

G-EVER1 Program (22-25 Feb. 2011)

22 February (Wed)

9:00 - 10:00: Registration

Opening Session (10:00 - 10:15, Main Room, 2F)

Chairman: Yasuto Kuwahara (GSJ, AIST)

10:00 - 10:05: Welcome Address

Hirokazu Kato (AIST Fellow)

10:05 - 10:15: Opening Remarks

Eikichi Tsukuda (Director General of the Geological Survey of Japan, AIST)

Recent Earthquakes and Volcanic Eruptions (10:15 - 11:45, 13:00 – 15:00, Main Room, 2F)

Chairman: Akira Takada (GSJ, AIST)

10:15 - 10:45: The 1991 Eruption of Pinatubo Volcano, Philippines, and its Muddy Aftermath	1
Chris Newhall (Earth Observatory of Singapore)	
10:45 - 11:15: The 2010-2011 Eruptions in Iceland: UK Impacts and Response	5
Sue Loughlin (BGS), Stephen Mobbs (Univ. of Leeds) and Steve Sparks (Univ. of Bristol)	
11:15 - 11:45: The 2011 Eruption of Shinmoedake, Kirishima Volcano, Japan	7
Hiroshi Shinohara (GSJ, AIST)	

Group Photo (11:45 - 12:00)

Lunch (12:00 - 13:00)

Chairman: Masataka Ando (Academia Sinica)

13:00 - 13:30: Earthquake and Tsunami Disaster Mitigation after the 2004 Indian Ocean and 2011 Tohoku Tsunamis	11
Kenji Satake (ERI, Tokyo Univ.)	
13:30 - 14:00: Paleotsunami Study along the Pacific Coast of Tohoku, Japan	15
Yukinobu Okamura, Yuichi Namegaya, Yuki Sawai, Masanobu Shishikura (GSJ, AIST), Kenji Satake (ERI, Tokyo Univ.)	
14:00 - 14:30: Strong Motion Observation System and Project Plan in China	17
Li Xiaojun (China Earthquake Administration)	
14:30 - 15:00: Disaster Process after the 3.11 East Japan Earthquake and Tsunami Disaster	21
Norio Maki (DPRI, Kyoto Univ.)	

15:00 - 15:20: Coffee Break

Report of Asia-Pacific Region, part 1 (15:20 - 17:20, Main Room, 2F)

Chairman: Takashi Azuma (GSJ, AIST)

15:20 - 15:40: The Earthquakes, Volcanic and Tsunami Risk Management on Kamchatka	25
Evgeny Gordeev (Inst. of Volcanology and Seismology, FEBRAS)	
15:40 - 16:00: Earthquake, Tsunami and Volcano Information Issued by Japan Meteorological Agency and its Endeavor for Further Applicable Tsunami Information	27
Takeshi Koizumi (Japan Meteorological Agency)	
16:00 - 16:20: Roles of Geodetic Methods on Volcanic Eruption Prediction	28
Makoto Murakami (Hokkaido Univ.)	
16:20 - 16:40: 1952 Near Pyongyang, North Korean Earthquake and it's Tectonic Implication around the Region	29
Myung-Soon Jun (KIGAM) and Tae-Seob Kang (Pukyong National Univ.)	
16:40 - 17:00: Seismic Hazard Assessment in Taiwan: Insights from Historical Seismicity and Radar Interferometry Analyses	31
Sin-Mei Ng (Chinese Culture Univ.)	
17:00 - 17:20: Establishment of Taiwan Volcano Observatory at Tatun	32
Cheng-Horng Lin (Academia Sinica)	

Welcome Dinner (18:00 - 20:00, Foyer, 1F)

23 February (Thu)

Report of Asia-Pacific Region, part 2 (8:30 - 11:40, Main Room, 2F)

Chairman: Motoo Ukawa (NIED)

8:30 - 8:50: Interviewing Insights Regarding the High Fatalities Inflicted by the Tohoku Earthquake	33
Masataka Ando (Academia Sinica), Mizuho Ishida (JAMSTEC), Yoshinari Hayashi (Kansai Univ.) and Chiharu Mizuki (Hokkaido Univ.)	
8:50 - 9:10: Current Earthquake and Volcanic Risk Management Activities in the Philippines	35
Renato Solidum (PHIVOLCS)	
9:10 - 9:30: Earthquake and Tsunami Hazard Assessment in Coastal Areas of Vietnam and Measures for a Seismic Risk Mitigation	37
Bui Cong Que and Nguyen Hong Phuong (VAST)	
9:30 - 9:50: Application of a GIS for Earthquake Hazard Assessment and Risk Mitigation in Vietnam ..	38
Nguyen Hong Phuong (VAST)	
9:50 - 10:10: Coffee Break	

Chairman: Yasuto Kuwahara (GSJ, AIST)

10:10 - 10:30: Earthquake Risk Management in Thailand; Current Status and Future Implication	39
Niran Chaimanee (CCOP)	
10:30 - 10:50: Strategy on Volcano and Earthquake Hazards Mitigation in Indonesia	41

	Surono (Center of Volcanology and Geological Hazard Mitigation)	
10:50 - 11:05:	Creating of Earthquake Hazard Map: an Effort to Mitigate Earthquake Disaster (Case study: Sulawesi Island Earthquake Hazard Map)	42
	Sri Hidayati, Athanasius Cipta and Rahayu Robiana (Center of Volcanology and Geological Hazard Mitigation)	
11:05 - 11:20:	Vulnerability, Capacity and Community Empowerment in Hazard Zone Areas, a Challenge in Hazard Mitigation in Indonesia	46
	Supriyati Andreastuti (Center of Volcanology and Geological Hazard Mitigation)	
11:20 - 11:40:	Geoscience as a Component of an All-of-Government Approach to Recovery from the Canterbury Earthquake Sequence of 2010-2011	47
	Kelvin Berryman (GNS Science)	

Lunch (11:40 - 13:00)

Database and risk management (13:00 - 17:20, Main Room, 2F)

Chairman: Shinji Takarada (GSJ, AIST)

13:00 - 13:20:	VHub – a Virtual Community and Cyberinfrastructure for Collaboration in Volcano Research and Risk Mitigation	48
	Greg Valentine (State Univ. of New York)	
13:20 - 13:40:	Growth of International Collaboration in Monitoring Volcanic Ash Eruptions in the North Pacific	50
	John Eichelberger and Christina Neal (USGS)	
13:40 - 14:00:	EOS Activities toward Volcanic Risk Mitigation	54
	Chris Newhall (Earth Observatory of Singapore)	
14:00 - 14:20:	Recent Volcanic Crises in the USA and Europe: Some Case Studies	56
	Bruce F. Houghton (Hawaii Univ.), R.J. Carey (Univ. of Tasmania), C.A. Gardner, C.A. Neald (USGS), and T. Thordarson (Univ. of Edinburgh)	
14:20 - 14:40:	VOGRIPA and the 'Global Volcano Model'	60
	Steve Sparks, Sian Crowler (Univ. of Bristol), Sue Loughlin (BGS), Lee Siebert, Paul Kimberly (Smithsonian Institution), Natalie Ortiz, Laura Hobbs (Univ. of South Florida), Koji Kiyosugi and Shinji Takarada (GSJ, AIST)	
14:40 - 15:00:	The Role of Multidisciplinary Research and Collaboration for Improving the Resilience of Communities to Volcanic Risk	62
	David Johnston, Graham Leonard, Emma Doyle, Julia Becker (GNS Science), Douglas Paton (Univ. of Tasmania), Kevin Ronan (Central Queensland Univ.), Bruce Houghton (Univ. of Hawaii), Chris Gregg (East Tennessee State Univ.), Shane Cronin (Massey Univ.), Tom Wilson (Univ. of Canterbury), Carol Stewart (GNS Science), Jan Lindsay (Univ. of Auckland), Gill Jolly, Sally Grant (GNS Science), and Victoria Sword-Daniels (Univ. College London)	

15:00 - 16:00: Coffee Break **[Poster session core time]**

Chairman: Naoji Koizumi (GSJ, AIST)	
16:00 - 16:20: Public Release of Estimated Impact-based Alerts for Global Earthquakes using the U.S. Geological Survey's PAGER System	66
David J. Wald, Kishor S. Jaiswal, K. D. Marano (USGS), and D. Bausch (Federal Emergency Management Agency)	
16:20 - 16:40: Extreme Seismic Hazards and Societal Implication	70
Alik Ismail-Zadeh (Russian Academy of Science)	
16:40 - 17:00: The Global Earthquake Model: Building an Open Source Seismic Risk Model for the World	72
Ross Stein (USGS)	
17:00 - 17:20: The IISEE Earthquake Catalog, "Catalog of Damaging Earthquakes in the World", "IISEE-NET", and BRI Strong Motion Observation	74
Tatsuhiko Hara (Building Research Institute)	
17:20 - 17:40: GEO Grid Disaster Response Applications and its Activity for the 2011 Tohoku, Japan Earthquake and Tsunami	78
Masashi Matsuoka (GSJ, AIST), Naotaka Yamamoto, Hirokazu Yamamoto, Ryosuke Nakamura, Kazuki Nakamura, Shinsuke Kodama, Yuko Takeyama, Koki Iwao, Akihiko Kamei, Sarawut Ninsawat, Satoshi Tsuchida (ITRI, AIST), Minoru Urai (GSJ, AIST), Isao Kojima, Yoshio Tanaka, and Satoshi Sekiguchi (ITRI, AIST)	
17:40 - 18:00: National Seismic Hazard Maps for Japan and Seismic Hazard Assessment after the 2011 Tohoku-oki Earthquake	82
Hiroyuki Fujiwara (NIED)	

24 February (Fri)

Group Discussion (9:00 - 10:30, 2F Main room, Middle Room, 1F)

- Database section (Chairmen: Chris Newhall and Yuzo Ishikawa)
- Risk assessment-management section (Chairmen: Ross Stein and John Eichelberger)

10:30 - 11:00: Coffee Break

General Discussion (11:00 - 12:00, Main Room, 2F)

Chairman: Toshitsugu Fujii (Crisis & Env. Management Policy Inst.), Yuzo Ishikawa (GSJ, AIST)

Comment: Shigeo Aramaki (Yamanashi Inst. of Environmental Sci.)

Summary and Ending Remarks: Eikichi Tsukuda (GSJ, AIST)

Poster Session: 10:00, 22 February to 12:00, 24 February

Core Time: 15:00-16:00, 23 March at Foyer, First Floor

P 1	Web Computing Service (WCS) for Detecting Land Cover Change Caused by Volcanic Eruptions Using Web Map Service (WMS), Frequency Based Change Detection Algorithm and PALSAR National Seismic Hazard Maps for Japan and Seismic Hazard Assessment after the 2011 Tohoku-oki Earthquake	84
	Joel Bandibas, Daisake Kawabata, Minoru Urai, Asep Saepuloh, Koji Wakita (GSJ, AIST)	
P 2	Active Fault Database of Japan: Gathering and Spreading Active Fault Data for Earthquake Risk Management	88
	Toshikazu Yoshioka, Fujika Miyamoto (GSJ, AIST)	
P 3	ASTER Image Database for Volcanoes	90
	Minoru Urai (GSJ, AIST)	
P 4	The Geological Database of Quaternary Volcanoes in Japan	92
	Kuniaki Nishiki, Shun Nakano, Tatsuyuki Ueno, Jun'ichi Itoh, Isoji Miyagi (GSJ, AIST)	
P 5	Japan-Russia Scientific Research Activities for Earthquake, Tsunami and volcanic Disaster Mitigation in Northwestern Pacific Region	93
	Hiroaki Takahashi, Mitsuhiro Nakagawa, Yuichiro Tanioka (Hokkaido Univ.), Evgeny Gordeev (Inst. of Volcanology and Seismology, FEBRAS), Alexander Khanchuk (Far Eastern Geological Inst., FEBRAS), Victor Bykov (Inst. of Tectonics and Geophysics, FEBRAS), Boris Levin (Inst. of Marine Geology and Geophysics, FEBRAS), Mikhail Gerasimenko (Inst. of Applied Mathematics, FEBRAS), Nikolay Schestakov (Far Eastern National Univ.), Alexey Malovichko (Geophysical Survey Headquarter), Victor Chebrov (Inst. of Applied Mathematics), Yury Levin (Far Eastern National Univ.), Larisa Gunbin (Geophysical Survey headquarter)	
P 6	GEO Grid Volcanic Gravity Flow Simulation System for the Next-generation Real-time Hazard Mapping: an Application to the Recent 2011 Eruption at Shinmoedake, Kirishima Volcano, Japan	95
	Shinji Takarada (GSJ, AIST), Shinsuke Kodama (ITRI, AIST), Takahiro Yamamoto, Minoru Urai (GSJ, AIST)	
P 7	GPS- and InSAR-derived Crustal Deformation and Estimated Fault Models of the 2011 Tohoku Earthquake and the Induced Inland Earthquakes	99
	Tomokazu Kobayashi, Mikio Tobita, Takuya Nishimura, Shinzaburo Ozawa, Hisashi Suito, Tetsuro Imakiire (GSI)	
P 8	Seismic Gap and a Series of Large Earthquakes along the Sunda Trench and the Sumatran Fault	103
	Tomokazu Kobayashi, Mikio Tobita (Geospatial Information Authority)	
P 9	Characterizing Pyroclastic Flow Deposits of a Large Eruption of Mt. Merapi in 2010 using ALOS/PALSAR and ASTER data	105
	Asep Saepuloh, Minoru Urai (GSJ, AIST)	
P 10	Observation Network of Groundwater and Crustal Deformation for Forecasting the Tokai, Tonankai and Nankai Earthquakes	109

	Norio Matsumoto, Naoji Koizumi (GSJ, AIST)	
P 11	Long-term Variation of Pre-Caldera Volcanic Activity in Bali and in Tengger Caldera Region, East Java	110
	Kiyoshi Toshida, Shingo Takeuchi (Central Research Institute of Electric Power Industry), Ryuta Furukawa, Akira Takada (GSJ, AIST), Supriyati Andreastuti, Nugraha Kartadinata, Anjar Heriwaseso, Oktory Prambada, A. Rosgandika Mulyana, Asep Nursurim (Center for Volcanology and Geological Hazard Mitigation)	
P 12	Explosive Eruptions Associated with Batur and Bratan Calderas, Bali, Indonesia	114
	Ryuta Furukawa, Akira Takada (GSJ, AIST), Kiyoshi Toshida (CRIEPI), Supriyati Andreastuti, Eka Kadarsetia, Nugraha Kartadinata, Anjar Heriwaseso, Oktory Prambada, Yudi Wahyudi, Nizar Firmansyah (CVGHM)	
P 13	Development of Risk Assessment Simulation Tool for Optimal Control of a Low Probability - High Consequence Disaster	116
	Hiroki Yotsumoto, Kikuo Yoshida, Hiroshi Genchi, Kiyotaka Tahara, Kiyotaka Tsunemi, Hideo Kajihara, Yuji Wada, Ryoji Makino, Kazuya Inoue (RISS, AIST), Yukinobu Okumura, Yasuto Kuwahara, Haruo Horikawa, Masayuki Yoshimi, Yuichi Namegaya (GSJ, AIST)	
P 14	Geological Evaluation of Frequency and Process of Caldera-forming Eruption: A Compiled Study of Indonesian Caldera Volcanoes	119
	Akira Takada, Ryuta Furukawa (GSJ, AIST), Kiyoshi Toshida (CRIEPI), Supriyati Andreastuti, Nugraha Kartadinata (CVGHM)	
P 15	On the Prediction of Scaling Relationships Governing the Runouts of Short-lived Fluidized Granular Flows	122
	Laurence Girolami (Université Blaise Pascal, GSJ, AIST), T.H. Druitt, O. Roche (Université Blaise Pascal)	
P 16	The Observation with Remote GNSS Monitoring System	124
	Eiichirou Harima (GSI)	
P 17	To Monitor the Baegdusan Volcano before the Next Magmatic Eruption	125
	Aurélien Dupont, Sung-Hyo Yun (Pusan National University)	
P 18	The Impacts on Structures by Volcanic Eruption– a Case Study of the 1990-1995 Eruption on Unzen Volcano, Japan	128
	Daisuke Nagai (Mt. Unzen Disaster Memorial Hall)	
P 19	Re-evaluation of Mw of the 1707 Hiei Earthquake	129
	Yuzo Ishikawa (GSJ, AIST)	
P 20	Long-term and Short-term Volcanic Risk Assessment Based on New Geologic Maps of Tokachidake and Tarumae Volcanoes, Northern Japan	130
	Yoshihiro Ishizuka, Ryuta Furukawa (GSJ, AIST)	
P 21	How Many Explosive Eruptions are Missing from the Geologic Record? Analysis of the Quaternary Record of Large Magnitude Explosive Eruptions in Japan	132
	Koji Kiyosugi, C.B. Connor (Univ. of South Florida), R. S. J. Sparks, H. S. Crossweller (Univ. of Bristol), L. Siebert (Smithsonian Institute), S. Takarada (GSJ, AIST)	
P 22	Electric Power Failures in the 2011 off the Pacific Coast of Tohoku Earthquake	136

Gaku Shoji, Dai Takahashi (Tsukuba Univ.)

P 23	Design for Hybrid Database System for Volcanological Research and Outreach Program on Eruptive History	140
	Mitsuru Okuno, Naoyuki Tsuruta (Fukuoka Univ.), Yukihsa Nishizono (Fukuoka Univ., West Japan Engineering Consultations Inc.), Masayuki Torii (Kumamoto Gakuen Univ.), Hirohito Inakura (West Japan Engineering Consultations Inc.), Tetsuo Kobayashi (Fukuoka Univ., Kagoshima Univ.), Members of the International Research Center for Eruptive History and Informatics	

Field Excursion

<24 Feb. (Fri)>

13:15 Departure from AIST

move to the accommodation in Gotemba City (“Toki-no-sumika”)

<25 Feb. (Sat)>

1) Mt. Fuji and its productions

*the Hoei crater of Mt. Fuji

*the Gotemba volcanic debris avalanche

*the Mishima lava

2) Defense against Tsunami

*artificial barrier along the Suruga Bay

3) Active tectonics in the northern Izu Peninsula

*Tanna fault

* View from the Jukkoku Pass (cable car)

ca. 19:00 Arrival at AIST