

# 5ICEGE

5th International Conference on Earthquake Geotechnical Engineering  
January 2011, 10-13 | Santiago, Chile



## TECHNICAL PROGRAM 5ICEGE

MONDAY		TUESDAY		WEDNESDAY		THURSDAY	
8:30	WELCOME OPENING CEREMONY	STATE-OF-THE ART 2 Geotechnical and Geophysical Site Characterization Oriented to Seismic Analysis		STATE-OF-THE ART 4 Cyclic Failure and Liquefaction: Current Issues		STATE-OF-THE ART 6 Seismic Design and Analysis of Buried Structures	
9:00	ISHIHARA LECTURE An Investigation Into Why Liquefaction Charts Work: A Necessary Step Toward Integrating the State of the Art and Practice	AN-BIN HUANG (Taiwan)		ROSS W. BOULANGER (U.S.A.)		GEORGE GAZETAS (Greece)	
9:30	RICARDO DOBRY (U.S.A.)	THEME LECTURE 3 K. H. STOKOE	THEME LECTURE 4 L. VALENZUELA	THEME LECTURE 7 M. CUBRINOVSKI	THEME LECTURE 8 R. VERDUGO	THEME LECTURE 9 A. EL GAMAL	THEME LECTURE 10 E. OYANDO-SHELLEY
10:00	SPECIAL SESSION 2010 CHILE AND NEW ZEALAND EARTHQUAKES	SESSION 3	SESSION 4	SESSION 7	SESSION 8	SESSION 9	SESSION 10
10:30	F. LEYTON J. BRAY C. LEDEZMA D. FROST	Soil Dynamics: Field and Laboratory Testing	Soil site Characterization and Dynamic Soil Modelling	Analytical and Numerical Methods	Soil Liquefaction and Liquefaction Countermeasures	Soil-Structure Interaction	Underground Structures
11:00	COFFEE BREAK						
11:30	SPECIAL SESSION 2010 CHILE AND NEW ZEALAND EARTHQUAKES	SESSION 3	SESSION 4	SESSION 7	SESSION 8	THEME LECTURE 11 J. KUWANO	THEME LECTURE 12 S. YASUDA
12:00	K. KONAGAI R. VERDUGO B. BRADLEY M. CUBRINOVSKI M. PENDER	Soil Dynamics: Field and Laboratory Testing	Soil site Characterization and Dynamic Soil Modelling	Analytical and Numerical Methods	Soil Liquefaction and Liquefaction Countermeasures	SESSION 11 Earth Retaining and Waterfront Structures	SESSION 12 Case Histories, Observation and Lessons from Recent and Past Earthquakes
12:30							
13:00							
13:30	LUNCH BREAK						
14:00							
14:30	THEME LECTURE 1 J. D. BRAY SESSION 1 Slopes, Embankments, Dams and Waste Fills	THEME LECTURE 2 P. ORTIGOSA SESSION 2 Shallow and Deep Foundations	THEME LECTURE 5 L. RESTrepo SESSION 5 Site Effects and Microzonation	THEME LECTURE 6 K. PITILAKIS SESSION 6 Seismic Hazard and Strong Ground Motion	WORKSHOP 1 Tailings Dams L. FINN T. ELDRIDGE J. TRONCOSO L. VALENZUELA	WORKSHOP 2 Liquefaction T. KOKUSHO K. ISHIHARA M. JEFFERIES L. GONZALEZ	WORKSHOP 3 Performance Design A. ANSAL M. PENDER J. STEWART M. MAUGERI C. LEDEZMA
15:00	STATE-OF-THE ART 7 Static and Seismic Analysis of Solid Waste Landfills PEDRO SECO (Portugal)						
15:30	CONCLUDING SESSION						
16:00	CLOSURE CEREMONY						
16:30	COFFEE BREAK						
17:00	STATE-OF-THE ART 1 2.1. Earthquake Induced Slope Failures: Recent Events and Consequences IKUO TOWHATA (Japan)	STATE-OF-THE ART 3 Site Effects Due to Topography and to Soft Soil Layers: Progress Made and Pending Issues. A Personal Perspective F. CHAVEZ-GARCIA (Mexico)		STATE-OF-THE ART 5 Performance-Based Earthquake Design in Geotechnical Engineering Practice STEVEN L. KRAMER (U.S.A.)			
17:30							
18:00							

### THEME LECTURE:

- 1.- Pseudostatic Slope Stability Procedure
- 2.- Seismic Settlements and Permanent Tilting in Shallow Foundations
- 3.- Shear Wave Velocity of Solid Waste Materials
- 4.- Seismic Considerations in the Design of High Waste Rock Dumps
- 5.- Seismic Microzoning of the Aburrá Valley - A Methodology Proposal
- 6.- Seismic Risk Assessment and Management of Lifelines, Utilities and Infrastructures
- 7.- Seismic Effective Stress Analysis: Modelling and Application
- 8.- Seismic Stability Analysis of Large Tailings Dams
- 9.- Large Scale Experimental and Numerical Dynamic Earth Pressure Investigation
- 10.- Countermeasures Against Seismic Threats
- 11.- Evaluation of Seismic Stability of Reinforced Soil Wall
- 12.- Lessons Learned from Most Recent Large Earthquakes

### SPECIAL SESSION:

- 1.- Seismological Aspect of the Chilean Earthquake, Felipe Leyton (Chile)
- 2.- Liquefaction and Its Effects on Buildings, Jonathan Bray (U.S.A.)
- 3.- Liquefaction and Its Effects on Bridges, Christian Ledezma (Chile)
- 4.- Satellite, Airborne and Ground Based Imaging of Damage, David Frost (U.S.A.)
- 5.- Overview of Geotechnical Damages of Maule Earthquake, Kazuo Konagai (Japan)
- 6.- Seismic Performance of Slopes and Earth and Tailings Dams, Ramon Verdugo (Chile)
- 7.- Seismological Aspects and Ground Motion Characteristics, Brendon Bradley (New Zealand)
- 8.- Ground Damage and Effects on Lifelines, Misko Cubrinovski (New Zealand)
- 9.- Impacts on Residential Houses and Buildings, Michael Pender (New Zealand)

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<b>MONDAY</b>			
08:30 -	<b>WELCOME OPENING CEREMONY</b>		
09:00 -	<b>ISHIHARA LECTURE</b>		
10:00	An Investigation Into Why Liquefaction Charts Work: A Necessary Step Toward Integrating the State of the Art and Practice RICARDO DOBRY (U.S.A.)		
10:00 -	<b>SPECIAL SESSION</b>		
11:20	2010 CHILE AND NEW ZEALAND EARTHQUAKES		
	1.- Seismological Aspect of the Chilean Earthquake FELIPE LEYTON (Chile)		
	2.- Liquefaction and Its Effects on Buildings JONATHAN BRAY (U.S.A.)		
	3.- Liquefaction and Its Effects on Bridges CHRISTIAN LEDEZMA (Chile)		
	4.- Satellite, Airborne and Ground Based Imaging of Damage DAVID FROST (U.S.A.)		
10'	<i>Coffee Break</i>		
	5.- Overview of Geotechnical Damages of Maule Earthquake KAZUO KONAGAI (Japan)		
	6.- Seismic Performance of Slopes, Earth and Tailings Dams RAMON VERDUGO (Chile)		
	7.- Seismological Aspects and Ground Motion Characteristics BRENDON BRADLEY (New Zealand)		
	8.- Ground Damage and Effects on Lifelines MISKÓ CUBRINOVSKI (New Zealand)		
	9.- Impacts on Residential Houses and Buildings MICHAEL PENDER (New Zealand)		
60'	<i>Lunch Break</i>		
14:30 -	<b>THEME LECTURE 1</b>	<b>THEME LECTURE 2</b>	
14:50	Pseudostatic Slope Stability Procedure JONATHAN D. BRAY (U.S.A.)	Seismic Settlements and Permanent Tilting in Shallow Foundations PEDRO ORTIGOSA (Chile)	
	<i>Oral Presentations</i>		
	<b>SESSION 1</b>		<b>SESSION 2</b>
	Slopes, Embankments, Dams and Waste Fills		Shallow and Deep Foundations
	Authors	Title	Title
	E. KAVAZANJIAN JR., M. G. ARAB , N. MATASOVIĆ	SEISMIC ANALYSIS OF HEAP LEACH PAD LINER SYSTEMS	A. S. HOKMABADI, A. FAKHER, B. FATAHI
	R. KOURKOULIS, F. GELAGOTI, I. ANASTASOPOULOS, G. GAZETAS	STABILIZATION OF SEISMICALLY UNSTABLE SLOPES USING PILES: PARAMETRIC ANALYSIS	SEISMIC STRAIN WEDGE MODEL TO ANALYZE SINGLE PILES UNDER LATERAL SEISMIC LOADING
	J. MACEDO, Z. AGUILAR	CALIBRATION OF A DYNAMIC MODEL FOR YURACMAYO EARTH DAM	C.-H. CHEN, T.-S. UENG
	J. KNAPPETT, J. SLATTERY, S. WILSON	MINIMISING THE KINEMATIC LOADING DEMAND ON BRIDGE PIERS FROM LATERALLY SPREADING CRUSTAL LAYERS	F. MARCHI, A. M. KAYNIA, G. GOTTARDI, F. NADIM
	M. STRINGER, G. MADABHUSHI	EFFECT OF EMBEDMENT DEPTH WITHIN BEARING LAYER ON LOAD CARRYING CHARACTERISTICS OF PILES	G. SANZONE, E. AUSILIO, A. COSTANZO, G. TROPEANO
	S. GIANNAKOS, N. GEROLYMOS, G. GAZETAS	ON THE LATERAL RESPONSE OF PILES: NUMERICAL ANALYSIS AGAINST CENTRIFUGE EXPERIMENTS	H. R. POUR, Y. JAFARIAN, M. H. BAZAR
	J. HASKELL, G. MADABHUSHI, M. CUBRINOVSKI	EVALUATING STATE-OF-THE PRACTICE PROCEDURES FOR PREDICTING THE SEISMIC PERMANENT DISPLACEMENTS OF SLOPES BY THE AVAILABLE CASE HISTORIES	EFFECT OF PILE SPACING ON THE BEHAVIOUR OF A PILE GROUP IN LATERALLY SPREADING SOIL
14:50 -	H. G. BRANDES	SEISMIC ANALYSIS OF A VOLCANIC EARTH DAM ON MAUI, HAWAII	P. GHOSH, F. SANTUCCI DE MAGISTRIS, G. FABBROCINO
16:50	R. DI LAORA, A. MANDOLINI, G. MYLONAKIS	DEVELOPMENT OF A METHODOLOGY FOR ESTIMATING SIMPLIFIED SEISMIC SLOPE DEFORMATION OF LEVEES WITH SEEPAGE CONTROL MEASURES	SEISMIC RESPONSE OF PIER FOUNDATIONS OF AN EXISTING ROADWAY BRIDGE
	J. LIAO, Z. ZAFIR, S. ANDERSON	KINEMATIC BENDING MOMENTS AT PILE HEAD IN LAYERED SOIL	

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J. LIAO, C. HALL, S. ANDERSON	SEISMIC VULNERABILITY EVALUATION OF AN EARTHEN EMBANKMENT – A CASE STUDY	J.-S. CHIOU, Y.-C. TSAI, C.-H. CHEN	DISPLACEMENT DUCTILITY CAPACITY OF FIXED-HEAD PILES IN COHESIVE SOILS
L. OLDECOP, G. RODARI, J. MUÑOZ, F. ZABALA	THE INFLUENCE OF WATER CONTENT IN THE SEISMIC BEHAVIOUR OF TAILINGS DRY STACKS	K. TOMISAWA, S. MIURA	EXPERIMENTAL AND NUMERICAL VERIFICATION OF SEISMIC PERFORMANCE OF PILE FOUNDATION IN COMPOSITE GROUND
R. UZUOKA, T. ICHIYAMA, T. MORI, M. KAZAMA, N. SENTO, T. UCHINO	GEOTECHNICAL PROPERTIES OF LANDSLIDE DAMS INDUCED BY THE IWATE-MIYAGI NAIRIKI EARTHQUAKE IN 2008	P. TASIPOPOULOU, N. GEROLYMOS, G. GAZETAS	PILES IN LATERAL SPREADING: A SIMPLE METHOD VERSUS CENTRIFUGE EXPERIMENTS
R. AZZAM, T. M. FERNANDEZ-STEELER, C. ARNHARDT, H. KLAPPERICH, K.-J. SHOU	MONITORING OF LANDSLIDES AND INFRASTRUCTURES WITH WIRELESS SENSOR NETWORKS IN AN EARTHQUAKE ENVIRONMENT	S. TAMURA, K. ADACHI, K. TOKIMATSU	VERTICAL ACCELERATION CAUSED BY FOUNDATION UPLIFT DURING STRONG EARTHQUAKE
V. ZANIA, Y. TSOMPANAKIS, N. PSARROPOULOS	SEISMIC DISTRESS AND PROTECTION OF FLEXIBLE MEMBRANE LINERS OF SOLID WASTE LANDFILLS	-	-
D. ZEKOS, C. CARLSON	SCALING VS. MODIFICATION OF GROUND MOTIONS AND IMPACT ON SEISMIC ANALYSES OF A MSW LANDFILL	-	-
V. BANDINI, G. BIONDI, E. CASCOE	SEISMIC DISPLACEMENT ANALYSIS OF SLOPES: COMPARISON BETWEEN A MULTI-BLOCK MODEL AND SHAKING TABLE TESTS	-	-
Coffee Break			
<b>STATE-OF-THE-ART 1</b>			
Earthquake-Induced Slope Failures: Recent Events and Consequences IKUO TOWHATA (Japan)			

<b>TUESDAY</b>			
<b>STATE-OF-THE-ART 2</b>			
Geotechnical and Geophysical Site Characterization Oriented to Seismic Analysis AN-BIN HUANG (Taiwan)			
<b>THEME LECTURE 3</b>		<b>THEME LECTURE 4</b>	
Shear Wave Velocity of Solid Waste Materials KENNETH H. STOKOE (U.S.A.)		Seismic Considerations in the Design of High Waste Rock Dumps LUIS VALENZUELA (Chile)	
Oral Presentations			
<b>SESSION 3</b>		<b>SESSION 4</b>	
Soil Dynamics: Field and Laboratory Testing		Soil Site Characterization and Dynamic Soil Modelling	
Authors	Title	Authors	Title
C. MEDINA, R. DOBRY, M. ZEGHAL, S. THEYANAYAGAM, T. ABDOUN, A. ELGAMAL, U. EL SHAMY, V. BENNETT	MONITORING LARGE-SCALE SHAKING TABLE TEST USING VIDEO RECORDING AND MOTION TRACKING ANALYSIS	B. A. BRADLEY	VALIDATION OF SEISMIC RESPONSE ANALYSES USING SEISMOMETER ARRAYS
D.-K. FENG, J.-M. ZHANG, W.-J. HOU	3D CYCLIC BEHAVIOR OF GRAVEL-STRUCTURE INTERFACE UNDER CONSTANT NORMAL STIFFNESS CONDITION	C.-C. TSAI, L. H. MEJIA	A SIMPLIFIED PROCEDURE TO ESTIMATE STRENGTH SOFTENING IN SATURATED CLAYS DURING EARTHQUAKES
F. DEZI, F. GARA, D. ROIA	FIELD TESTS AND NUMERICAL ANALYSIS OF PILES UNDER LATERAL IMPACT LOADING	F. DE MARTIN	COMPARISON OF FREQUENCY AND TIME-DOMAIN OBJECTIVE FUNCTIONS FOR BOREHOLE STATIONS INVERSE PROBLEMS
G. GRELE, F. M. GUADAGNO, P. REVELLINO	IMPULSIVE SHEAR STRENGTH OF DE-STRUCTURATED ITALIAN CLAYS	E. M. RATHJÉ, A. R. KOTTKE	RELATIVE DIFFERENCES BETWEEN EQUIVALENT LINEAR AND NONLINEAR SITE RESPONSE METHODS
H. HAZARIKA, N. IGARASHI, Y. YAMADA	BEHAVIOR OF GRANULAR AND COMPRESSIBLE GEOMATERIAL UNDER CYCLIC LOADING	E. BILOTTA, L. EVANGELISTA, L. LANDOLFI, F. SILVESTRI	SITE RESPONSE ANALYSIS FOR MICROZONATION: A COMPARISON OF DIFFERENT NUMERICAL APPROACHES AND AMPLIFICATION FACTORS
J. UBILLA, T. ABDOUN, R. DOBRY	CENTRIFUGE SCALING ANALYSIS OF PILE RESPONSE TO LATERAL SPREADING MODELS	F. GELAGOTI, R. KOURKOULIS, I. ANASTASOPOULOS, G. GAZETAS	EFFECT OF SOIL NON-LINEARITY ON THE SEISMIC RESPONSE OF A VERY SOFT ALLUVIAL VALLEY



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	J. M. CARVALHO, S. RIOS, A. VIANA DA FONSECA	ELASTIC STIFFNESS PARAMETERS OF SOIL-CEMENT MIXTURES FROM LABORATORY COMPRESSION AND SHEAR WAVE VELOCITY MEASUREMENTS	M. P. SANTISI D'AVILA, L. LENTI, J. F. SEMBLAT, A. GANDOMZADEH, S. MARTINO, F. BONILLA	STRONG SEISMIC MOTIONS ESTIMATED FROM A ONE DIRECTION-THREE COMPONENTS (1D-3C) APPROACH, APPLICATION TO THE CITY OF ROME, ITALY
	J. CAMPAÑA, E. BARD	CYCLIC BEHAVIOR OF TAILINGS SANDS UNDER HIGH PRESSURES	R. TRIPE, S. KONTOE	A NUMERICAL INVESTIGATION INTO THE INTERACTION BETWEEN TOPOGRAPHIC AMPLIFICATION AND SOIL LAYER AMPLIFICATION OF EARTHQUAKE MOTION
	S. YASUDA, S. YOKOTA, M. WATANABE	EFFECT OF COMPACTION ON THE DYNAMIC PROPERTIES OF EMBANKMENT SOILS	L. EVANGELISTA, S. FABBROCINO, G. LANZANO, F. TODISCO, F. SANTUCCI DE MAGISTRIS, G. FABBROCINO	INTEGRATED GEOTECHNICAL CHARACTERIZATION OF DISTRIBUTED SITES IN THE MOLISE REGION (ITALY) FOR SEISMIC VULNERABILITY ANALYSIS
	O. GARCIA, M. DUQUE, B. CAICEDO	DESIGN AND SIMULATION OF A CONTROL SYSTEM OF A SHAKING TABLE FOR SOIL MODELS IN CENTRIFUGAL FORCES	L. EVANGELISTA, F. SANTUCCI DE MAGISTRIS	INTERPRETATION OF SURFACE WAVE METHODS IN 2D STRATIGRAPHIC CONDITION
10'	Coffee Break			
	L. P. SUWAL, R. KUWANO	USING DISK SHAPED PIEZO-ELECTRIC TRANSDUCER	P. FORAY, P. GUEGEN, M. LANGLAIS, H. SANTRUCKOVA, C. ROUSSEAU, J.-M. BARNOUD, J.-B. TONI	INSTRUMENTATION OF A SANDY/MANGROVE SITE FOR PREDICTION OF SEISMIC LIQUEFACTION
	A. ANASTASIADIS, K. PITLAKIS, K. SENETAKIS, A. SOULI	DYNAMIC RESPONSE OF SANDY AND GRAVELLY SOILS: EFFECT OF GRAIN SIZE CHARACTERISTICS ON G-y-D CURVES	X. ZHANG, P. GOTTELAND, P. FORAY, S. GRANGE, H. SANTRUCKOWA, S. LAMBERT	SEISMIC PERFORMANCE OF MIXED MODULE COLUMNS; PHYSICAL AND NUMERICAL MODELLING OF INERTIAL INTERACTION
	K. SENETAKIS, A. ANASTASIADIS, K. PITLAKIS	EXPERIMENTAL INVESTIGATION OF THE DYNAMIC PROPERTIES OF GRANULAR SOIL/RUBBER MIXTURES USING A RESONANT COLUMN DEVICE	K. TOKIMATSU, K. KATSUMATA, H. ARAI	SIMULATIONS OF STRONG GROUND MOTIONS AT KASHIWAZAKI CITY DURING THE 2007 NIGATA-KEN CHUETSU-OKI EARTHQUAKE
	C. STAMATOPOULOS	THE LIQUEFACTION STRENGTH OF SILTY SANDS IN TERMS OF THE STATE PARAMETER	M. PILZ, S. PAROLAI, M. STUPAZZINI, R. PAOLUCCI, J. ZSCHAU	SHEAR-WAVE VELOCITY MODEL OF THE SANTIAGO DE CHILE BASIN DERIVED FROM AMBIENT NOISE MEASUREMENTS FOR 3D SIMULATIONS OF GROUND MOTION
	T. WICHTMANN, M. NAVARETTE, R. MARTINEZ, F. DURAN, T. RIANFAYLLIDIS	ESTIMATION OF THE SMALL-STRAIN STIFFNESS OF GRANULAR SOILS TAKING INTO ACCOUNT THE GRAIN SIZE DISTRIBUTION CURVE	R. SINGH, A. MITTAL, D. ROY	RESIDUAL SHEAR STRENGTH OF NON PLASTIC SOILS FROM ENERGY APPROACH
	Y. TANAKA, K. KATO, H. NAKASE	THE ROLE OF FABRIC ANISOTROPY AND GRADATION ON THE LIQUEFACTION BEHAVIOR OF SAND	R. A. GREEN, J. LEE, W. CAMERON, A. ARENAS	EVALUATION OF VARIOUS DEFINITIONS OF CHARACTERISTIC PERIOD OF EARTHQUAKE GROUND MOTIONS
	Y. TSUKAMOTO, K. ISHIHARA, S. SAWADA, S. FUJIWARA	GROUP EFFECTS OF RIGID CIRCULAR FOUNDATIONS ON POST- LIQUEFACTION SETTLEMENT	S. A. BADSAR, M. SCHEVENELS, W. HAEGEMAN, G. DEGRANDE	DETERMINATION OF MATERIAL DAMPING IN THE SOIL BASED ON THE HALF-POWER BANDWIDTH METHOD AND SPATIAL DECAY OF THE ARIAS INTENSITY IN THE SASWTEST
11:30 - 13:30	Y. TSUKAMOTO, K. ISHIHARA	USE OF FIELD PENETRATION TESTS IN EVALUATING OCCURRENCE OF SOIL LIQUEFACTION AT RECLAIMED DEPOSITS DURING 2000 TOTTORI-KEN SEIBU EARTHQUAKE	S. FOTI, C. PIATTI, D. BOIERO, L. V. SOCCO	LATERALLY CONSTRAINED INVERSION OF SURFACE WAVE DATA FOR THE CHARACTERIZATION OF TARCENTO BASIN IN ITALY
	Z. YUAN, L. WANG, H. LIU, P. WANG	INFLUENCE OF GRADING ON SEISMIC SETTLEMENT OF LOESS	S. GHANAT, E. KAVAZANJIAN JR.	SITE-SPECIFIC RESPONSE ANALYSIS AT NON-STANDARD SITES
	H. SUZUKI, K. TOKIMATSU	FACTORS INFLUENCING SWAY-ROCKING MOTION OF PILESTRUCTURE MODELS DURING LARGE SHAKING TABLE TESTS	T. WICHTMANN, B. ROJAS, A. NIEMUNIS, T. RIANFAYLLIDIS	PREDICTION OF DRAINED AND UNDRAINED CYCLIC BEHAVIOUR OF A FINE SAND USING A HIGH-CYCLE ACCUMULATION MODEL
	-	-	T. NAMIKAWA, J. KOSEKI, L. I. N. DE SILVA	THREE-DIMENSIONAL MODELING OF STRESS-STRAIN RELATIONSHIP OF SAND SUBJECT TO LARGE CYCLIC LOADING
	-	-	K.-U. SCHENKENGEL, C. VRETTOS	MODELLING OF LIQUEFACTION-INDUCED LATERAL SPREADING USING THE LATTICE BOLTZMANN METHOD
	-	-	Q. LI, L. TANG, Z. YANG, X. LING	NUMERICAL SIMULATION OF PILE FOUNDATION PERFORMANCE IN LIQUEFIABLE SOILS WITH A FROZEN CRUST
	-	-	S. YASUDA, H. WATANABE, M. YOSHIDA	SEISMIC ZONING FOR GROUND MOTION IN TOKYO BASED ON NATION-WIDE ELECTRIC GEOTECHNICAL DATABASE SYSTEM
60'	Lunch Break			

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14:30 - 14:50	<b>THEME LECTURE 5</b> Seismic Microzoning of the Aburrá Valley - A Methodology Proposal LUIS RESTREPO (Colombia)	<b>THEME LECTURE 6</b> Seismic Risk Assessment and Management of Lifelines, Utilities and Infrastructures KYRIAZIS PITILAKIS (Greece)	
Oral Presentations			
<b>SESSION 5</b> Site Effects and Microzonation		<b>SESSION 6</b> Seismic Hazard and Strong Ground Motion	
Authors	Title	Authors	Title
A. PAPANITRIOU	TOPOGRAPHIC AGGRAVATION OF THE PEAK SEISMIC ACCELERATION NEAR TWO DIMENSIONAL HILLS AND SLOPES	A. LAR, O. LAVAN	DISAGGREGATION BASED REGIONAL MAPS FOR LIQUEFACTION ANALYSIS
A. NAZARI, M. H. BAZAR, H. SHAHNAZARI	NUMERICAL EVALUATION OF SEISMIC BEHAVIOR OF NEIGHBORING TOPOGRAPHY ON GROUND MOTION RESPONSE	B. OZTURK	APPLICATION OF PRELIMINARY MICROZONATION AND SEISMIC VULNERABILITY ASSESSMENT IN A CITY OF MEDIUM SEISMIC RISK IN TURKEY
L. LANDOLFI, M. CACCAVALE, A. D'ONOFRIO, F. SILVESTRI, G. TROPEANO	PRELIMINARY ASSESSMENT OF SITE STRATIGRAPHIC AMPLIFICATION FOR SHAKEMAP PROCESSING	B. KIM, Y. M.A. HASHASH, S. M. OLSON, I. AHMAD	PROBABILISTIC SEISMIC HAZARD ANALYSIS FOR ISLAMABAD AND PESHAWAR IN PAKISTAN USING DISCRETE FAULTS
M. CHIARINI, A. D'ONOFRIO, L. EVANGELISTA, A. PENNA, F. SILVESTRI	THE ROLE OF SITE EFFECTS AND NEAR-SOURCE SEISMIC ACTIONS ON GROUND AND BUILDINGS RESPONSE AT SOME SITES ACROSS THE ATERNO RIVER VALLEY (ITALY)	K. G. KAKDERI, K. D. PITILAKIS	SEISMIC PERFORMANCE AND RELIABILITY OF PORT FACILITIES – THE CASE OF THESSALONIKI (GREECE)
F. LEYTON, S. RUIZ	COMPARISON OF THE BEHAVIOR OF SITE FROM STRONG MOTION DATA OF 1985 CENTRAL CHILE EARTHQUAKE (MS=7.8) AND MICROTREMORS MEASUREMENTS	K. ANDISHEH, G. G. AMIRI	UNIFORM SEISMIC HAZARD SPECTRA OF MARIVAN, IRAN
F. LEYTON, S. A. SEPULVEDA, M. ASTROZA, S. REBOLLEDO, P. ACEVEDO, S. RUIZ, L. GONZALEZ, C. FONCEA	SEISMIC ZONATION OF THE SANTIAGO BASIN, CHILE	M. MAHOOD, H. HAMZEHLOO	EMPIRICAL-STOCHASTIC SPECTRAL ATTENUATION OF STRONG GROUND MOTION IN EAST-CENTRAL IRAQ
F. DIAZ-PARRA	SITE RESPONSE AND DYNAMIC PROPERTIES MEASURED BY THE ACCELEROMETER NETWORK OF BOGOTÁ	M. MONROY, A. HULL, M. MARTINEZ, A. BOLANOS	ESTIMATION OF PARAMETERS FOR SEISMIC DESIGN IN PERU
F. PERGALANI, M. COMPAGNONI, P. BONCIO	EVALUATION OF SITE EFFECTS AFTER THE 2009 ABRUZZO EARTHQUAKE USING NUMERICAL AND EXPERIMENTAL ANALYSES FOR THE RECONSTRUCTION PLANNING	R. CARRILHO GOMES, J. SANTOS	INFLUENCE OF USING RECORDS AND ARTIFICIAL TIME-HISTORIES ON GROUND SEISMIC RESPONSE
S. KATAOKA	SITE EFFECT IN OHSAKI PLAIN, MIYAGI PREFECTURE, JAPAN DURING THE 2008 IWATE-MIYAGI NAIRIKU EARTHQUAKE	T. TOBITA, S. IAI, T. IWATA, S. AOI, K. HADA	SITE RESPONSE STUDIES ON EXTREME VERTICAL GROUND MOTIONS BEYOND 1G
M. SCHMITZ, J. J. HERNANDEZ, THE CARACAS SEISMIC MICROZONING PROJECTWORKING GROUP.	PRINCIPAL RESULTS AND BASIC METHODOLOGY OF THE CARACAS, VENEZUELA, SEISMIC MICROZONING PROJECT	T. LIN, J. BAKER	PROBABILISTIC SEISMIC HAZARD DEAGGREGATION OF GROUND MOTION PREDICTION MODELS
E. AMARIS, M. SCHMITZ, V. MURPHY	MAP OF SEDIMENT THICKNESS AS PRIMARY INPUT FOR THE CARACAS SEISMIC MICROZONING PROJECT	S. RUIZ, G. R. SARAGONI	OBSERVED SOIL EFFECT IN TWO PEAKS RESPONSE SPECTRA OF 2010 CHILE SUBDUCTION MEGA-EARTHQUAKE
J. REGNIER, F. BONILLA, A.-M. DUVAL, J. F. SEMBLAT, E. BERTRAND	REVISITING VS30 AS A PROXY PARAMETER FOR SITE EFFECTS: A CASE STUDY USING KIKNET DATA	M. A. SAKR, K. A. EL-SAYED, E. A. AWAD	NATIONAL SEISMIC NETWORK AND EARTHQUAKE ACTIVITIES IN EGYPT
S. ALTUN, T. ESKIŞAR, M. KURUOĞLU, D. ERDOĞAN, G. ÖZDEN	A MULTISTAGE MICROZONATION STUDY OF THE NORTHERN BAY AREA OF IZMIR	-	-
M. E. RAHHAL, M. ANTABLI	THE ROLE OF GEOTECHNICAL PARAMETERS IN SEISMIC SOIL RESPONSE ANALYSIS	-	-
O.-J. KTENIDOU, F. J. CHAVEZ-GARCA, D. RAPTAKIS, K. PITILAKIS	NUMERICAL INVESTIGATION OF SITE EFFECTS AT AEGION, GREECE	-	-
10' Coffee Break			
<b>STATE-OF-THE-ART 3</b>			
17:00 - 18:00	Site Effects Due to Topography and to Soft Soil Layers: Progress Made and Pending Issues. A Personal Perspective F. CHAVEZ-GARCIA (México)		



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<b>WEDNESDAY</b>			
08:30 - 09:20	<b>STATE-OF-THE-ART 4</b> Cyclic Failure and Liquefaction: Current Issues ROSS W. BOULANGER (U.S.A.)		
09:20 - 09:40	<b>THEME LECTURE 7</b> Seismic Effective Stress Analysis: Modelling and Application MISKO CUBRINOVSKI (N.Z.)	<b>THEME LECTURE 8</b> Seismic Stability Analysis of Large Tailings Dams RAMON VERDUGO (Chile)	
Oral Presentations			
<b>SESSION 7</b> Analytical and Numerical Methods		<b>SESSION 8</b> Soil Liquefaction and Liquefaction Countermeasures	
Authors	Title	Authors	Title
D. BARRETO	EXPLORING THE EFFECTS OF STRESS HISTORY ON THE DRAINED AND UNDRAINED CYCLIC BEHAVIOUR OF GRANULAR MATERIALS	A. VIANA DA FONSECA, J. ROCHA, G. TAHAR	LIQUEFACTION ASSESSMENT CHARTS BASED ON STATE AND WAVES' VELOCITIES FROM STATIC AND CYCLIC TRIAXIAL TESTS ON "LES DUNES" SANDS FROM ALGIERS
A. AMOROSI, G. ELIA, D. BOLDINI, F. SCHIAVONE	SEISMIC GROUND RESPONSE ANALYSIS: COMPARISON BETWEEN NUMERICAL SIMULATIONS AND OBSERVED ARRAY DATA	A. VYTIKOTIS, A. J. WHITTLE, E. KAUSEL	EFFECTS OF SEISMIC MOTION CHARACTERISTICS ON CYCLIC MOBILITY AND LIQUEFACTION
E. VOYAGAKI, G. MYLONAKIS, I. N. PSYCHARIS	A TRANSLATIONAL THEOREM FOR YIELDING SYSTEMS	A. ERKEN, R. ÖZAY, A. ŞENER, M. TORABI	THE CYCLIC AND POST CYCLIC MONOTONIC STRENGTH OF CLAYS IN EARTHQUAKE REGION
G. TROPEANO, E. AUSILIO, A. COSTANZO	NON-LINEAR COUPLED APPROACH FOR THE EVALUATION OF SEISMIC SLOPE DISPLACEMENTS	D. PORCINO, V. MARCIANO	CYCLIC SHEAR STRENGTH OF A VOLCANIC SANDY SILT SUSCEPTIBLE TO FLOWSLIDE
I. JELDES, E. DRUMM	PRELIMINARY STATIC AND SEISMIC STABILITY OF STEEP SLOPES IN RECLAIMED MINE LANDS CONSTRUCTED WITH LOW COMPACTION IN APPALACHIA, USA.	E. A. SANDOVAL, M. A. PANDO, C. G. OLGUN	LIQUEFACTION SUSCEPTIBILITY OF A CALCAREOUS SAND FROM SOUTHWEST PUERTO RICO
G. ABATE, M. R. MASSIMINO, M. MAUGERI	SETTLEMENTS OF SAND CAUSED BY VERTICAL VIBRATIONS: EXPERIMENTAL VERSUS NUMERICAL RESULTS	A. GIANNAKOU, T. TRAVASAROU, J. UGALDE, J. CHACKO, P. BYRNE	CALIBRATION METHODOLOGY FOR LIQUEFACTION PROBLEMS CONSIDERING LEVEL AND SLOPING GROUND CONDITIONS
M. POBLETE, T. WICHTMANN, A. NIEMUNIS, T. TRIANTAFYLIDIS	ACCUMULATION OF RESIDUAL DEFORMATIONS DUE TO CYCLIC LOADING WITH MULTIDIMENSIONAL STRAIN LOOPS	P. A. L. F. COELHO, M. I. A. B. A. CUNHA, L. N. L. SANTOS	LABORATORY CHARACTERIZATION OF THE BEHAVIOUR OF LIQUEFIABLE COIMBRA SAND
G. A. CUNDARI, G. MILANI, G. FAILLA, F. NUCERA, A. SANTINI	PUSHOVER ANALYSIS OF AN ANCIENT MASONRY OIL-MILL IN THE SOUTHERN ITALY: A MESO-MACRO SCALE MODEL	M. E. RAHHAL, D. ZAKHEM	COMPARING THE LIQUEFACTION POTENTIAL EVALUATION METHODS FOR SOILS
G. LANZANO, A. DI CARLUCCIO, F. SANTUCCI DE MAGISTRIS, G. FABBROCINO	NUMERICAL ANALYSIS OF THE SEISMIC RESPONSE OF UNDERGROUND STEEL STORAGE TANKS	W. F. LEE, K. ISHARA, C. H. CHEN, B. L. CHU	LIQUEFACTION INDUCED GROUND FAILURES CAUSED BY STRONG GROUND MOTION
J. MEDINA	SEISMIC SOIL-STRUCTURE INTERACTION IN PILES AND PIERS: CASE IV	L. EVANGELISTA, F. SANTUCCI DE MAGISTRIS	UPGRADING THE SIMPLIFIED ASSESSMENT OF THE LIQUEFACTION SUSCEPTIBILITY FOR THE CITY OF NAPLES, ITALY
10'	Coffee Break		
L. R. FERNANDEZ, J. AVILES, D. MURIA	KINEMATIC AND INERTIAL SEISMIC ACTIONS ON PILES USING A FINITE LAYER METHOD	G. CHIARO, T. SATO, T. KIYOTA, J. KOSEKI	EFFECT OF INITIAL STATIC SHEAR STRESS ON THE UNDRAINED CYCLIC BEHAVIOR OF SATURATED SAND BY TORSIONAL SHEAR LOADING
M. SCHEVENELS, G. DEGRANDE, G. LOMBAERT	A BAYESIAN APPROACH TO THE DETERMINATION OF THE FK SPECTRUM IN SASWTESTS	G. CORRAL, R. VERDUGO	EFFECT OF THE INITIAL STATIC SHEAR STRESS ON THE CYCLIC RESISTANCE OF SANDS
M. SCHEVENELS, G. DEGRANDE	FREQUENCY DOMAIN ANALYSIS OF SITE AMPLIFICATION IN LOW SEISMICITY REGIONS	H. ISHII, K. HIGAKI, K. HORIKOSHI	NEW LIQUEFACTION COUNTERMEASURE METHOD USING HDD FOR GROUND BENEATH EXISTING STRUCTURES
N. DENG, F. OSTATAN	PROBABILISTIC SEISMIC SITE RESPONSE ANALYSIS	M. LOLI, I. ANASTASOPOULOS, F. M. BRANSBY, G. GAZETAS	NORMAL AND REVERSE FAULT RUPTURE INTERACTION WITH CAISSON FOUNDATIONS: CENTRIFUGE MODELLING AND NUMERICAL SIMULATION
R. CAIRO, A. CHIDICHIMO	NONLINEAR ANALYSIS FOR PILE KINEMATIC RESPONSE	T. OOMMEN, E. THOMPSON, H. TANAKA, L. G. BAISE, Y. TANAKA, R. E. KAYEN	SPATIAL EXTENT OF LIQUEFACTION HAZARD USING DATA FROM THE 1995 HYOGO-KEN NANBU EARTHQUAKE IN KOBE, JAPAN

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11:30 - 13:30	C. SMERZINI, M. STUPAZZINI, R. PAOLUCCI	NUMERICAL SIMULATIONS OF SEISMIC RESPONSE AT GUBBIO BASIN, CENTRAL ITALY	M. H. BAZIAR, M. T. YAZDIAN, Y. JAFARIAN	ENERGY-BASED EVALUATION OF LIQUEFACTION POTENTIAL USING A NEURO-FUZZY SYSTEM
	C. NUTI, S. BIONDI, I. VANZI	DESIGN ACTIONS FOR CONTINUOUS DECK BRIDGES CONSIDERING NON SYNCHRONOUS EARTHQUAKE MOTION	R. L. MICHALOWSKI, S. S. NADUKURU	POST-LIQUEFACTION STATE OF SAND, STRESS CORROSION CRACKING, AND RELAXATION OF DEVIATORIC STRESS IN PREVIOUSLY LIQUEFIED SAND BED
	A. VALSAMIS, G. BOUCKOVALAS, Y. CHALOULOS	SIMPLIFIED DESIGN OF SINGLE PILES UNDER LIQUEFACTION INDUCED LATERAL SPREADING	R. M. POKHREL, J. KUWANO, S. TACHIBANA	LIQUEFACTION HAZARD ZONATION OF ALLUVIAL SOIL IN SAITAMA CITY, JAPAN
	V. CAPUTO, E. CASCONI, C. CILLO	SEISMIC BEARING CAPACITY FACTORS FOR SHALLOW FOUNDATIONS THROUGH DIFFERENT METHODS OF ANALYSIS	R. SAWADA, H. KOBAYASHI	THE COUNTERMEASURE AGAINST LIQUEFACTION OF SAND WITH CHEMICAL GROUTING FOR EXISTING FOUNDATION STRUCTURES
	S. TURKMEIN, K. OZAYDIN, M. BERILGEN, H. KILIC	NUMERICAL ANALYSIS OF CONCRETE FACED ROCKFILL DAMS DURING EARTHQUAKES	T. KIYOTA, T. SATO, J. KOSEKI	EFFECT OF CYCLIC SHEAR LOADING HISTORY ON LIQUEFACTION RESISTANCE OF IN-SITU SANDY SOILS IN LARGE STRAIN TORSIONAL SHEAR TESTS
	-	-	V. MOVAHED, H. SHARAFI, M. H. BAZIAR, H. SHAHNAZARI	AN EXPERIMENTAL INVESTIGATION ON THE EFFECTS OF NONPLASTIC FINES ON CYCLIC RESISTANCE OF SANDY SOILS
	-	-	G. BOUCKOVALAS, V. DIMITRIADI, Y. TSIAPAS, A. TSILOULOU	NUMERICAL SIMULATION OF DRAIN PERFORMANCE IN LIQUEFIABLE SOILS
-	-	L. WANG, Q. WANG, Z. YUAN, P. WANG, H. SUN, J. WANG	STUDY ON EVALUATION OF LOESS LIQUEFACTION FOR SEISMIC DESIGN	
60'	Lunch Break			
14:30 - 16:50	<b>WORKSHOP 1</b> Tailings Dams L. FINN T. ELDRIDGE J. TRONCOSO L. VALENZUELA		<b>WORKSHOP 2</b> Liquefaction T. KOKUSHO K. ISHIHARA M. JEFFERIES L. GONZALEZ	
			<b>WORKSHOP 3</b> Performance Design A. ANSAL M. PENDER J. STEWART M. MAUGERI C. LEDEZMA	
10'	Coffee Break			
17:00 - 18:00	<b>STATE-OF-THE-ART 5</b> Performance-Based Earthquake Design in Geotechnical Engineering Practice STEVEN L. KRAMER (U.S.A)			

THURSDAY			
08:30 - 09:20	<b>STATE-OF-THE-ART 6</b> Seismic Design and Analysis of Buried Structures GEORGE GAZETAS (Greece)		
	<b>THEME LECTURE 9</b> Large Scale Experimental and Numerical Dynamic Earth Pressure Investigation AHMED ELGAMAL (U.S.A.)		<b>THEME LECTURE 10</b> Countermeasures Against Seismic Threats EFFRAIN OVANDO-SHELLEY (Mexico)
Oral Presentations			
<b>SESSION 9</b> Soil-Structure Interaction		<b>SESSION 10</b> Underground Structures	
Authors	Title	Authors	Title
VARUN, D. ASSIMAKI	A NONLINEAR MACROELEMENT FOR DYNAMIC SOIL-STRUCTURE INTERACTION ANALYSES OF PILE FOUNDATIONS IN LIQUEFIABLE SOILS	A. AMOROSI, D. BOLDINI, G. ELIA	ANALYSIS OF TUNNEL BEHAVIOUR UNDER SEISMIC LOADS USING DIFFERENT NUMERICAL APPROACHES
J. KNAPPETT, E. STROPIOS, C. KAPONIS, Y. HAMZA	MODIFICATION OF GROUND AND STRUCTURAL RESPONSE DUE TO SEISMIC STRUCTURE-SOIL-STRUCTURE INTERACTION	M. ROJHANI, M. MORADI, A. GALANDARZADEH, S. TAKADA	CENTRIFUGE MODELING OF BURIED PIPELINES RESPONSE
J. E. LUCCO, O. OZCELIK, J. P. CONTE, L. H. MENDOZA	DYNAMIC INTERACTION BETWEEN THE FOUNDATION OF THE LARGE-SCALE NEES/UCSD SHAKE TABLE AND THE SURROUNDING SOIL	M. BAHREKAZEMI, S.-E. JOHANSSON, A. BODARE	GROUND VIBRATIONS FROM ROCK BLASTING

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09:40 - 11:20	M. ALITALESH, M. H. BAZIAR, H. SHAHNAZARI	THE EFFECTS OF DYNAMIC SOIL-STRUCTURE INTERACTION ON SEISMIC BEHAVIOR OF TWO DIMENTIONALL TOPOGRAPHIC FEATURES	S. S. NADUKURU, J. KIM, S. O'CONNOR, M. POUR-GHAZ, R. L. MICHALOWSKI, J. P. LYNCH, R. A. GREEN, A. S. BRADSHAW, W. J. WEISS	RESPONSE OF A BURIED CONCRETE PIPELINE TO GROUND RUPTURE: A FULL-SCALE EXPERIMENT AND SIMULATION
	M. SATO, K. TABATA, A. ABE	REPRODUCTION BY DYNAMIC CENTRIFUGE MODELING FOR E-DEFENSE LARGE-SCALE SOIL-STRUCTURE INTERACTION TESTS	S. C. CHIAN, S. P. G. MADABHUSHI	TUNNEL AND PIPELINE FLOATATION IN LIQUEFIED SOILS
	P. FORAY, C. TSUHA, M. SILVA, R. JARDINE, Z. YANG, S. RIMOY	SOIL-PILE INTERACTION ON AN INSTRUMENTED PILE UNDER CYCLIC AXIAL LOADS IN SAND	V. AVGERINOS, S. KONTOE	SEISMIC DESIGN OF CIRCULAR TUNNELS: NUMERICAL VALIDATION OF CLOSED FORMED SOLUTIONS
	R. PAOLUCCI, R. FIGINI, C. DI PRISCO, L. PETRINI, M. VECCHIOTTI	ACCOUNTING FOR NON-LINEAR DYNAMIC SOIL-STRUCTURE INTERACTION IN THE DISPLACEMENT BASED SEISMIC DESIGN	T. TRAVASAROU, W. CHEN, J. CHACKO	LIQUEFACTION-INDUCED UPLIFT OF BURIED STRUCTURES INSIGHTS FROM THE STUDY OF AN IMMERSED RAILWAY TUNNEL
	A. TOMBARI, F. DEZI, S. CARBONARI, G. LEONI	SITE EFFECTS AND SOIL-STRUCTURE INTERACTION ON AN ISOLATED HIGHWAY OVERCROSSING ON PILE FOUNDATIONS	S. A. SAVIDIS, W. SCHEPERS, E. NOMIKOS, G. PAPADAKOS	DESIGN OF A NATURAL GAS PIPELINE SUBJECT TO PERMANENT GROUND DEFORMATION AT NORMAL FAULTS: A PARAMETRIC STUDY ON NUMERICAL VS. SEMI-ANALYTICAL PROCEDURES
	S. FOTOPOULOU, K. PITLAKIS, C. ANAGNOSTOPOULOS	VULNERABILITY ASSESSMENT OF RC BUILDINGS DUE TO EARTHQUAKE INDUCED SLOW MOVING SLIDES	T. TANAKA, S. YASUDA, T. OHTSUKA, Y. KANEMARU	UPLIFT OF SEWAGE PIPES DURING THE 2007 NIIGATAKENCHUETSU-OKI EARTHQUAKE
	T. ELKHORAIBI, A. HASHEMI	INTEGRATED SOIL-STRUCTURE FRAGILITY ANALYSIS METHOD FOR NUCLEAR STRUCTURES	-	-
	V. DROSOS, N. GEROLYMOS, G. GAZETAS	SEISMIC RESPONSE OF BRIDGE PILE-COLUMNS	-	-
Y. ZHOU, H. YOSHIDA, H. SUZUKI, Y. NUKUI, K. TOKIMATSU	SIMULATION OF SOIL-PILE-STRUCTURE INTERACTION THROUGH MULTI-DIMENSIONAL SHAKING TABLE TESTS USING E-DEFENSE FACULTY	-	-	
A. ZAFERAKOS, N. GEROLYMOS, G. GAZETAS	THE ROLE OF SOIL AND INTERFACE NONLINEARITIES ON THE SEISMIC RESPONSE OF CAISSON SUPPORTED BRIDGE PIERS	-	-	
10'	Coffee Break			
11:30 - 11:50	<b>THEME LECTURE 11</b> Evaluation of Seismic Stability of Reinforced Soil Wall JIRO KUWANO (Japan)		<b>THEME LECTURE 12</b> Lessons Learned from Most Recent Large Earthquakes SUSUMU YASUDA (Japan)	
Oral Presentations				
<b>SESSION 11</b> Earth Retaining and Waterfront Structures			<b>SESSION 12</b> Case Histories, Observation and Lessons from Recent and Past Earthquakes	
Authors		Title	Authors	
Authors		Title	Title	
E. SAEZ, C. LEDEZMA		DYNAMIC PRESSURES ON PILE-SUPPORTED EXCAVATIONS IN SANTIAGO GRAVEL	D. ESCRIBANO, S. BHATTACHARYA	
E. GULER, D. ALEXIEW, E. BASBUG		DYNAMIC BEHAVIOR OF GEOGRID REINFORCED SEGMENTAL BLOCK WALLS UNDER EARTHQUAKE LOADS	F. VILLALOBOS	
A. DEY, G. LANZANO, C. RAINIERI, M. DI TULLIO, C. LAORENZA, F. SANTUCCI DE MAGISTRIS, G. FABBROCINO		A FULL SCALE INSTRUMENTED RETAINING WALL: INTERPRETATION OF THE MEASUREMENTS USING NUMERICAL TOOLS	F. VILLALOBOS, E. OVANDO, M. MENDOZA, P. OROSTEGUI	
P. KLOUKINAS, G. MYLONAKIS		RANKINE SOLUTION FOR SEISMIC EARTH PRESSURES ON L-SHAPED RETAINING WALLS	L. EVANGELISTA, A. D'ONOFRIO, F. SANTUCCI DE MAGISTRIS, F. SILVESTRI	
11:50 - 13:30	J. R. MARTIN, C. G. OLGUN		J. CAMPAÑA, L. VALENZUELA, E. BARD	
M. CORIGLIANO, C. G. LAI		SEISMIC RESPONSE OF GRAVITY WHARVES USING MODIFIED NEWMARK MODELLING WITH A DOUBLE-SUPPORT EXCITATION	M. GUTIERREZ, M. EDDY	



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	A. UPADHYAY, A. M. KRISHNA, K. D. SINGH	BEHAVIOR OF CANTILEVER RETAINING WALLS UNDER SEISMIC CONDITIONS	M. KAZAMA, R. UZUJOKA, T. MORI	EARTHQUAKE INDUCED DEBRIS FLOW AND LANDSLIDE IN THE IWATE-MIYAGI NAIRIKU EARTHQUAKE IN 2008, JAPAN
	M. TAYLOR, I. FELTHAM, Z. LUBKOWSKI, R. MAY	SEISMIC ANALYSIS OF A LARGE GRAVITY QUAY WALL OF COMPLEX GEOMETRY USING A SIMPLIFIED APPROACH	T. REDFIELD, R. HERMANN, T. OPPIKOFER, P. DUHART, M. MELLA, P. DERCH, I. BASCUÑAN, M. ARENAS, J. FERNANDEZ, S. SEPULVEDA, S. REBOLLEDO, S. LOEVI, F. YUGSIMOLINA, A. ABÄCHERLI, H. C. HENDERSON, M. JABOYEDOFF, V. KVELDŠEK	ANALYSIS OF THE 2007 EARTHQUAKE-INDUCED PUNTA COLA ROCKSLIDE AND TSUNAMI, AYSÉN FJORD, PATAGONIA, CHILE (45.3° S, 73.0°W)
	A. EVANGELISTA, A. SCOTTO DI SANTOLO	EVALUATION OF SEISMIC DISPLACEMENTS OF CANTILEVER RETAINING WALLS	M. R. TAHA, S. A. P. ROSYIDI, T. A. JAMALUDDIN	LESSONS LEARNED FROM BUILDING DAMAGE CAUSED BY PADANG EARTHQUAKE, SEPTEMBER 30, 2009
	-	-	P. KOUNTOUZIS, C. STAMATOPOULOS, G. MILONAKIS	EVALUATION OF THE SEISMIC MOTION, OF THE LIQUEFACTION SUSCEPTIBILITY AND THEIR CONSEQUENCES IN VALIMITIKA, GREECE, AS A RESULT OF THE AEGION EARTHQUAKE OF 1995
60'	Lunch Break			
14:30 - 15:20	<b>STATE-OF-THE-ART 7</b> Static and Seismic Analysis of Solid Waste Landfills PEDRO SECO (Portugal)			
15:20 - 16:20	<b>CONCLUDING SESSION</b>			
16:20 - 16:50	<b>CLOSURE CEREMONY</b>			