post-caldera volcanoes of the Kakuto caldera. Shinmoedake, one of the active post-caldera volcanoes, erupted sub-plinian pumice in January 2011. We can observe the new tephra deposit at the foot of the volcano.

Participants are required to extend their stay for one more night, i.e., on July 25, by yourself.



Photo. Sakurajima volcano (left) and the summit crater of Shinmoedake volcano (right)

B6	<p>Kikai caldera and southern Kyushu: Products of a large silicic magmatic system Departure & Destination: Kagoshima; Kagoshima Date: July 25 (Thu.) - July 29 (Mon.), 2013 JPY 90,000 Including transportation, all meals, and accommodations. Participants: 14 (min) - 17 (max)</p>	
	<p>Leaders: Fukashi Maeno (Univ. Tokyo), Keiko Suzuki (Kobe Univ.) and Shoichi Kiyokawa (Kyushu Univ.)</p>	<p>Contact: Fukashi Maeno: fmaeno@eri.u-tokyo.ac.jp</p>

- July 25 (Thu): Meet at ferry terminal (South Pier of Kagoshima harbor) - proceed to Satsuma Iwo-jima island by ferryboat - observe the pyroclastic fallout, flow, and surge deposits of the 7.3 ka Kikai-Akahoya eruption - stay on Satsuma Iwo-jima island
- July 26 (Fri): Observe the eruptive products (lava flows and pyroclastic fallout, flow, and surge deposits) of the rhyolitic Iwo-dake and the basaltic Inamura-dake volcanoes, which were formed after the caldera-forming eruption - visit enjoy the hot spring - stay on Satsuma Iwo-jima island.
- July 27 (Sat): Take the ferryboat and minibus to Ibusuki region, southeast of Satsuma peninsula - observe the distal facies of the pyroclastic fallout and flow deposits of the 7.3 ka Kikai-Akahoya eruption and the pyroclastic deposits of explosive silicic eruptions in this area - visit an archaeological museum exhibiting objects related to volcanic eruptions and their impacts in the area - stay in Ibusuki.
- July 28 (Sun): Take the ferryboat and minibus to Minami-Osumi region, in the southern part of Osumi peninsula - observe the pyroclastic fallout and flow deposits of the 7.3 ka Kikai-Akahoya eruption - proceed to and stay in Kagoshima city
- July 29 (Mon): Depart for respective destinations

The Kikai caldera is one of the most active volcanoes in Japan. Most of the caldera is now submerged except for two major islands, Satsuma Iwo-jima and Take-shima. The last caldera-forming eruption, called the "Akahoya eruption," occurred 7,300 years ago. This eruption produced voluminous pyroclastic flows (Koya ignimbrite) and widespread ashfall (Akahoya ash), which had devastating impacts on the culture and natural environment of western Japan. After this eruption, new volcanoes formed inside the caldera through bimodal magmatism. One of young silicic cones, Iwo-dake, has continued to emit volcanic gases for hundreds of years. On this field trip, we will visit Satsuma Iwo-jima island and southern Kagoshima area to observe the eruptive products from the Kikai caldera, mainly focusing on pyroclastic deposits (plinian fallouts and ignimbrites with various lithofacies) from the Akahoya eruption, and young tephra and lava flows from post-caldera volcanoes. Two young volcanoes (the silicic Iwo-dake and the basaltic Inamura-dake) in Satsuma Iwo-jima island make for a spectacular scenery. The recent activities, deposits, and current landscape represent the evolution of a large silicic magmatic system beneath the sea. We will also visit silicic pyroclastic deposits from the Ikeda caldera in Ibusuki area.

Note: Stay at a Minshuku (Japanese-style accommodation) in Satsuma Iwojima island. The final schedule will be decided depending on the weather and sea conditions, which are basically good during this season, except for occasional typhoons.



B7	<p>Explore recent volcanism in the Kamchatka volcanic arc Departure & Destination: Petropavlovsk-Kamchatsky, Russia; Petropavlovsk-Kamchatsky, Russia Date: July 27 (Sat.) - August 2 (Fri.), 2013 Cost: US\$ 3,500 (for 6) – 1,900 (for 16) Including transportation, all meals, and accommodations (hotels and tents). Participants: 6 (min) - 16 (max)</p>	
	<p>Leaders: Vera Ponomareva (Institute of Volcanology and Seismology, Russia) and others</p>	<p>Contact: Vera Ponomareva: vera.ponomareva1@gmail.com Martha Madsen: explorekam@gmail.com</p>

The Kamchatka peninsula hosts a highly active and explosive volcanic arc, which forms the northwestern part of the Pacific Ring of Fire. Our field excursion will concentrate on the Holocene volcanism, with a special focus on recent tephra deposits. The highlights of the excursion include trips to the most active and prolific volcanoes of the arc. Near the city, we will be able to see the Avachinsky and Koriaksky "home volcanoes" and examine their Holocene deposits. Then we will drive 500 km northward toward the Kliuchevskoi volcanic group, which comprises the largest Kamchatka volcanoes. Kliuchevskoi (4850 m asl) is one of the most productive volcanoes on Earth, erupting an average of about 90 Mt of magma every year. Ash clouds shooting from the volcano reach an altitude of ~20 km and regularly affect the air traffic between SE Asia and North America. Tephra from Kliuchevskoi, as well as other volcanoes, has been accumulating on its slopes over the last 12 kyr at a rate of ~1 mm/yr. This tephra sequence represents one of the longest and highest resolution record of explosive volcanism in Kamchatka. We will examine tephra deposits and visit a number of Kliuchevskoi's flank cinder cones and their lava flows. Then we will go to the Tolbachik monogenetic lava field, from where we can climb Plosky Tolbachik volcano (3085 m asl) to see its summit caldera and then visit the cinder cones and lava flows of the monogenetic field, including those formed during the 1975 eruption. The trips will be guided by volcanologists from the Kamchatka Institute of Volcanology and Seismology.

Air carriers from Japan to Kamchatka: Vladivostok Airlines to Vladivostok, overnight stay, and then proceed to Petropavlovsk-Kamchatsky. Airport transfers to/from guest houses in Yelizovo on arrival/departure. Accommodation: Guest houses in Yelizovo, on arrival and before departure (twin rooms, shared baths). City tour and visit to Paratunka geothermal spa area. Transportation by chartered bus on the main roads and by truck on the slopes of the volcanoes. Guest house accommodation in Kozyrevsk village (near Tolbachik). Tent camping on the volcanoes. Easy short hikes to tephra outcrops and optional more serious hike to Plosky Tolbachik. More excursions are available on request and at an additional cost, including to the Valley of Geysers, the Uzon caldera, the Kurile Lake caldera, and a marine tour.

Contact: Martha Madsen, Explore Kamchatka, www.explorekamchatka.com, explorekam@gmail.com

The costs depend on the number of participants. Minimum group size of 6, maximum of 16. Price per person for a group of 6: \$3,497. Price per person for a group of 16: \$1,899.

The costs include: airport transfers, accommodation in Yelizovo and Kozyrevsk, meals, transportation, visa assistance, all permits, fees, English-speaking staff, and tents.



Photo. Kliuchevskoi volcano group (left) and Tolbachik volcano (right)

B8	<p>Changbaishan Tianchi volcano, the magnificent gift from the nature Departure & Destination: Beijing, China; Beijing, China Date: July 26 (Fri.) - July 29 (Mon.), 2013 Cost: US\$ 1,000 Including round-trip air tickets from Beijing to Changbaishan airports, ground transportation, all meals and accommodations Participants: 10 (min) - 30 (max)</p>	
	<p>Leaders: Jiandong XU, Haiquan WEI (Institute of Geology, China Earthquake Administration)</p>	<p>Contact: Jiandong Xu: xujiandong@ies.ac.cn</p>

- July 26 (Fri): Arrival at Beijing - take flight CZ6154 to Changbaishan - stay at the Changbaishan Volcano Observatory (CZ6154 is a seasonal flight, the departure time from Beijing is in between 6:00 pm to 10:00 pm)
- July 27 (Sat): Visit the summit of Tianchi volcano and the caldera lake - observe some key deposits associated with the millennium eruption and other eruption events before and after it - afternoon visit to the waterfall, hot springs, and monitoring tunnel on the northern slope of the volcano.
- July 28 (Sun): Visit the western slope of the volcano, in which are found a ~100 m-deep pyroclastic valley and some outcrops of lava flow, lahar, and pyroclastic deposit, along with the remains of trees that died during the millennium eruption
- July 29 (Mon): Go to the east of the volcano to look at an ashfall deposit (B-Tm) from the millennium eruption - visit some unique cultural sites, such as Kim Il-Sung island at the national border, the Manchu ancestral birthplace in Changbai Mountain District, etc. - afternoon seminar at the Changbaishan Volcano Observatory on the current active state of Changbaishan volcano based on monitoring data - depart for Beijing in the evening

Changbaishan volcano is the biggest and has the greatest potential eruption risk among all the active volcanoes in China. Tianchi (Sky Lake), the highest volcanic pond in the world at an elevation of 2,744 meters, is situated in the 5-kilometer-wide caldera known as Mount Paektu in Korea. During this trip, we will visit the caldera summit, a waterfall on the north flank, a pyroclastic valley, an underground forest, a stone forest formed in the pyroclastic deposit, etc. Finally, we will stop at the Changbaishan Volcano Observatory for a brief seminar on the current volcanic activity of Changbaishan volcano based on monitoring data.



Abstract Submission

Deadline

Abstract has to be submitted on line **no later than** ~~January 31, 2013~~ **12:00 (noon of JST), February 15, 2013**. Those who will submit abstract(s) have to get ID and password. Refer to Procedure for abstract submission for details.

Click here for Online Submission
<https://www.gakkai-web.net/gakkai/ech/iavcei/index.html>

Procedure for Abstract Submission
http://www.iavcei2013.com/pdf/procedure_abs121106.pdf

Notification of receipt of the submitted abstract(s) will be issued automatically to your e-mail address. However, this does not mean the acceptance. Final acceptance, session name and style of presentation will be decided by the Science Committee and the session conveners. The program will be available on the website.

Abstract Content

Abstract has to be written in English, focusing researches in volcanology, efforts to mitigate volcanic disasters and researches into closely related disciplines.

The title and the body lengths of the abstract are less than 200 and 3000 characters, respectively.

Fill out the form of abstract submission on line to submit. For abstract submission, the following items were requested.

1. Title of paper (limited to 200 characters)
2. Author name(s)
3. Author affiliation(s)
4. Name of presenter
5. Presentation preference (Oral or Poster)
6. Session number of the contribution
7. Abstract text (limited to 3000 characters including commands for special characters)

Authors

- The maximum number of presentation by each registrant must be two (2), irrespective of type of presentation (oral, poster or invited).
- Invited Authors do not receive discounted abstract fees, registration fees, or travel reimbursement.

Fees

- A flat fee of JPY (Japanese yen) 4,000 is charged for each submission.
- The abstract submission fee is a **non-refundable** processing fee and is not based on approval of your abstract submission or your attendance at the conference.
- For the methods of payment and grant application, refer to "Payment Methods" and "Grant Application".
- Submitted abstract can be editable by the deadline (~~January 31, 2013~~ **12:00 (noon of JST), February 15, 2013**), even after the submission fee is paid.
- The abstract submission fee does not register you for the conference. Separate registration fees apply. Online registration is possible using the same registration and password as the abstract submission.

Click here for Online Registration
<https://www.gakkai-web.net/gakkai/ech/iavcei/index.html>

Oral Presentations

- Oral presentations will be given in the Prefectural Citizens' Hall and four seminar rooms at the Kagoshima Prefectural Citizens Exchange Center, and in two meeting rooms at Kagoshima Citizens Welfare Plaza.
- Each regular presentation will be 15 minutes long (12 minutes for the presentation and 3 for questions).
- Only the projector and personal computer system (Windows) prepared by the organizing committee will be available in each hall and room.
- Speakers are requested to prepare their presentation in MS PowerPoint 2010 or an older version and bring it on a memory stick or CD to the speaker ready room at the Kagoshima Prefectural Citizens Exchange Center, **the day before the presentation.**

Poster Presentations

- All posters will be displayed in the Multi-Purpose Hall at the Kagoshima Prefectural Citizens Exchange Center.
- Posters should be set up in the morning on the day of the presentation, and must remain up for the entire day. Core times (with no simultaneous oral sessions) will be scheduled.
- Poster size is restricted to 91.4cm wide by 129.2cm high. Space will not be available for horizontally oriented posters.

Grant Application

A limited amount of grant application is available for (a) young scientists and (b) scientists attending from developing countries. This assistance is available only for participants who will present a paper in the conference and who fulfill the above conditions.

We have three categories for financial support.

1. A: Registration fee

2. B: (maximum JPY 100,000)

- Partial support including accommodation fee

3. C: (maximum JPY 250,000)

- Partial support including air ticket fee

Grant Application Form (word file)
http://www.iavcei2013.com/wd/grant_application_form.doc

Jan-31st **Feb. 15th: Deadline for grant application**

Apr. 15th: Notification of results

Notes:

***Applicants of this grant application can make their registration payment only after the result is notified on Apr. 15.**

(You have to pay abstract submission fee by ~~January 31~~ February 15).

*All subsidies (except registration fee) will be provided at the venue without any exception.

*The registration fee of the accepted applicants will be automatically balanced by the grant.

Party and Lunch

	Till July 1, 2013	On-site (After July 1, 2013)
Ice Breaker (July 19)	included in the registration fee	
Gala Party (July 22)	included in the registration fee	
Conference Dinner (July 24) Capacity 500 persons	JPY 7,000	JPY 8,000
Lunch Box (July 20)*	JPY 900	JPY 1,000
Lunch Box (July 21)*	JPY 900	JPY 1,000
Lunch Box (July 23)*	JPY 900	JPY 1,000
Lunch Box (July 24)*	JPY 900	JPY 1,000

*Since both the time for lunch break and the number of restaurants near the venue are limited, participants are recommended to purchase box lunches in advance.

Those who wish to apply for the party and lunch should register online.

[Click here for Online Registration](https://www.gakkai-web.net/gakkai/ech/iavcei/index.html)
<https://www.gakkai-web.net/gakkai/ech/iavcei/index.html>

Cancellation Policy

Written notification of cancellation must be received by the IAVCEI 2013 Registration Desk (iavcei2013reg@ech.co.jp) before a refund can be issued (notification by phone is not accepted). An administrative charge will be deducted from the amount based on the date the cancellation letter is received. All refunds will be processed after the conference.

Registration fee & Party fee

Before May 2, 2013: A complete refund minus a JPY 10,000 administrative charge (per participant) will be given.
 Before July 2, 2013: 50% refund.
 After July 3, 2013: No refund will be given.

Lunch Box fee

Before July 2, 2013: 100% refund.
 After July 3, 2013: No refund will be given.

Links

The Volcanological Society of Japan

IAVCEI (International Association of Volcanology and Chemistry of the Earth's Interior)

<http://www.iavcei.org/>

Kagoshima Prefecture

<http://www.pref.kagoshima.jp/foreign/english/index.html>

Kagoshima City

<http://www.city.kagoshima.lg.jp/gaikokugo/english/index.html>

Tourist Guide of Kagoshima City

<http://www.city.kagoshima.lg.jp/var/rev0/0045/6523/tabigaido-en.pdf>

Kagoshima Airport

<http://www.koj-ab.co.jp/english/index.html>

100th Anniversary Project of the Taisho Eruption of Sakurajima

http://sakurajima100.org/pdf/summary_for_english.pdf (in English)

<http://sakurajima100.org/> (in Japanese)

If you have any questions, please contact

**IAVCEI 2013 Registration Desk
Event & Convention House, Inc.**

E-mail: iavcei2013reg@ech.co.jp