General Presentation

November 18 (Thu.)

Theme4 Subsu	urface Structure and Earthquake Ground Motion 13:00-15:00 Convention Hall 200
GO1-Thu-PM-1	Simulation Analyses of Ground Motions Considering Inhomogeneity of Soil Properties Kazuhiro Yoshida (Ohsaki Research Institute) • Takahide Watanabe • Kenji Hirahara • Keiji Yokono
GO1-Thu-PM-2	Estimation of Inhomogeneous Parameters in Seismic Wave Paths for Evaluation of Earthquake Ground Motion Fluctuation Yoshiyuki Sato (Takenaka Corporation) • Saburoh Midorikawa
GO1-Thu-PM-3	Variation of One Dimensional Seismic Response Using Super-Dense Soil Exploration Ikki Tamura (Ehime University) • Shinichiro Mori
GO1-Thu-PM-4	Evaluation Method of Site Amplification Considering Predominant Periods of Subsurface Soil Deposit and Bedrock Motion Yuta Nogami (JR East Consultants Company) • Kimitoshi Sakai • Yoshitaka Murono
GO1-Thu-PM-5	Estimation of Empirical Site Amplification Factors Using the Borehole KiK-net Site Records Takashi Akazawa (Geo-Research Institute) • Kojiro Irikura • Koji Hada
GO1-Thu-PM-6	A Simple Methodology to Predict Earthquake Motions on Engineering Bedrock Using Attenuation Relations Satoshi Kiryu (JR East Japan Consultants Company) • Kimitoshi Sakai • Yoshitaka Murono
GO1-Thu-PM-7	Simplified Formula for Site Amplification Based on Vertical Array Records and Soil Nonlinearity Effect Takaji Kokusho (Chuo University) • Kenta Ejiri • Ippei Yoshimura
GO1-Thu-PM-8	Relationship between Statistical Site Amplification Characteristics From Strong Motion Records and Site Categories Evaluated from GIS Information Hiroshi Kawase (Kyoto University) • Shinichi Matsushima
GO1-Thu-PM-9	Study on the Non-Linear Response of Near-Surface Layer Based on the Green's Functions Estimated from Weak Motions
GO1-Thu-PM-10	Yukari Tanaka (Yokohama City University) • Shigeo Kinoshita Estimation of Spatial Distribution of Response Spectra Considering Soil Amplification and Spatial Correlation of Ground Motions Sugarmy Ohno (Dissetter Control Research Center Tohoku University) • Akibiro Shibayama
Susumu Ohno (Disaster Control Research Center, Tohoku University) • Akihiro Shibayama Theme4 Subsurface Structure and Earthquake Ground Motion 15:10-17:30 Convention Hall 200	
GO2-Thu-PM-1	Horizontal Array Earthquake Observation at Tsuruga Peninsula Arihide Nobata (Obayashi Corporation) • Masayuki Oba • Koshiro En • Haruhiko Suzuki
GO2-Thu-PM-2	Vibration Characteristics of Highway Embankment Restored and Damaged by the 2007 Noto- Hanto Earthquake Kunihiko Kohno (Ehime Kensetsu Consultants) • Shinichiro Mori • Yoshitaka Saeki
GO2-Thu-PM-3	Strong Ground Motion Characteristics of Off West Hokkaido Earthquakes

GO2-Thu-PM-3 Strong Ground Motion Characteristics of Off West Hokkaido Earthquakes

-Study on Peak Ground Acceleration Attenuation Characteristics-

Nobuo Takai (Hokkaido University) • Takahiro Maeda • Tsutomu Sasatani

GO2-Thu-PM-4 A Study on Strong Motions in the Onikobe Area during the 2008 Iwate Miyagi Nairiku

Earthquake

-Effect of Irregular Subsurface Structure in the Onikobe Area from Aftershock Records and Microtremors-

Kentaro Motoki (Kobori Research Complex Inc.) • Hiroaki Yamanaka • Kazuoh Seo • Haruhiko Suzuki

GO2-Thu-PM-5 Verification of Two Successive NIED Deep Velocity Structure Models of the Tokachi Basin by

Comparing the Synthetic Long-Period Ground Motions with the Observed Ones Yadab Dhakal (Hokkaido University) • Tsutomu Sasatani • Nobuo Takai

GO2-Thu-PM-6	On the Dynamic Characteristics of the Great Buddha of Kamakura and Its Surroundings Yutaka Nakamura (System and Data Research) • Jun Saita • Mitsuhiro Tachibana •
GO2-Thu-PM-7	Masayuki Morii • Shusaku Inoue • Tatsuo Ohmachi Three Components Microtremor Measurements and Microtremor Array Measurements at Mexico City
GO2-Thu-PM-8	Koichi Hayashi (Oyo Corporation) • Atsushi Nozu • Masanori Tanaka • Haruhiko Suzuki Estimation of Site Amplification in Metro Manila, Philippines From Microtremor Array Observations
GO2-Thu-PM-9	Rhommel Grutas (Tokyo Institute of Technology) • Hiroaki Yamanaka The Ground Structure in Middle Reaches Region in Watarase River and Presumption Seismic Ground Motion of Ashikaga City
	Fujio Matsueda (Kyoryo Consultants) • Tokiharu Ohta • Hiroaki Yamanaka •
GO2-Thu-PM-10	Tadanori Shindo Dynamic Properties of Power Station Grounds Based on Earthquake Observations. Yasuo Ookouchi (Chubu Electric Power Co., Inc.) • Hideaki Mizuno • Keiji Yamamoto • Nobuo Fukuwa • Masafumi Mori
GO2-Thu-PM-11	The Influence of Fill Depth and Old Topographical Shape Upon the Seismic Response in the Development
	Tomohiro Mori (Tohoku University) • Katsuya Matsushita • Shingo Sato • Ryosuke Uzuoka • Motoki Kazama
Theme3 Eartho	quake Source Modeling and Source Effects 13:00-15:00 Conference Room 201
GO3-Thu-PM-1	Source Characteristics of the 2007 Great Outer-Rise Earthquake in the Central Kuril Islands Wataru Kawabata (Electric Power Development Co.,Ltd.) • Tsutomu Sasatani • Nobuo Takai • Takahiro Maeda
GO3-Thu-PM-2	Strong Ground Motions from the 2005 Sanriku-Oki Outer-Rise Earthquake(Mw7.0) Yuka Okazaki (Hokkaido University) • Tsutomu Sasatani • Nobuo Takai
GO3-Thu-PM-3	High-Frequency Wave Generation of Intra-Slab Earthquakes at the Suruga Bay in 2009 Takashi Ikeda (Kobori Research Complex)
GO3-Thu-PM-4	Seismic Intensity Inversion Analysis of Recent Inland Crustal Earthquakes Katsuhisa Kanda (Kobori Research Complex Inc.) • Masayuki Takemura
GO3-Thu-PM-5	Comparisons of Source Characteristics of Events in the High Strain Rate Zone and Others Kazuhiro Somei (Geo-Research Institute) • Kimiyuki Asano • Tomotaka Iwata
GO3-Thu-PM-6	Examination on Macroscopic Fault Parameters for Large Inland Earthquakes Caused by Strike- Slip Faults Yayoi Ishii (Shimizu Corporation) • Kazuo Dan • Samaneh Arzpeima
GO3-Thu-PM-7	Evaluation of Proportionality Constant between Stress Drop and Seismic Moment in Strike- Slip Inland Earthquakes by Dynamic Rupturing Sinulation
GO3-Thu-PM-8	Kiyoshi Irie (Ohsaki Research Institute) • Kazuo Dan • Shinya Ikutama • Kojiro Irikura Examination on the Source Model Characterizing Complexity of Fault Rupture Process and Their Effects on Strong Ground Motions
	Motofumi Watanabe (Shimizu Corporation) • Hiroyuki Fujiwara • Toru Ishii • Toshiaki Sato • Toshihiko Okumura
GO3-Thu-PM-9	Strong Motion Simulation in the Source Region of the Niigata-Ken Chuetsu-Oki Earthquake in 2007
GO3-Thu-PM-10	Yuhei Nitta (Kyoto University) • Shinichi Matsushima • Hiroshi Kawase Surface Waves in an Inhomogeneous Transversely Isotropic Half-Space Using Elastodynamic Reciprocity
	Priza Kayestha (Tokyo Institute of Technology) • Takatsugu Konno • Anil Wijeyewickrema
Theme5 Strong	g Ground Motion Prediction and Input Seismic Ground Motion
	15:10-17:40 Conference Room 201
GO4-Thu-PM-1	Benchmark Test for Strong Ground Motion Prediction Methods - Part 1: Abstract -
	Yoshiaki Hisada (Kogakuin University) • Masayuki Nagano • Kenichi Kato • Chiaki Yoshimura • Hidenori Kawabe • Katsuhiro Kamae • Shin Aoi • Takashi Hayakawa • Hirotoshi Uebayashi • Yuuki Sakai
GO4-Thu-PM-2	Benchmark Tests for Strong Motion Prediction Methods -Part 2: Theoretical Methods- Toshiaki Matsumoto (Kogakuin University) • Yoshiaki Hisada • Masayuki Nagano • Atsushi Nozu • Ken Miyakoshi

GO4-Thu-PM-3 Benchmark Tests for Strong Ground Motion Prediction Methods Part 3: Numerical Methods Chiaki Yoshimura (Taisei Corporation) • Masayuki Nagano • Yoshiaki Hisada • Shin Aoi • Takashi Hayakawa • Seckin Ozgur Citak • Shinichi Matsushima • Yoshihiro Onishi GO4-Thu-PM-4 Benchmark Tests for Strong Ground Motion Prediction Methods Part 4: Stochastic Green's Function Method Kenichi Kato (Kobori Research Complex) • Yoshiaki Hisada • Hidenori Kawabe • Susumu Ohno • Atsushi Nozu • Arihide Nobata • Atsushi Morikawa • Yu Yamamoto GO4-Thu-PM-5 Improvement of Attenuation Relationships of the Horizontal and Vertical PGA that Uses Kyoshin Network Data. Toshimitsu Nishimura (Geo-Research Institute) • Masanori Horike GO4-Thu-PM-6 Attenuation Characteristics of Strong Ground Motion Spectra without Relative Site **Amplification Effect** Tomonori Ikeura (Tajima Technical Research Institute) GO4-Thu-PM-7 Investigation of Distance Measuring to Express Strong Ground Motions in Near Source Region - Comparison between Equivalent Hypocentral Distance and Shortest Distance to Fault Plane for the Case of Reverse Fault -Atsushi Morikawa (Kobori Research Complex) • Kenichi Kato • Tomonori Ikeura • Masayuki Takemura • Katsuichirou Hijikata GO4-Thu-PM-8 Attenution Relationship for Response Spectra Considering the Effect of Directivity and Radiation Pattern of the Source Shusuke Oji (Chuo Kaihatsu Corporation) • Sumio Sawada GO4-Thu-PM-9 Spectral Inversion Analysis Considering Apparent Incident Angle Fumio Amaike (Research and Development Institute, Takenaka Corporation) • Kikuji Kobayashi GO4-Thu-PM-10 A Method of Spectrum Inversion Analysis Divides Attenuation Function into Multiple Ranges of Distances Yusuke Tomozawa (Kajima Technical Research Institute) • Tomonori Ikeura GO4-Thu-PM-11 A New Methd of Estimating the Path-Averaged Qs-Value at Low-Frequencies Michiko Shigefuji (Hokkaido University) • Tsutomu Sasatani • Nobuo Takai GO4-Thu-PM-12 Effect of Small Scale Qs Inhomogenuity on Seismic Ground Motions Ryoichi Nakamura (Tokyo Electric Power Services Co. Ltd.) • Tomiichi Uetake • Saburoh Midorikawa 13:00-15:00 Theme 18 Seismic Isolation and Structural Control Conference Room 202A GO11-Thu-PM-1 Development and Construction of Three Dimensional Seismic Isolation Building Hiromasa Aida (Kozo Keikaku Engineering) • Osamu Takahashi • Tetsuya Tomizawa • Junji Suhara • Itaru Kurosawa • Yasuo Tsuyuki • Takafumi Fujita GO11-Thu-PM-2 Development of Base-Isolation Device of Sliding Support with Oil Dampers. Part1:Outline of Isoration Device and Test Result of Forced Vibration Tests. Yasuo Tsuyuki (Kayaba System Machinery) • Morimasa Watakabe • Shinsuke Inai • Tooru Hanawa • Shinichi Iizuka • Motoki Misu GO11-Thu-PM-3 Development of Base-Isolation Device of Sliding Support with Oil Dampers. Part2:Numerical Investigation of the Response Performance of a Newly Developed Isolation System to Building in Use. Shinsuke Inai (Toda Corporation) • Morimasa Watakabe • Takeshi Yamamoto • Tooru Hanawa • Kazuo Yachiune • Shinichi Iizuka GO11-Thu-PM-4 Estimate of Horizontal Stiffness of Rubber Bearing Concerned with Rotation and P-Delta Suguru Shimoda (Meiji University) • Masahito Kobayashi GO11-Thu-PM-5 Mechanical Characteristics of Rubber Bearings with Various Thickness of Steel Shims Keiko Morita (Fukuoka Univ.) • Mineo Takayama • Masayuki Yanagi • Miyuki Kaihotsu GO11-Thu-PM-6 A New Analytical Model for Elastomeric Seismic Isolation Bearings under Multiaxial Loading Ken Ishii (Hokkaido University) • Masaru Kikuchi • Hideaki Kato Experiments on Wind Response of Lead Damper GO11-Thu-PM-7 Tatsuo Matsumoto (Fukuoka Univ) • Mineo Takayama • Keiko Morita • Akira Yasunaga GO11-Thu-PM-8 Dynamic Behavior of Seismic Base-Isolated Structure during Large Shaking Table Tests Kenji Kanazawa (CRIEPI) • Seiji Nagata • Shuichi Yabana • Kazuta Hirata • Katsuhiko Umeki · Seiji Kitamura

GO11-Thu-PM-9 Experiments and Simulation Analysis of Collision to Retaining Wall with Real Scale Base-Isolated Building Goro Miwada (Obayashi Corporation) • Takeshi Sano • Hideo Katsumata • Yasuhiro Hayashi • Noriko Takiyama • Kotaro Sato • Jumpei Komaki GO11-Thu-PM-10 Evaluation and Influence on Response of Base-Isolated Buildings in Collision to Retaining Wall of Resistance Characteristics of Retaining Wall Including the Soil Behind Kotaro Sato (Kyoto University) • Jumpei Komaki • Goro Miwada • Takeshi Sano • Hideo Katsumata • Noriko Takiyama • Yasuhiro Hayashi Theme 18 Seismic Isolation and Structural Control 15:10-17:10 Conference Room 202A GO12-Thu-PM-1 Seismic Response of House with Sliding Base Hirosuke Fujita (Waseda University) • Satsuya Soda • Yoshinori Miyamoto • Emi Miyamoto Seismic Response of Multi-Story Base-Isolated Structures by Multiple Plane Sliding Surfaces GO12-Thu-PM-2 Muhannad Fakhouri (Kyoto University) • Muhannad Fakhouri • Akira Igarashi GO12-Thu-PM-3 A Study on Response Characteristics of Base Isolated Building with Displacement Dependent **Dampers** Yoko Sagami (Tohoku University) • Masahiro Ikenaga • Kohju Ikago • Norio Inoue GO12-Thu-PM-4 Free Vibration Analysis of Base Isolated Buildings with Hysteretic Dampers Tadashi Ishihara (National Institute for Land and Infrastructure Management) • Kazuo Tamura • Masanori Iiba GO12-Thu-PM-5 Amplification of Floor Response of Base-Isolated Buildings Subjected to Vertical Motions Sachi Furukawa (Kyoto University) • Eiji Sato • Masayoshi Nakashima Fundamental Study on Longer Life of Seismic Isolated Building with Lead Rubber Bearing GO12-Thu-PM-6 Gou Noguchi (Tokyo University of Science) • Yuki Honda • Kazuki Chiba • Satoshi Kurita Fundamental Study on Vertical Distribution of Shear Force Coefficent for Seismic Design of GO12-Thu-PM-7 Seismic Isolated Building. Gou Tanizaki (Meiji Univ) • Masahito Kobayashi Present Situation of Isolation Buildings in Japan Based on Establishing a Database on Technical GO12-Thu-PM-8 Yuji Tanaka (Nagoya University) • Nobuo Fukuwa • Jun Tobita • Masafumi Mori GO12-Thu-PM-9 Effect to Seismic Behavior of Isolation Bridge and Non-Isolation Bridge Caused by Temperature Changes Hiroshige Uno (Oiles Corporation) • Taiji Mazda • Hirokazu Miyamoto • Kouichi Yunoki · Satoshi Chou · Ryuusaku Shinoda Effectiveness of TMD in Reducing Seismic Response of Bridge Girders Supported by GO12-Thu-PM-10 Elastomeric Isolation Bearings Naoya Hasegawa (Kyoto University) • Akira Igarashi Theme23 Functional Continuity and Resiliency of Facilities, Disaster Preventing 13:00-15:00 Plan and Countermeasure against Earthquake Conference Room 202B GO19-Thu-PM-1 The Seismic Recovery Curves Estimation for Production Facility Considering Surplus Performance of Production Equipments Shigeki Sakai (Technical Research Institute, Hazama Corporation) • Takaaki Nakamura • Hiromichi Yoshikawa GO19-Thu-PM-2 Damage Evaluation of RC Members by Applying Evaluation Model of Crack Length and Width Sayaka Igarashi (Technology Center, Taisei Corporation) • Sunsil Kim • Byungmin Cho • Masaki Maeda GO19-Thu-PM-3 Estimation of the Damage Level of Buildings by Period Elongation before and after the Earthquake with an Accelerograph on a Building Masashi Shiomitsu (The University of Tsukuba) • Yuki Sakai GO19-Thu-PM-4 Fuzzy-Based Detection of Debris in Aerial Images Atsuhito Nakano (The Uniersity of Tokushima) • Yoshihumi Nariyuki • Takashi Minamoto

Seismic Assessment System for Indoor Injury Risk

Tokyo Metropolitan Area

Shigeyuki Okada (Hokkaido University) • Noriyuki Nachi

Disaster Response Management System for Wide Area Coordination Against Earthquakes in

Takeyasu Suzuki (University of Yamanashi) • Yasunori Hada • Kimiro Meguro

GO19-Thu-PM-5

GO19-Thu-PM-6

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GO19-Thu-PM-7 Development of Local Capacity Building Program Toward Realizing Common Operational Picture Using GIS for Effective Disaster Response Munenari Inoguchi (Research Center for Natural Hazard & Disaster Recovery, Niigata University) • Keiko Tamura • Reo Kimura • Haruo Hayashi GO19-Thu-PM-8 Information Sharing Demonstration in Tokyo Metropolitan Near Field Earthquake Disaster Yasunori Hada (University of Yamanashi) • Kimiro Meguro • Miho Ohara • Shinya Kondo • Shinsaku Zama • Makoto Endo • Keiji Kobayashi • Takeyasu Suzuki • Itsuki Noda • Hiroki Shimora GO19-Thu-PM-9 Effectiveness of Information Sharing for Disaster Responses by Information Systems Shinya Kondo (The University of Tokyo) • Kimiro Meguro GO19-Thu-PM-10 Full-Scale Shaking Table Tests for Assessment of Functionality in Medical Facility Against Earthquake - Response and Damage of Equipment in Facility Eiji Sato (National Research Institute for Earth Science and Disaster Prevention) • Sachi Furukawa • Takahito Inoue • Kunio Fukuyama • Hisanobu Sakai • Astuo Kakehi • Kenichi Kobayasi • Masayoshi Nakashima Theme25 Disaster Preventing Plan and Countermeasure against Earthquake 15:10-17:10 Conference Room 202B GO20-Thu-PM-1 Extraction of Redevelopment Areas by a Life Risk Modeling at Metropolitan Earthquake Disasters Using GIS and Satellite Remote Sensing Daijiro Kaneko (Remote Sensing Environmental Monitor) • Junsaku Asada • Koichi Yokovama GO20-Thu-PM-2 Effect of Use of Walking Aid on Tsunami Refuge Safety of Area Takashi Minamoto (The University of Tokushima) • Yoshifumi Nariyuki GO20-Thu-PM-3 Disaster Mitigation Planning in Fishery Region Through Participating by People Concerned Masayuki Fudo (The Japanese Institute of Technology on Fishing Ports) • Koji Watanabe • Fumihiko Imamura GO20-Thu-PM-4 Start-Up of a JST-JICA Satreps Project: Enhancement of Earthquake and Tsunami Disaster Mitigation Technology in Peru Fumio Yamazaki (Chiba Universiy) • Shoichi Nakai • Shun' ichi Koshimura • Taiki Saito · Saburoh Midorikawa · Carlos Zavala · Zenon Aguilar · Miguel Estrada GO20-Thu-PM-5 Comparative Study on the Non-Engineered Housing Construction Process in the Several Disaster Areas Satoshi Tanaka (Fuji Tokoha University) • Norio Maki GO20-Thu-PM-6 Study on Post Earthquake Living Sustainability in Rural Area, a Case Study on Tono Mizunami Area Jun Takechi (Kobe University) • Yasuko Kuwata • Tadataka Nakashima • Yutaka Ohta GO20-Thu-PM-7 Basic Study on Scenario of Earthquake Disaster in Consideration of Disaster Preparedness for Planning of Post-Earthquake Disaster Recovery and Reconstruction Masato Ikeda (Nagoya University) • Takayuki Hayashi • Kazumi Kurata • Nobuo Fukuwa • Masafumi Mori GO20-Thu-PM-8 Study of Seismic Retrofitting Implementation for Masonry Houses Using PP-Band Method Naoki Sorimachi (Tokyo Electric Power Company) • Muneyoshi Numada • Kimiro Meguro GO20-Thu-PM-9 A Study on Estimation of Disaster Wastes Based on Recent Earthquake Statistics Hitomi Murakami (Yamaguchi University) 13:30-15:10 Theme1 Earthquake Damage Conference Room 303 GO27-Thu-PM-1 Relation between Damage Distribution of Historical Monuments and Site Condition in the Old City of Istanbul during the 1894 Marmara Sea, Turkey, Earthquake

GO27-Thu-PM-1

Relation between Damage Distribution of Historical Monuments and Site Condition in the Old City of Istanbul during the 1894 Marmara Sea, Turkey, Earthquake

Masashi Morita (Tokyo Institute of Technology) • Saburoh Midorikawa • Atilla Ansal • Barbaros Centiner

GO27-Thu-PM-2

Visual Damage Detection of Buildings Using Quickbird Images Following the 2007 Pisco,

Peru Earthquake

Shizuko Matsuzaki (Chiba University) • Fumio Yamazaki • Miguel Estrada • Carlos Zavala

GO27-Thu-PM-3

Extracting the Building Response Using Microtremor Records of Damaged Buildings during the 2008 Wenchuan Earthquake

Xin Wang (AIT) • Kazuaki Masaki • Kojiro Irikura

GO27-Thu-PM-4 Analyses of Strong Ground Motion and Damage of Large Scale Buildings by September 30, 2009 Pariaman Earthquake Yozo Goto (Earthquake Research Institute, the University of Tokyo) • Mulyo Harris Pradono • Rusnardi Rahmat • Akio Hayashi • Kazuhiro Miyatake GO27-Thu-PM-5 Damage Characteristics for Small Embankment Dams Due to Earthquakes on Northern Awaji Island of Hyougo-Ken in 1995 and around Nagaoka Area of Niigata-Ken in 2004 Hiroaki Fujii (Okayama Prefectural Federation of Land Improvement Association) • Tadashi Shigeno • Tsutomu Sekikawa GO27-Thu-PM-6 Liquefaction and Tombstone Damage during the Suruga-Bay Earthquake, August 11, 2009 Shigeru Miwa (Research Institute of Technology, Tobishima Corporation) • Omer Aydan • Yoshimi Ohta GO27-Thu-PM-7 Relationship between Ground and Damage to Various Tanks Makoto Nasu (Previous Maebashi Institute of Technology) GO27-Thu-PM-8 Survey of Monuments from the Great Kanto Earthquake in the Present City: A Basic Data for the Disaster Prevention of Tokyo Metropolis Masayuki Takemura (Kobori Research Complex) Theme7 Tsunami and Disaster Mitigation 15:20-17:00 Conference Room 303 GO28-Thu-PM-1 Time-Lag of Seismic Event on Nankai Trough Affect Tsunami Hazard at Local Area Hidearu Sugino (Japan Nuclear Energy Safety Organization) • Yoko Iwabuchi • Haruo Kunishi • Masaharu Sakagami • Katsumi Ebisawa GO28-Thu-PM-2 The Problem of Measures for the Tsunami of Chile Earthquake of National Highway No. 45 and Future Ideal Method Takao Hashimoto (Chiyoda Engineering Consultants) Response of Coastal Residents in Choshi City, Chiba Prefecture during the 2010 Chile GO28-Thu-PM-3 Earthquake Tsunami Kazuo Fujimoto (Chiba Institute of Science) • Fusaji Muroi • Masamichi Kageshima • Takahito Noto GO28-Thu-PM-4 Investigation on Drifting of Culture Equipment by Tsunamis Yuichi Tanji (The Japanese Institute of Technology on Fishing Ports, Grounds and Communities) • Koji Fujima • Yoshinori Shigihara • Hiroyuki Kato GO28-Thu-PM-5 Evaluation of a Tsunami Wave Load on a Bridge Deck Subjected to Breaker Bores Yu Hiraki (University of Tsukuba) • Gaku Shoji GO28-Thu-PM-6 Damage Assessment of Houses Due to the 2001 Southern Peru Earthquake Tsunami Yusuke Tani (University of Tsukuba) • Gaku Shoji • Syunichi Koshimura • Estrada Miguel Regional Comparative Analysis of Recovery Process in Indonesia after the 2004 Indian Ocean GO28-Thu-PM-7 Tsunami Kazuya Sugiyasu (Univ. of Tsukuba) • Osamu Murao Degradation of Ground Due to Tsunami Considering Liquefaction Using Various Tsunami GO28-Thu-PM-8 Waveforms Yoshihiro Okumura (Disaster Reduction and Human Renovation Institution) • Ryosuke Kato • Fusao Oka • Yoshiaki Kawata Theme17 Wooden Structure and Traditional Architecture 13:00-15:00 Conference Room 405 GO35-Thu-PM-1 Seismic Performance Evaluation of Non-Structural Member at Wood House by Static Loading Hidemaru Shimizu (Shinsyu University) • Takuro Mori • Ryuusuke Hada • Yuusuke Nishinuma • Munekazu Minami • Hiroshi Isoda • Kohei Komatsu GO35-Thu-PM-2 Collapse Mechanism of 3-Story Wood Houses Made by Different Design Methods of Joint at Top and Bottom of Columns with Shaking Table Tests Ryusuke Hada (Shinshu Univ.) • Hiroshi Isoda • Naohito Kawai • Takahiro Tsuchimoto • Yusuke Nishinuma GO35-Thu-PM-3 Deformation Behavior of 3-Story Wood Dwelling Houses Differ from Rigidity of Horizontal Diaphragm and Arrangement of Shear Walls with Shaking Table Tasts Kenji Kobayashi (Shizuoka University) • Masahiro Inayama • Hiroshi Isoda •

Takahiro Tsuchimoto • Yo Ochiai

Design Methods and Shaking Table Tests on 3-Story Wood Houses by Post and Beam GO35-Thu-PM-4 Construction -Part9 Result of Specimen No.4 Kaori Fujita (The University of Tokyo) • Toshiaki Sato • Takahiro Tsuchimoto • Hiroshi Isoda · Naohito Kawai GO35-Thu-PM-5 Verification on the Structural Design Methods for 3-Story Wood Houses by the Shaking Table Tests. Takahiro Tsuchimoto (National Institute for Land and Infrastructure Management) • Ryusuke Hada • Yusuke Nishinuma • Kenji Kobayashi • Hiroshi Isoda • Kaori Fujita • Naohito Kawai GO35-Thu-PM-6 Study of Coupled Vibration among Interconnected Buildings of Timber Structure Based on Microtremor Measurements Hirotsugu Hayashi (The University of Tokyo) • Kaori Fujita • Mitsuru Ishii • Hiroyuki Kobayashi GO35-Thu-PM-7 Stury on Seismic Design of Wooden House with Three Dimensionnal Eccentricity Considering Seismic Force Shinji Hikita (Kogakuin Univ.) • Kenji Miyazawa Experimental Study on Bending Strength of Mortise-Tenon Joint with Dowel GO35-Thu-PM-8 Hirotaka Udagawa (Tokyo Institute of Technology) • Yoshihiro Yamazaki • Hiroyasu Sakata · Yoshimitsu Ohashi GO35-Thu-PM-9 A Study on Bending Behavior of Timber Joint Using Lagscrewbolts and Drift Pins Shinobu Miyaki (Tokyo Institute of Technology) • Hiroyasu Sakata • Hiromichi Ito • Azuma Fujishiro GO35-Thu-PM-10 Study on Mechanical Behavior of Moment Resisting Timber Frame with Bearing Wall Takahiro Yoshinaga (Tokyo Institute of Technology) • Yoshihiro Yamazaki • Hiroyasu Sakata • Hiromichi Ito • Azuma Fujishiro Theme 17 Wooden Structure and Traditional Architecture 15:10-16:50 Conference Room 405 GO36-Thu-PM-1 Static Loading Test of Wooden House Kazumasa Takada (Shinshu University) • Hiroshi Isoda • Takahiro Tsuchimoto • Naohito Kawai • Takahumi Nakagawa • Ken-Ichi Sugimoto • Kenji Aoki • Chihiro Tsuda Structural Performance of the Seismic Retrofit Method for Existing Wooden House by External GO36-Thu-PM-2 Takashi Taguchi (Yahagi Construction) • Takashi Kamiya • Manabu Haginoya • Tatsuzo Umeno • Tadatoshi Furukawa GO36-Thu-PM-3 Seismic Retrofit Methods for Old Wooden Houses Using Tie Rods Anchored in Ground Arata Miyoshi (Tokyo Institute of Technology) • Midori Tsuzuki • Shoichi Kishiki • Akira Wada GO36-Thu-PM-4 Conversion Rule for Wooden Passively Controlled Frame to Spring Model and Consideration of Passive Control Effect Yoshihiro Yamazaki (Tokyo Institute of Technology) • Kazuhiko Kasai • Hiroyasu Sakata • Kazuhiro Matsuda GO36-Thu-PM-5 Evaluation of Seismic Performance of Wooden Panel with Compressive Oil Damper Yuji Miyazu (Waseda University) • Satsuya Soda • Yousuke Nakamura • Mitsuhiro Noguchi GO36-Thu-PM-6 Performance Evaluation of Wooden Houses with Two Types of Structural Control Devices and Study on Influence on Woodframe Takuya Aoki (Tokyo University of Science) • Toshiaki Sato • Yuichi Masaki • Michio Iguchi • Masayuki Nagano GO36-Thu-PM-7 Modeling of Woodframe with Visco-Elastic Structural Control Devices for Evaluation of Stiffness under Static Loading Toshiaki Sato (The University of Tokyo) • Takuya Aoki • Yuichi Masaki • Masayuki Nagano • Michio Iguchi GO36-Thu-PM-8 Dynamic Analysis of Frame Model for Wooden Frame with Passive Control System

Kazuhiro Matsuda (Tokyo Institute of Technology) • Kazuhiko Kasai • Hiroyasu Sakata

Theme14 Dyna	amic Soil-Structure Interaction 13:00-14:30 Conference Room 406
GO43-Thu-PM-1	A Basic Study on Time Domain Energy Transmitting Boundary
GO43-Thu-PM-2	Naohiro Nakamura (Takenaka Corporation) Influence of Irregular Soil Layers on Vibration of Nuclear Power Plants during 2007Niigata-Ken Chuetsu-Oki Earthquake Yasushi Nukui (Tokyo Electric Power Company) • Katsuichirou Hijikata •
GO43-Thu-PM-3	Fumio Yagishita • Tadahiko Shiomi Effects of Dynamic Soil-Structure Interaction Comparison with Fixed Model in Shear Force Coefficients Shinji Ito (Daiwahouse Industry Co., Ltd.) • Atsuko Shirayama • Tadamichi Yamashita • Kensuke Baba
GO43-Thu-PM-4	Simplified Evaluation Methods for Foundation Input Motion of Embedded Foundation Tsuguyoshi Suzuki (Nagoya University) • Nobuo Fukuwa • Masafumi Mori • Jun Tobita
GO43-Thu-PM-5	Change in Seismic Earth Pressure - Displacement Relationships Due to the Embedment Depth Hideyuki Mano (Shimizu Corporation) • Yasuhiro Shamoto
GO43-Thu-PM-6	Stress of Piles on Piled Raft Foundation Subjected to Ground Deformation during Earthquake Junji Hamada (Takenaka Research & Development Inst.) • Akihiko Uchida • Tomohiro Tanikawa • Munenori Hatanaka
GO43-Thu-PM-7	Earthquake Response of Building Supported on Piles Considered with Nonlinearity of Pile-Soil System Hisatoshi Kashiwa (Osaka University) • Takahiko Hidekawa • Miki Kishimoto • Yuji Miyamoto • Shuji Tamura
Theme14 Dyna	amic Soil-Structure Interaction 15:10-16:50
GO44-Thu-PM-1	Conference Room 406 Seismic Design Method of Pier Considering the Dynamic Interaction with Covered Concrete Hiroki Motoyama (Railway Technical Research Institute) • Takayoshi Nishimura • Yoshitaka Murono
GO44-Thu-PM-2	Analytical Study on Seismic Response of Pier Structure Deeply Embedded in the Soil Takayoshi Nishimura (Railway Technical Research Institute) • Yoshitaka Murono
GO44-Thu-PM-3	Evaluation of Seismic Performance of Bridge Pier Considering Interaction with Embankment Kazuya Tanoue (Railway Technical Research Institute) • Kimitoshi Sakai • Yoshitaka Murono
GO44-Thu-PM-4	Shaking Table Test for Pile Foundation in Large Scale Laminar Box Considering Dynamic Interaction of Pile and Ground Masakazu Teshima (Railway Technical Research Institute) • Hidetoshi Nishioka • Taisuke Sanagawa • Ryo Sawada • Masayuki Koda • Akihiro Toyooka • Yoshitaka Murono
GO44-Thu-PM-5	Dynamic Centrifuge Test and FE Analysis of RC Pile Foundation Takuya Anabuki (Obayashi Corporation) • Takahiro Tsutsumiuchi • Kenji Yonezawa •
GO44-Thu-PM-6	Shunichi Higuchi • Koji Ito • Joji Ejiri Effects of Roughness of Footing Surface on Superstructure Response during a Large

Shuji Tamura (Kyoto University) • Keisuke Adachi • Kohji Tokimatsu

Shinichiro Mori (Ehime University) • Masaya Furukawa

Evaluation of Seismic Response Characteristics of Soil-Structure Systems by Micro-Earthquake

Earthquake

Array Observations

GO44-Thu-PM-7

November 19 (Fri.)

Damage and Lessons of 2010 Chile Earthquake

9:00-12:30 Convention Hall 200

	Convention Hall 200
-	" mark are invited lectures.
OS7-Fri-AM(OS7)-1 OS7-Fri-AM(OS7)-2	Strong-Motion Records and Site Characteristics in the 2010 Maule, Chile Earthquake Saburoh Midorikawa (Tokyo Institute of Technology) • Hiroyuki Miura Damage Investigation of the 2010 Chile Earthquake and Tsunami Seismic Ground Motions and
007 TTT ALIII (001) 2	Site Effects Toru Sekiguchi (Chiba University) • Nelson Pulido • Gaku Shoji • Jorge Alva •
	Fernando Lazares
OS7-Fri-AM(OS7)-3	Geotechnical Related Damage during the 2010 Chile, Maule Earthquake Susumu Yasuda (Tokyo Denki University) • Kazuo Konagai • Takahiro Sugano • Mitsu Okamura • Tetsuo Tobita
OS7-Fri-AM(OS7)-4	Damage of Bridges Due to 2010 Chile Earthquake
	Jun-Ichi Hoshikuma (Center for Advanced Engineering Structural Assessment and Research) • Kazuhiko Kawashima • Shigeki Unjoh • Kenji Kosa
OS7-Fri-AM(OS7)-5	Damage Investigation of the 2010 Chile Earthquake and Tsunami - Building Damage Investigation -
	Taiki Saito (Building Research Institute) • Susumu Kono • Koichi Kusunoki •
	Yousok Kim • Tomoya Matsui • Masanori Tani • Yo Hibino • Carlos Zavala • Patricia Gibu
OS7-Fri-AM(OS7)-6	Damage of Buildings on 2010 Chile Maule Earthquake
	Keiichi Katori (Toyo University) • Katsumi Kobayashi
OS7-Fri-AM(OS7)-7	The Field Survey of the 2010 Chilean Earthquake Tsunami
OC7 Eri AM/OC7\ 0	Fumihiko Imamura (Tohoku Universty) • Koji Fujima • Taro Arikawa
OS7-Fri-AM(OS7)-8	Damage Investigation of the 2010 Chile Earthquake and Tsunami -A Post-Tsunami Field Survey
	Shunichi Koshimura (Tohoku University) • Masashi Matsuoka • Masafumi Matsuyama • Takumi Yoshii • Erick Mas • Cesar Jimenez • Fumio Yamazaki
OS7-Fri-AM(OS7)-9	Damage Investigation of the 2010 Chile Earthquake and Tsunami
	- Construction of GIS for Damage Analysis - Yoshihisa Maruyama (Chiba University) • Fumio Yamazaki • Hiroyuki Miura • Shizuko Matsuzaki • Miguel Estrada
OS7-Fri-AM(OS7)-10	Damage Investigation of the 2010 Chile Earthquake and Tsunami
	Gaku Shoji (University of Tsukuba) • Nelson Pulido • Toru Sekiguchi • Jorge Alva • Fernando Lazares • Taiki Saito
Roadmap for Se	eismic Safety of Nuclear Facilities 14:30-16:00
•	Convention Hall 200
Program numbers with "	" mark are invited lectures.
OS3-Fri-PM1(OS3)-1	Development of Earthquake Engineering Research Roadmap for Nuclear Power Plant Installations
	Hiroyuki Kameda (JNES) • Tsuyoshi Takada • Nozomu Yoshida • Susumu Nakamura • Hidetaka Nakamura
OS3-Fri-PM1(OS3)-2	The Seismic Safety Logic for Design and Assessment of Nuclear Power Plants
	Yoshiyuki Narumiya (The Kansai Electric Power Co.,Inc.) • Hirotada Ohashi •
OS3-Fri-PM1(OS3)-3	Koichi Miyata • Norio Watanabe Rule of Seismic PSA on Relation between Defense in Depth and Safety Goal
000-111-1 WI1(000)-0	Katsumi Ebisawa (Japan Nuclear Energy Safety Organization) • Mitsumasa Hirano
OS3-Fri-PM1(OS3)-4	Seismic Design vs. Seismic Evaluation of the Nuclear Power Plant Equipment
(,	Kanehiro Ochiai (Japan Nuclear Technology Institute)
OS3-Fri-PM1(OS3)-5	Seismic Margin of Nuclear Power Plant
	Naotaka Takamatsu (Japan Nuclear Energy Safety Org) • Katsumi Ebisawa
OS3-Fri-PM1(OS3)-6	Future Issues on Probabilistic Seismic Hazard and Determination of Design-Basis Ground

Motions

Tsuyoshi Takada (The University of Tokyo)

Roadmap for Seismic Safety of Nuclear Facilities

16:15-17:45 Convention Hall 200

•	Convention Hall 200
Program numbers with "	" mark are invited lectures.
OS3-Fri-PM2(OS3)-7 (Research Projects on Earthqauake Ground Motion and Probabilistic Seismic Hazard Analysis for Seismic Safety Problem of Nuclear Power Plant
000 F : DH0(000) 0 (Tadashi Annaka (Tokyo Electric Power Services Co.)
OS3-Fri-PM2(OS3)-8	Some Issues for Dynamic Behavior of the Ground around the Facilities of Nuclear Power Plant during Earthquake
	Susumu Nakamura (Nihon University, College of Engineering, Dept of Civil Enginering) • Nozomu Yoshida • Ikumasa Yoshida
OS3-Fri-PM2(OS3)-9	Earthquake Engineering Issues Relating to Buildings and Structures in Nuclear Power Plants Yoshikatsu Imazuka (Obayashi Corporation)
OS3-Fri-PM2(OS3)-10	Seismic Engineering Issue of Equipment and Piping Keisuke Minagawa (Tokyo Denki University) • Satoshi Fujita
OS3-Fri-PM2(OS3)-11	The Application of Seismic Isolation Technology to Nuclear Power Plant Facilities Masaru Kikuchi (Hokkaido University)
OS3-Fri-PM2(OS3)-12	Difference of Earthquake Safety of Atomic Power Plant in the Engineer's Viewpoint and the Citizen's One Motohiko Hakuno
Discussion: Roa	dmap for Seismic Safety of Nuclear Facilities 17:45-18:30
Discussion. Noa	Convention Hall 200
Theme 15 Experiments	riment and Observation of Structures, Structural Members and 9:00-10:30
Componente	Conference Room 201
GO5-Fri-AM-1	Evaluation of Damping Characteristics Based on a Shaking Table Test on a Full-Scale Steel Building
	Yangpyong Kim (Meiji Univ) • Masahito Kobayashi
GO5-Fri-AM-2	Collapse Assessment of Steel Moment Frames Based on E-Defense Full Scale Shake Table Collapse Tests
	Dimitrios Lignos (Kyoto University) • Tsuyoshi Hikino • Yuichi Matsuoka • Masayoshi Nakashima
GO5-Fri-AM-3	Scale Effect on the Seismic Performance of RC Bridge Columns Based on Full-Scale and Scaled Model Experiments
	Keisuke Ohta (Tokyo Institute of Technology) • Kazuhiko Kawashima • Tomohiro Sasaki
GO5-Fri-AM-4	A Study on Effect of Specimen Size on Dynamic Behavior and Failure Mechanism of Reinforced Concrete Bridge Columns Constructed in 1970's
GO5-Fri-AM-5	Junichi Sakai (Public Works Research Institute) • Shigeki Unjoh • Jun-Ichi Hoshikuma Experimental Method of Passively Controlled Multi Story Frame Using Vibration Generator on
	Simulating Shaking Table Test Kohei Soeta (Tokyo University of Science) • Takushi Ishida • Daiki Sato •
	Haruyuki Kitamura • Kazuhiko Sasaki • Mitsuru Miyazaki • Yuichi Iwasaki • Keisuke Yoshie • Masato Ishii
GO5-Fri-AM-6	New Dynamic Testing Method on Rocking Frame and Verification Experiment
	Masataka Nonoyama (Tokyo Institute of Technology) • Shoichi Kishiki • Akira Wada
GO5-Fri-AM-7	Development of a Simplified Shaking Table Test Method Using Ultra-Small Scale HPFRCC
	Models: Part XVI Verification of Effectiveness of Models by Labor Saving. Tatsuya Suzuki (The University of Tsukuba) • Yuki Sakai
Theme15 Exper	riment and Observation of Structures, Structural Members and
Components	10:40-12:20
	Conference Room 201
GO6-Fri-AM-1	Seismic Performance of Polypropylene Fiber Reinforced Cement Composite Bridge Column Based on E-Defense Shake Table Excitations
	Kazuhiko Kawashima (Tokyo Institute of Technology) • Richelle Zafra •
000 54 444 0	Tomohiro Sasaki • Hiroshi Matsuzaki • Koichi Kajiwara • Manabu Nakayama
GO6-Fri-AM-2	Stress-Strain Relation of Polypropylene Fiber Reinforced Cement Composites for Use in Bridge Columns Subjected to Earthquake Excitation
	Richelle Zafra (Tokyo Institute of Technology) • Kazuhiko Kawashima • Tomohiro Sasaki • Koichi Kajiwara • Manahu Nakayama

Tomohiro Sasaki • Koichi Kajiwara • Manabu Nakayama

GO6-Fri-AM-3 Effectiveness of In-Core Shield for Enhancing the Seismic Performance of RC Bridge Columns Subjected to Extreme Ground Motions Guilian Quan (Tokyo Institute of Technology) • Kazuhiko Kawashima • Tomohiro Sasaki GO6-Fri-AM-4 Seismic Performance of a RC Bridge Column with Termination of Longitudinal Bars Based on E-Defense Shake Table Experiments Tomohiro Sasaki (Tokyo Institute of Technology) • Kazuhiko Kawashima • Koichi Kajiwara GO6-Fri-AM-5 Shake Table Experiment on Damage Free RC Bridge Column Using E-Defense Manabu Nakayama (National Research Institute for Earth Science and Disaster Prevention) • Kouichi Kajiwara • Kazuhiko Kawashima GO6-Fri-AM-6 Experimental Study of Seismic Response of Abutment Hidetoshi Nishioka (Railway Technical Research Institute) • Kenji Watanabe • Masahiro Shinoda • Ryo Sawada • Masayuki Koda The Bilateral Cyclic Loading Test of RC Pier Using Ultra-High-Strength Fiber-Reinforced GO6-Fri-AM-7 Concrete Naoki Sogabe (Kajima Technical Research Institute) • Shinichi Yamanobe • Yoshihisa Kanamitsu • Kris-Szu Chia Huang • Tomohiro Sasaki • Kazuhiko Kawashima GO6-Fri-AM-8 Seismic Behavior of Bridge Substructures after Strengthening. Masakazu Abe (Saitama University) • Hiroshi Mutsuyoshi • Takeshi Maki • Anawat Chotesuwan Theme15 Experiment and Observation of Structures, Structural Members and Components 14:30-16:10 Conference Room 201 GO7-Fri-PM-1 Experimental Study on Plastic Deformation Performance of Reinforced Concrete Rigid Frame Structure with L Shaped Cross Section Yoshitaka Nakata (Soil Mechanics and Dynamics Team, PWRI) • Shunsuke Tanimoto • Susumu Nakajima • Tetsuya Sasaki GO7-Fri-PM-2 Relation between Displacement in Lateral Strength Deterioration Region and Collapse Displacement for Reinforced Concrete Shear Columns Naoki Kano (Taisei Corporation) • Takaya Nakamura • Manabu Yoshimura

Evaluation Method of Ductility Index for R/C Shear Columns GO7-Fri-PM-3 Katsuhiko Shibuichi (Obayashi Corporation) • Manabu Yoshimura

GO7-Fri-PM-4 Relation between Crack Width and Crack Length Due to the Seismic Displacement Time-History of R/C Members

Noriyuki Takahashi (The University of Tokyo) • Yoshiaki Nakano

GO7-Fri-PM-5 Cumulative Rotation Capacity of Beam-to-Column Connections with RC Floor Slabs Yu-Lin Chung (The University of Kyoto) • Tomohiro Matsumiya • Takuya Nagae •

Kunio Fukuyama • Masayoshi Nakashima

GO7-Fri-PM-6 Experimental Study on Shear Strength with Joint Shape of Exterior Beam-Column Joint Using

Mechanical Anchor

Minsu Jo (Tohoku University) • Kota Miura • Joji Sakuta • Masaki Maeda

Skeleton Curves of Restoring Force Characteristics for Reinforced Concrete Interior Beam-GO7-Fri-PM-7

Sungyong Park (Tokyo University) • Fumio Kusuhara • Hitoshi Shiohara

GO7-Fri-PM-8 Effects of Design Parameters on Ultimate Strength of Reinforced Concrete Beam-Column

Joints

Fumio Kusuhara (The University of Tokyo) • Hitoshi Shiohara

Theme15 Experiment and Observation of Structures, Structural Members and 16:20-17:50 Components

Conference Room 201

GO8-Fri-PM-1 Lateral Loading Tests on Spread Foundation in an Existing Reinforced Concrete School

Building - Test Plan -

Toshimi Kabeyasawa (Earthquake Research Institute) • Toshikazu Kabeyasawa •

Yousok Kim · Yoji Hosokawa

GO8-Fri-PM-2 Lateral Loading Tests on Spread Foundation in an Existing Reinforced Concrete School

Building - Test Results -

Toshikazu Kabeyasawa (Building Research Institute) • Toshimi Kabeyasawa •

Yousok Kim • Yoji Hosokawa

GO8-Fri-PM-3 Evaluation of Damping Properties of Lightweight Low-Rise Structure Sungbin Song (Waseda University) • Satsuya Soda GO8-Fri-PM-4 Full Scale Shaking Table Test of Confined Masonry Structure Hiroshi Imai (Mie University) • Toshikazu Hanazato • Chikahiro Minowa • Tatsuo Narafu • Yuji Ishiyama GO8-Fri-PM-5 Dynamic Performance of Greek Stone Temple in Comparison with Japanese Timber Pagoda Harris Mouzakis (National Technical University of Athens) • Niki Miltiadou • Maria Ioannidou • Toshikazu Hanazato • Mariko Ohmura • Chikahiro Minowa • Takafumi Nakagawa • Yasufumi Uekita • Akira Wada • Satoshi Nishioka GO8-Fri-PM-6 Vibration Characteristics of Histric Structure in Kathomandu, Nepal Junji Kiyono (Kyoto University) • Masatoshi Tatsumi • Hitoshi Taniguchi • Parajuli Hariram • Kenzo Toki • Aiko Furukawa GO8-Fri-PM-7 Vibration Damping Characteristics of Eaves of Important Cultural Properties, AKAGANE-**GOTEN** Kiyoshi Shingu (Nihon University) • Kiyotoshi Hiratsuka • Tomoe Watanabe Theme 18 Seismic Isolation and Structural Control 9:00-10:40 Conference Room 202A GO13-Fri-AM-1 Application of Active Base Isolation System Using Absolute Vibration Control Theory Mitsuru Kageyama (Obayashi Corporation) • Osamu Yoshida • Takeshi Sano • Tetsumi Watanabe • Fumiaki Endo • Masayuki Yamanaka • Hideo Katsumata GO13-Fri-AM-2 Switching Vibration Control Method of Tuned Viscous Mass Damper with Active and Passive Shingo Watanabe (Tokyo University of Science) • Takafumi Tomaru • Takuma Sekine • Kazuki Chiba • Satoshi Kurita Mechanical Properties of the Vibration Control System Using Bending Yielding Studs GO13-Fri-AM-3 Masaru Hasui (Toyohashi University of Technology) • Manabu Haginoya • Takashi Taguchi · Yukihiro Matsumoto · Sho Saito · Seishi Yamada Plastic Rotation Capacity of Steel Beam-Column Subassemblies with Wall-Type Dampers GO13-Fri-AM-4 Shoichi Kishiki (Tokyo Institute of Technology) • Naoto Kamoshita • Akira Wada Seismic Performance Evaluation of Retrofitted Building by Hysteretic Dampers. GO13-Fri-AM-5 (Conversion is Index of Seismic Retrofitted Building with Hysteretic Dampers Based on the Energy Balance Method.) Takuma Inden (Meiji University) • Masahito Kobayashi • Yutaka Isozumi GO13-Fri-AM-6 Perfomance Evaluation of Seismic Danper Considering Velocity Dependency Takeshi Nishimura (Kumamoto University) • Taiji Mazda • Hiroshige Uno • Hirokazu Miyamoto • Kouichi Yunoki Performance Evaluation of Viscous Damper and Hysteresis Damper GO13-Fri-AM-7 Masaya Fujimoto (Eight-Japan Engineering Consultants Inc.) • Hirokazu Miyamoto • Taiji Mazda • Hiroshige Uno • Kouichi Yunoki GO13-Fri-AM-8 Restoring Force Characteristics and Seismic Response of Steel House Kazuya Sato (Waseda University) • Satsuya Soda • Takehiro Wakita • Keisuke Itani Theme19 Smart Structures and Health Monitoring 10:50-11:50 Conference Room 202A GO14-Fri-AM-1 Relationship between Seismic Response Acceleration and Three-Dimensional Vibration Characteristics of Building No.1, Tokyo University of Science in Kagurazaka Takaaki Matsubara (Tokyo University of Science) • Kaori Mimura • Kazuki Chiba • GO14-Fri-AM-2 Varying of Dynamic Characteristics of a Building and Prediction Accuracy by Regression Equation Examined with over the Long Term Earthquake Observation Manabu Kawashima (Sumitomo Mitsui Construction) • Masayuki Nagano • Toshihide Kashima • Michio Iguchi Long-Term Vibration Monitoring on Passively Controlled Steel Building of E-Defense Full-GO14-Fri-AM-3 Scale Test Masaru Ono (Dept. of Architecture, Tokyo Univ. of Science) • Kenji Kanazawa • Daiki Sato • Haruyuki Kitamura • Tsuyoshi Hikino GO14-Fri-AM-4 Structural Monitoring Using Optical Fiber Sensors in Order to Ensure and Keep Track of the Quality and Performance of Buildings from the Design to Post-Completion Stages

Takao Nishizawa (Nikken Sekkei) • Tomio Ohno • Jun Tobita • Nobuo Fukuwa

GO14-Fri-AM-5 Design of Unequally Slitted Steel Shear Walls for Monitoring Applications

Andres Jacobsen (Kyoto University) • Takuya Okamura • Masayoshi Nakashima

Theme19 Smart Structures and Health Monitoring

Conference Room 202A

14:30-15:30

GO15-Fri-PM-6 Evaluation of Deflection of Girders of Multi-Span Bridges by Vibration Measurements

Yuki Matsumura (Ehime Univercity) • Shinichiro Mori

GO15-Fri-PM-7 Detection of Dynamic Characteristics Variation of a Reinforced Concrete Structure by Means

of Long-Term Continuous Vibration Observation, Ambient Vibration and Seismic Observation

Teruyuki Ueshima (Miyagi University) • Kazuyuki Sato • Kenji Kanazawa

GO15-Fri-PM-8 Damage Evaluation and Structural Health Monitoring of High-Rise Buildings by Use of Strong

Motion Sensors

Jun Tobita (Nagoya University) • Nobuo Fukuwa

GO15-Fri-PM-9 Stiffness Monitoring on a Seismically-Damaged High-Rise Steel Building of E-Defense Full-

Scale Tests

Natsuki Iino (Tokyo Univ. of Science) • Kenji Kanazawa • Masaru Ono • Daiki Sato •

Haruyuki Kitamura • Takuya Nagae

GO15-Fri-PM-10 Reduction of Natural Frequency of RC Members Resulted from Shear Failure under Seismic

Loads

Seiji Nagata (Central Research Institute of Electric Power Industry) • Kenji Kanazawa •

Yoshinori Miyagawa • Takuro Matsumura

Theme20 Seismic Evaluation and Retrofit of Structures

15:40-17:40

Conference Room 202A

GO16-Fri-PM-1 Study on Strength and Toughness in Post-Installed Adhesive Anchors.

-Comparing Investigation of Experimental Result with Design Formula-

Seira Owa (Hilti (Japan) Ltd.) • Yasutoshi Yamamoto • Tatsuya Kondo

GO16-Fri-PM-2 Seismic Retrofit of Existing RC Building with Rocking Walls and Steel Dampers

Zhe Qu (Tokyo Institute of Technology) • Shojiro Motoyui • Hiroyasu Sakata •

Shoichi Kishiki • Akira Wada

GO16-Fri-PM-3 Evaluation of Dynamic Property of a Base-Isolated Building under Construction Based on

Microtremor Measurement

Fumiaki Nagashima (Kyoto University) • Toshimoto Maeno • Shinichi Matsushima •

Hiroshi Kawase

GO16-Fri-PM-4 Study on Seismic Performance of Low Earthquake Resistant Masonry Buildings Retrofitted by

PP-Band Mesh

Navaratnarajah Sathiparan (The University of Tokyo) • Mayroca Paola • Meguro Kimiro

GO16-Fri-PM-5 Effect of Slit Installation on Seismic Performance of Old R/C Medium-Rise Residential

Buildings

-Study Based on Nonlinear Frame Analysis Considering Column Strength Deterioration-

Kazuaki Hoki (Kyoto University) • Manabu Yoshimura

GO16-Fri-PM-6 Seismic Capacity Estimation of R/C Buildings with Irregular Plan Configuration under

Translational Responses

Hiromasa Nakagami (The University of Tokyo) • Noriyuki Takahashi • Ho Choi •

Yoshiaki Nakano

GO16-Fri-PM-7 Seismic Capacity Evaluation of RC Model Structures with Eccentricity Including Inelastic

Torsional Behavior

Kazuyoshi Adachi (Shimizu Corporation) • Taku Hashimoto • Kazuki Tajima •

Nobuaki Shirai

GO16-Fri-PM-8 A Study on the Technique for Quantitative Evaluation of Seismic Reinforcement Effect Based

on Observed Data

Baoyintu (Kyoto University) • Hiroshi Kawase • Shinichi Matsushima

GO16-Fri-PM-9 Development of Sensor Calibration System for Low-Frequency Quakes

Masashi Nakamura (Tokyo Institute of Technology) • Tatsuhumi Atsumi • Hitoshi Kimura

• Norio Inou • Masayuki Matsudaira • Minoru Yoshida

GO16-Fri-PM-10 Macroscopic Seisimic Risk Assessment Method for Urgent Risk Estimation of Road

Embankment

Kenji Hayashi (Forest Engineering, Inc.) • Ken-Ichi Tokida • Sadayuki Kamide

GO21-Fri-AM-4

9:00-10:50

Conference Room 202B

GO21-Fri-AM-1 Probability Distribution for Seismic Risk and Seismic Risk Evaluation Using Seismic Response

on Multi-Mass System with Probability-Changing Restoring Force Characteristics

Nobuhide Narita (Toda Corporation) • Masanobu Tohdo • Mitoshi Yasui • Osamu Kaneko GO21-Fri-AM-2 Seismic Damage Occurrence Risk of a Building-Horizontal Piping System According to Total

Number of Building Floors

Aoi Nakakomi (Keio University) • Masayuki Kohiyama

GO21-Fri-AM-3 Performance-Based Design of Steel Structure Buildings by Probable Maximum Loss Using

Three Dimensional Dynamic Elasto-Plastic Analyses

Hiroshi Tsunekawa (Takenaka Corporation) • Tetsu Usami • Nobuo Nakayama Examination about the Selection Method of Earthquake in Seismic Risk Assessment

Nobusuke Hasegawa (National Research Institute for Earth Science and Disaster

Prevention) • Hiroyuki Fujiwara • Shinichi Kawai • Nobuyuki Morikawa •

Yasushi Komaru

GO21-Fri-AM-5 A Study on Appropriate Index for Seismic Risk Transfer Scheme

Takahide Akimoto (The Univ. of Tokyo) • Tatsuya Itoi • Tsuyoshi Takada

GO21-Fri-AM-6 Development of the Building Structure Database for Seismic Risk Evaluation

Masahiro Ooi (National Research Institute for Earth Science and Disaster Prevention) •

Keita Ishibashi • Hiroyuki Fujiwara

GO21-Fri-AM-7 Earthquake Damage Estimation Used Population Data Classified According to Building Type

Kensuke Arai (The University of Tsukuba) • Yuki Sakai

GO21-Fri-AM-8 Estimation of Optimum Investment in Pipe Line of Water Treatment Plant Using Seismic

System Risk Analysis

Keisuke Baba (NJS Co.,Ltd.) • Kimiyasu Ohtake • Hiromichi Yoshikawa •

Toshirou Shizuma

GO21-Fri-AM-9 A Follow-Up Study on Earthquake-Related Health Consequences Via Additional Retrieval of

Medical Articles

Yutaka Ohta (Tono Research Institute of Earthauake Science) • Tadayoshi Nakashima

Theme24 Lifeline and Transportation Systems

11:00-12:20

Conference Room 202B

GO22-Fri-AM-1 Effect of Emergency Large-Area Assistance in Lifeline Restoration Process Due to Disruption

of Road Networks

Ayumi Toyota (University of Tsukuba) • Gaku Shoji

GO22-Fri-AM-2 Reliability Evaluation of Critical Infrastructure Networks in Views of a Seismic Hazard

Masafumi Tabata (University of Tsukuba) • Gaku Shoji

GO22-Fri-AM-3 Sloshing Analysis of Water in Receiving Water Tank during Earthquake

Masakatsu Miyajima (Kanazawa University) • Koichi Murata

GO22-Fri-AM-4 Relationship between Buried Pipe Damage and Seismic Motion in the 2007 Niigata-Ken

Chuetsu-Oki,Japan,Earthquake

Kota Kimishima (Chiba University) • Yoshihisa Maruyama • Fumio Yamazaki

GO22-Fri-AM-5 Fragility Curve of Sewerage System Based on Spatial Data of Seismic Damage

Shigeru Nagata (Kajima Technical Research Institute) • Hiroshi Ishida • Akihiro Kusaka •

Masanori Hamada • Gaku Shoji • Kinya Yamamoto

GO22-Fri-AM-6 Evaluation of Seismic Vulnerability of Sewerage Networks Based on the Damage Data in the

1995 Kobe Earthquake

Satoshi Naba (University of Tsukuba) • Gaku Shoji • Shigeru Nagata

Theme27 Human Behavior during and after Earthquakes and Education for Disaster Mitigation 14:30-16:20

Conference Room 202B

GO23-Fri-PM-1 Development of Tsunami Dynamic Hazard Map

Koichi Takimoto (Yamaguchi University) • Fusanori Miura • Akinori Kawamura •

Miyuki Yoshimura

GO23-Fri-PM-2 Examination of Effective Utilization of Dynamic Hazard Map for Regional Disaster Prevention

Fusanori Miura (Yamaguchi University) • Koichi Takimoto • Miyuki Yoshimura •

Akinori Kawamura

GO23-Fri-PM-3 A Study on the Evacuation at the Time of Earthquake Disaster Based on Simulation Using

Detailed Urban Data

Akio Yamanashi (Tokyo Metropolitan Government) • Shoichi Nakai • Toru Sekiguchi

GO23-Fri-PM-4 Study on Human Evacuation Simulation in the High-Rise Building for Earthquake Disaster of **Indoor Space** Hiroki Ito (Tohoku University) • Akihiro Shibayama • Susumu Ohno GO23-Fri-PM-5 Effects of Overturning of Furniture on Human Damage during Earthquakes. Yoshimitsu Sugiyama (Knsai University) • Sanshiro Suzuki GO23-Fri-PM-6 The Effects of Human Emotion and Responses to Blood Flow to Acceleration and Amplitude Junichi Tsuruta (Polus R&D Center of Life-Style Inc.,) • Kiyotaka Terui • Kohei Nomoto GO23-Fri-PM-7 Enforcement and Continuation of the Disaster Management Education for the Foreign Worker and the Foreign Student Hiromi Kurosaki (Nagoya University) • Lewis Kachofwa • Algusty Luca GO23-Fri-PM-8 Development of Common Information Platform System for Disaster Safety Education Aids in Takeshi Sato (Tohoku University) • Akihiro Shibayama • Satoru Masuda • Masato Motosaka GO23-Fri-PM-9 Features of School Disaster Education Appearing in Contents of "Bousai Koushien" Naoki Matsuura (Ehime University) • Shinichiro Mori Theme28 Real Time Disaster Mitigation System, Early Warning System, and Ground Motion Observation System, and their applications 16:30-17:50 Conference Room 202B GO24-Fri-PM-1 An On-Board Earthquake Early Warning Receiving Unit Using Satellite Broadcasting Masahiro Korenaga (Railway Technical Research Institute) • Naoyasu Iwata • Kimitoshi Ashiya GO24-Fri-PM-2 Evaluation Method of Damage Mitigation by Earthquake Early Information for Running Trains Naoyasu Iwata (Railway Technical Research Institute) • Shunroku Yamamoto • Kimitoshi Ashiva GO24-Fri-PM-3 Improvement of the Method of Seismic Damage Estimation for Wooden Houses Considering the Base Slip Behavior Kazuto Matsukawa (Tohoku University) • Kazuya Mitsuji • Masaki Maeda GO24-Fri-PM-4 Interpretation of Seismic Observation and Response Prediction Using Animation Presentation of Time Histories Based on Virtural Reality Technology Kazumi Kurata (Falcon Corporation) • Nobuo Fukuwa • Masafumi Mori GO24-Fri-PM-5 Evaluation of Available Escaping Time during a Quake by Earthquake Type Sakae Saito (Kobe University) • Yasuko Kuwata GO24-Fri-PM-6 Development of Earthquake Immediate Warning System Using a Strong-Motion Observation Network for a Specific Active Fault Hiromitsu Nakamura (NIED) • Takashi Kunugi • Shin Aoi • Shigeki Adachi • Shohei Naito • Hiroyuki Fujiwara • Shigeki Horiuchi

Theme5 Strong Ground Motion Prediction and Input Seismic Ground Motion 9:00-10:30

Conference Room 303 GO29-Fri-AM-1 "Recipe" of Strong Motion Prediction for Mega Fault Earthquakes Kojiro Irikura (Aichi Institute of Technology) • Susumu Kurahashi GO29-Fri-AM-2 Construction of Characterized Source Model of Intraslab Earthquakes for Strong Motion Tomotaka Iwata (DPRI, Kyoto University) • Kimiyuki Asano GO29-Fri-AM-3 Source Modeling and 3D Ground Motion Simulation of the 2007 Niigata-Ken Chuetsu-Oki Earthquake (Mj6.8) Hidenori Kawabe (Kyoto University) • Katsuhiro Kamae GO29-Fri-AM-4 Validation of Velocity Structure Model for Strong Ground Motion Simulation of the 2007 Chuetsu-Oki, Japan, Earthquake Using the Voxel Finite-Element Method Kenji Toda (Earthquake Research Institute, the University of Tokyo) • Kazuki Koketsu • Hiroe Miyake GMS(Ground Motion Simulator) on GPU GO29-Fri-AM-5 Shin Aoi (National Research Institute for Earth Science and Disaster Prevention) • Naoki Nishizawa • Takayuki Aoki GO29-Fri-AM-6 A Procedure to Predict Strong Ground Motion with Long Duration Using Semi-Empirical Hirohito Takahashi (Oyo Corporation) • Nobuo Fukuwa • Masafumi Mori • Jun Tobita

GO29-Fri-AM-7

An Example of Study with Respect to Fourier Phase of Ground Motion and Location of

Epicenter

Atsushi Wakai (Port and Airport Research Institute) • Atsushi Nozu

Theme5 Strong Ground Motion Prediction and Input Seismic Ground Motion

10:40-12:20

Conference Room 303

GO30-Fri-AM-1 Examination on the Variation of the Records as Green's Functions

Dianshu Ju (Ohsaki Research Institute, Inc.) • Kazuo Dan • Jun Kanda • Naoki Uchida •

Hideaki Tsutsumi

GO30-Fri-AM-2 Effects of Difference of Source Spectrum Modeling for Middle-Size Earthquake on Synthetic

Motions in Empirical Green Function Method

Kazuo Dan (Shimizu Corporation) • Aya Nomura • Saruul Dorjpalam • Haruyuki Kitamura

GO30-Fri-AM-3 Broadband Ground Motion Simulation for Great Earthquakes along Sagami Trough with Multi-

Scale Heterogeneous Source Modeling

Haruko Sekiguchi (Disaster Prevention Research Institute, Kyoto University) •

Masayuki Yoshimi • Haruo Horikawa

GO30-Fri-AM-4 Difference of Prediction Accuracy of Long Period Seismic Motion in the Kanto Basin by the

Difference of 3D Model

Haruo Yoshida (Research & Development Institute, Takenaka Corporation) •

Kikuji Kobayashi · Yoshiyuki Sato

GO30-Fri-AM-5 Performance of Design Input Motions Selected Using Feature Indices to Represent Possible

Ground Motions.

Taugir Ahmed (Tokyo Institute of Technology) • Riki Honda

GO30-Fri-AM-6 Engineering Margin of Design Earthquake Motions Evaluated from Earthquake Records

Inventory

Kohei Tanaka (The University of Tokyo) • Tatsuya Itoi • Tsuyoshi Takada

GO30-Fri-AM-7 Estimation of Predicted Strong Ground Motion Based on Energy Index of Seismic Wave

Toshiyuki Hirai (Newjec Inc.) • Sumio Sawada

GO30-Fri-AM-8 Estimation of Strong Ground Motion Including the Specific Characteristics of Site Region

Masumitsu Kuse (Gifu University) • Masta Sugito • Takumi Kondou

Theme6 Seismic Hazard and Seismic Zonation

14:30-15:50

Conference Room 303

GO31-Fri-PM-1 Seismic Hazard Evaluation of Shallow Inland Earthquakes Occurring at Location Where Active

Fault Have not been Specified

Takahiro Sameshima (Shinozuka Research Institute) • Ryoichi Tamura

GO31-Fri-PM-2 The Evaluation of Occurrence of Inland Earthquakes Based on the Strain Rate From GPS Data

Masashi Nakao (The Univ. of Tokyo) • Tatsuya Itoi • Tsuyoshi Takada

GO31-Fri-PM-3 Investigation of Illustration and Its Characteristics for Spatial Distribution of Predominant

Periods Obtained from High Density Microtremor > Observations in Yokohama City by Using

GIS.

Naohiro Ueno (Kanagawa Univ.) • Takahisa Enomoto • Toshio Yamamoto

GO31-Fri-PM-4 Study on the Seismic Response at Valley Plains in Tokyo Based on Representative Soil Profile

Models

Hirokazu Watanabe (Tokyo Denki University) • Susumu Yasuda

GO31-Fri-PM-5 Micro Zoning Seismic Response by Questionnaire Intensity in Shimane Prefecture

Soichiro Kawahara (Matsue College of Technogy) • Shin' ichiro Mori

GO31-Fri-PM-6 Research on Creation of Digital Detailed Area Risk Map and Its Support System to Regionally

Self Disaster Prevention Activity

Tsutomu Ochiai (Kozo Keikaku Engineering Inc.) • Toshio Kuriyama •

Mitsufumi Hashimoto • Takahisa Enomoto • Nobuo Tsuyuki • Toshio Yamamoto

Theme8,9 Dynamic Characteristics of Soil and Ground, Nonlinear Ground Response and Failure 16:00-17:40

Conference Room 303

GO32-Fri-PM-1 Relative Density and Undrained Cyclic Shear Strength of Decomposed Granite Soil "Masado"

Shohei Noda (Yamaguchi University) • Masayuki Hyodo • Wootae Kim •

Norimasa Yoshimoto

GO32-Fri-PM-2 Liquefaction Strength Characteristics of Sand Subjected to Long-Term Consolidation and Overconsolidation Under Ko-Consolidation Condition Satoru Takagi (Kyushu Institute of Technology) • Hideo Nagase • Akihiko Hirooka • Daisuke Akase GO32-Fri-PM-3 Dynamic Shear Deformation and Strength of Sand and Clay Mixtures Seiji Tateba (Yamaguchi University) • Masayuki Hyodo • Ukgie Kim Estimation of Shallow S-Wave Velocity Structure Using Microtremor Exploration in Damascus GO32-Fri-PM-4 City, Syria Hussam Zaineh (Tokyo Institute of Technology) • Hiroaki Yamanaka GO32-Fri-PM-5 Numerical Simulation of Horizontal Wave Propagation in Liquefied Ground Yoshikazu Shingaki (Tokyo Electric Power Service Co. Ltd.) • Sumio Sawada • Hirovuki Goto GO32-Fri-PM-6 Calibrating Debris Flow Numerical Simulation Parameters for Proper Disaster Mitigation Strategy -Case Study of Debris Flow in Muzaffarabad-Zaheer Kazmi (University of Tokyo) • Kazuo Konagai • Takashi Kiyota • Ahsan Sattar Proposals of Material Point Method for Three Dimensional Dynamic Analyses and Simulation GO32-Fri-PM-7 of Uplift Mechanism of Open Cut Tunnel in Liquefied Ground in Shaking Table Tests Keita Abe (Railway Technical Research Institute) • Masahiro Shinoda • Kenji Watanabe • Ryo Sawada • Kazutoshi Shiomi Large Deformation Analysis of Earthquake Induced Damage in a River Dike during 1993 GO32-Fri-PM-8 Hokkaido-Nansei-Oki Earthquake Kyohei Ueda (Port and Airport Research Institute) • Susumu Iai • Tetsuo Tobita Theme 17 Wooden Structure and Traditional Architecture 9:00-10:20 Conference Room 405 GO37-Fri-AM-1 Analysis Method of Traditional Timber Buildings by Modeling Joint Details Considering Compressive Embedding Shinya Matsumoto (Faculty of Engineering, Hiroshima University) • Syuhei Mitsui • Kazuo Kondoh · Yoshiyuki Suzuki · Yoshinobu Fujitani GO37-Fri-AM-2 Microtremor Observation and Frame Model Analysis to Evaluate Dynamic Characteristics of Wooden Multilayer Pagoda Yoichi Mukai (Nara Women's University) • Eiko Tanaka Seismic Behavior of Frames with Hanging Walls of Traditional Wood House GO37-Fri-AM-3 Shin Katsuragawa (Shinshu University) • Naohito Kawai • Hiroshi Isoda • Takahumi Nakagawa • Minoru Okabe Earthquake Response Analysis of Wooden Houses Considering Traditional Equipments GO37-Fri-AM-4 Akira Murata (Kanazawa University) • Takayuki Kamata • Toshikazu Ikemoto • Masakatsu Miyajima Evaluation on Changes in Dynamic Characteristic during Dismantling and Reconstructing of GO37-Fri-AM-5 Traditional Wooden Structure Eiko Tanaka (Nara Women's University) • Yoichi Mukai GO37-Fri-AM-6 Vibration Characteristics of Temples Based on Microtremor and Seismic Observation Tomoki Fujii (Uotsu Shaji Corporation) • Jun Tobita • Nobuo Fukuwa Theme17 Wooden Structure and Traditional Architecture 10:30-11:30 Conference Room 405 GO38-Fri-AM-1 Simulation for Static and Dynamic Loading Tests of Traditional Wooden Frames of Different Scales Hideaki Tanahashi (Ritsumeikan University) • Tatsuru Suda • Yoshiyuki Suzuki Field Survey of Indonesian Traditional Wooden Structure to Evaluate Seismic Performance GO38-Fri-AM-2 Yugo Ishizuka (Kyoto University) • Haruki Takahashi • Noriko Takiyama • Mitsuhiro Miyamoto • Yasuhiro Hayashi Static Horizontal Cycle Loading Tests on Traditional Wooden Joints in the South of Tokushima GO38-Fri-AM-3 Prefecture

Kana Hayashi (Kanazawa Institute of Technology) • Daiki Tsukahata • Haruka Miura •

Masami Gotou • Yoshiyuki Suzuki

GO38-Fri-AM-4 Seismic Reinforcement for Traditional Wooden Frame by Improvement of Restoring Force Due to Column Rocking Tatsuru Suda (Ritsumeikan University) • Yasuhiko Tashiro • Kyosuke Mukaibo • Yoshiyuki Suzuki GO38-Fri-AM-5 Seismic Performance Evaluation of Nonbearing Mud-Walls of Traditional Wooden Houses in Kanazawa District. Hiro Kawahara (Kanazawa Institute of Technology) • Kentarou Miyake • Masami Gotou • Tatsuru Suda • Yoshiyuki Suzuki Theme 16 Seismic Response of Structures and Facilities 14:30-16:10 Conference Room 405 GO39-Fri-PM-1 Prediction of Seismic Response of Single-Story Steel Structure with Isolated Floor System Yasushi Yano (Osaka Institude of Technology) • Yuji Koetaka GO39-Fri-PM-2 Study on Damping Characteristics of Response Spectrum for Various Earthquake Ground Motions Akikazu Namiki (Meiji Univ.) • Masahito Kobayashi Earthquake Response of Existing Steel Gymnasiums to Diversified Seismic Ground Motion. GO39-Fri-PM-3 Yutaka Isozumi (Meiji Univ) • Masahito Kobayashi A Note on Dynamic Response Properties of Exceptional Strong Ground Motions with High GO39-Fri-PM-4 PGA for Building Structures Satoru Matsumoto (The University of Tokyo) • Tetsuo Kubo Response of a Moment-Resisting Ductile Reinforced Concrete Frame Structure Subjected to GO39-Fri-PM-5 **Bidirectional Strong Ground Motions** - On Axial Force Fluctuation and Biaxial Bending of Columns -Satoshi Matsudo (The University of Tokyo) • Tetsuo Kubo GO39-Fri-PM-6 Seismic Performance Evaluation of Existing Buildings in High Performance Society Tomoki Hikosaka (Nagoya University) • Yutaka Soga • Nobuo Fukuwa • Masafumi Mori • Hirohito Takahashi GO39-Fri-PM-7 Fundamental Study on Seismic Mutual Effects between Underground Arcade and High Buildings by 3-D Dynamic Analysis Yoshiaki Ariga (Hirosaki University) • Yuusuke Hirano • Keinosuke Inoko • Mikio Takeuchi · Akira Oguro · Hiroyuki Asaka GO39-Fri-PM-8 Effects of Nonlinear Site Amplification Characteristics on Required Strength of Wooden Building Yosuke Kawakami (Shinozuka Research Institute) • Ryoichi Tamura • Masayoshi Takaki Theme 16 Seismic Response of Structures and Facilities 16:20-18:10 Conference Room 405 GO40-Fri-PM-9 Prediction of Seismic Response Using Equivalent Linearization Method for a RC Building with Soft First Story Ryota Shinba (Akita Prefectural University) • Hideto Kanno • Tetsuya Nishida • Jun Kobayashi GO40-Fri-PM-10 The Maximum Response of Single D.O.F. System with Elasto-Plastic Restoring Force Excited by Artificial Ground Motions Ichiro Ichihashi (Kyoto Institute of Technology) • Akira Sone • Arata Masuda GO40-Fri-PM-11 Effect of Stiffness Eccentricity on Ultimate Lateral Strength and Energy Response of RC **Buildings** Junichi Murakami (Akita Prefectural University) • Hideto Kanno • Tetsuya Nishida • Jun Kobayashi Development of General-Purpose Hysteresis Characteristics Model for Seismic Damage GO40-Fri-PM-12 Estimation Hiroaki Iizuka (University of Tsukuba) • Yuki Sakai GO40-Fri-PM-13 Seismic Response Analysis of Multiple Supported Piping Systems with Friction Kazumasa Tsuchikawa (Kyoto Institute of Technology) • Akira Sone • Arata Masuda • Tatsuya Yamauchi GO40-Fri-PM-14 Shaking Table Test Techniques to Realize High Frequency Input over Shaking Table Limitations Ryuta Enokida (Kyoto University) • Kouichi Kajiwara • Takuya Nagae •

Masayoshi Nakashima

GO40-Fri-PM-15 Evaluation of Building Vibration Characteristics Using Seismic Records

Wataru Goto (NTT Facilities) • Hiroshi Dohi • Mikio Suzuki • Kenichi Yoshida •

Shigeto Nagashima • Yoshifumi Sugimura

GO40-Fri-PM-16 Seismic Building Vibration Observation in University Campus: Difference of Seismic

Responses of Buildings

Kiyoshi Takano (University of Tokyo) • Takamori Ito

GO40-Fri-PM-17 Comparison of Earthquakae Response Characteristics between Base Isolated Building and

Non-Base Isolated Building by Using Earthquake Observation Records

Takahisa Enomoto (Kanagawa University) • Masayuki Ninomiya • Yasushi Miyamoto •

Toshio Yamamoto

Theme4 Subsurface Structure and Earthquake Ground Motion 9:00-10:30 Conference Room 406

GO45-Fri-AM-1 Development of L1 GPS Positioning Algorithm for Monitoring Posture of RC Helicopter

Masayuki Saeki (Tokyo University of Science) • Hitoshi Morikawa • Shigeo Matsuda

GO45-Fri-AM-2 Examination on Velocity and Damping Structures of KiK-Net Observation Sites in Fukui

Prefecture

Yuzuru Yasui (Fukui University of Technology) • Hayato Nishikawa

GO45-Fri-AM-3 Trial of Evaluation of Near-Surface Attenuation by Inversion of S Coda Waves Spectral Ratios

Based on Vertical Array Records

Genyuu Kobayashi (JNES) • Yutaka Mamada • Hideaki Tsutsumi

GO45-Fri-AM-4 Study on a Method for Evaluating Vertical Seismic Ground Motion.

Hideo Kyuke (Takenaka Corporation) • Yoshiyuki Sato • Kikuji Kobayashi •

Ryoichi Tokumitsu

GO45-Fri-AM-5 Differences between H/V Predominant Frequencies of Strong Earthquake Motions and

Microtremors in Shikoku, Japan

Bigyan Upadhayay (Ehime University) • Shinichiro Mori

GO45-Fri-AM-6 Estimation of Subsurface Velocity Structure Based on Theory of Seismic Interferometry, Using

Microtremor H/V Spectrum

Takanori Hirokawa (Kyoto University) • Francisco Sanchez-Sesma •

Shinichi Matsushima • Hiroshi Kawase

GO45-Fri-AM-7 The Relation between Cross-Correlation of the Long Period Microtremor and the Green's

Functions in the Kanto Basin

Takashi Hayakawa (Shimizu Corp.)

Theme4 Subsurface Structure and Earthquake Ground Motion 10:40-12:10 Conference Room 406

GO46-Fri-AM-1 Validating the Formulation of SPAC Coefficient for Multi-Modal Case Derived from Seismic

Interferometry

Toshiaki Yokoi (Building Research Institute)

GO46-Fri-AM-2 3D Gravity Basement Structure of Mizushima and Tamashima Areas, Kurashiki, Okayama

Prefecture, West Japan

Atsushi Furukawa (Sougou System Service Co.) • Keiichi Nishimura • Junpei Akamatsu •

Masao Komazawa

GO46-Fri-AM-3 Estimation of the Velocity Boundaries in the Fuchu Region by Means of Nonstationary Ray

Decomposition Method

Makiko Takagishi (Yokohama City University) • Shigeo Kinoshita

GO46-Fri-AM-4 Applicability of Deep Underground Structures Estimated by Inversion of Seismic Record

Naoko Umeda (Takenaka Corporation) • Kikuji Kobayashi

GO46-Fri-AM-5 Comparison of Joint Inversion Methods Using Seismometer Arrays

Calderon Diana (Chiba University) • Shoichi Nakai • Toru Sekiguchi

GO46-Fri-AM-6 Evaluation of Site Amplification Factors at Strong Ground Motion Observation Sites in

Hiroshima Prefecture Based on Spectral Inversion Technique

Junya Takeda (Hiroshima Univ.) • Tatsuo Kanno • Kenji Miura

GO46-Fri-AM-7 Development of Integrated Geophysical and Geological Information Database for Earthquake

Disaster Prevention

Hiroyuki Fujiwara (National Research Institute for Earth Science and Disaster Prevention) •

Masahiro Ooi • Shinichi Kawai • Nobuhiko Toyama

Theme4 Subsurface Structure and Earthquake Ground Motion 14:30-16:10 Conference Room 406 Three-Dimensional Layer Interface Modeling Using Spatial-Temporal Multi-Resolution GO47-Fri-PM-1 Inversion and Hybrid-Grid FEM Pher Errol Quinay (University of Tokyo) • Tsuyoshi Ichimura • Muneo Hori • Maddegedara Lalith GO47-Fri-PM-2 Large-Scale Ground-Motion Simulation of 2008 Sichuan Earthquake Takeshi Kurose (Itochu Techno-Solutions Corp.) • Kaoru Kawaji • Satoru Fujihara • Shinichi Akiyama • Hiroaki Yamanaka Two-Dimensional Finite Element Analysis of an Irregular Ground Elasto-Plastic Properties GO47-Fri-PM-3 Considering Shinji Yoshimura (Chiba University) • Shoichi Nakai • Toru Sekiguchi GO47-Fri-PM-4 Three-Dimensional Analysis of a Slope Ground Subject to an Incident Surface Wave Shoichi Nakai (Chiba University) • Hiroto Nakagawa A Realistic-Model Seismogram Synthesis for the Kanto Basin Including Sea Water Based on a GO47-Fri-PM-5 Hybrid Boundary Element Method Zhenghua Qian (Tokyo Institute of Technology) • Hiroaki Yamanaka GO47-Fri-PM-6 Site Amplification Mechanism of Ground Motions Adjacent to Submerged Step-Type Underground Structure and Effect of Incident Field Masayuki Nagano (Tokyo University of Science) Numerical Simulation of Microseisms in Sedimentary Basin Model and Limit of the GO47-Fri-PM-7 Application to Irregular Velocity Structures of the Exploration Techniques Based on 1-D Structural Model. Hirotoshi Uebayashi (Kyoto University Research Reactor Institute) • Hidenori Kawabe • Katsuhiro Kamae GO47-Fri-PM-8 Evaluation on the Effect of the Input Earthquake Motion to Seismic Behavior of Soil-Structure System Using Convolutional PML as Boundary Condition

Theme 13 Foundation and Underground Structures

16:20-17:40

Conference Room 406

GO48-Fri-PM-1	A Study on Seismic Performance of Pile Head Isolated Foundation by Centrifuge Model Tests
	Jiho Jang (Shimizu Corporation) • Youichi Taji • Kiyoshi Fukutake • Shouichi Nakai •
	Hiroyuki Kimata • Shinnichi Nishimura
GO48-Fri-PM-2	Horizontal Load Tests of Pile Foundation on Contact Column Type Deep Mixing Soils
	Shunsuke Tanimoto (Public Works Research Institute) • Tetsuya Kouno •
	Takayuki Toyoshima • Masahiro Shirato • Toshiaki Nanazawa • Shoichi Nakatani
GO48-Fri-PM-3	Effects of Pile Rigidity on Seismic Response of Base-Isolated Structure and Bending Moment
	of Piles during Soil Liquefaction
	Takenori Hida (Kyoto University) • Shuji Tamura
GO48-Fri-PM-4	Evaluation of Sliding Characteristics and Stability of Large-Scale Gabion
	Wenzhong Chen (Osaka University) • Ken-Ichi Tokida • Junki Hirayama • Naotoshi Sudou

Kunihiko Uno (Penta-Ocean Institute of Technology) • Hiroo Shiojiri

GO48-Fri-PM-5 Seismic Performance of Rehabilitated Pipe by the Strength of Infill Material

Yuki Esumi (Kobe University) • Yasuko Kuwata • Shiro Takada

GO48-Fri-PM-6 Study of Seismic Design of Tunnel Considering the Stiffness of the Cracked Lining Tsutomu Tanaka (Eight-Japan Engineering Consultants Inc.) • Takeyasu Suzuki

November 20 (Sat.)

National Seismic Hazard Maps for Japan

9:00-11:00 Main Convention Hall

	Main Convention Hair
-	" mark are invited lectures.
OS1-Sat-AM(OS1)-1	National Seismic Hazard Maps for Japan
	Hiroyuki Fujiwara (National Research Institute for Earth Science and Disaster Prevention)
OS1-Sat-AM(OS1)-2	On Long-Period Ground Motion Hazard Maps
004 0-1 111/004) 0	Kazuki Koketsu (Earthquake Research Institute, University of Tokyo)
OS1-Sat-AM(OS1)-3	Comparison of Probabilistic Seismic Hazard Maps for Various Time Origin
	Toshihiko Okumura (Shimizu Corporation) • Jun' ichi Miyakoshi • Yutaka Ishikawa •
OC1 Cot AM/OC1\ /	Satoshi Fujikawa • Hiroyuki Fujiwara • Nobuyuki Morikawa • Nobuoto Nojima
OS1-Sat-AM(OS1)-4	Verification of the Probabilistic Seismic Hazard Maps for Japan Yutaka Ishikawa (Shimizu Corporation) • Satoshi Fujikawa • Toshihiko Okumura •
	Jun' ichi Miyakoshi • Hiroyuki Fujiwara • Nobuyuki Morikawa • Nobuoto Nojima
OS1-Sat-AM(OS1)-5	Comparison of Observed Seismic Intensities on Past Earthquakes with Predicted Ones by the
001 0at Am(001) 0	Conventional Method of the National Seismic Hazard Maps for Japan.
	Nobuyuki Morikawa (National Research Institute for Earth Science and Disaster
	Prevention) • Hiroyuki Fujiwara • Yutaka Ishikawa • Toshihiko Okumura •
	Junichi Miyakoshi • Satoshi Fujikawa • Nobuoto Nojima
OS1-Sat-AM(OS1)-6	Specifying Strikes of Fault-Unspecified Sources Based on Seismotectonics and Digital Active
	Fault Map of Japan for Seismic Risk Assessment
	Maki Koyama (Kyoto University) • Nobuoto Nojima • Hiroyuki Fujiwara •
	Nobuyuki Morikawa • Yutaka Ishikawa • Toshihiko Okumura • Junichi Miyakoshi •
	Satoshi Fujikawa
OS1-Sat-AM(OS1)-7	Evaluation of 30-Year Probabilities of Fault-Unspecified Inland Crustal Earthquakes
	Nobuoto Nojima (Gifu University) • Maki Koyama • Hiroyuki Fujiwara •
	Nobuyuki Morikawa • Yutaka Ishikawa • Toshihiko Okumura • Jun' ichi Miyakoshi •
OS1-Sat-AM(OS1)-8	Satoshi Fujikawa • Norihito Enchi Effects of the Peak Ground Motion Due to Deviations of the Cyclic Deformation Properties
031-3at-AW(031)-0	Using the Seismic Hazard Maps
	Using the Seisine Hazard Waps
	Akio Yamamoto (Farthquake Disaster Prevention Division of Ovo Corporation) •
	Akio Yamamoto (Earthquake Disaster Prevention Division of Oyo Corporation) • Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao
National Soismid	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao
National Seismi	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao C Hazard Maps for Japan 11:00-13:00
	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao C Hazard Maps for Japan 11:00-13:00 Main Convention Hall
Program numbers with " C	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao C Hazard Maps for Japan 11:00-13:00 Main Convention Hall O" mark are invited lectures.
	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao C Hazard Maps for Japan 11:00-13:00 Main Convention Hall O" mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints
Program numbers with " C	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao C Hazard Maps for Japan 11:00-13:00 Main Convention Hall O mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions
Program numbers with " COS1-Sat-AM2(OS1)-9	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao C Hazard Maps for Japan 11:00-13:00 Main Convention Hall O mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa
Program numbers with " C	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao C Hazard Maps for Japan 11:00-13:00 Main Convention Hall O mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building
Program numbers with " COS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science)
Program numbers with " COS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao C Hazard Maps for Japan 11:00-13:00 Main Convention Hall O mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building
Program numbers with " COS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research
Program numbers with " OS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10 OS1-Sat-AM2(OS1)-11	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research on Strong Ground Motions Kazuhiko Kawashima (Tokyo Institute of Technology) Application of National Seismic Hazard Map for Japan to Performance-Based Seismic Design
Program numbers with " OS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10 OS1-Sat-AM2(OS1)-11	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research on Strong Ground Motions Kazuhiko Kawashima (Tokyo Institute of Technology) Application of National Seismic Hazard Map for Japan to Performance-Based Seismic Design of Buildings and Its Problems
Program numbers with " OS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10 OS1-Sat-AM2(OS1)-11 OS1-Sat-AM2(OS1)-12	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research on Strong Ground Motions Kazuhiko Kawashima (Tokyo Institute of Technology) Application of National Seismic Hazard Map for Japan to Performance-Based Seismic Design of Buildings and Its Problems Saburoh Midorikawa (Tokyo Institute of Technology)
Program numbers with " OS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10 OS1-Sat-AM2(OS1)-11	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research on Strong Ground Motions Kazuhiko Kawashima (Tokyo Institute of Technology) Application of National Seismic Hazard Map for Japan to Performance-Based Seismic Design of Buildings and Its Problems Saburoh Midorikawa (Tokyo Institute of Technology) Seismic Risk Map Based on the Probabilistic Seismic Hazard Maps for Japan
Program numbers with " OS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10 OS1-Sat-AM2(OS1)-11 OS1-Sat-AM2(OS1)-12	Yoshiaki Inagaki • Shoichi Nakai • Kazumi Asao Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research on Strong Ground Motions Kazuhiko Kawashima (Tokyo Institute of Technology) Application of National Seismic Hazard Map for Japan to Performance-Based Seismic Design of Buildings and Its Problems Saburoh Midorikawa (Tokyo Institute of Technology) Seismic Risk Map Based on the Probabilistic Seismic Hazard Maps for Japan Jun' ichi Miyakoshi (Shimizu Corporation) • Toshihiko Okumura • Yutaka Ishikawa •
Program numbers with "OS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10 OS1-Sat-AM2(OS1)-11 OS1-Sat-AM2(OS1)-12 OS1-Sat-AM2(OS1)-13	C Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research on Strong Ground Motions Kazuhiko Kawashima (Tokyo Institute of Technology) Application of National Seismic Hazard Map for Japan to Performance-Based Seismic Design of Buildings and Its Problems Saburoh Midorikawa (Tokyo Institute of Technology) Seismic Risk Map Based on the Probabilistic Seismic Hazard Maps for Japan Jun' ichi Miyakoshi (Shimizu Corporation) • Toshihiko Okumura • Yutaka Ishikawa • Satoshi Fujikawa • Hiroyuki Fujiwara • Nobuyuki Morikawa • Nobuoto Nojima
Program numbers with " OS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10 OS1-Sat-AM2(OS1)-11 OS1-Sat-AM2(OS1)-12	C Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research on Strong Ground Motions Kazuhiko Kawashima (Tokyo Institute of Technology) Application of National Seismic Hazard Map for Japan to Performance-Based Seismic Design of Buildings and Its Problems Saburoh Midorikawa (Tokyo Institute of Technology) Seismic Risk Map Based on the Probabilistic Seismic Hazard Maps for Japan Jun' ichi Miyakoshi (Shimizu Corporation) • Toshihiko Okumura • Yutaka Ishikawa • Satoshi Fujikawa • Hiroyuki Fujiwara • Nobuyuki Morikawa • Nobuoto Nojima Seismic Risk Analysis on Building Damages and Human Casualties Based on Seismic Hazard
Program numbers with "OS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10 OS1-Sat-AM2(OS1)-11 OS1-Sat-AM2(OS1)-12 OS1-Sat-AM2(OS1)-13	C Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research on Strong Ground Motions Kazuhiko Kawashima (Tokyo Institute of Technology) Application of National Seismic Hazard Map for Japan to Performance-Based Seismic Design of Buildings and Its Problems Saburoh Midorikawa (Tokyo Institute of Technology) Seismic Risk Map Based on the Probabilistic Seismic Hazard Maps for Japan Jun' ichi Miyakoshi (Shimizu Corporation) • Toshihiko Okumura • Yutaka Ishikawa • Satoshi Fujikawa • Hiroyuki Fujiwara • Nobuyuki Morikawa • Nobuoto Nojima Seismic Risk Analysis on Building Damages and Human Casualties Based on Seismic Hazard of National Seismic Hazard Maps for Japan
Program numbers with "OS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10 OS1-Sat-AM2(OS1)-11 OS1-Sat-AM2(OS1)-12 OS1-Sat-AM2(OS1)-13	C Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research on Strong Ground Motions Kazuhiko Kawashima (Tokyo Institute of Technology) Application of National Seismic Hazard Map for Japan to Performance-Based Seismic Design of Buildings and Its Problems Saburoh Midorikawa (Tokyo Institute of Technology) Seismic Risk Map Based on the Probabilistic Seismic Hazard Maps for Japan Jun' ichi Miyakoshi (Shimizu Corporation) • Toshihiko Okumura • Yutaka Ishikawa • Satoshi Fujikawa • Hiroyuki Fujiwara • Nobuyuki Morikawa • Nobuoto Nojima Seismic Risk Analysis on Building Damages and Human Casualties Based on Seismic Hazard of National Seismic Hazard Maps for Japan Yasushi Komaru (OYO RMS Corporation) • Satoshi Shimizu • Hiroyuki Fujiwara •
Program numbers with "OS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10 OS1-Sat-AM2(OS1)-11 OS1-Sat-AM2(OS1)-12 OS1-Sat-AM2(OS1)-13 OS1-Sat-AM2(OS1)-14	C Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research on Strong Ground Motions Kazuhiko Kawashima (Tokyo Institute of Technology) Application of National Seismic Hazard Map for Japan to Performance-Based Seismic Design of Buildings and Its Problems Saburoh Midorikawa (Tokyo Institute of Technology) Seismic Risk Map Based on the Probabilistic Seismic Hazard Maps for Japan Jun' ichi Miyakoshi (Shimizu Corporation) • Toshihiko Okumura • Yutaka Ishikawa • Satoshi Fujikawa • Hiroyuki Fujiwara • Nobuyuki Morikawa • Nobuoto Nojima Seismic Risk Analysis on Building Damages and Human Casualties Based on Seismic Hazard of National Seismic Hazard Maps for Japan Yasushi Komaru (OYO RMS Corporation) • Satoshi Shimizu • Hiroyuki Fujiwara • Shinichi Kawai • Nobuyuki Morikawa • Yuzuru Hayakawa
Program numbers with "OS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10 OS1-Sat-AM2(OS1)-11 OS1-Sat-AM2(OS1)-12 OS1-Sat-AM2(OS1)-13	C Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research on Strong Ground Motions Kazuhiko Kawashima (Tokyo Institute of Technology) Application of National Seismic Hazard Map for Japan to Performance-Based Seismic Design of Buildings and Its Problems Saburoh Midorikawa (Tokyo Institute of Technology) Seismic Risk Map Based on the Probabilistic Seismic Hazard Maps for Japan Jun' ichi Miyakoshi (Shimizu Corporation) • Toshihiko Okumura • Yutaka Ishikawa • Satoshi Fujikawa • Hiroyuki Fujiwara • Nobuyuki Morikawa • Nobuoto Nojima Seismic Risk Analysis on Building Damages and Human Casualties Based on Seismic Hazard of National Seismic Hazard Maps for Japan Yasushi Komaru (OYO RMS Corporation) • Satoshi Shimizu • Hiroyuki Fujiwara • Shinichi Kawai • Nobuyuki Morikawa • Hisanori Matsuyama • Yuzuru Hayakawa A Study on Detailed Seismic Risk Assessment for Specific Scenario Earthquakes
Program numbers with "OS1-Sat-AM2(OS1)-9 OS1-Sat-AM2(OS1)-10 OS1-Sat-AM2(OS1)-11 OS1-Sat-AM2(OS1)-12 OS1-Sat-AM2(OS1)-13 OS1-Sat-AM2(OS1)-14	C Hazard Maps for Japan 11:00-13:00 Main Convention Hall "mark are invited lectures. Study on the United Seismic Hazard Maps and Their Regional Characteristics from Viewpoints of Design Earthquake Motions Toru Ishii (Shimizu Corporation) • Satoshi Fujikawa An Estimation of Earthquake Death Toll in Wood Frame Building Tadayoshi Nakashima (Tono Research Institute of Earthquake Science) Guideline for Design Seismic Ground Motion of Infrastructure with Progress of the Research on Strong Ground Motions Kazuhiko Kawashima (Tokyo Institute of Technology) Application of National Seismic Hazard Map for Japan to Performance-Based Seismic Design of Buildings and Its Problems Saburoh Midorikawa (Tokyo Institute of Technology) Seismic Risk Map Based on the Probabilistic Seismic Hazard Maps for Japan Jun' ichi Miyakoshi (Shimizu Corporation) • Toshihiko Okumura • Yutaka Ishikawa • Satoshi Fujikawa • Hiroyuki Fujiwara • Nobuyuki Morikawa • Nobuoto Nojima Seismic Risk Analysis on Building Damages and Human Casualties Based on Seismic Hazard of National Seismic Hazard Maps for Japan Yasushi Komaru (OYO RMS Corporation) • Satoshi Shimizu • Hiroyuki Fujiwara • Shinichi Kawai • Nobuyuki Morikawa • Yuzuru Hayakawa

Hisanori Matsuyama • Yuzuru Hayakawa

Long Period Earthquake Ground Motion and Safety of Structures 13:30-16:30 Main Convention Hall

D	Wall Convention Fall
=)" mark are invited lectures.
OS6-Sat-PM(OS6)-1	Long-Period Ground Motion Prediction and Hazard Maps by HERP Kazuki Koketsu (Earthquake Research Institute, University of Tokyo) • Hiroe Miyake • Kazuhito Hikima • Takashi Hayakawa • Haruhiko Suzuki • Motofumi Watanabe
OS6-Sat-PM(OS6)-2	Modeling of Topography Effects of Land Surface and Sea Floor for Long-Period Strong Motion Simulation with 3D FDM
	Hiroshi Takenaka (Kyushu University) • Takeshi Nakamura • Taro Okamoto • Yoshiyuki Kaneda
OS6-Sat-PM(OS6)-3	Long-Period Ground Motion Simulation of Tokai-Tonankai-Nankai Coupled Earthquake Using 3-D FEM
	Yu Yamamoto (Taisei Corporation) • Chiaki Yoshimura • Shinichi Nanai
OS6-Sat-PM(OS6)-4	Simulated Earthquake Ground Motion Considering Phase Difference Characteristics -Examples of Long Period Earthquake Ground Motion-
	Takashi Yamane (Nikken Sekkei Ltd.) • Sumio Nagahashi
OS6-Sat-PM(OS6)-5	Prediction and Validation of Waveforms of Long-Period Strong Motions for Hypothetical Subduction-Zone Earthquakes Using Empirical Regression Relations
	Toshimi Satoh (Ohsaki Research Institute) • Izuru Okawa • Takao Nishikawa •
	Toshiaki Sato • Matsutaro Seki • Yoshiaki Hisada
OS6-Sat-PM(OS6)-6	Model Tests on Sloshing in a Cylindrical Liquid Storage Tank with a Single Deck Type
	Floating Roof Takashi Nagaya (Meijo University) • Tetsuya Matsui
OS6-Sat-PM(OS6)-7	A Hybrid Analytical and Finite Element Approach for Nonlinear Sloshing in a Cylindrical
	Liquid Storage Tank with a Floating Roof
	Tetsuya Matsui (Meijo University) • Takashi Nagaya
OS6-Sat-PM(OS6)-8	Damage Evaluation in Steel Structural High Rise Building to Long-Period Ground Motion
	Hiroyasu Nishii (Tokyo University of Science) • Haruyuki Kitamura
OS6-Sat-PM(OS6)-9	Review on Current Seismic Design of Lifts in Japan and Some Specific Issues on Mitigation of
	Damages Due to Long-Period Earthquake Ground Motions Satoshi Fujita (Tokyo Denki University) • Yuji Sekiya • Takeshi Miyata
OS6-Sat-PM(OS6)-10	Development of Jishin-The-Vuton, the Portable 3D Earthquake Simulator
000 0at 1 m(000) 10	Yasuhiro Taguchi (Tamagawa University) • Roh Se-Gon • Yusuke Nishida •
	Yasushi Fukuda • Masayuki Matsudaira • Minoru Yoshida • Ryusuke Yamaguchi •
	Saburoh Midorikawa • Shigeo Hirose
OS6-Sat-PM(OS6)-11	E-Defense Tests for a High-Rise Building
	Takuya Nagae (NIED) • Kunio Fukuyama • Koichi Kajiwara • Takahito Inoue •
	Masayoshi Nakashima • Taiki Saito • Haruyuki Kitamura • Nobuo Fukuwa
Lessons and Learns from Iwate Miyagi Nairiku Earthquake in 2008 9:00-10:15 Convention Hall 200	
OS2-Sat-AM(OS2)-1	Sliding Block Analysis Generated in the Aratosawa Dam Uptream Part and the Consideration
032-3at-Alvi(032)-1	Motoki Kazama (Tohoku University) • Tetsushi Matsui • Tomohiro Mori
OS2-Sat-AM(OS2)-2	Liquefaction Damage during the 2008 Iwate Miyagi Inland Earthquake
	Akira Yamaguchi (Tohoku Gakuin University) • Tomonori Hino • Nozomu Yoshida • Yoshio Tobita
OS2-Sat-AM(OS2)-3	Soil Properties of Faild Earthmaterials in 2008 Iwate-Miyagi Inland Earthquake
	Hiroaki Kabuki (Tohoku University) • Yusuke Hiratuka • Shingo Sato • Motoki Kazama
OS2-Sat-AM(OS2)-4	Damage of RC Building and Ground Response Characteristics in the 2008 Iwate-Miyagi
	Nairiku Earthquake Kazuya Mituji (Yamagata University) • Kazuta Matsukawa • Masaki Maada
	Kazuya Mitsuji (Yamagata University) • Kazuto Matsukawa • Masaki Maeda
I Assons and I A	arns from Iwate Miyagi Nairiku Farthquake in 2008 10:15-12:15

Lessons and Learns from Iwate Miyagi Nairiku Earthquake in 2008 10:15-12:15 Convention Hall 200

OS2-Sat-AM2(OS2)-5 Comparisons between the 2008 Iwate-Miyagi Nairiku Earthquake and the 2004 Niigata-Chuetsu Earthquake in Terms of Strong Motions

Makoto Kamiyama (Tohoku Institute of Technology) • Tadashi Matsukawa

OS2-Sat-AM2(OS2)-6 Tree Tilt Around Surface Rupture of the 2008 Iwate-Miyagi Inland Earthquake, Revealed with Terrestrial LiDAR Survey Masayuki Yoshimi (National Institute of Advanced Industrial Science and Technology) • Tadashi Maruyama • Shinji Toda OS2-Sat-AM2(OS2)-7 A Realistic Model to Simulate the Extreme Acceleration Phases Observed at the Kik-Net IWTH25 Station during the 2008 Iwate-Miyagi Nairiku Earthquake in Japan Tatsuo Ohmachi (Tokyo Institute of Technology) · Shusaku Inoue · Kenichi Mizuno · Masato Yamada OS2-Sat-AM2(OS2)-8 Strong Motion Estimation in the Matsurube Bridge and Ichinonohara for the 2008 Iwate-Miyagi Nairiku Earthquake Based on Empirical Site Amplification and Phase Effects Yoshiya Hata (Nippon Koei Co., Ltd.) • Susumu Nakamura • Atsushi Nozu • Masayuki Yamada • Koji Hada OS2-Sat-AM2(OS2)-9 Strong Motion Estimation in the Damaged Sites of the Ichihazama River Area for the 2008 Iwate-Miyagi Nairiku Earthquake Based on Empirical Site Amplification and Phase Effects Susumu Nakamura (Nihon University) • Yoshiya Hata • Atsushi Nozu Long Period Ground Motion in Ohsaki Basin, Miyagi Prefecture during the 2008 Iwate-Miyagi OS2-Sat-AM2(OS2)-10 Nairiku Earthquake Shunichi Kataoka (Hirosaki University) • Ayaka Takashima 13:30-16:00 **Business Continuity Planning and District Continuity Planning** Convention Hall 200 Program numbers with " O " mark are invited lectures. OS5-Sat-PM(OS5)-1 Evolution of Japanese Corporate Disaster Management to Business Continuity Planning (BCP) and to District-Wide BCP(DCP) Satoru Nishikawa (Ministry of Land, Infrastructure, Transport and Tourism) Evaluation Method of Effective Earthquake Countermeasures in Business Continuity Plan OS5-Sat-PM(OS5)-2 Michiyo Soejima (Obayashi Corporation) • Kimiro Meguro OS5-Sat-PM(OS5)-3 Spread Activity of BCP by Cooperation of University and Prefecture Susumu Nakano (The University of Tokushima) • Takako Kiba • Hiroshi Anzai Investigation of the Anchored Office Furniture in a High-Rise Building for the Injury OS5-Sat-PM(OS5)-4 Tomohiro Kubo (Kogakuin University) • Yoshiaki Hisada • Masahiro Murakami OS5-Sat-PM(OS5)-5 District Continuity Management Plan that is Carried in the Area where there are a Lot of Hospitals Shigeaki Mori (Urban Disaster Research Institute) OS5-Sat-PM(OS5)-6 Study on the Measure Against Victims Unable to Return Home and the Disaster Medical System in the Central Business District around Shinjuku Station, Tokyo Masahiro Murakami (Kogakuin University) • Yoshiaki Hisada Actions to Spread Business Continuity Plan of Construction Industries in Shikoku OS5-Sat-PM(OS5)-7 Kenichi Torii (Ehime University) • Susumu Nakano • Kunio Ohtoshi • Wataru Shiraki • Tuyoshi Koike • Kenji Okazaki OS5-Sat-PM(OS5)-8 Current State and Problem of the Business Continuity Plan in Construction Companies Norio Harada (Disaster Prevention Research Group) • Katsumi Asahi • Taku Mikami • Yozo Goto • Harumi Yashiro Risk Management on Business Interruption of Supply Chain System Considering Simultaneous OS5-Sat-PM(OS5)-9 Supply Seiichiro Fukushima (Tokyo Electric Power Services) • Harumi Yashiro • Hiromichi Yoshikawa Theme15 Experiment and Observation of Structures, Structural Members and Components 9:00-10:30 Conference Room 201 GO9-Sat-AM-1 Dynamic Properties of Power Station Buildings Based on Earthquake Observations. Rika Iwaki (Chubu Electric Power Co., Inc.) • Mitsuo Tuzuki • Hiromitsu Ookubo • Keiji Yamamoto • Nobuo Fukuwa • Masafumi Mori GO9-Sat-AM-2 Structural Modeling of Soil-Structure Interaction System Based on Forced Vibration Tests under High Density Observation Motonobu Umino (Nagoya University) • Jun Tobita • Nobuo Fukuwa • Hiroaki Kojima

GO9-Sat-AM-3 Vibration Characteristics of Reinforced Concrete and Steel Structures in the Campus of College of Industrial Technology, Nihon University, Determined by the Earthquake and Microtremors Observation Hiroki Kaneko (Nihon University) • Kazuhiro Suka • Tatuyuki Morii • Noritaka Morohashi • Kazuyoshi Kudo • Tomoyuki Sakurada GO9-Sat-AM-4 Characteristic of Dismantling High-Rise Building Based on the Experiment of Continuous Observation Kenshiro Imaeda (Nagoya University) • Jun Tobita • Nobuo Fukuwa • Harumi Yashiro GO9-Sat-AM-5 Vibration Characteristics of an Overhung RC Building with Symmetric Plan Takumi Toshinawa (Program in Architecture, Meisei University) GO9-Sat-AM-6 Study on Dynamic Behaviour of Building Which Has Long and Slender Configuration -Part 1 Vibration Characteristic of Earthquake Records-Shin Koyama (Building Research Institute) • Mitoshi Yasui • Masanori Iiba GO9-Sat-AM-7 Study on Dynamic Behavior of Building Which Has Long and Slender Configuration -Part2 Simulation Analyses -Mitoshi Yasui (Toda Corporation) • Masanori Iiba • Morimasa Watakabe • Shin Koyama • Takeshi Yamamoto Theme15 Experiment and Observation of Structures, Structural Members and Components 10:40-12:30 Conference Room 201 GO10-Sat-AM-1 Cyclic Loading Test of RHS-Columns under Bi-Axial Bending Satoshi Yamada (Tokyo Institute of Technology) • Yuko Shimada GO10-Sat-AM-2 Post-Buckling and Deteriorating Behavior of RHS Columns under Cyclic Loading Takanori Ishida (Tokyo Institute of Technology) • Yuko Shimada • Satoshi Yamada GO10-Sat-AM-3 Shear Resistance of Steel Exposed Type Column Base with Tension Brace Hayato Asada (Tokyo Institute of Technology) • Shoichi Kishiki • Satoshi Yamada GO10-Sat-AM-4 Seismic Resistance Design Method of Steel Structure Considering Brittle Fracture Yuichiro Arai (Nihon University) • Toshio Hannuki • Hiroshi Akiyama GO10-Sat-AM-5 Mechanical Behavior of Headed Studs Clusters in Steel Fiber Reinforced Cementitious Composite Slab Yao Cui (Tokyo Institute of Technology) • Yunbiao Luo • Toru Tai • Shuhai Song • Masavoshi Nakashima GO10-Sat-AM-6 Estimation of Tangent Stiffness Matrix of Structures with Bilinear Springs Using Minimal Update Approach Koji Nishikawa (Kyoto University) • Akira Igarashi GO10-Sat-AM-7 Post-Buckling Bahavior of Steel Plate Elements under Various Cyclic Loadings Yu Jiao (Tokyo Institute of Technology) • Satoshi Yamada • Shoichi Kishiki GO10-Sat-AM-8 Research on Energy Absorption Performance Improvement of Buckling-Restrained Brace Contained Steel Plate Concrete Member Hiroshi Nonaka (Meiji Univ) • Makoto Watanabe • Masahito Kobayashi GO10-Sat-AM-9 A Study on Seismic Retrofitting Method Using Outer CES Frames Junji Shi (Osaka University) • Chunyang Liu • Takashi Taguti • Takashi Kamiya • Hiroshi Kuramoto Theme 11 Landslide and Slope Failure 9:00-11:00 Conference Room 202A GO17-Sat-AM-1 Trial for Establishment of Evaluation Method of Seismic Safety for Rock Slope Masahiro Shinoda (Railway Technical Research Institute) • Kenji Watanabe • Keita Abe • Takayoshi Nishimura • Kimitoshi Sakai • Masaaki Murata • Hidetaka Nakamura • Susumu Nakamura GO17-Sat-AM-2 Study of Energy on Seismically Induced Slope Failure and Flow Mechanism by Case History Keisuke Koizumi (Chuo University) • Takaji Kokusho • Tomohiro Ishizawa • Hiroki Sasaki GO17-Sat-AM-3 Analysis on Failure Modes of a Road Structure Due to a Slope Failure during an Earthquake Toshiaki Sakurai (University of Tsukuba) • Gaku Shoji GO17-Sat-AM-4 Topographical, Geological and Seismological Effects on Susceptibility of Earthquake Induced Landslides

Nagazumi Takezawa (Public Works Research Institute) • Taro Uchida • Keiji Tamura •

Keisuke Suzuki • Shin_Ichi Honma • Yoko Kobayashi • Masakatsu Miyajima

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GO17-Sat-AM-5	Relation to Slope Failure and Periodical Band of Seismic Ground Motion
GO17-Sat-AM-6	Kazuhiro Kanda (University of Tsukuba) • Yuki Sakai Risk Assessment of Earthquake-Induced Landslide in Padang, Indonesia Using Remote Sensing and GIS Interfacing Techniques
GO17-Sat-AM-7	Saifullizan Mohd Bukari (Chiba University) • Fumio Yamazaki Tectonic Deformation Induced in the Active Folding Zone in 2004 Mid-Niigata Prefecture Earthquake and Its Correlation with Landslide Distribution
GO17-Sat-AM-8	Yu Zhao (University of Tokyo) • Kazuo Konagai Post Formation Behavior and Flood Damage from Partial Breaching of Hattian Bala Landslide Dam
GO17-Sat-AM-9	Ahsan Sattar (University of Tokyo) • Kazuo Konagai • Takashi Kiyota • Takaaki Ikeda Strength Characteristic of Cemented Soil in Cyclic Loading Ring Shear Test Motoyuki Suzuki (Yamaguchi University) • Kimihiro Fujii • Hiroshi Takahara
GO17-Sat-AM-10	Estimation of Potential Slip Surface of Existing Landslide by Microtremor Measurement. Hidenori Otake (Ehime University) • Shinichiro Mori
Theme11 Land	slide and Slope Failure 11:10-12:00
GO18-Sat-AM-11	Conference Room 202A Model Experiment on Threshold Energy of Slope Failure Evaluation during Earthquakes Yumika Yamamoto (Chuo University) • Takaji Kokushou • Tomoyuki Ishizawa • Tomoyuki Koyanagi • Yuuki Hase
GO18-Sat-AM-12	A Basic Study on Travelling Distance Caused by Earthquake-Induced Rock Slope Failure Using 3D DEM Makoto Ishimaru (Central Research Institute of Electric Power Industry) •
GO18-Sat-AM-13	Hitoshi Tochigi • Tadashi Kawai • Ikumasa Yoshida • Hitoshi Nakase • Tetsuya Iwamoto Key Parameters Controlling Movements and Deformations of Landslide Masses in Earthquakes and Discussions for Coping with Landslide Disasters
GO18-Sat-AM-14	Muneyoshi Numada (Institute of Industrial Science(IIS), University of Tokyo) • Kazuo Konagai Sph Simulation of Earthquake-Induced Slope Failure Mori Toyoda (University of Tsukuba) • Takeshi Iwamoto • Yasuo Yamada • Takashi Matsushima
Theme28 Real	I Time Disaster Mitigation System, Early Warning System, and
	Observation System, and their applications 9:00-10:00
GO25-Sat-AM-1	Conference Room 202B Development of a Real-Time Evacuation Management System Using Active Radio Frequency
GO25-Sat-AM-1	Identification
	Akihiro Shibayama (Tohoku University) • Masahiro Murakami • Yoshiaki Hisada • Kenichi Takanashi • Takashi Suematsu • Susumu Ohno
GO25-Sat-AM-2	Development of Real-Time Noise Identification Method that Considers Influence of Electromagnetic Noise
GO25-Sat-AM-3	
	Shinji Sato (Railway Technical Research Institute) • Shunroku Yamamoto • Shunta Noda Correction of P Wave Magnitude Depending on Lapse Time -Application to Earthquake Early Warning-
GO25-Sat-AM-4	Correction of P Wave Magnitude Depending on Lapse Time -Application to Earthquake Early Warning- Mitsuyuki Hoshiba (Meteorological Research Institute) • Kazuhiro Iwakiri • Kazuo Ohtake Development of Real-Time Disaster Information Collection System Using PC Built-In Sensors
GO25-Sat-AM-4 GO25-Sat-AM-5	Correction of P Wave Magnitude Depending on Lapse Time -Application to Earthquake Early Warning- Mitsuyuki Hoshiba (Meteorological Research Institute) • Kazuhiro Iwakiri • Kazuo Ohtake
GO25-Sat-AM-5	Correction of P Wave Magnitude Depending on Lapse Time -Application to Earthquake Early Warning- Mitsuyuki Hoshiba (Meteorological Research Institute) • Kazuhiro Iwakiri • Kazuo Ohtake Development of Real-Time Disaster Information Collection System Using PC Built-In Sensors Tohru Okamoto (Tohoku University) • Akihiro Shibayama • Susumu Ohno Successive Update of Estimated Building Damage Ratios Based on Quick Survey Data Sachie Hoshi (Chiba University) • Yoshihisa Maruyama • Fumio Yamazaki mic Design of Structures and Seismic Design Codes 10:10-12:10
G025-Sat-AM-5 Theme22 Seisn	Correction of P Wave Magnitude Depending on Lapse Time -Application to Earthquake Early Warning- Mitsuyuki Hoshiba (Meteorological Research Institute) • Kazuhiro Iwakiri • Kazuo Ohtake Development of Real-Time Disaster Information Collection System Using PC Built-In Sensors Tohru Okamoto (Tohoku University) • Akihiro Shibayama • Susumu Ohno Successive Update of Estimated Building Damage Ratios Based on Quick Survey Data Sachie Hoshi (Chiba University) • Yoshihisa Maruyama • Fumio Yamazaki mic Design of Structures and Seismic Design Codes 10:10-12:10 Conference Room 202B
GO25-Sat-AM-5	Correction of P Wave Magnitude Depending on Lapse Time -Application to Earthquake Early Warning- Mitsuyuki Hoshiba (Meteorological Research Institute) • Kazuhiro Iwakiri • Kazuo Ohtake Development of Real-Time Disaster Information Collection System Using PC Built-In Sensors Tohru Okamoto (Tohoku University) • Akihiro Shibayama • Susumu Ohno Successive Update of Estimated Building Damage Ratios Based on Quick Survey Data Sachie Hoshi (Chiba University) • Yoshihisa Maruyama • Fumio Yamazaki mic Design of Structures and Seismic Design Codes 10:10-12:10
GO25-Sat-AM-5 Theme22 Seisn GO26-Sat-AM-1 GO26-Sat-AM-2	Correction of P Wave Magnitude Depending on Lapse Time -Application to Earthquake Early Warning- Mitsuyuki Hoshiba (Meteorological Research Institute) • Kazuhiro Iwakiri • Kazuo Ohtake Development of Real-Time Disaster Information Collection System Using PC Built-In Sensors Tohru Okamoto (Tohoku University) • Akihiro Shibayama • Susumu Ohno Successive Update of Estimated Building Damage Ratios Based on Quick Survey Data Sachie Hoshi (Chiba University) • Yoshihisa Maruyama • Fumio Yamazaki mic Design of Structures and Seismic Design Codes 10:10-12:10 Conference Room 202B Quantitative Evaluation of Information of Ground Motion Set as Design Ground Motion Takashi Miyamoto (The University of Tokyo) • Riki Honda "Evidence-Based Design" - Its Definition and Related Problems Atsushi Nozu (Port and Airport Research Institute) • Koji Ichii
G025-Sat-AM-5 Theme22 Seisn G026-Sat-AM-1	Correction of P Wave Magnitude Depending on Lapse Time -Application to Earthquake Early Warning- Mitsuyuki Hoshiba (Meteorological Research Institute) • Kazuhiro Iwakiri • Kazuo Ohtake Development of Real-Time Disaster Information Collection System Using PC Built-In Sensors Tohru Okamoto (Tohoku University) • Akihiro Shibayama • Susumu Ohno Successive Update of Estimated Building Damage Ratios Based on Quick Survey Data Sachie Hoshi (Chiba University) • Yoshihisa Maruyama • Fumio Yamazaki mic Design of Structures and Seismic Design Codes 10:10-12:10 Conference Room 202B Quantitative Evaluation of Information of Ground Motion Set as Design Ground Motion Takashi Miyamoto (The University of Tokyo) • Riki Honda "Evidence-Based Design" - Its Definition and Related Problems

GO26-Sat-AM-4 Application of Seismic Reinforcement Method of Road Embankments with Use of Artificial Base Structure Yuki Nomura (Osaka University) • Ken-Ichi Tokida • Naoki Tatta GO26-Sat-AM-5 Occurrence Characteristics of Secondary Sliding at Road Embankments and Its Evaluation Kouichi Teranishi (Osaka University) • Ken-Ichi Tokida • Shouta Suyama Study on Relationship between Safety Factor and Displacement by Sliding of Road GO26-Sat-AM-6 Embankments during Earthquakes Ken-Ichi Tokida (Osaka University) • Kouichi Teranishi GO26-Sat-AM-7 On Coutermeasures Against Damage Concentration of Weak-Beam Type Steel Frames with Fixed Column Bases. Yoshinobu Yanagita (Tokyo Bldg-Tech Center Co. Ltd) • Toshio Hannuki • Hiroshi Akiyama GO26-Sat-AM-8 Estimation of Stress and Collapse Mechanism for Rc Frame Structures Using Nonlinear Static Analysis Masanobu Aiba (Chiba University) • Keiichi Kiya • Tomofusa Akita • Nobuyuki Izumi A Study on Combined Super-and Sub-Structures and Model of a Soil-Pile System for Seismic GO26-Sat-AM-9 Resistance Evaluation of Pile Foundation in RC Structures Keiichi Kiya (Chiba University) • Masanobu Aiba • Tomofusa Akita • Nobuyuki Izumi Study on Shear Strength Failure Mode of RC Shear Walls with Multi-Openings Based on Fem GO26-Sat-AM-10 Parametric Analysis Masato Sakurai (Osaka University) • Tomoya Matsui • Hiroshi Kuramoto Theme9,10 Nonlinear Ground Response and Failure, Liquefaction and Lateral Flow of Ground 9:00-10:30 Conference Room 303 GO33-Sat-AM-1 Ground Motion Characteristics of Horizontal and Vertical Motions at the Kik-Net Iwth25 Station Kimiyuki Asano (Kyoto University) • Miho Kimura • Tomotaka Iwata GO33-Sat-AM-2 Estimation of Nonlinear Characteristics of Surface Soil Based on Strong Ground Motion Tatsuo Kanno (Hiroshima University) • Kenji Miura GO33-Sat-AM-3 Nonlinear Soil Properties Inferred from Downhole Array Recording of the Main-and After-Shocks of 2007 Niigataken Chuetsu-Oki Earthquake Yoshiaki Ibaraki (Tokyo Institute of Technology) • Kohji Tokimatsu GO33-Sat-AM-4 On the S-D Model Parameters of Anegasaki Sand Containing Fraction Toshiyuki Kamata (Chemical Grouting) • Ryo Kato • Takeshi Ishii GO33-Sat-AM-5 Micromechanical Study on Liquefaction and Resolidification of Granular Material Takehisa Hirao (University of Tsukuba) • Takashi Matsushima • Yasuo Yamada GO33-Sat-AM-6 Triaxial Test for Aging Effect on Liquefaction Strength Versus Cone Resistance for Sands Containing Non-Plastic Fines Yohta Nagao (Chuo University) • Takaji Kokusho • Fumiki Ito • Yoshiki Morimoto GO33-Sat-AM-7 Basic Experiment Concerning Bearing Capacity of the Liquefaction Ground under the Asphalt Kazuhiro Yamada (Fukken Co., Ltd.) • Takahiro Sugano • Hiroshi Nakazawa • Teruhisa Fujii Theme 10 Liquefaction and Lateral Flow of Ground 10:40-12:20 Conference Room 303 Applicability of Tirechips-Derived Geo-Material on Quay Wall's Stability during Earthquakes GO34-Sat-AM-8 Saki Miyota (Ibaraki University) • Kazuya Yasuhara • Satoshi Murakami • Hideo Komine • Masayuki Hyodo • Takashi Kaneko GO34-Sat-AM-9 Experimental Studies on Prevention of Large Ground Displacement Induced by Quaywall Movements Ikki Kato (Waseda University) • Masanori Hamada • Shunichi Higuchi • Ryohei Imanaka GO34-Sat-AM-10 Design Method of Compaction Grouting in Low Fines Content Sand

Keita Takada (Compaction Grouting Society of Japan) • Hiroyuki Yamazaki • Junichi Takemura • Kouhei Obara • Mutsuo Oosato • Akio Ikeuchi • Yoshiaki Taira •

Teruhisa Fujii

GO34-Sat-AM-11	Increase in Liquefaction Resistance of Ground Due to Log Piling Atsunori Numata (Tobishima Corporation) • Hiroshi Motoyama • Ikuo Momohara •
GO34-Sat-AM-12	Hirofumi Nagao • Masaki Harada • Masaho Yoshida Dynamic Centrifuge Model Tests on Lattice-Shaped Ground Improvement as a Liquefaction Countermeasure for River Levee
	Susumu Nakajima (Public Works Research Institute) • Shunsuke Tanimoto • Yoshitaka Nakata • Tetsuya Sasaki
GO34-Sat-AM-13	Mitigation of Existing Structure Settlement by Sheet Pile Walls during Earthquake Yu Motohashi (Ibaraki University) • Kazuya Yasuhara • Hideo Komine • Satoshi Murakami
GO34-Sat-AM-14	Application Piled-Raft Foundation to Oil Storage Tank on Liquefiable Loose Sand Shinichiro Imamura (Nishimatsu Construction Co., Ltd) • Takayuki Hirano • Takashi Yagi • Jiro Takemura
GO34-Sat-AM-15	Model Test and Field Test on Unsaturation of Sandy Ground by Injecting Micro Bubble Water Akihiko Uchida (Takenaka Corporation) • Takaaki Shimizu • Munenori Hatanaka
Theme16 Seisn	nic Response of Structures and Facilities 9:00-10:40
	Conference Room 405
GO41-Sat-AM-18	Seismic Behavior Analyses of Super-Multi-Span Continuous Isolated Bridge Using the Real Earthquake Records
	Joonho Choi (Public Works Research Institute) • Toshihiro Usui • Junichi Hoshikuma • Guangfeng Zhang
GO41-Sat-AM-19	Analytical Idealization of Local Buckling of Longitudinal Bars for Analyzing the Seismic Performance of RC Columns
CO41 Cot AM 20	Shota Ichikawa (Tokyo Institute of Technology) • Tomohiro Sasaki • Kazuhiko Kawashima
GO41-Sat-AM-20	An Evaluation Method of Residual Seismic Capacity for RC Structures with Total Collapse Mechanism
	Surong Bao (Tohoku University) • Kazuto Matukawa • Masaki Maeda
GO41-Sat-AM-21	Practical Nomogram for Bridge Designing Based on the Fault-Crossing Angle Ayako Anzai (Chuo Fukken Consultants) • Yoshitaka Murono • Tomohiro Kawanishi • Katsuaki Konno
GO41-Sat-AM-22	Earthquake Response Analysis Based on Earthquake Record for the Bridge with Horizontal Force Distributed Structure
	Manabu Matsuhashi (National Institute for Land and Infrastructure Management) • Shojiro Kataoka • Susumu Takamiya
GO41-Sat-AM-23	Fundamental Study on the Variability of Structural Response Due to the Uncertainty of Phase Spectrum
GO41-Sat-AM-24	Kimitoshi Sakai (Railway Technical Research Institute) • Yoshitaka Murono Fundamental Consideration on the Input in the Complete Collapse Test Yuko Shimada (Chiba Univ.) • Satoshi Yamada
GO41-Sat-AM-25	Distribution of Residual Stress on Low-Rise Steel Moment-Resisting Frames after Strong
	Earthquake Motions Takumi Ito (Tokyo University of Science) • Takashi Iwabuchi
Theme21 Nons	tructural Members and Equipments 10:50-11:50
	Conference Room 405
GO42-Sat-AM-1	Study on Collapse Behavior of Suspended Ceiling of Large Space Structures Subjected to
	Earthquake Excitation Part1: Investigation of Oscillatory Properties of School Gymnasiums
	Morimasa Watakabe (Toda Corporation) • Yoshio Wakiyama • Shinsuke Inai •
	Taku Ishioka • Tadashi Ishihara • Takashi Hasegawa • Koichi Morita
GO42-Sat-AM-2	Study on Collapse Behavior of Suspended Ceiling of Large Space Structures Subjected to Earthquake Excitation
	Part2: Shaking Table Test of Suspended Ceiling Yoshio Wakiyama (Building Research Institute) • Morimasa Watakabe •
	Masanobu Tohdo • Shinichi Iizuka • Shinsuke Inai • Shigemitsu Takai •
	Motoi Kanagawa • Tadashi Ishihara • Takashi Hasegawa

GO42-Sat-AM-3 Study on Collapse Behavior of Suspended Ceiling of Large Space Structures Subjected to

Earthquake Excitation

Part3: Shaking Table Test and Analysis of Scale Models of Gymnasium Structures Taku Ishioka (Toda Corporation) • Tadashi Ishihara • Morimasa Watakabe •

Shinsuke Inai • Yoshio Wakiyama

GO42-Sat-AM-4 Shaking Table Test of Sprinkler Systems on Level-1 Scale Earthquake

Shinichi Iizuka (Nishimatsu Construction) • Yoshio Wakiyama • Morimasa Watakabe •

Shigemitsu Takai • Akira Oosakaya • Motoi Kanagawa • Shinsuke Inai •

Motohiko Kuwa • Mamoru Kouno • Ichiro Hagiwara

GO42-Sat-AM-5 Fragility Curves for Building Equipments Based on Damage Survey Data Due to 1995

Hyogoken-Nambu Earthquake

Mika Kaneko (Shimizu Corporation) • Hiroshi Kambara

Evaluation of seismic safety capacity of aged piping system for nuclear power plants 13:30-14:30

Conference Room 405

Program numbers with " \bigcirc " mark are invited lectures.

OS4-Sat-PM(OS4)-1 3-D Shaking Table Test and the Seismic Design Criteria for Thinned Wall Piping

Yuji Sato (IHI Corporation) • Akihito Otani • Izumi Nakamura • Koji Takahashi •

Hajime Hajime

OS4-Sat-PM(OS4)-2 Vibration Response Characteristics for Thinned Wall Piping System

Hajime Takada (Yokohama National University) • Shun Nakazawa • Izumi Nakamura •

Akihito Otani • Yuji Satoh • Koji Takahashi • Tadahiro Shibutani

OS4-Sat-PM(OS4)-3 Effects of Cyclic Overload on Low Cycle Fatigue Behaviors of Elbow Pipe with Local Wall

Thinning

Koji Takahashi (Yokohama National University) • Kyohei Sato • Kanako Ogino •

Kotoji Ando • Yoshio Urabe

OS4-Sat-PM(OS4)-4 Estimation of Seismic Safety Margin of Aged Piping Systems by Shake Table Tests

Izumi Nakamura (National Research Institute for Earth Science and Disaster Prevention) •

Akihito Otani • Yuji Sato • Hajime Takada • Koji Takahashi • Tadahiro Shibutani

Theme 12 Ground Structures and Dams

9:00-11:00

GO49-Sat-AM-1 Relation between Safety Factor during Earthquake and Residual Deformation for River Dikes

Kazuhiro Araki (Chemical Grouting) • Takeshi Ishi • Kunio Saitoh

GO49-Sat-AM-2 Study on Effectiveness of Soil Improvement of Levee Using Observed Records

Shojiro Kataoka (National Institute for Land and Infrastructure Management) •

Shunsuke Tanimoto • Susumu Nakajima • Manabu Matsuhashi • Susumu Takamiya

GO49-Sat-AM-3 Evaluation on the Seismic Response Characteristics of a Road Embankment Based on the

Earthquake Observation Record

Susumu Shibao (Hiroshima University) • Yoshiya Hata • Koji Ichii • Ken-Ichi Tokida •

Koichiro Takezawa • Masayuki Yamada • Junji Mitsushita • Keigo Koizumi

GO49-Sat-AM-4 Damage Evaluation in the Noto Airport for 2007 Noto Hanto Earthquake Based on the 3D

Non-Linear FEM Analysis Method

Yoshiya Hata (Nippon Koei Co.,Ltd.) • Koji Ichii • Atsushi Nozu

GO49-Sat-AM-5 Simulation of Damage Pattern of Soil Embankments by Applying the Constitutive Model

Including a Tensile Failure

Mitsuhiko Nakata (Kyoto University) • Sumio Sawada • Hiroyuki Goto

GO49-Sat-AM-6 Quantitative Evaluation of Effects by Underground Water Table on Sliding Stability of

Embankments

Junki Hirayama (Osaka University) • Ken-Ichi Tokida • Kouichi Teranishi

GO49-Sat-AM-7 Evaluation on the Slope Failure Range Due to Earthquake Using the Monte Carlo Simulation

Koji Ichii (Hiroshima University) • Yoshiya Hata • Ken-Ichi Tokida

GO49-Sat-AM-8 Dynamic Centifuge Model Test on Rein-Forced Road Embankment

Tadao Enomoto (Incorporated Administrative Agency Public Works Research Institute) •

Tetsuya Sasaki

GO49-Sat-AM-9 Seismic Response Analysis on Large Arch Dam Used about 50 Years -Estimation about Water-

Storage Performance of Arch Dam in Level 2 Input Ground Motion-

Jun Matsui (Central Research Institute Electric Power Industry) • Tatsuo Nishiuchi •

Nobuyuki Ookuma • Hiroki Hatamoto

GO49-Sat-AM-10 Earthquake Response Analysis of Large Arch Dam Existed about 50 years Ago

Contraction Joints Behavior and Damage on Earthquake, Stability after Earthquake Tatsuo Nishiuchi (Central Research Institute of Electric Power Industry)
 Jun Matsui
 Nobuyuki Ohkuma
 Hiroki Hatamoto

Theme12 Ground Structures and Dams

11:10-12:30

Conference Room 406

GO50-Sat-AM-1 Shear Capacity of the Unburned Brick Masonry Wall

Takuya Asamitsu (The University of Tokyo) • Kaori Fujita

GO50-Sat-AM-2 A Limit Equilibrium-Based Seismic Stability Analysis and Design of Embankment Slopes with

a Sheet Pile

Jing-Cai Jiang (The University of Tokushima) • Yukimasa Kanda • Susumu Nakano

GO50-Sat-AM-3 Shaking Table Test on Dynamic Behavior of Caisson Type Quay Walls with Ground Anchor for

Seismic Reinforcement

Makoto Yoshida (Penta-Ocean Institute of Technology) • Souich Tashiro • Kazuya Gouda •

Osamu Kiyomiya

GO50-Sat-AM-4 Study on Sesimic Resistance Performance and Sismic Retrofitting of Small Dams for Irrigation

by Dynamic Analysis

Yoichi Hayashida (National Institute for Rural Engineering) • Susumu Masukawa •

Isamu Asano • Hidekazu Tagashira

GO50-Sat-AM-5 Shaking Table Test and DEM Analysis of a Concrete Gravity Dam with Penetrated Cracks

Tomoya Iwashita (Hydraulic Engineering Research Group) • Yoshiaki Fujitsuka •

Toru Kirinashizawa • Hiroyuki Kojima • Yoshikazu Yamaguchi

GO50-Sat-AM-6 Relationship of Predominant Periods of Existing Irrigation Dams between from Microtremor

Measurement Estimation Based on Surface Wave Exploration

Masaya Furukawa (Ehime University) • Shinichiro Mori