



# MEETING PROGRAM

# CITIES ON VOLCANOES 5 CONFERENCE

Shimabara, Japan November 19-23, 2007

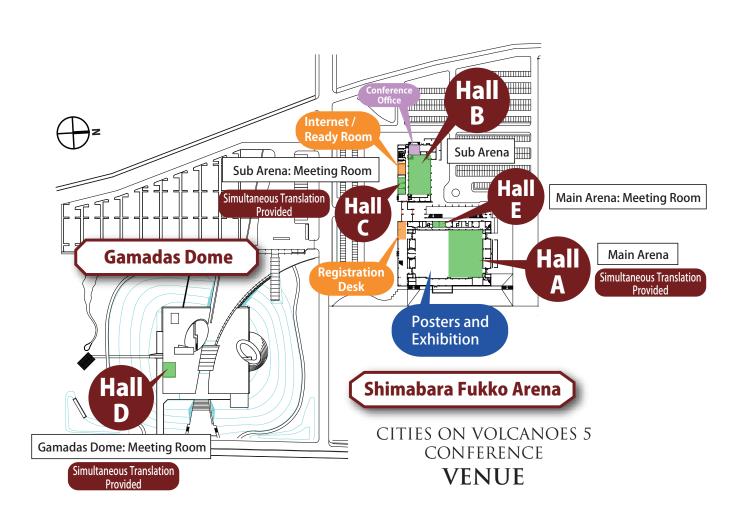






Shimabara Fukko Arena

Gamadas Dome (Mt. Unzen Disaster Memorial Hall)



# MEETING PROGRAM

## **CITIES ON VOLCANOES 5 CONFERENCE**

SHIMABARA (JAPAN)

#### Hosted by

**Volcanological Society of Japan** 

and

The City of Shimabara

2007

#### Co-hosted by

International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI)
Faculty of Sciences, Kyushu University
Earthquake Research Institute, the University of Tokyo
Kyushu Regional Development Bureau, Ministry of Land, Infrastructure and Transport
Nagasaki Prefecture
The City of Unzen
The City of Minamishimabara
Mount Unzen Disaster Memorial Foundation

#### Supported by

Japan Society for the Promotion of Science (JSPS)
The Commemorative Organization for the Japan World Exposition ('70)
Tokyo Geographical Society

#### COMMITTEES

#### **Advisory Committee Members**

Genjiro Kaneko (Governor of Nagasaki Prefecture)

Teijiro Yoshioka (City Mayor of Shimabara)

Fumio Kyuma (Member of the House of Representatives)

Noriaki Miyoshi (Speaker of Nagasaki Prefectural Assembly)

Morikane Kitaura (Chairman of Shimabara Municipal Assembly)

Kazuya Ohta (Emeritus Professor of Kyushu University)

Shigeo Aramaki (Yamanashi Institute of Environmental Science)

#### **Organizing Committee Members**

Chairman:

Setsuya Nakada (Earthquake Research Institute, Univ. of Tokyo)

Members:

Nobuo Anyoji (Sabo Technical Center)

Eisuke Fujita (Nat'l Research Inst. for Earth Science and Disaster Prevention)

Koji Hata (Unzen Restoration Work Office)

Junichi Hirabayashi (Volcanic Fluid Research Center, Tokyo Institute of Technology)

Hideo Hoshizumi (Geological Survey of Japan, AIST)

Kazuhiro Ishihara (Disaster Prevention Research Institute, Kyoto Univ.)

Kazuaki Ito (Information Institute of Disaster Prevention)

Takuro Kimura (Research Institute for Social Safety)

Shigeru Ikeda (Fukuoka District Meteorological Observatory)

Yasuyuki Miyake (Faculty of Sciences, Shinshu Univ.)

Hiromu Okada (Crisis & Environment Management Policy Institute)

Yoshinori Moqami (Officer for Nature Conservation of Unzen, Ministry of Environment)

Hiroshi Shimizu (Faculty of Sciences, Kyushu Univ.)

Kazuo Takahashi (Faculty of Engineering, Nagasaki Univ.)

Hideo Taniguchi (Deputy Mayor, City of Shimabara)

Tadahide Ui (Crisis & Environment Management Policy Institute)

#### **Science Committee Members**

Willy Aspinall (Aspinall & Associates, UK)

Peter Baxter (University of Cambridge, UK)

Carolyn Driedger (US Geological Survey, USA)

David Johnston (Institute of Geological and Nuclear Science, NZ)

Warner Marzocchi (Istituto Nazionale di Geofisica e Vulcanologia, Italy)

Yasuyuki Miyake (Japan)

Setsuya Nakada (Japan) Chair

Chris Newhall (US Geological Survey emeritus, Philippines)

Steve Sparks (University of Bristol, UK)

Tadahide Ui (Japan)

#### **Secretariat Members**

Shin'ichi Sugimoto (City of Shimabara)

Takeshi Matsushima (Faculty of Sciences, Kyushu University)

Eiji Matsushita (City of Shimabara)

The Convention Co. Ltd.

#### **OFFICIAL EVENTS**

November 18 (Sun), Day 0 evening Hall B of Shimabara Fukko Arena, 18:00-20:00

#### Ice Breaker

Drinks and light snacks are served. Shimabara people and children will present Japanese traditional performance, *Noh* and *Kyougen*. Participants and accompanied persons who made registration can join Ice Breaker without fee. Shuttle buses depart from the venue to hotels after the Ice Breaker.

November 21 (Wed), Day 3 evening **Party in Shimabara Castle:** 17:00-19:00

The Mayor of Shimabara City hosts this party for all COV participants and accompanied persons. The party will be held at the Shimabara Castle and City Cultural Hall, which is the final destination of the intra-meeting field excursion on Wednesday. Free drink is provided with local foods cooked by Shimabara Women's Club and Japan Self-Defense Force (JSDF). Japanese martial arts and traditional music are played by Shimabara city's people. Traditional tea ceremony will also be held in the Shimabara Castle. Participants can dip with the Japanese culture such as dressing Kimono, Bonsai, calligraphy, etc. Shuttle buses will be prepared after the party.

November 23 (Fri), Day 5 evening Tsukumo Hotel: 18:00-19:30

#### **Farewell Party**

All COV participants and accompanied persons are invited. All move to the Tsukumo hotel by bus from the venue after the Closing ceremony. Japanese music and entertainment will be presented by Shimabara people. Shuttle buses depart from the venue to hotels after the Farewell Party.

#### **INTRA-MEETING FIELD EXCURSION**

Detail will be announced at the venue no later than the afternoon of November 20 (Tue), Day 2.

Participants should meet before 8:20 a.m., November 21 (Wed) in the parking space in front of Gamadas Dome (in front of Fukko arena). Participants will be separated into 3 groups, each of which moved with multiple buses. Buses depart at 8:30. The excursion terminates at the Shimabara Castle before 5:00 p.m., where the party is ready for all COV participants.

#### **ACTIVITIES (FORUMS) DURING THE CONFERENCE**

November 19 (Mon), Day 1 afternoon

Hall A: 14:00 -17:50

**Volcanic Disaster Seen from Citizens - Looking Back at Three Volcanic Eruption Disasters -** *Organized by Mutual support network of the citizens living around volcano* 

November 20 (Tue), Day 2 morning Hall B: 9:00-11:50 (only in Japanese)

Citizens and Mass Media Forum - The Future of Disaster Prevention and Mitigation -

Thinking from the Mt. Fugen Disaster

Organized by The Citizens and Mass Media Forum Executive Committee

November 20 (Tue), Day 2 afternoon

Hall A: 13:30-16:40

Forum on How to Pass on Lessons Learned from Past Disasters

Organized by Nagasaki Prefectural Government

November 22 (Thu), Day 4 afternoon Hall B: 13:30-17:30 (only in Japanese)

Forum on Volcanic Sabo and Disaster Reduction

Organized by Kyushu Regional Development Bureau, Ministry of Land, Infrastructure and Transport

November 22 (Thu), Day 4 evening

Annaka Public Hall: after the official conference program until 21:00

Discussion with Local People who Experienced Unzen Disaster

Organized by T. Omachi (NPO Shimabara Fugen-kai)

First 60 are acceptable. Free small food and drink are served. No registration is needed. Further information will be announced at the venue.

November 23 (Fri), Day 5 morning

Hall A: 10:10-11:30 **Kid's Volcano Workshop** 

Organized by Kyushu Volcano Network

November 23 (Fri), Day 5 noon time

Hall A: 12:00-13:30

Eat volcanoes! Volcano Experiments in Kitchen

Organized by Kazan Net Japan, Kyushu Volcano Network

November 23 (Fri), Day 5 afternoon

Hall A: 13:40-15:10

Volcano Q & A in Shimabara; Let's Ask Volcanologists in the World

Organized by Volcanological Society of Japan, Kyushu Volcano Network

#### **WORKSHOPS AND MEETINGS**

November 18 (Sun), Day 0 afternoon

Hall E: 15:30-18:30

Workshop on Eruption forecasting through the Bayesian Event Tree: Moving from theory to practice with the software package BET\_EF

Organized by W. Marzocchi

Free to attend.

November 18 (Sun), Day 0 afternoon

Kowakien Hotel: 10:00-18:00

2<sup>nd</sup> International Workshop on Acoustic Remote Sensing of Volcanoes (IWARS)

Organized by M. Garaces

40 are acceptable with 6,300 yen for registration including lunch and coffee.

November 19 (Mon), Day 1 evening

Hall C: following the oral session of 1-1 (18:00-18:50)

Meeting of Committee of Explosive Volcanism (CEV)

Organized by S. Takarada

November 19 (Mon), Day 1 evening

Hall E: 18:00-20:00

Meeting of Cities and Volcanoes (CAV) committee

Organized by D. Johnston

November 20 (Tue), Day 2 evening

Hall E: 18:00-20:00

**Meeting of Executive Committee of IAVCEI** 

Organized by S. Nakada and J. Marti

November 20 (Tue), Day 2 evening

Tsukumo Hotel: 18:30-20:00

Meeting of World Organization of Volcano Observatories (WOVO)

Organized by F. Schwandner

November 22 (Thu), Day 4 evening

Hall D: following the oral session of 3-2 (16:50-18:20)

Informal meeting of outreach exchange

Organized by C. Driedger

November 22 (Thu), Day 4 evening

Tsukumo Hotel: 18:30-21:00

Meeting of International Volcanic Health Hazard Network (IVHHN)

Organized by C. Horwell and P. Baxter

#### **SCIENCE SESSIONS AND CO-CONVENERS**

#### Symposium 1. Knowing volcanoes

Session 1-1. Recent developments in volcano research

Keywords: Basic research, eruption mechanisms, structure and development of volcanoes,

volcanic products, hazards assessment

Co-conveners: H. Hoshizumi, J. Major\*, Y. Miyake, A. Neri, S. Takarada\*\*

Session 1-2. Volcano observation research and eruption forecast and alert programs

Keywords: Volcano monitoring, eruption forecast and prediction

Co-conveners: J. Ewert\*, E. Fujita\*\*, M. Garces, K. Ishihara, M. Martini, C. Newhall\*\*

Session 1-3. Health hazards of coexisting with active volcanoes

Keywords: Human health, medical care, geologic pollution

Co-conveners: P. Baxter\*, C. Horwell\*\*, Y. Ishimine\*\*

#### Symposium 2. Volcanoes and cities

Session 2-1a. Responding to Natural Disasters: Case Histories with Lessons for Volcano Crises

Keywords: Emergency response, alert notification, evacuation, role of media

Co-conveners: S. Bailey\*, C. Gardner\*, R. Solidum, T. Yamamoto, H. Yamasato\*\*, T. Yokota

Session 2-1b. Assessing long term volcanic hazards and risks

Keywords: Infrequent volcanic eruptions, development of new volcanoes, large magnitude eruptions

Co-conveners: C. Connor\*, S. Sparks\*\*, T. Ui\*\*

**Session 2-2.** Impacts of volcanic activity on infrastructure and effective risk reduction strategies *Keywords: Hazard assessment and mapping, risk analysis, sabo, cost-benefit analysis* 

Co-conveners: N. Anyoji\*, R. Imura, J. Kurihara, Y. Nakamura\*\*, C. Neal\*\*, T. Pierson, G. Zuccaro

Session 2-3. Long-term land-use planning that mitigates volcanic risk

Keywords: Land use planning, hazard-resilient communities, reconstruction planning

Co-conveners: J. Becker, Á. Höskuldsson, D. Johnston, T. Kimura, W. Saunders\*, K. Takahashi\*\*, T. Tanabe

#### Symposium 3. Living with volcanoes

**Session 3-1**. Linkage for reducing volcanic risks: Cooperation and mutual support among researchers, administrators, mass media, inhabitants, local organization and volunteers

Keywords: Linkage, cooperation, information exchange, crisis communication

Co-conveners: J. Clavero, G. Leonard\*, K. Nakagawa, H. *Okada\*\**, S. Shozawa, D. Thompson, T. Tsuchida\*\*

**Session 3-2.** Education and Outreach--Strategies that Improve Community Awareness about Volcanoes

Keywords: Education and risk communication

Co-conveners: C. Driedger\*, S. Hayashi\*\*, S. Ikebe, H. Itoh, K. Ronan, J. Woodcock

Session 3-3. Communities and volcanism - archaeology, tradition and recovery

Keywords: Historical disasters, recovery processes, cultural tradition

Co-conveners: R. Blong, S. Cronin\*\*, I. Kitahara\*, S. Mimatsu, S. Nakada, I. Nakamura, M. Rosi

(\*Leader, \*\*Subleaders)

	Hall A	
9:00-9:40	Opening ceremony	•
9:40-10:40	Conference lectures Chaired by H. Shimizu	
9:40-10:10	<u>Kazuya Ohta</u> The 1990-1995 Eruption of Unzen Volcano -Spectacle of Lava Dome Growth and Menace of Pyroclastic Flows and Lahar-	<u>CL 1</u>
10:10-10:40	Shigeo Aramaki Last 30 Years of Volcanic Hazard Mitigation in Japan	<u>CL 2</u>
10:40-10:50	- Break -	
10:50-11:50	Plenary talks	
	Session 1-1: Recent developments in volcano research Chairpersons: J. Major, Y. Miyake	
10:50-11:20	Bruce F. Houghton Recent Developments In Volcano Research: Diversity In Volcanism	<u>11-O-01</u>
	Session 3-1: Linkage for reducing volcanic risks: Cooperation and mutual support amongst researchers, administrators, mass media, inhabitants, local organization and volunteers	
	Chairpersons: G. Leonard, J. Clavero, H. Okada	
11:20-11:50	<u>Hiromu Okada</u> Volcano Risk Mitigation Strategy Based on a Cooperative Linkage Among Officials, Scientists, People and Media - Decades-long Efforts and State-of-the-art at Mt. Usu, Japan	<u>31-O-01</u>
44 50 40 40		
11:50-13:10	- Lunch -	
11:50-13:10 13:20-13:50	- Lunch - Pleanary talk	
	<del></del>	
	Pleanary talk Session 3-3: Communities and volcanism-archeology, tradition and recovery	<u>33-O-01</u>
	Pleanary talk  Session 3-3: Communities and volcanism-archeology, tradition and recovery  Chairpersons: S. Cronin, I. Kitahara, I. Nakamura  Kazuaki Itoh  Historical Volcanic Eruptions and Coexistence of Human Communities with	<u>33-O-01</u>
13:20-13:50	Pleanary talk  Session 3-3: Communities and volcanism-archeology, tradition and recovery  Chairpersons: S. Cronin, I. Kitahara, I. Nakamura  Kazuaki Itoh  Historical Volcanic Eruptions and Coexistence of Human Communities with Volcanoes	<u>33-O-01</u>
13:20-13:50 13:50-14:00	Pleanary talk  Session 3-3: Communities and volcanism-archeology, tradition and recovery  Chairpersons: S. Cronin, I. Kitahara, I. Nakamura  Kazuaki Itoh  Historical Volcanic Eruptions and Coexistence of Human Communities with  Volcanoes  - Break -	<u>33-O-01</u>
13:20-13:50 13:50-14:00	Pleanary talk  Session 3-3: Communities and volcanism-archeology, tradition and recovery  Chairpersons: S. Cronin, I. Kitahara, I. Nakamura  Kazuaki Itoh  Historical Volcanic Eruptions and Coexistence of Human Communities with  Volcanoes  - Break -  - Forum on Volcanic Disaster Seen from Citizens -	<u>33-O-01</u>
13:20-13:50 13:50-14:00	Pleanary talk  Session 3-3: Communities and volcanism-archeology, tradition and recovery  Chairpersons: S. Cronin, I. Kitahara, I. Nakamura  Kazuaki Itoh  Historical Volcanic Eruptions and Coexistence of Human Communities with  Volcanoes  - Break -  - Forum on Volcanic Disaster Seen from Citizens -  Hall B	<u>33-O-01</u>
13:20-13:50 13:50-14:00	Pleanary talk  Session 3-3: Communities and volcanism-archeology, tradition and recovery Chairpersons: S. Cronin, I. Kitahara, I. Nakamura  Kazuaki Itoh Historical Volcanic Eruptions and Coexistence of Human Communities with Volcanoes  - Break Forum on Volcanic Disaster Seen from Citizens -  Hall B  Session 1-1: Recent developments in volcano research	33-O-01 11-O-02
13:20-13:50 13:50-14:00 14:00-17:50	Pleanary talk  Session 3-3: Communities and volcanism-archeology, tradition and recovery Chairpersons: S. Cronin, I. Kitahara, I. Nakamura  Kazuaki Itoh Historical Volcanic Eruptions and Coexistence of Human Communities with Volcanoes  - Break Forum on Volcanic Disaster Seen from Citizens -  Hall B  Session 1-1: Recent developments in volcano research  Chairpersons: J. Major, Y. Miyake  Dapeng Zhao	
13:20-13:50 13:50-14:00 14:00-17:50	Pleanary talk  Session 3-3: Communities and volcanism-archeology, tradition and recovery Chairpersons: S. Cronin, I. Kitahara, I. Nakamura  Kazuaki Itoh Historical Volcanic Eruptions and Coexistence of Human Communities with Volcanoes  - Break Forum on Volcanic Disaster Seen from Citizens -  Hall B  Session 1-1: Recent developments in volcano research  Chairpersons: J. Major, Y. Miyake  Dapeng Zhao Seismic Imaging of Magma Chambers Under Active Arc Volcanoes and Hotspots  Hetty Triastuty, Masato Iguchi, Takeshi Tameguri Temporal Change of Spectra of Volcanic Earthquakes at Kuchinoerabujima Volcano,	11-0-02

November 19 (Monday)		Day 1 (2)
15:20-15:40	Tomaso Esposti Ongaro, Amanda Clarke, Augusto Neri, Barry Voight, Christina Widiwijayanti Fluid Dynamics of Volcanic Blasts: Application to the Soufriere Hills Volcano, Montserrat (W.I.)	11-0-06 Invited
15:40-16:10	- Coffee break -	
16:10-16:30	<u>Victoria C. Smith,</u> Jon Blundy, Jose Luis Arce Insights Into Magmatic Processes At Nevado De Toluca, Mexico	<u>11-O-07</u>
16:30-16:50	Hugh Tuffen, Rosie Smith, Peter Sammonds Brittle-ductile Deformation of Silicic Lava: Implications for Lava Dome Emplacement and Seismicity	11-0-08 Invited
16:50-17:10	Marie Edmonds Observations of Volcanic Degassing Processes and Their Implications for Hazard Assessment	11-0-09 Invited
17:10-17:30	Hiroshi Shinohara  Degassing of Convecting Magma Column: Interplay with Eruptive Activities	<u>11-O-10</u>
17:30-17:50	Bettina Scheu, Ulrich Kueppers, Olivier Spieler, Donald B. Dingwell Experimental Volcanology on Eruptive Products of Unzen Volcano: 1990 - 1995 Eruption	<u>11-0-11</u>
	Hall C	I
	Session 3-1: Linkage for reducing volcanic risks: Cooperation and mutual support amongst researchers, administrators, mass media, inhabitants, local organization and volunteers	
	Chairpersons: G. Leonard, J. Clavero, H. Okada	
14:00-14:20	Matthew S. Davis, Franco Barberi, Roberto Isaia, Rosella Nave, Tullio Ricci Volcanic Risk Perception in Campi Flegrei Area (Southern Italy)	31-O-02 Invited
14:20-14:40	<u>Marta Calvache</u> Colombia Experiences of Managing Volcanic Crisis, Galeras and Nevado Del Huila Eruptions	<u>31-O-03</u>
14:40-15:00	Shigeo Aramaki How the Word 'Pyroclastic Flow' Became Accepted Among the Japanese Citizens	<u>31-O-04</u>
15:00-15:20	Jennifer N. Adleman, Seth F. Snedigar The Alaska Volcano Observatory's Information Management Systems during the 2006 eruption of Augustine Volcano, Cook Inlet, Alaska	31-O-05 Invited
15:20-15:40	<u>Tokumi Saito,</u> Nobuo Doi Cooperation with the Press in Dealing with the Mt. Iwate Volcanic Crisis	<u>31-O-06</u>
15:40-16:10	- Coffee break -	
16:10-16:30	Jo Horrocks, Graham S. Leonard, Peter Wood, David M. Johnston, Richard Smith New Zealand's All-hazard Civil Defence Emergency Management Structure: Cooperation and Mutual Support for Volcanic Crisis Management	31-O-07 Invited
16:30-16:50	Jorge Munoz, Leonardo Cari, Viviana Portales , Ines Segura, Lionel Fidel, Victor Carlotto, Jersy Marino, Luisa Macedo, Rosario Quispe, Raul Luna, Ana Arguedas, <u>Catherine Hickson</u> , Mike Ellerbeck, Fernando Munoz Carmona  Transforming Geoscience Knowledge into Disaster Prevention Action in the Andes: The MAP:GAC Experience	<u>31-O-08</u>
16:50-17:10	<u>Tatsuro Chiba</u> The Miyakejima 2000 Eruption and Web Journalism	<u>31-O-09</u>
17:10-17:30	<u>Hugo A. Yepes</u> , Edgardo Bartomioli, Pablo A. Samaniego, Patricia A. Mothes, Patricio A. Ramon, Diego Barba, Santiago Arellano, David R. Rivero, Daniel Andrade Combining Scientific and Social Components to Achieve Sustainable Risk Mitigation at Tungurahua Volcano, Ecuador (Ecuador)	31-O-10 Invited

#### **November 19 (Monday)** Day 1 (3) 17:30-17:50 Jody Woodcock 31-0-11 Collaborative Communication Efforts Key to Reducing Volcanic Risk in Pierce Invited County, Washington, USA Hall D Session 3-3: Communities and volcanism-archeology, tradition and recovery Chairpersons: A. Ford, S. Cronin, I. Kitahara, I. Nakamura 14:00-14:20 Tsukasa Ohba 33-O-02 Folktales, Legends, and Myths about Volcanoes 14:20-14:40 Karoly Nemeth, Shane J. Cronin, Douglas T. Charley 33-O-03 Pitfalls of Interpretation of Volcanic Eruptions on the Basis of Oral Traditions: the AD 1452-53 "Great Kuwae Event" (Vanuatu) 14:40-15:00 Tsutomu Soda 33-0-04 The Impact of Haruna Volcano on Human Life in the 5-6th Centuries A.D. 15:00-15:20 Armann Hoskuldsson, Thorvaldur Thordarson 33-O-05 The Eruption of Oaefajokull 1362 and Destruction of the District Herad, SE-Iceland Invited 15:20-15:40 Masanori Aoyagi, Ryoji Motomura, Mitsuyuki Takano, Akira Baba, Hiroyuki Kamei, 33-O-06 Katsushi Ikeuchi, Toshitsugu Fujii, Minoru Yoneda, Kazuhiko Takeuchi, Takashi Oguchi Restoration of Cultural and Natural Environment of the Area Covered by Volcanic **Eruptions** - Coffee break -15:40-16:10 16:10-16:30 H.-U.Schmincke, S. Kutterolf, A. Freundt, W. Perez, J. Rausch, W. Strauch 33-O-07 Four Major Late Holocene Explosive Eruptions That Affected The Larger Managua Area (Nicaragua) 16:30-16:50 Norie Ichinose 33-O-08 The Damage of the Mt.Tokachi Eruption in 1926 and the Recovery Process of Kamifurano 16:50-17:10 Saburo Mimatsu 33-O-09 Role of Those Living at the Foot of Volcano-Handiling down the Wisedom to the **Next Generation**

33-O-10

33-0-11

17:10-17:30

17:30-17:50

Naoya Sekiya

Isao Nakamura

**Socio Economic Impact of Volcanic Eruptions** 

Socio-psychological Issues in Relation to Eruption Hazards

#### Posters I

#### November 19-20

Core time: 16:40-18:00. Nov. 20

#### Session 1-1: Recent developments in volcano research (round 1)

Unzen Volcano (1-24), pyroclastic flows (25-36), debris avalanche (37-40), gashydrothermal acitivity (41-54), tephra (55-63), geophysical studies (69-92) and eruption histories (93-107)

11-P-01 Marco Brenna, Keiko Suzuki-Kamata, Marv Gee

> **Emplacement Temperatures Determined by Progressive Thermal Demagnetization** of Six Volcanic Deposits from the 1990-1995 Eruption of Unzen-Fugendake, Southwestern Japan

- Yoshihiko Goto, Setsuya Nakada, Mitsuhiro Yoshimoto, Taketo Shimano, Masaru 11-P-02 Kurokawa, Takeshi Sugimoto, Sumio Sakuma, Hideo Hoshizumi, Kozo Uto Character and Origin of Lithofacies in the Conduit of Unzen Volcano, Japan
- 11-P-03 Koichiro Watanabe, Kenji Hatae, Takushi Yamanaka, Yoshinobu Motomura, Kazunori

Petrochemistry of Juvenile Micro-pumice Detected From Early Tephra Before Lava Dome Appearance in Unzen Volcano 1990-1995 Eruption

- Takeshi Sugimoto, Hideo Hoshizumi, Hiroshi Shimizu 11-P-04 History of Mayuyama, Unzen Volcano, Japan: Inferred from Stratigraphy and **Petrological Feature of Borehole Cores**
- 11-P-05 Takeshi Sugimoto, Setsuya Nakada, Takako Akimasa, Masaru Kurokawa Geochemical Evolution of Unzen Volcano: Analysis of Drilling Cores from USDP-3
- 11-P-06 Kunihisa Terai

The Movie Record of the Growth of Lava Dome for 5 Years

- Yuhki Kohno, Takeshi Matsushima, Satoshi Matsumoto, Hiroshi Shimizu 11-P-07 Magma Chamber Model of Unzen Volcano Causing 1990-1995 Eruption Inferred from Seismic and Ground Deformation Data Using FEM
- Sachihiro Taguchi, Yumi Kubo, Soichiro Yoshii, Hitoshi Chiba 11-P-08 Silicified Rock at the Unzen-Jigoku Steaming Ground, Nagasaki, Japan
- 11-P-09 Christvanne Melendez, Shinii Takarada, Nancy Riggs The 1792 Mt. Mayuyama Debris Avalanche, Unzen Volcano, Japan: Implications

from Field Characteristics, Granulometry, and Clast-shape Analysis for Transport and Emplacement Mechanisms

- 11-P-10 Ayako Okubo, Yoshikazu Tanaka, Tadashi Nakatsuka, Tsuneomi Kagiyama, Wataru Kanda, Naoto Kitada, Mitsuru Utsugi, Kazuhiro Ishihara, Hiroshi Shimizu, Takeshi Matsushima, Daisuke Miki, Tetsuro Takayama, Masayo Fukushima Utility of Aeromagnetic Studies for Imaging of Subsurface Structures in Two Active Volcanoes: Unzen and Sakurajima Volcanoes, Kyushu, Japan
- 11-P-11 Satoshi Hamasaki, Hideo Hoshizumi, Yuichi Morishita, Setsuya Nakada, Masaru Kurokawa

Hydrothermal System Inside Unzen Volcanic Terrain by Alteration Analysis of Conduit Drilling, USDP-4

11-P-12 Takeshi Saito, Naoto Ishikawa

> Eruptive Conditions of the Last Three Historical Eruptions at Unzen Volcano, Japan, **Identified by Magnetic Petrological Analyses**

11-P-13 Noritoshi Morikawa, Kohei Kazahaya, Masaya Yasuhara, Hiroshi A. Takahashi, Akihiko Inamura, Michiko Ohwada, Francois J. LuGuern, Tadashi Kono, Shinji Ohsawa, Yuki Yusa, Koichi Kitaoka

> Geochemical and Hydrological Studies on Groundwaters around Unzen Volcano: With Reference to Dispersion of Magmatic Volatiles through Groundwater Flow **System**

<u>11-P-14</u>	<u>Satoshi Matsumoto</u> , Hiroshi Shimizu, Masazumi Onishi, Kenji Uehira, Norimichi Matsuwo <b>Seismic Reflection Survey of the Crustal Structure beneath Unzen Volcano, Kyushu, Japan</b>
<u>11-P-15</u>	Wahyu Srigutomo, <u>Tsuneomi Kagiyama</u> , Wataru Kanda, Hiroshi Munekane, Takeshi Hashimoto, Yoshikazu Tanaka, Hisashi Utada, Mitsuru Utsugi Resistivity Structure of Unzen Volcano Derived from Time Domain Electromagnetic (TDEM) Survey
<u>11-P-16</u>	<u>Bettina Scheu</u> , Ulrich Kueppers, Oliver Spieler, Donald B. Dingwell <b>Determination of Surface area of silicic magma</b>
<u>11-P-17</u>	Hiroshi A. Takahashi, Kohei Kazahaya, Hiroshi Shinohara, Noritoshi Morikawa, Michiko Ohwada, Hiroko Handa, Toshio Nakamura  Diffusive Degassing of Magmatic CO₂ around Unzen Volcano, SW Japan
<u>11-P-18</u>	Satoshi Noguchi, Atsushi Toramaru, Setsuya Nakada Groundmass Crystallization Process in the Dacite Dikes of Unzen Scientific Drilling Project 4 (USDP-4)
<u>11-P-19</u>	<u>Daisuke Nagai</u> Characteristics of the June 3, 1991 Pyroclastic Surge at Unzen Volcano, Kyushu Island, Japan, and Implications for Disaster Mitigation
<u>11-P-20</u>	Atsushi Saiga, Satoshi Matsumoto, Kenji Uehira, Kodo Umakoshi, Takeshi Matsushima, Hiroshi Shimizu  Crustal Velocity Structure beneath Unzen volcano
<u>11-P-21</u>	Atsushi Watanabe, Satoshi Matsumoto, Hiroshi Shimizu Scatterer Distribution beneath Unzen Volcano
<u>11-P-22</u>	<u>Hakim Saibi</u> , Sachio Ehara, Yasuhiro Fujimitsu, Jun Nishijima, Koichiro Fukuoka <b>Numerical and Geosciences Investigations of Obama Geothermal Field, Western</b> <b>Flank of Unzen Volcano</b>
<u>11-P-23</u>	<u>Takeshi Hashimoto</u> Year-to-year Change in Self-potential on Unzen Volcano
<u>11-P-24</u>	Yuka Inagaki, <u>Noriko Hasebe,</u> Takashi Ishihara, Shoji Arai U-series Disequilibrium Dating applied to Zircons from Unzen volcano
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32-P-02	<u>David M. Johnston</u> , Matt Davis, Julia Becker, Jenny Anderson, Barbara Nelson <b>Community Understanding of the Lahar Risk around Mount Rainier, USA</b>	

<u>32-P-03</u>	<u>Takeshi Kamoshida</u> , Nobuo Anyoji, Shintaro Hayashi, Hideyuki Itoh  Comparison of Practical Ways of Volcanic Disaster Prevention Knowledge  Corresponding to Local Characteristics
32-P-04	Katherine H. M. Donovan Cultural Responses to Geophysical Hazards in Indonesia
32-P-05	Zhexin Hu, Toyoharu Itou, Yasushi Saitou Promotion Methods for Cooperation on Volcano Disaster Prevention and Mitigation
32-P-06	Shingo Takeuchi Kazan Friendship Network as an Online Community to Familiarize with Volcanoes
32-P-07	<u>Christina Neal</u> , Kristi Wallace, Jennifer Adleman  An Ash Fall Atlas Poster for Volcano Hazard Education in the U.S.
32-P-08	Stacey M. Edwards, Richard E. A. Robertson  Navigating the Journey from Science to Education: Challenges and Solutions
32-P-09	<u>Hiromu Okada</u> , Saburo Mimatsu, Tsutomu Sato, Yu-ichi Ebina, Toshiya Tanabe, Jun Okada <b>Thirty-years-long Cultural Activities for Safer Community Including Kids Programs Around Usu Volcano, Japan</b>
32-P-10	Tim R. Orr, Darcy Bevens  Public Outreach and Education by the Hawaiian Volcano Observatory
32-P-11	Hirotsugu Kooka, Yuji Sorimach, <u>Junichi Ootomo</u> , Hiromu Okada, Keiji Wada, Mario Yoshida
	Various Public Relations for Community Awareness about Risk and Beneficence of the Tokachi-dake Volcano, in northern Japan
32-P-12	<u>Hideyuki Itoh,</u> Mario Yoshida, Norikuni Harada, Shinya Yoshida Collaborated work for Disaster Reducing and Outreach with Citizen, Administrators and Scientists, at Kamifurano Town, Tokachi-dake Volcano
<u>32-P-13</u>	Graham S. Leonard, Maureen Coomer, Brad Scott, Richard T. Smith, Harry Keys, Nicki Hughes, David M. Johnston Public Awareness and Education at Tongariro Volcanic Complex, New Zealand: Social Science Guiding Risk Management for a Transient Dispersed Population
<u>32-P-14</u>	Shintaro Hayashi Libra: a Board Game for Teaching Uncertainty of Volcanic Disaster
<u>32-P-15</u>	<u>Miyuki Yoshikawa,</u> Shin'ichiro Ikebe, Chika Mizoguchi, Yasuaki Sudo The 'Kids in Aso as Volcanologists' Project – Building Children's Volcanological Skills
<u>32-P-16</u>	<u>Jennifer N. Adleman</u> Alaska's Volcano Teaching Kit: building Awareness of Volcanic Hazards through State-wide Science Education
<u>32-P-17</u>	Masaya Sakamoto, <u>Kisei Kinoshita</u> , Nobuya Tomioka, Hirotsugu Togoshi School Education for Volcanic Disaster Mitigation using 3D Satellite Image Presentation System SiPSE
32-P-18	Angeles Llinares, <u>Ramon Ortiz</u> Teacher Guide for Education in Volcanic Risk, Civil Defence Spain
32-P-19	<u>Tadahide Ui</u> , Editorial Board for Supplementary Readers on Tarumae Volcano <b>Supplementary Readers on Tarumae Volcano</b>
32-P-20	<u>Yuta Sakamoto,</u> Yoshie Shimizu, Kazuyuki Nakagawa, Masato Koyama Nine Years of School Children's Summer Course in Seismology and Volcanology
32-P-21	Carolyn Driedger, Anne Doherty Living with a Volcano in your Backyard: an Education Program to Better Acquaint Students and Teachers with Mount Rainier, Washington, USA
32-P-22	Atsushi Yoshii, Toshikuni Okamura Educational Program on Regeneration of Woodlands after Usu Volcano Eruption

32-P-23	Junji Dobasi Potential of Unzen Volcano as Teaching Material - its Application to the Periods for Integrated-Study at Junior High School-
32-P-24	Yoshio Owaki, Yasuhiro Sekiguchi, <u>Hideki Kobayashi, Toshiharu Sakuma</u> , <u>Mitsuo Inoue</u> , Hatsue Fujihira, Akemi Sekiguchi, Kiminari Matsuo, Sekio Ichikawa, Kazuo Kubota, Tomiyuki Kobayashi, Yoshio Seto, Kinjiro Takasugi, Junichi Tsuyuki, Tetsuo Motegi, Norio Yamada, Yukio Yamada  Mt.Fuji and Sakawa-River—How Do We Hand Down the Ancesters' Fighting to the Descendants?
<u>32-P-25</u>	<u>Takashi Nagao</u> , Yoshio Fukuda, Naoki Higuchi, Toshiyuki Yamashita, Naoko Fujita, Takeshi Hiyoke, Misao Maeda <b>Learning the Mysteries of Abu Volcano Group on Hagi City with Citizens and School Children</b>
32-P-26	Jennifer Anderson Mitigating Risk through Student Education
<u>32-P-27</u>	Akira Tsune Volcanological Education Program 'Six Ways to Enjoy Volcanic Rocks in Sakurajima'
32-P-28	Saburo Mimatsu Lesson from Mt. Usu Eruptions – Fruit of Volcanic Disaster Prevention Activities During the Dormant Period
32-P-29	Yuki Sadaike Project Exhibition about Mt. Usu Eruption in 2000
32-P-30	Anne Doherty, Edwin Bernbaum Mount Rainier-Fuji Sister Mountain Curriculum Project and Teacher Exchange Program
32-P-31	Hisaomi Yamaguchi Practice of Field Museum Activities on Nature and Culture of Mt. Aso
32-P-32	Ryusuke Imura, Ebino Highlands Volunteer Group, The Miyazaki Office of River and National Highway, MLIT The Education Program for Understanding Volcanic Hazards in the Kirishima Volcano, Japan
	Session 3-3: Communities and volcanism-archeology, tradition and recovery
<u>33-P-01</u>	Ryoji Motomura, Norie Matsumoto, Hirotoshi Hiwaki, Yasunari Takada, Shunichi Ikegami The Archaeology of Mentality in the Study of Pompeii
33-P-02	Masanori Aoyagi, Claudia Angelelli, Satoshi Matsuyama, Katsuhiro Iwaki, Akira Matsuda, Tomoo Mukai
	An Archaeological Excavation of a Roman Site in the Southern Part of Italy
33-P-03	Sintaro Ono, Tetsuro Morimoto, Jun Takamatsu, Atsuhiko Bannno, Takeshi Oishi, Masataka Kagesawa, Katsushi Ikeuchi 3-D Modeling of Somma and Pompei Excavations Bureid by Eruption of Mt.Vesuvio
33-P-04	Toshitsugu Fujii, Kenji Niihori, Takayuki Kaneko, Masashi Nagai, Mitsuhiro Yoshimoto, Atsushi Yasuda, Setsuya Nakada Burial Process of the Roman Villa on the Northern Flank of Mt.Vesuvius
33-P-05	Takashi Oguchi, Kyoko Kataoka, Zhou Lin, Ronald De Rose, Wataru Morishima, Tatsuto Aoki, Goro Komatsu Watershed Geomorphology and Sedimentlolgy of Vesuvius Volcano (Italy) and Pinatubo Volcano (the Philippines)
33-P-06	Kazuhiko Takeuchi, Nobuo Sujgiyama, <u>Yoko Kano</u> , Emilla Allevato, Gaetano Di Pasquale, Cohe Sugiyama Restoraiton of Cultural Landscape and Natural Environment at the Area Covered by Eruptions

33-P-07	<u>Hiroyuki Kamei,</u> Makiko Watanabe, Takayuki Ako, Yuzuru Inoue, Katsura Kogawa, Ibusuki-City Education Board  Geophysical Survey of Archaeological Sites Suffered from Volcanic Eruption of MT.  Kaimondake in 874 AD, Kagoshima, Japan
33-P-08	Mitsuyuki Takano, Eiji Nitta Investigation of the Remains Suffered from Eruption of the Ninth Century of Mt.Kaimondake
33-P-09	Kyoko S. Kataoka, Vern Manville, Atsushi Urabe, Atsushi Kajiyama A Large-scale Breakout Flood from an Ignimbrite-Dammed River after the Numazawako Eruption (BC 3400), Northeast Japan: Geomorphic and Sedimentary Evidence and Lahar Hazards
33-P-10	<u>Cohe Sugiyama</u> , Koichiro Saito, Kenji Niihori, Yuki Ueda, the Society of Volcanological and Archeology in Ilands  Villages and Volcanic Eruptions at Izu ilands, Japan, in YAYOI period
33-P-11	Kenji Niihori, Yuki Ueda, Cohe Sugiyama, Kouichirou Saitou The Burial Processes of Remnants from the Era of Yayoi in Miyakejima Volcano, Japan
33-P-12	Ryusuke Imura Reexamination of the Eruptive Activity of Kirishima Volcano Recorded in the Heike Monogatari (The Tale of the Heike)
33-P-13	Akira Baba, Masataka Yoshida, Shino Fukuju, Tatsuya Tamai, Haruka Kinoshita Digital Archive System for Historical Materilas on Volcano Disasters
33-P-14	Mizuyo Oura Hazard Perceptions Observed in Stone Structures Built after Eruptions of Mt. Asama in the 3rd Year of the Tenmei Era, 1783
33-P-15	Sylviane L. G. Lebon, Freysteinn Sigmundsson Benenfits of Improved Communication Between Volcanologists and Rehabilitation Teams in case of Volcanic Eruption? The case of Agricultural Land
<u>33-P-16</u>	<u>Hugh Tuffen</u> , Martin Pedersen, Nina Mueller, Brian Wynne, Paul Oldham, Gonzalo Araoz, Noel Cass, Harry Pinkerton, Zoe Young <b>Erupting Conversaitons: Social Volcanology in Ecuador</b>
33-P-17	Eliecer Duarte, Erick Fernandez Commemorating The 40th Anniversary of Arenal Volcano Eruptions
33-P-18	<u>Jean-Christophe Galilard</u> , Christopher Gomez  Overcoming volcanic cataclysms: The Aetas of the Philippines in the face of the 1991 Pinatubo Eruption
33-P-19	<u>Thomas M Wilson, Jim W. Cole, Shane J. Cronin, David M. Johnston, Carol Stewart Agricultural Recovery from an Explosive Volcanic Eruption</u>

	Hall A	
8:30-10:00	Plenary talks	
	Session 2-1a: Responding to Natural Disasters: Case histories with lessons for volcano crises  Chairpersons: C. Gardner, R. Solidum	
8:30-9:00	Tokumi Saito, Nobuo Doi Case Studies of Iwate Volcanic Crisis in 1998	<u>21a-O-01</u>
	Session 2-3: Long-term land-use planning that mitigates volcanic risks Chairpersons: J. Becker, A. Hoskuldsson, K. Takahashi	
9:00-9:30	<u>Jim Kauahikaua,</u> Frank Trusdell <b>A History of Lava Flow Hazard Mitigation Efforts in Hawaii</b>	<u>23-O-01</u>
	Session 2-2. Impacts of volcanic activity on infrastructure and effective risk reduction Chairpersons: T. Pierson, N. Anyoji	
9:30-10:00	<u>Hirosh Ikeya</u> The Heisei-eruption of Mt. Unzen and Measures Against Volcanic Disasters	<u>22-O-01</u>
10:00-10:10	- Break -	
	Session 1-1: Recent developments in volcano research	
	Chairpersons: S. Takarada, H. Hoshizumi	
10:10-10:30	<u>Setsuya Nakada,</u> Yoshihiko Goto, Sumio Sakuma, Hiroshi Shimizu <b>Scientific Results of Conduit Drilling at Mount Unzen</b>	<u>11-O-12</u>
10:30-10:50	Glen S. Mattioli, Barry Voight, Derek Elsworth, Alan Linde, Selwyn Sacks, Peter Malin, Larry Brown, Amanda Clarke, Steve Sparks, Jurgen Neuberg, Vicky Hards, William Johnston, Dannie Hidayat, Christina Widiwijayanti, Simon Young, Eylon Shalev, Pyiko	
	Williams The CALIPSO Project on Soufriere Hills Volcano, Montserrat, BWI: Status and Scientific Results From 2003 to 2007	11-0-13 Invited
10:50-11:10	George Bergantz, Josef Dufek Probing the Emergent Structures and Mechanics of Pyroclastic Flows: Integrating the Dynamics and Deposits of Volcanic Eruptions	11-0-14 Invited
11:10-11:30	Shinji Takarada, Christyanne Melendez Contrasting Depositional Features and Emplacement Mechanism of the 1991-95 Block-and-ash Flows and 1792 Mayuyama Debris Avalanche at Unzen Volcano, Japan	11-0-15 Invited
11:30-11:50	Pierfrancesco Dellino, Bernd Zimanowski, Ralf Buettner, Luigi La Volpe, Daniela Mele, Roberto Sulpizio  Large Scale Experiments on The Mechanics of Pyroclastic Flows	<u>11-O-16</u>
11:50-12:10	Sylvain J. Charbonnier, Ralf Gertisser TITAN2D Modelling of Block-and-ash Flows at Merapi Volcano, Java, Indonesia: Implications for Hazard Assessment	<u>11-O-17</u>
12:10-13:30	- Lunch -	
13:30-16:40	- Forum on how to pass on lessons learned from past disasters -	
16:40-18:00	Poster core time	
	Hall B	
	Session 1-1: Recent developments in volcano research	
	Chairpersons: A. Neri, S. Takarada	
13:30-13:50	Kazuhiko Kano, Yudai Sato Motion of Volcanic Fragments in Pyroclastic Density Currents and Volcanic Debris Avalanches as Indicated by Thermo-Remanent Magnetiztion Vectors	<u>11-O-18</u>

November 20 (Tuesday)		Day 2 (2)
13:50-14:10	<u>Costanza Bonadonna</u> Recent Developments in Modeling of Tephra Dispersal	11-0-19 Invited
14:10-14:30	<u>Fukashi Maeno</u> , Fumihiko Imamura, Hiromitsu Taniguchi Numerical Investigations of Tsunamis generated by Pyroclastic Flows from the Kikai Caldera, Japan	<u>11-O-20</u>
14:30-14:50	Yan Lavallee, Kai-Uwe Hess, Benoit Cordonnier, <u>Donald B. Dingwell</u> A non-Newtonian Rheological Law for Highly Crystalline Dome Lavas	<u>11-0-21</u>
14:50-15:20	- Coffee break -	
15:20-15:40	<u>Vern Manville,</u> Shane J. Cronin  18 March 2007 Ruapehu Crater Lake Break-out Lahar: Preliminary Results	<u>11-O-22</u>
15:40-16:00	Sarah A. Fagents, Stephen M. Baloga, Bruce F. Houghton, Vernon Manville Modeling Lahar Evolution and Runout Behavior	11-0-23 Invited
16:00-16:20	Massimiliano Favalli, Francesco Mazzarini, Maria Teresa Pareschi, Paolo Papale, Giuseppe D. Chirico	11-0-24
	Lava Flow Hazard Maps Through Numerical Simulations	Invited
16:20-16:40	Kyle R. Anderson, Paul Segall Building a Numerical Volcano: Modeling the Evolution of Effusive Silicic Eruptions	<u>11-O-25</u>
	Hall C	
	Session 2-3: Long-term land-use planning that mitigates volcanic risks	
	Chairpersons: J. Becker, A. Hoskuldsson, K. Takahashi	
10:10-10:30	Peter Frenzen Landuse and Emergency Response Planning: Lessons from Mount St Helens	23-O-02 Invited
10:30-10:50	<u>David M. Johnston</u> , Wendy Saunders, Julia Becker, Graham Leonard Reducing Volcanic Risk Through Land-use Planning: Is it an Option?	<u>23-O-03</u>
10:50-11:10	<u>Christina R. Magill</u> , Miho Yoshimura, Naomichi Miyaji, Hiroshi Machida, Kazuo Takahashi, Kimiro Meguro, K John McAneney, Takashi Mikajiri, Masako Ikeda <b>Probablistic Tephra Fall Hazard and Consequences for Greater Tokyo</b>	<u>23-O-04</u>
11:10-11:30	<u>Kiyoshi Yamanaka</u> Land Use Plan After 2000 Eruption of Usu Volcano	<u>23-O-05</u>
11:30-11:50	Takuro Kimura  Eruption Hazards and Reconstruction of Communities by Raising the Land	<u>23-O-06</u>
11:50-12:10	Shigeki Yamanaka Current Situation of Disaster Victim Assistance in Japan	<u>23-O-07</u>
12:10-13:30	- Lunch -	
	Session 2-1a: Responding to Natural Disasters: Case histories with lessons for volcano crises	
	Chairpersons: C. Gardner, R. Solidum	
13:30-13:50	Tom Miner Understanding Disaster Response	21a-O-02 Keynote
13:50-14:10	Volcanic Risk Survey - Italian Civil Protection Department (Chiara Cardaci) From MESIMEX Exercise to the Stromboli Emergency: the Italian Civil Protection Organization for the Volcanic Risk	21a-O-03 Invited
14:10-14:30	<u>Supriyati D. Andreastuti</u> Simultaneous Hazardous Events: The 2006 Eruption of Merapi Volcano and The M6.4 Yogyakarta Earthquake, Indonesia	21a-O-04 Invited

November 20 (Tuesday)		Day 2 (3)
14:30-14:50	Andrew C. Tupper, Gordon E. Jackson, Rebecca K. Patrick Volcanoes And Aviation: Lessons Learned In The 25 Years Since The 'Jakarta Incident', And Lessons We Have Yet To Learn	21a-O-05 Invitetd
14:50-15:20	- Coffee break -	
	Chairpersons: H. Yamasato, S.Bailey	
15:20-15:40	Juan C. Gavilanes-Ruiz, Alicia Cuevas-Muniz, Nick Varley, Gemma Gwynne, John Stevenson, Elia Serratos-Chavez, Ricardo Saucedo-Giron, Anaid Perez-Perez, Mary Aboukhalil, Abel Cortes-Cortes Increase of Eruptive Activity and the Role of Journalists at Volcan de Colima, Mexico: The Need to Understand People's Perception of Risk	21a-O-06
15:40-15:55	<u>Kazunori Tanihara</u> TV News on Recent Volcano Crises in Japan	21a-O-07 Invited
15:55-16:10	<u>Yoichi Sasai</u> The 2000 Eruption of Miyake-jima Volcano: From Total Evacuation (September, 2000) till Return Home (February, 2005)	21a-O-08 Invited
16:10-16:25	<u>Katsumi Seki</u> Crisis Management in the Eruption of Usu Volcano in 2000	21a-O-09 Invited
16:25-16:40	<u>Koji Ikeuchi</u> , Takashi Yokota Volcanic Disaster Prevention Countermeasures in Terms of Evacuation Systems at Eruptions and Related Phenomena	21a-O-10 Invited
	Hall D	
	Session 2-2. Impacts of volcanic activity on infrastructure and effective risk reduction	
	Chairpersons: T. Pierson, N. Anyoji	
10:10-10:30	Etsuro Shimokawa Erosion and Sediment Discharge of Tephra-covered Hillslopes	<b>22-O-02</b> Keynote
10:30-10:50	Hugo F Murcia, <u>Jose Luis Macias</u> Lahars and Rain-Triggered Floods at Tapachula, Chiapas, Mexico derived from the Tacana Volcanic Complex	<u>22-O-03</u>
10:50-11:10	<u>Jerry A. Fano</u> Optimized Countermeasures for Debris Flow and Landslide Mitigation in Mayon Volcano, Philippines	<u>22-O-04</u>
11:10-11:30	<u>Hariyono Utomo</u> , Tadahiro Kanno, Tomoyuki Noro, A. Lesto Prabhancana Kusumo Countermeasures of Mt. Merapi Volcanic Disaster Mitigation; Strategy Development Planning to Prevent Infrastructure	<u>22-O-05</u>
11:30-11:50	<u>Harry J. Keys</u> Ruapehu Lahar 18 March 2007 - Lessons For Hazard Assessment And Risk Mitigation From 1995-2007	22-O-06 Keynote
11:50-12:10	Thomas C. Pierson Potential Impact of Post-Eruption River Channel Aggradation on Infrastructure	<b>22-0-07</b> Keynote
12:10-13:30	- Lunch -	
	Chairpersons: G. Zuccaro, R. Imura	
13:30-13:50	Nathan J. Wood Variations in Community Vulnerability to Lahar Hazards of Mount Rainier, Washington (USA)	22-O-08 keynote
13:50-14:10	<u>Ciro Del Negro</u> , Alessia Ciraudo, Annamaria Vicari Mapping Lava Flow Hazards at Mt Etna Using Numerical Simulations	<u>22-O-09</u>
14:10-14:30	<u>Catherine J. Lowe</u> , Muki Haklay, Paul Longley, William J. McGuire, Richard E. A. Robertson  Increasing Preparedness Through Volcanic Vulnerability and Risk Mapping	<u>22-O-10</u>

November 20 (Tuesday)		Day 2 (4)
14:30-14:50	Yoichi Nakamura, Kazuyoshi Fukushima, Xinghai Jin, Motoo Ukawa, Teruko Sato An Assessment of Japanese Mitigation Systems on Volcanic Disasters: A Review of Hazard Maps, Mitigation Programs, and Risk Analyses	<u>22-0-11</u>
14:50-15:20	- Coffee break -	
	Chairpersons: C. Neal, Y. Nakamura	
15:20-15:40	Giulio Zuccaro  Damage Impact Scenarios and Mitigation Measures in the Vesuvian Villages	22-0-12 Keynote
15:40-16:00	lan R. Chapman, Mark Bebbington, Shane J. Cronin, Micheal. B. Turner Vulnerability Analysis of the Power-Distribution Infrastructure in Western North Island of New Zealand to Ashfall from Mt Taranaki/Egmont	<u>22-O-13</u>
16:00-16:20	Scott T Barnard, James W. Cole, David M. Johnston Potential Impacts of Volcanic Ash on Wastewater Systems and Telecommunications Infrastructure in New Zealand	<u>22-O-14</u>
16:20-16:40	Nobuo Anyoji, Yasuo Ishii, Nobuaki Sakai Evaluation of the Design Target for the Volcanic Sabo Planning Based on the Cumulative Frequency of Eruptive Magnitude	<u>22-O-15</u>

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8:30-10:30	Hall A Plenary talks	
0.00 10.00	Session 1-3: Health Hazards of coexisting with active volcanoes	
	Chairpersons: P. Baxter, C Horwell, Y. Ishimine, E.Yano, K. Nogami	
8:30-9:00	Peter J. Baxter Emergency Planning and Mitigation at Vesuvius, Italy: A Human Risk-based Approach	<u>13-O-01</u>
	Session 3-2: Education and Outreach-Strategies that improve community awareness about volcanoes  Chairpersons: C. Driedger, H. Itoh, S. Ikebe	
9:00-9:30	Fernando Munoz-Carmona Volcano Education and Risk Communication - Some Comments from a Scientist Perspective	<u>32-O-01</u>
	Session 1-2: Volcano observation research and erutpion forecast and alert programs Chairpersons: J. Ewert, M. Garces	
9:30-10:00	John W. Ewert, David J. Schneider Volcano Observatories and Volcano Hazards Mitigation in the Information Age	<u>12-O-01</u>
10:00-10:10	- Break -	
	Session 1-3: Health Hazards of coexisting with active volcanoes	
	Chairpersons: P. Baxter, C. Horwell, Y. Ishimine, E.Yano, K. Nogami	
10:10-10:30	<u>Hiroko Fujita</u> Relief Activities for Victims of a Pyroclastic Surge During the Unzen Crisis	<u>13-O-02</u>
10:30-10:50	Eiji Matsushita Occupational Safety and Health Measures for Personnel Engaged in Disaster Countermeasures against Volcanic Eruptions at Mt. Unzen Fugendake	<u>13-O-03</u>
10:50-11:10	Akinori Takagi Psychiatric Problems Among Citizens During the Unzen Eruption	<u>13-O-04</u>
11:10-11:30	Maria Luisa Carapezza, Franco Barberi, Peter Baxter  Health Hazard From Endogenous Gas Emissions In Alban Hills (Rome, Italy)	13-0-05 Invited
11:30-11:50	Simon Carn, Francois Kervyn, Prudence Mitangala, Georgina M. Sawyer The Health Impacts of Persistent Degassing at Nyiragongo Volcano (DR Congo)	<u>13-O-06</u>
11:50-12:10	Naoko lino, <u>Kisei Kinoshita</u> , Masaya Sakamoto, Thomas Bouquet, Chikara Kanagaki High Sulphur-Dioxide Concentration Events at the Surface of Miyakejima and Sakurajima Volcanoes	<u>13-O-07</u>
12:10-13:30	- Lunch -	
	Plenary talk	
	Session 2-1b: Assessing long term volcanic hazards and risks Chairpersons: C. Connor, Tadahide Ui	
13:30-14:00	<u>Charles Connor</u> , Tadahide Ui, Steven Sparks  Challenges of Long-Term Volcanic Hazard Assessment	21b-O-01
14:00-14:10	- Break -	
	Session 1-2: Volcano observation research and erutpion forecast and alert programs	
	Chairpersons: C. Newhall, M. Martini	
14:10-14:30	<u>Hitoshi Yamasato</u> , Takayuki Sakai, Yoshiaki Fujiwara Infrasonic Observation near Active Volcanoes and its Results in Japan	<u>12-O-08</u>

14:30-14:50	Florian M. Schwandner, Jacopo Selva, Hideki Ueda, Dina Y. Venezky, Daniel P. Cervelli, Bruce Weertman, Kelly Stroker, Stephen D. Malone, Eisuke Fujita, Warner Marzocchi, Steven P. Schilling, Christopher G. Newhall WOVOdat: The World Organization of Volcano Observatories Database of Volcanic Unrest	<u>12-O-09</u>
14:50-15:10	Warner Marzocchi, Laura Sandri, Jacopo Selva, Gordon Woo Integrating Eruption Forecasting and Cost/Benefit Analysis for Decision Making During an Emergency: the Case of BET_EF Applied to Vesuvius in the MESIMEX Experiment	12-O-10 Invited
15:10-15:40	- Coffee break -	
	[Stromboli subsession]	
15:40-16:00	<u>Franco Barberi</u> , Mauro Rosi, Roberto Scandone  The 2007 Stromboli Eruption	<u>12-0-11</u>
16:00-16:20	Sonia Calvari, Luigi Lodato, Letizia Spampinato, Enzo Boschi Comparison Between the 2002-03 and 2007 Flank Eruptions at Stromboli Volcano: Basis for Predicting Future Volcanic Events	<u>12-O-12</u>
16:20-16:40	Ernesto Bernardo, Mauro Coltelli, Maria Marsella, <u>Cristina Proietti,</u> Alberico Sonnessa, Paolo Tommasi <b>Topographic Monitoring of The 2007 Stromboli Eruption</b>	<u>12-O-13</u>
16:40-18:00	Poster core time	ī
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	Hall B	<b>!</b>
	Session 1-2: Volcano observation research and erutpion forecast and alert programs	l
10:10-10:30	Chairpersons: J. Ewert, M. Garces	
10.10-10.30	Seth C. Moran, Jeff T. Freymueller, Rick A. La Husen, Ken A. McGee, Mike P. Poland, John A. Power, David A. Schmidt, Dave J. Schneider, Cindy Werner, Randy A. White Instrumentation Requirements for Improving Monitoring Capabilities at U.S. Volcanoes	12-O-02 Invited
10:30-10:50	<u>Diana C. Roman</u> <b>Local Stress Field Reorientations Preceding Volcanic Activity: A Synthesis of Case Studies from Alaska and Montserrat</b>	<u>12-O-03</u>
10:50-11:10	Antonius Ratdomopurbo Precursory Data of the 2006 eruption of Mt. Merapi	<u>12-O-04</u>
11:10-11:30	<u>Hidefumi Watanabe</u> , Yuichi Morita Towards Mid-Term Eruption Prediction: A Conceptual Model and Some Evidence from the Results of Integrated Monitoring of Izu-Oshima Volcano, Japan	<u>12-O-05</u>
11:30-11:50	Ronald J Thomas, Paul R Krehbiel, William Rison, Harald Edens, Stephen R. McNutt, Monitoring Volcanic Activity by Real-time Observations of Lightning and Electrical Activity	12-O-06 Invited
11:50-12:10	<u>Hugo Yepes</u> , Patricio A. Ramon, Jorge Bustillos, Milton Garces, David Fee, A. Stefke Infrasound Detection During 2007 Mild Explosive Activity At Tungurahua Volcano, Ecuador	<u>12-O-07</u>
	Hall C	
	Session 2-1a: Responding to Natural Disasters: Case histories with lessons for volcano crises	
	Chairpersons: S. Bailey, T. Nakahashi	
10:10-10:30	Antonia Bornas, Carmencita B. Arpa, Ma. Arturo S. Daag, Perla J. Delos Reyes, Eduardo P Laguerta, Patrick R Raymond, Ma. Hannah T Mirabueno, Jeffrey S. Perez, Renato U Solidum Jr  The 2006 Supertyphoon Reming Lahars of Mayon Volcano, Philippines	21a-O-11 Invited

November 22 (Thursday)		Day 4 (3)
10:30-10:50	<u>Cedric D. Daep</u> Civil Defense Disaster Preparedness and Response to Mayon Lahar from Typhoon Reming	<u>21a-O-12</u>
10:50-11:10	<u>Julia S. Becker</u> , Graham S. Leonard, Douglas Paton, David M. Johnston, Petra Buergelt Organisational Response to the March 18, 2007 Mount Ruapehu Crater Lake Damburst Lahar: Expectations Before the Event and Implications for Response	21a-O-13
11:10-11:30	<u>Vicky Hards</u> 12 Years of Eruptive Activity at The Soufriere Hills Volcano, Montserrat and 12 Years of Monitoring: A Challenge in Understanding Volcanic Processes and Achieving Meaningful Communication of Hazard	21a-O-14
11:30-11:50	<u>Steve J. Saunders</u> , Herman Patia, Felix Taranu, Jonathon Kuduon, James Cowlyn, Yuichi Nishimura  How To Deal With Unpredictable Volcanoes In A Developing Country?	21a-O-15 Invited
11:50-12:10	<u>Herman Patia,</u> Ima Itikarai, Steve Saunders, Felix Taranu <b>Emergency Response To The 2005 Volcanic Eruption At Garbuna, Papua New</b> <b>Guinea</b>	21a-O-16 Invited
	Session 2-1b: Assessing long term volcanic hazards and risks	
	Chairpersons: C. Connor, Tadahide Ui	
14:10-14:30	<u>Servando De la Cruz-Reyna</u> , Ana T. Mendoza-Rosas  A Quatitative Estimate of the Volcanic Hazard Based on Eruption Energy Release  Trends	21b-O-02 keynote
14:30-14:50	<u>Hirofumi Kondo</u> , Ichiro Ando Methodology of the Evaluation of Regions of Future Volcanism Based on Spatio- Temporal Patterns in Volcanism Combined with the Related Phenomena	21b-O-03 keynote
14:50-15:10	Olivier Jaquet, Christian Lantuejoul A Stochastic Model for Estimation of Long-Term Volcanic Hazard	21b-O-04 Invited
15:10-15:40	- Coffee break -	
15:40-16:00	Sue H. Mahony, R. S. J. Sparks, Laura J. Connor, Chuck B. Connor Assessing Long-term Volcanic Hazards Using Volcano Distribution Databases	21b-O-05
16:00-16:20	Alain C. M. Volentik, Charles B. Connor, Laura J. Connor, Costanza Bonadonna, Christopher G. Newhall Volcanic Hazard Assessment for the Bataan Nuclear Power Plant, Luzon Peninsula, Philippines	21b-O-06 Invited
16:20-16:40	Alanna L. Simpson, R. Wally Johnson, Lee Siebert Supporting International Development in the Asia-Pacific Region through Probabilistic Volcanic Eruption Assessment	21b-O-07
	Hall D	
	Session 3-2: Education and Outreach-Strategies that improve community awareness about volcanoes	
	Chairpersons: C. Driedger, H. Itoh, S. Ikebe	
10:10-10:30	Todd Cullings, Peter Frenzen Effective Communication Through Message-Based Interpretation	32-O-02 Invited
10:30-10:50	Sian Crossweller, Jenni Barclay, Peter Simmons, Richard Robertson, Irene Lorenzoni Lost in Translation: Communicating Volcanic Risk in the Eastern Caribbean	<u>32-O-03</u>
10:50-11:10	A. Lesto Prabhancana Kusumo, Hariyono Utomo, Tomoyuki Noro Merapi Case Study: Applicable Integrated Management Technology as Volcanic Disaster Prevention System on Community Basis at Balerante Main Observatory Post	<u>32-O-04</u>

November 22 (Thursday) Da		Day 4 (4)
11:10-11:30	Eliecer Duarte, Erick Fernandez Tourism around Active Volcanoes in Costa Rica—Opportunities to Raise Awareness and Reduce Hazards	32-O-05 Invited
11:30-11:50	Shinichiro Ikebe The Role of the Museum in Volcano Education	<u>32-O-06</u>
11:50-12:10	<u>Daisuke Yoshida</u> Efforts to Learn About Volcanoes at Mount Unzen Disaster Memorial Hall	32-O-07 Invited
12:10-13:30	- Lunch -	
	Chairpersons: S. Hayashi, J. Woodcock	
14:10-14:30	Maria Luisa Carapezza, Caterina Piccione, Lucia Pruiti Educational Activity at Ingv Centres to Mitigate Risk of Vulcano and Stromboli Active Volcanoes	<u>32-O-08</u>
14:30-14:50	<u>Daisuke Fukushima</u> Volcano Education and Ecomuseums	<u>32-O-09</u>
14:50-15:10	Kunihisa Terai The Teaching of Volcano at School	32-O-10 Invited
15:10-15:40	- Coffee break -	
15:40-16:00	Jan M. Lindsay, Audrie McKenzie Virtual Volcano Field Trips in New Zealand: Enthusing School Children in the Science behind Volcanoes	<u>32-O-11</u>
16:00-16:20	Rosella Nave, Romano Camass, Massimo Crescimbene  A Multidisciplinary and Multi-Hazard Educational Path: The Italian Edurisk Project	<u>32-O-12</u>
16:20-16:40	Shintaro Hayashi The Tastiest Book on Volcano, in the World as an Teaching Material in Japanese Public School to Reduce Volcanic Hazards	32-O-13 Invited
	Posters II	Ī
	<b>November 22-23</b> Core time: 16:40-18:00, Nov. 22	
	Session 1-1: Recent developments in volcano research (round 2)	
	Lava flows (108-113), magma processes (114-124) and eruption processes (148-159)	
<u>11-P-108</u>	Alessia Ciraudo, Ciro Del Negro, Michele Dragoni, Andrea Tallarico, <u>Annamaria Vicari</u> <b>A Cellular Automata Model for the Formation of Lava Tubes</b>	
<u>11-P-109</u>	Annamaria Vicari, Alessia Ciraudo, Ciro Del Negro Cellular Automata Flow Simulations Using Thermal Satellite Data at Mt Etna	
<u>11-P-110</u>	Yoshihiro Takeshita, Yoshihide Nunokawa, Yoichi Nakamura, Toyosaburo Sakai Rhyolitic Magmatism of the Takahara Volcano, Japan, Inferred From Various Petrographic Features of the Obsidian	
<u>11-P-111</u>	<u>Christopher W. Hamilton</u> , Steve Baloga, Sarah A. Fagents, Samuel Hulme, Benjamin Brooks, James Foster  Topographic Controls on Pahoehoe Lava Flow Inflation	
<u>11-P-112</u>	Gino M. Crisci, Maria V. Avolio, Donato D'Ambrosio, Valeria Lupiano, <u>Rocco Rongo</u> , William Spataro  Lava Flow Invasion Susceptibility Map for Etnian East Flank: A Methodology by Cellular Automata	
<u>11-P-113</u>	Antonio Costa, Giovanni Macedonio Lava Flow Simulation Based on Shallow-Layer Equations	
<u>11-P-114</u>	Daniele Giordano, J. Kelly Russell, <u>Donald B. Dingwell</u> Viscosity of Magmatic liquids: an empirical model	

11-P-115	Tsukasa Ohba
11-P-115	Garnet-Clinopyroxene Fractionation from Arc Basalts beneath Northern Honshu, Japan
<u>11-P-116</u>	<u>Cedric Schnyder</u> , Olivier Bachmann Relationships Between Pre-KPT and KPT Volcanic Rocks on Kos Island (Dodecanese, Greece): Crescendo to the Largest Eruption of the Modern Aegean Arc
<u>11-P-117</u>	<u>Takashi Nagao</u> , Masamichi Ikeda, Susumu Kakubuchi  Origin of the Mafic and Ultramafic Xenolith-bearing Dacites from Southwest Japan  Arc
<u>11-P-118</u>	<u>Danilo M. Palladino</u> , Silvia Simei, Konstantinos Kyriakopoulos Shear-induced Magma Fragmentation in Volcanic Conduits: Evidence from the Kos Plateau Tuff, Aegean Volcanic Arc
<u>11-P-119</u>	<u>Eiichi Sato</u> , Hiroaki Sato <b>Effect of Magma Pocket on the Mixing Process of Two Magmas of Contrasting</b> <b>Viscosity and Density: Analogue Experimental Approach</b>
<u>11-P-120</u>	<u>Alexander Proussevitch,</u> Gopal Mulukutla , Dork Sahagian  A New 3D Method of Measuring Bubble Size Distributions from Bubble Fragments in Volcanic Ashes
<u>11-P-121</u>	<u>Kazuhide Matsuoka</u> , Junji Yamamoto, Yuji Sano, Hirokazu Fujimaki Isotope Study of Olivine-hosted Fluid Inclusions From Northeast Japan Volcanoes
<u>11-P-122</u>	Minoru Kusakabe, Keisuke Nagao, Takeshi Ohba, Sung Hyun Park, Jong Ik Lee Geochemistry of Thermal Fluids from Deception Island, Antarctica
<u>11-P-123</u>	Yasuyuki Miyake, Tatsuro Tsugane, Kuniaki Makino, Kou Takahashi, Kuniaki Nishiki, Masayuki Sakagami Magmatic Process in Asama Volcano, Central Japan during September 2004 Eruptions
<u>11-P-124</u>	Mitsuo Matsumoto, Atsushi Toramaru  Difficulty in the Numerical Analysis of Magma Convection by SIMPLER Algorithm
<u>11-P-125</u>	Masayuki Murase, Takeo Ito, Yoshinari Hayashi, Takeshi Sagiya, Fumiaki Kimata, Hidefumi Watanabe Time-Dependent Model for Volume Changes in Pressure Sources of Volcanic Swarm Activity off the East Coast of Izu Peninsula, Central Japan using Geodetic Data during 1973-1998
<u>11-P-126</u>	Masao Ban, Kotaro Miura, Hikaru Sato, Shiho Hirotani Long to Middle Term Temporal Variation of Magma Feeding System: An Example of Recent Magma Chamber Beneath Zao Volcano
<u>11-P-127</u>	<u>Carmela Freda,</u> Mario Gaeta, Valeria Misiti, Silvio Mollo, Daniela Dolfi, Piergiorgio Scarlato
	Magma-Carbonate Interaction: An Experimental Study on Ultrapotassic Rocks
<u>11-P-128</u>	Satoshi Okumura, Michihiko Nakamura, Akira Tsuchiyama, Tsukasa Nakano, Kentaro Uesugi Shear Deformation Experiments on Vesiculated Rhyolitic Melts: Evolution of Bubble Connectivity
<u>11-P-129</u>	Mario Gaeta, Tommaso Di Rocco, Carmela Freda, Luigi Dallai, Massimo Tiepolo, Cristina Perinelli, Piergiorgio Scarlato  The Origin of "Hyper-calcic" Silicate Melts and Their Role as Crustal Contaminant
<u>11-P-130</u>	Akihiko Tomiya Magma-Feeding System Beneath Usu Volcano, Japan: Replacement or Continuous Existence?
<u>11-P-131</u>	Rebecca J. Carey, Bruce F. Houghton, Thorvaldur Thordarson Dispersal Characteristics of Wet and Dry Phases of the Askja 1875 Eruption, Iceland

<u>11-P-132</u>	Susumu Kakubuchi, Emiko Iwamoto, Hiroki Yamasaki Geochemical Variation of Volcanic Rocks within the Taiwan-Shinzi Folded Zone in Southwest Japan
<u>11-P-133</u>	Atsushi Toramaru, Takahiro Miwa Vesiculation and Crystallization under Constant Amount of Decompression: Numerical Study and its Comparison with Laboratory Experiments
<u>11-P-134</u>	Akira Tsune Chemical Characteristics of Cross-cutting Dissolution Surfaces in Magmatic Plagioclases
<u>11-P-135</u>	Paolo Papale, Antonella Longo, Melissa Vassalli, Gilberto Saccorotti, David Barbato, Michele Barsanti  Numerical Simulations of Magma Chamber Dynamics and Associated gravity, Deformation, and Seismic Signals
<u>11-P-136</u>	Madoka Shimono, Masaya Miyoshi, Takaaki Fukuoka, Takashi Sano, Toshiaki Hasenaka Along-arc Variation of Boron Data: The Influence of Philippine Sea Plate on the Composition of Mantle Beneath Kyushu, SW Japan Arc
<u>11-P-137</u>	<u>Zilda T. França,</u> Marceliano Lago, Elizabeth Widom, Victor H. Forjaz <b>Azores Mantelic Plume and Volcanic Implications</b>
<u>11-P-138</u>	Masaya Miyoshi, Madoka Shimono, Toshiaki Hasenaka, Takashi Sano, Takaaki Fukuoka, Kuniyuki Furukawa, Taro Shinmura  The Evolving Fluid Flux from the Subducting Plate Beneath Aso Area: Evidence From Boron in Volcanic Products
<u>11-P-139</u>	<u>Hidemi Ishibashi,</u> Hideaki Nakamura, Masataka Saito, Hiroaki Sato <b>Viscosity Measurement of Crystal Bearing Magma</b>
<u>11-P-140</u>	Toshiaki Hasenaka, Maiko Morinaga, Masaya Miyoshi Kusasenrigahama Pumice Cone From Aso Volcano, Kyushu, Japan: Petrological Characteristics of Pumice and Coeval Volcanic Products Representing One of the Largest Eruption After Caldera-formation
<u>11-P-141</u>	Gianluca Sottili, Jacopo Taddeucci, Danilo M. Palladino, Greg A. Valentine, Guido Ventura  Magma-water Interaction in CO₂-rich Enviroments: a Study Case from Albano Maar, Colli Albani (Central Italy)
<u>11-P-142</u>	Gianluca Sottili, Salvatore Martino, Danilo M. Palladino, Antonella Paciello, Francesca Bozzano  Tidal Triggering of Lava Fountain Activity at Mount Etna, (Italy)
11-P-143	Marco Aloisi, <u>Alessandro Bonaccorso</u> , Alessandro Bonforte, Salvatore Gambino, Francesco Guglielmino, Mario Mattia, Mimmo Palano, Giuseppe Puglisi Modeling of Several Recent Mt. Etna Eruptions by Using Ground Deformation to Image Different Sources and Mechanisms
<u>11-P-144</u>	Yuki Suzuki, Setsuya Nakada Remobilization of Highly Crystalline Felsic Magma by Injection of Mafic Magma: Constraints from the Middle 6th Century Eruption at Haruna Volcano
<u>11-P-145</u>	<u>Yutaka Wada,</u> Daisuke Miura Repetition of Fragmentation and Welding inside the Conduit: Evidences from Nakaoku Tuffite Dikes, Central Kii Peninsula, SW Japan
<u>11-P-146</u>	Gilda M. Currenti, Ciro Del Negro, Danila Scandura Thermal-mechanical Modeling of Ground Deformation and Stress Field in a Viscoelastic Medium
<u>11-P-147</u>	<u>Daisuke Miura</u> , Kiyoshi Toshida, Ken-ichi Arai, Tatsuya Ochiai, Michihisa Tanaka <b>Eruptive History for the Last 40,000 Years of Esan Volcano, Northern Japan</b>
<u>11-P-148</u>	<u>Takahuro Miwa,</u> Atsushi Toramaru, Masato Iguchi <b>Material Scientific Study on Vulcanian Eruptions of Sakurajima Volcano, Japan</b>

<u>11-P-149</u>	Mara S. Morgenstern, Pinaki Chakraborty, Paulo Zandonade, Joanna M. Austin, Susan W. Kieffer  Experiments on the Gas Dynamics of the Mt. St. Helens 1980 Lateral Blast
<u>11-P-150</u>	Kazutaka Mannen, Takashi Ito Formation of Scoria Cone in 1986 Eruption of Izu-Oshima
<u>11-P-151</u>	Louise R. Doyle, Phil A. Shane, Ian A. Nairn  Mafic Triggering of the Mangaone Subgroup Eruptions, Okataina Volcanic Centre, New Zealand: Implications for Eruption Precursors
<u>11-P-152</u>	<u>Taketo Shimano</u> , Masato Iguchi Ascent Process of Magma during Recent Successive Eruptions at Suwanosejima Volcano, SW Japan
11-P-153	Jon J. Major, Daniel Dzurisin, Steve P. Schilling, Michael P. Poland Quantifying Motion of the Effusing Mount St. Helens Lava Dome Using Oblique Terrestrial Photography
11-P-154	Akihiko Yokoo, Takeshi Tameguri, Masato Iguchi Expansion Process of Lava Plug Associated with Vulcanian Eruption of Sakurajima Volcano
<u>11-P-155</u>	Sarah M. Gordee, Sharon R. Allen, Jocelyn McPhie Facies Reconstructions of Submarine Felsic Volcanic Products as a Tool for Modern Volcanic Hazard Mitigation
<u>11-P-156</u>	<u>Takeshi Saito</u> , Naoto Ishikawa, Masayuki Torii, Takeshi Sugimoto, Masato Iguchi <b>Magnetic Petrology and Its Implications for Eruption Process of the 1884-1885</b> <b>Andesite Lava of Suwanosejima Volcano, Japan</b>
11-P-157	Toru Ishikawa, Keiko Suzuki-Kamata Phreatomagmatic Eruption Occurred in Felsic Lava Flows Emplacing the Wet Environment: Example of Hime-shima Volcanic Group, North Kyusyu, Japan
<u>11-P-158</u>	Pierre Tinard, Jean-Luc Froger, Valerie Cayol, Yo Fukushima, Thomas Staudacher, Thierry Souriot, <u>Pierre Briole</u> New Insights in the Dynamic of the Volcanic Processes at Piton de la Fournaise Volcano (Reunion Island) Using ENVISAT-ASAR Data
	Session 1-2: Volcano observation research and erutpion forecast and alert programs
	(1-16: seismicity, 17-26: deformation, 27-55: EM, gravity and geochemistry, 56-65: System and Monitoring, 66-68: Geology & Peterology, 69-73: Hazard, 74-79: Remote sensing, 80-81: Acoustics, 82-89: General)
<u>12-P-01</u>	<u>Tanja Petersen</u> Swarms of Repeating Events at Shishaldin Volcano, Alaska
<u>12-P-02</u>	<u>Cheng-Horng Lin,</u> Konstantinos I. Konstantinou <b>Extremely Long-period Tremors at the Tatun Volcano Group, Northern Taiwan</b>
<u>12-P-03</u>	<u>Yuehong Ming,</u> Lupei Zhu, Jianping Wu <b>Harmonic Events in Changhaishan-Tianchi Volcano</b>
<u>12-P-04</u>	<u>Jianping Wu,</u> Yuehong Ming, Lihua Fang, Wei Su, Weilai Wang Recent Seismic Unrest at Chanbaishan Tianchi Volcano
<u>12-P-05</u>	<u>Kodo Umakoshi</u> , Kousuke Kajihara, Emi Matsui, Hiroshi Shimizu Seismic Events Observed Prior to and During the 1990-1995 Eruption of Unzen Volcano, Japan
<u>12-P-06</u>	Naoko Itasaka, Kodo Umakoshi, Hiroshi Shimizu Seismic Activity in the Early Stage of Dome Growth at Unzen Volcano, Japan (May-June 1991)
12-P-07	Marcello Martini, <u>Flora Giudicepietro</u> , Luca D'auria, Walter De Cesare, Massimo Orazi, Giovanni Scarpato, Rosario Peluso, Antonietta Esposito, Raffaele Curciotti, Teresa Caputo, Patrizia Riocciolino, Antonio Caputo Seismic Monitoring of Stromboli Volcanic Activity: the February 2007 Effusive Eruption

<u>12-P-08</u>	<u>Carlos Cardona</u> , Marta Calvache, Bernardo Pulgarin, Adriana Agudelo, Cristian Santacoloma, Andrew Lockhart, Randall White, Jeffrey Marso Seismic Signals Associated to Phreatic Eruptions of the Nevado del Huila Volcano (Colombia). February and April 2007
12-P-09	<u>Carlos Cardona</u> , Bernardo Pulgarin, Adriana Agudelo, Cristian Santacoloma, Marta Calvache, Steve Schilling, Andrew Lockhart, Jeffrey Marso 1994 and 2007 Debris Flows on the Paez River Valley (Colombia): Calibrating to the plot of the LAHAR-Z Method.
<u>12-P-10</u>	<u>Haruhisa Nakamichi</u> , Fumiaki Kimata, Fumito Yamazaki, Makoto Okubo, Mamoru Yamada, Toshiki Watanabe  Precise Hypocenter Distribution and Very-Long-Period Events of Ontake Volcano, Central Japan
<u>12-P-11</u>	<u>Jun Oikawa, Yoshiaki Ida</u> Nature of N-type Earthquakes Observed at Asama Volcano: Time Variation of Wave Parameters and Hypocenter Distribution
<u>12-P-12</u>	Ryo Honda, Toshikazu Tanada Temporal Changes in S-wave Splitting Associated with 2001 Hakone Sarthquake Swarm.
<u>12-P-13</u>	<u>Toshikazu Tanada</u> , Yasushi Daita, Masatake Harada, Ryo Honda, Yohei Yukutake, Hiroshi Ito <b>The 2001 swarm activity in the Hakone volcano</b>
<u>12-P-14</u>	Tomokazu Kobayashi, Takao Ohminato, Yoshiaki Ida, Eisuke Fujita Analysis of Long Period Seismic Signals Observed before the Caldera Formation during the 2000 Miyake-jima Volcanic Activity
<u>12-P-15</u>	<u>Hironori Sakaguchi,</u> Yoshihiro Sawada, Yasuaki Sudo <b>Volcanic activity and tremor at Aso Nakadake after 1930</b>
<u>12-P-16</u>	<u>Teruo Yamawaki</u> , Kenji Nogami, Yasuo Ogawa, Jun-ichi Hirabayashi Similar Earthquakes Observed at Kusatsu-Shirane Volcano
<u>12-P-17</u>	Milton Ordonez Deformation Measurements at Machin Volcano, Colombia: An Approach to a New Volcanic Activity
<u>12-P-18</u>	<u>Takeshi Matsushima</u> , Yuhki Kohno, Akihiko Hirao, Hiroshi Shimizu <b>GPS Monitoring of the Lava Dome Deformation of Heisei Shinzan, Unzen Volcano</b>
<u>12-P-19</u>	Shigeru Nakao, Kazuhiko Goto, Hiroshi Yakiwara, Shuichiro Hirano, Yoshiaki Tamura, Minoru Tanaka Crustal Deformation Derived from Continuous GPS Observation in Nothern Part of Kinko Bay, Kagoshima, Japan
<u>12-P-20</u>	Hiroaki Takahashi Real-time Eruption Magnitude Estimation from Far-field Geodetic Data: A Proposal for Volcano Early Warning
<u>12-P-21</u>	Akimichi Takagi, Keiichi Fukui, Hitoshi Yamasato, Takayuki Sakai, Shinobu Andou, Koji Kato, Masaaki Churei Estimation of Magma Supply System of Izu-Oshima Volcano Using by High Density GPS and EDM Network
<u>12-P-22</u>	<u>Hiroshi Aoyama,</u> Hiromitsu Oshima Tilt Change Preceding to a Small Phreatic Explosion of Meakan-dake Volcano
<u>12-P-23</u>	<u>Takahiro Ohkura</u> , Jun Oikawa GPS observation of crustal movements in Aso Caldera
<u>12-P-24</u>	Bertha Marquez-Azua, Mabel Padlog A Study of Risk Through a Geodesic Network in the Metropolitan Area of Guadalajara
<u>12-P-25</u>	Hitoshi Y. Mori  Long Term Prediction of the Activity of Mt. Usu with the Leveling Survey

<u>12-P-26</u>	Estu Kriswati, Muhamad Hendrasto, Umar Rosadi  Deformation of Bromo volcano Prior to 2004's Phreatic Eruption
<u>12-P-27</u>	Hideaki Hase, Takeshi Hashimoto, Yasunori Nishida, Mitsuru Utsugi, Hiroyuki Inoue, Mizue Saba  Hydrothermal System Beneath Usu Volcano Inferred from Self-potential Survey
<u>12-P-28</u>	Sadato Ueki, Hiroshi Shimizu, Kazuya Uchida, Tokumitsu Maekawa, Yasuaki Sudo, Hiroki Miyamachi, Hidefumi Watanabe, Kazuhiro Ishihara  Gravity Changes Observed during the 1990-1995 Eruption of Unzen Volcano, Japan
<u>12-P-29</u>	<u>Ciro Del Negro</u> , Salvatore Giudice, Filippo Greco, Rosalba Napoli, Antonino Sicali <b>Magnetic and Gravity Observations at Stromboli Volcano</b>
<u>12-P-30</u>	Rosalba Napoli, Gilda Currenti, <u>Ciro Del Negro</u> , Salvatore Giudice, Antonino Sicali A Review Of Magnetic Field Monitoring At Mt Etna (Italy)
<u>12-P-31</u>	<u>Yoichi Sasai</u> , Julio P. Sabit, Juan M Cordon Jr., Edgardo U. Villacorte, Jacques Zlotnicki, Jean-Paul Toutain, Makoto Harada, Hideaki Hase, Jaime S. Sincioco, Toshiyasu Nagao Electromagnetic and Geochemical Monitoring of Taal Volcano, the Philippines: 2005 - 2007
<u>12-P-32</u>	Masaaki Churei, Akira Yamazaki Reexamination on the Geomagnetic Changes in Association with Lava Domes Extrusion of the Unzen Volcano in 1991
<u>12-P-33</u>	Shin'ya Onizawa, Nobuo Matsushima, Tsuneo Ishido, Yuji Nishi, Shinichi Takakura, Hideaki Hase Hydrothermal System in Izu-Oshima Volcano as Inferred from Self-potential Measurements
<u>12-P-34</u>	<u>Aurora Armienta</u> , Angel Gomez, Servando De la Cruz Reyna, Nora E. Ceniceros, Olivia Cruz, Alejandra Aguayo, Teofilo Hernandez  Hydrogeochemical Monitoring of Popocatepetl and Citlaltepetl Volcanoes
<u>12-P-35</u>	Pedro Hernandez, Kenji Notsu, Toshiya Mori, Nemesio Perez Diffuse CO₂ Emission at Izu-Oshima Volcano, Japan
<u>12-P-36</u>	Gladys Melian, David Calvo, German Padilla, Wilhelmo de Fuentes, Jeremias Cabral, Zuleyka Bandomo, Alberto Mota Gomes, Pedro A. Hernandez, Eleazar Padron, Marianela Brito, Sonia Melo, Inocencio Barros, Nemesio M. Perez  Observed Changes on Diffuse Carbon Dioxide Emission Rate from Fogo Volcano, Cape Verde
<u>12-P-37</u>	Pedro A. Hernandez, Nemesio M. Perez, Thrainn Frioriksson, Gretar Ivarsson, Gestur Gislason, Egbert Jolie, Evjenia Ilyinskaya, Andri Thorhallsson  Diffuse Carbon Dioxide Emissions From Hengill Volcanic System, Iceland
<u>12-P-38</u>	<u>Rayco Marrero</u> , Gladys Melian, Pedro Hernandez, Nemesio Perez <b>Hydrogeochemical Monitoring for Volcanic Surveillance at Tenerife, Canary Islands</b>
<u>12-P-39</u>	German Padilla, Samara Dionis, Jose Barrancos, Gladys Melian, Eleazar Padron, Pedro A. Hernandez, Nemesio Perez, Wilfried Strauch  Diffuse CO <sub>2</sub> Emission from Volcanic Lakes in Nicaragua, Central America
12-P-40	Marianela Brito, Gladys Melian, David Calvo, Jose Barrancos, Dacil Nolasco, German Padilla, Eleazar Padron, Rayco Marrero, Pedro Hernandez, Nemesio Perez Temporal Variations of Diffuse CO <sub>2</sub> Emission from the Summit Crater of Teide Volcano, Tenerife, Canary Islands, Spain
<u>12-P-41</u>	Eleazar Padron, Pedro A. Hernandez, Nemesio M. Perez, Theofilos Toulkeridis, Jose Barrancos, Gladys Melian, Bo Galle  H <sub>2</sub> O, CO <sub>2</sub> , SO <sub>2</sub> and H <sub>2</sub> S Emission from Sierra Negra Volcano, Galapagos
<u>12-P-42</u>	<u>Jose Barrancos</u> , Sussana Briz, German Padilla, Isabel Fernandez, Guillermo Santana, Samara Dionis, Nemesio Perez, Pedro Hernandez, Bo Galle, Wildfried Strauch H <sub>2</sub> O, CO <sub>2</sub> , SO <sub>2</sub> , H <sub>2</sub> S and HCI Emission from Masaya Volcano, Nicaragua
<u>12-P-43</u>	Celestino S. Saquilon, Alejo V. Baloloy Sulfur Dioxide (SO <sub>2</sub> ) Emmission Rates from Mayon Volcano, Philippines During the 2006 Eruptions

12-P-44	Eric Reiter GIS: A Tool for Volcanic Gases' Survey: A Case Study at Vulcano Island, Southern Italy
<u>12-P-45</u>	Franco Tassi, Bruno Capaccioni, Orlando Vaselli, Antonella Buccianti Behaviour and Fate of Organic Gas Compounds in Volcanic Fluids: A New Geochemical Monitoring Tool for Volcanic Surveillance
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<u>12-P-61</u>	Diego Mauricio Gomez M., Roberto A. Torres C., Betty Silva P., Patricia Ponce V., Lourdes Narvaez M., Adriana Ortega E., <u>Marta Lucia Calvache</u> Eruptive Activity at Galeras Volcano from June, 2004 up to June, 2007
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<u>12-P-63</u>	<u>Hideki Ueda</u> , Eisuke Fujita, Motoo Ukawa, Eiji Yamamoto  Automatic Detection System for Anomalous Volcanic Crustal Deformation Using  Real Time Observation Data
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	Global Warming and Climate Change: Challenges for Bangladesh  Session 1-3: Health Hazards of coexisting with active volcanoes  Julie Calkins, Pierre Delmelle
13-P-01	Global Warming and Climate Change: Challenges for Bangladesh  Session 1-3: Health Hazards of coexisting with active volcanoes  Julie Calkins, Pierre Delmelle  Environmental Exposure to Volcanic Fluoride and Health Risk Evaluation  Catherine J. Hickson, T.C. Spurgeon, J. Speed, I. Nicholson, A. C. Rust
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21a-P-22	<u>Tetsuya Nakahashi</u> , Masato Koyama, Toshiko Kikkawa Comparison for Interorganizational Relation of Volcanic Eruption Disaster- mitigation for Residents	Invited
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21b-P-13	Konstantinos I. Konstantinou, Cheng-Horng Lin Long-Term Seismic Monitoring of the Tatun Volcano Group, Northern Taiwan						
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21b-P-18	<u>Jacopo Selva</u> , Warner Marzocchi, Giovanni Orsi, Mauro di Vito, Laura Sandri, Michaela Quaglino, Antonio Costa  The Bayesian Event Tree for Short- and Long-term Eruption Forecasting (BET_EF) at Campi Flegrei, Italy						
21b-P-19	<u>Lucas Donny Setdadji</u> , Koichiro Watanabe <b>Quaternary Calderas in Java Island and its Proximity, Sunda Arc, Indonesia</b>						
21b-P-20	<u>Keiko Suzuki-Kamata</u> <b>Huge Caldera-forming Eruptions and Associated Disasters</b>	Invited					
<u>21b-P-21</u>	Yoshihiro Sawada, Yuko Matsuda, Yoshikazu Sampei, Koji Seto, Michiaki Imaizumi, Tetsuo Kobayashi Origin of Volatile Components in the Aira Pyroclastics, SW Japan: Why and How did Catastrophic Pyroclastic Eruption Take Place?						
21b-P-22	<u>Hanjing Hong</u> , Hui Liu  Preliminary Study on Active States of Volcano and Classification of Volcanoes in China						
21b-P-23	<u>Gerardo J. Aguirre-Díaz</u> Possible Volcanic Hazard in Active Collapse-calderas of the Mexican Volcanic Belt						
21b-P-24	Roberto Hernandez, German Ramirez, Camilo Yanez, Saul Venegas Urbanization and Volcanic Hazard: Case Guadalajara City, Mexico						
21b-P-25	<u>Carlos A. Borrero</u> , Hardany Castillo, Cesar Ossa <b>Extension of The Unknown Alkaline Volcanism in The Southeastern Colombia</b>						

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8:30-8:50	Andrew C. Tupper, Gordon E. Jackson, Rebecca K. Patrick Volcanic Ash and Aviation safety: Challenges To Delivering Timely Eruption Information	12-0-14 Invited
8:50-9:10	Marianne Guffanti, Steven Albersheim, Grace Swanson, Charles Holliday Role of Volcano Observatories in the US National Plan for Providing Ash-Hazard Warnings to Aviation	12-0-15 Invited
9:10-9:30	Zhong Lu, Oh-Ig Kwoun, Cynthia Fuhs, Dave Jackson, <u>Daniel Dzurisin</u> Semi-automated SAR Processing System and Applications of InSAR to Monitoring Volcanoes in the Aleutian Arc, Alaska	12-0-16 Invited
9:30-9:50	<u>David G. Macfarlane</u> , Geoff Wadge, Henry M. Odbert, Mike R. James, Duncan A. Robertson, Harry Pinkerton  Ground-based Thermal and Topographic Remote Sensing of Volcanic Terrain  Using The AVTIS Millimetre Wave Instrument	12-0-17 Invited
9:50-10:10	- Coffee break -	
10:10-10:30	Simon A. Carn, Arlin J. Krueger, Nick A. Krotkov, Kai Yang, Keith Evans Measuring Volcanic Emissions with the Ozone Monitoring Instrument (OMI)	12-O-18 Invited
10:30-10:50	Shoji Matsubara, Touchy Nakamura, Masanobu Shimada, <u>Yukinori Nakajima</u> Disaster Management Support using Daichi (ALOS)	12-O-19 Invited
10:50-11:10	<u>Lucas Donny Setijadji</u> Observation on Relationships Between Merapi Volcano Eruptions March-July 2006 and Yogyakarta Earthquake 27 May 2006 (Central Java, Indonesia)	<u>12-O-20</u>
11:10-11:30	<u>Harry J Keys</u> , Colin Lawrence The Eastern Ruapehu Lahar Alarm Warning System In Tongariro National Park, New Zealand, And Its Successful Response To The 18 March 2007 Lahar	<u>12-0-21</u>
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8:30-8:50	Giovanni Orsi, Mauro A. Di Vito, Francesco Dell'Erba, Michaela Quaglino, Warner Marzocchi, Laura Sandri, Jacopo Selva	21b-O-08
0.50 0.40	Assessing Volcanic Hazards at the Restless Campi Flegrei Caldera, Italy	Keynote
8:50-9:10	Natalia Deligne, Stuart G. Coles, <u>Stephen R. J. Sparks</u> Recurrence Rates of Large Explosive Volcanic Eruptions	21b-O-09
9:10-9:30	<u>Tsuneomi Kagiyama,</u> Yuichi Morita First step to Understand a Preparing Process of Caldera Forming Eruption	21b-O-10 Invited
9:30-9:50	Sandra G. Catane, Tadahide Ui Challenges in Caldera-related Hazard and Risk Assessment in Developing Countries	21b-O-11 Invited
9:50-10:10	- Coffee break -	
10:10-10:30	<u>Victoria C. Smith</u> , Phil Shane, Ian A. Nairn, Darren M. Gravley  Rhyolite Eruptions Tapping Multiple Magma Bodies: Implications for Monitoring of Calderas and Hazards	21b-O-12
10:30-10:50	Jan M. Lindsay, Catherine Molloy, Phil Shane Assessing Long-term Volcanic Hazard and Risk in Auckland, New Zealand	21b-O-13

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11:10-11:30	Joan Marti, Ramon Ortiz, Alicia Felpeto, Antonio Ordonez, Adelina Geyer, Llorena Planagoma Volcanic Risk Assessment In Areas without Historical Volcanism. The Case of Olot, Catalan Volcanic Zone	21b-O-15
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	Chairpersons: P. Baxter, C. Horwell, Y. Ishimine, E.Yano, K. Nogami	
8:30-8:50	Hajime Ishihara  2000 Miyakejima Eruption  -Changing Countermeasures for Volcanic Gases-	<u>13-O-08</u>
8:50-9:10	Eiji Yano Fatal Accidents by Volcanic Gas and their Prevention	<u>13-O-09</u>
9:10-9:30	Kenji Nogami, Jun-ichi Hirabayashi, Joyo Ossaka Factors Contributing to Volcanic Gas Accidents in Japan	<u>13-O-10</u>
9:30-9:50	Yosuke Kobayashi, Kenta Higuchi, Shinji Tokonami, Shinji Yoshinaga, Suminori Akiba Enhanced Atmospheric Radon Concentration Due to Volcanic Activity	<u>13-O-11</u>
9:50-10:10	- Coffee break -	
10:10-10:30	Yoshikazu Kikawada, Satoshi Kawai, Takao Oi Effect of Acidic River Water Neutralization on Mobility of Arsenic in Kusatsu- Shirane Volcano Area, Gunma, Japan	<u>13-O-12</u>
10:30-10:50	<u>Claire J. Horwell</u> , Ben J. Williamson, Jennifer S Le Blond Cristobalite Formation in the Soufrière Hills Lava Dome: Implications for Health Hazard Assessment	<u>13-O-13</u>
10:50-11:10	Sara Barsotti, Daniele Andronico, Willy Aspinall, Peter Baxter, Paola Del Carlo, Thea Hincks, <u>Augusto Neri</u> Quantitative Assessments of Health Hazards from Volcanic Ash at Mt. Etna (Italy)	<u>13-O-14</u>
11:10-11:30	<u>Julius Plinduo</u> , Victor Golpak, Carolyn Annerud  Management of Health Hazards and Societal Impact of Recent Volcanoes  Eruptions in Papua New Guinea	<u>13-O-15</u>
	Hall A	
10:10-11:30	- Kid's volcano workshop-	
12:00-13:30	- Eat volcanoes! Volcano experiments in kitchen -	
13:40-15:10	- Volcano Q&A for kids in Shimabara; Let's ask volcanologists in the world -	
15:30-17:00	Closing ceremony	
18:00-19:30	- Farewell Party at Tsukumo Hotel -	

#### PREPARATION OF ORAL PRESENTATION

All presenters of oral slots have to drop in *Internet/Ready Room* to check and upload your presentation file into the meeting main computer by the previous afternoon of the presentation. *Internet/Ready Room* is next to Halls B and C in the Fukko Arena. Conference staffs will help you in this process.

Presentation files should be prepared in only MS PowerPoint version 2003 or earlier. Nobody can use his (or her) own computer in the meeting halls. Presenters are requested to take their files in either USB, memory stick/card, CD or DVD.

Loading the files for presentations on November 22 (Thu), Day 4, should be completed by the afternoon of November 20 (Tue), Day 2, because the Ready Room is closed throughout November 21 (Wed).

\* Loaded files are used only for their presentation, and will be deleted completely from all computers after the conference, except for the cases where LOC requests to use them for making conference report with their agreement.

#### **POSTER PRESENTATION**

All posters are presented in the space next Hall A (near entrance) in Fukko Arena. Poster presentation is divided into two rounds; November 19-20 and November 22-23.

Putting poster on the board is requested during 9:00-12:00 a.m. of November 19 (Mon) for the first round, and by 9:00 a.m. of November 22 (Thu) for the second round.

Core time of the first round: 16:40-18:00 on November 20 (Tue), Day 2. Core time of the second round: 16:40-18:00 on November 22 (Thu), Day 4.

Note: This is the first day of presentation of the second round

Removal of posters is requested during 18:00-18:30 of November 20 (Tue) for the first round, and during 15:00-17:30 of November 23 (Fri) for the second round. Posters left on the boards will be removed and dumped by LOC.

#### **INTERNET ACCESS**

Wireless LAN is available within buildings of the venue during the conference. Internet access using LAN cable is also possible in the *Internet/Ready Room* where a few Windows PC's are usable.



## **CITIES ON VOLCANOES 5 - SCHEDULE FOR THE WEEK**

November 18th   Evening	Day		Hall A Main Arena Hall	Hall B Sub Arena Hall	Hall C Sub Arena Meeting Room	Hall D Gamadas Dome		
Opening Ceremony  AM Conference Lectures Plenary Talk 3-1  Plenary Talk 3-1  Plenary Talk 2-1a  Plenary Talk	18th	Daytime	Registration at Meeting of Volcanological Society WS BET-					
AM Conference Lectures Plenary Talk 1-1 Plenary Talk 3-1 Plenary Talk 2-1a Plenary Talk 2-2 Plenary Talk 2-1 Plenary Talk 2-1 Plenary Talk 2-1 Plenary Talk 2-2 Plenary Talk	Sunday	Evening	Ice Break	er Party				
Penary Talk 3.3 PM Penary Talk 2.13 Penary Talk 2.13 Penary Talk 2.24 Penary Talk 2.24 Penary Talk 2.25 Penary Talk 2.27 Penary Talk 2.28 Penary Talk 2.29 Penary Talk 2.29 Penary Talk 2.20 Pena		АМ	Ceremony Conference Lectures Plenary Talk 1-1					
Pichary Talk 2-1a Plorary Talk 2-1a Plorary Talk 2-1a Plorary Talk 2-2 Plo			Forum Volcano Citizenship	Volcano	Linkage for Reducing Risks	Communities		
AM Plenary Talk 2-3 Plenary Talk 2-3 Plenary Talk 2-2 Sess. 1-1 Volcano Studies Porum People and Mass Media  PM Forum Tradition of Volcanio Disaster Volcano Studies Poster Session #1 Core Time    PM Forum Tradition of Volcanio Disaster Volcano Studies Poster Session #1 Core Time   IAVCEI EC Meeting at Hall E Tsukumo Hotel		Night			CEV Meeting		CAV Mee	ting at Hall E
Studies		AM	Plenary Talk 2-3 Plenary Talk 2-2		Sess 2-3			
Tuesday PM Forum Tradition of Volcanic Disaster Volcano Studies Response Response Response Response Response Poster Session #1 Core Time  21st Wednesday Evening Party hosted by Mayor at Shimabara Castle  Plenary Talk 1-3 Plenary Talk 1-2 Sess. 1-2 Volcano Monitoring Pelary Talk 2-1b  PM Sess. 1-2 Volcano Monitoring Poster Session #2 Core Time  AM Right Sess. 2-1 Sess. 3-2 Education and Nonitoring Response	20th							
Night   Daytime   Daytime   Evening   Party hosted by Mayor at Shimabara Castle		PM		Volcano	Emergency	Hazard		
Party hosted by Mayor at Shimabara Castle		Evening		Poster Session				
Evening   Party hosted by Mayor at Shimabara Castle		Night						
Plenary Talk 1-3 Plenary Talk 1-2 Sess. 1-3 Health Hazard Plenary Talk 2-1b PM PM Periode Sess. 1-2 Volcano Monitoring Poster Session #2 Core Time Night  Am  Risks Pilenary Talk 1-2 Sess. 1-2 Volcano Monitoring Poster Session #2 Core Time Night  Evening Night  Am  Risks Pilenary Talk 1-2 Sess. 1-2 Volcano Monitoring Poster Session #2 Core Time Night  Evening Night  Am  Risks  Sess. 2-1b Long term Hazards and Risks Reduction Poster Session #2 Core Time  WS IVHHN at Tsukumo Hotel  Sess. 1-3 Health Hazard Disaster Prevention Drill  Helicopter Flight over Unzen  WS Disaster WS Disaster Volunteer				Intra-me	eting field excu	rsion to Unzen \	/olcano	
Plenary Talk 3-2 Plenary Talk 1-2  Sess. 1-3 Health Hazard  Plenary Talk 2-1b  PM  PM  PM  Poster Session #2 Core Time  Am  Kid's Volcano Workshop  PM  Am  Risks  Poster Session #2 Core Time  Am  Night  PM  PM  PM  PM  Poster Session #2 Core Time  Am  Night  PM  PM  PM  PM  PM  PM  PM  PM  PM  P	vveuriesuay	Evening		Party h	Castle			
22nd Thursday PM Sess. 1-2 Volcano Monitoring Poster Session #2 Core Time Night  AM Kid's Volcano Workshop National Holiday National Holiday Notice PM Closing Ceremony  Monitoring Response Outreach Sess. 2-1b Long term Hazards and Risks Sess. 2-1b Long term Hazards and Risks Sess. 2-1b Long term Hazards and Risks Sess. 3-2 Education and Outreach  WS IVHHN at Tsukumo Hotel  Sess. 1-3 Health Hazard Disaster Prevention Drill  Helicopter Flight over Unzen  WS Disaster Volunteer  WS Disaster Volunteer		AM	Plenary Talk 3-2 Plenary Talk 1-2 Sess. 1-3 Health					
PM Sess. 1-2 Volcano Monitoring Sess. 2-1b Long term Hazards and Risks Sess. 3-2 Education and Outreach  Evening Poster Session #2 Core Time  Night Sess. 1-2 Volcano	22nd							
Night  AM Kid's Volcano Workshop Volcano Workshop Volcano Monitoring Sess. 1-2 Volcano Monitoring Sess. 2-1b Long term Hazards and Risks  Eat Volcano! Experiment in Kitchen  Volcano Q&A  Closing Ceremony  WS IVHHN at Tsukumo Hotel  Sess. 2-1b Long term Hazard  Disaster Prevention Drill  Helicopter Flight over Unzen  WS Disaster Volunteer	Thursday		Sess. 1-2 Volcano	Sabo and Disaster Reduction	Long term Hazards and Risks	Education and		
AM Kid's Volcano Workshop Sess. 1-2 Volcano Monitoring Sess. 2-1b Long term Hazards and Risks Sess. 1-3 Health Hazard Disaster Prevention Drill  Eat Volcano! Experiment in Kitchen Volcano Q&A  Closing Ceremony  Closing Ceremony  Closing Ceremony  Closing Ceremony  Closing Ceremony  Sess. 2-1b Long term Hazard Hazard  Sess. 1-3 Health Hazard  Disaster Prevention Drill  WS Disaster Volunteer		Evening		Poster Session	#2 Core Time			
AM Kid's Volcano Workshop Volcano Monitoring Long term Hazards and Risks Sess. 1-3 Health Hazard Disaster Prevention Drill  Eat Volcano! Experiment in Kitchen Volcano Q&A Closing Ceremony  Closing Ceremony		Night					WS IVHHN at Ts	sukumo Hotel
23rd Friday National Holiday  PM  Eat Volcano! Experiment in Kitchen  Volcano Q&A  Closing Ceremony  Closing Ceremony  Closing Ceremony  Monitoring  Hazard Hazard Disaster Prevention Drill  Helicopter Flight over Unzen  WS Disaster Volunteer	National	AM			Long term			
National Holiday  PM  Experiment in Kitchen  Volcano Q&A  Closing Ceremony  Closing Ceremony  Closing Ceremony  Closing Ceremony  Closing Ceremony  Helicopter Flight over Unzen  WS Disaster Volunteer				Monitoring		Hazard	Disaster P	revention Drill
Closing Ceremony		PM	Experiment in			WO D	Helicopter FI	ight over Unzen
Lyching Falewell Falty at 150kullio Hotel		Evening	Closing Corolliony	F	arewell Party a	t Tsukumo Hote		

Session Forum Social Event Field Trip Workshop/Meeting