

# XVI<sup>th</sup> French-Polish Colloquium of Soil and Rock Mechanics

LMGC, Montpellier, 8-10 July 2013

## FINAL PROGRAM

Monday, 8 July 2013		
08:00-08:40	Registration	
08:40-09:00	Opening ceremony	
09:00-09:45	<b>Z. Mróz, R. Balevicius</b>	<b>MODELLING OF COMBINED SLIP AND FINITE SLIDING AT GRAIN CONTACTS WITH APPLICATION TO AGGREGATE RESPONSE</b>
09:45-10:30	<b>C. Boutin, J. Soubestre, L. Schwan, M. Dietz</b>	<b>MULTI-SCALE MODELING FOR DYNAMICS OF STRUCTURE-SOIL-STRUCTURE INTERACTIONS</b>
10:30-11:00	Coffee break	
<b>Presidents of the session: Z. Mróz, C. Boutin</b>		
11:00-11:15	J.- L. Auriault	INNER THERMAL RESONANCE IN THERMOELASTIC GEOLOGICAL STRUCTURES
11:15-11:30	M. Krasinski, M. Lefik	TWO SCALES, HYBRID MODEL FOR SOILS, INVOLVING ARTIFICIAL NEURAL NETWORK AND FINITE ELEMENT PROCEDURE
11:30-11:45	W. Kosiński, F. dell'Isola	ON CONSEQUENCES OF THE PRINCIPLE OF STATIONARY ACTION FOR SECOND GRADIENT DISSIPATIVE BODIES
11:45-12:00	M. Szcześniak, P. Konderla	NUMERICAL EVALUATION OF EFFECTIVE PARAMETERS FOR MOLECULAR CEMENT MATRIX BASIS COMPOSITE MATERIAL
12:00-12:15	D. Łydzba, A. Różański	MICROSTRUCTURE MEASURES AND THE MINIMUM SIZE OF REPRESENTATIVE VOLUME ELEMENT: A NUMERICAL STUDY
12:15-12:30	T.- K. Nguyen, G. Combe, D. Caillerie, J. Desrues	INVESTIGATION OF A COHESIVE GRANULAR MATERIAL: MULTI-SCALE MODELLING BY FEM-DEM APPROACH
12:30-14:00	Lunch	
<b>Presidents of the session: J.-L. Auriault, D. Łydzba</b>		
14:00-14:45	<b>A. Niemunis, T. Wichtmann</b>	<b>SEPARATION OF TIME SCALE IN THE HCA MODEL FOR SAND</b>
14:45-15:00	T. Hueckel, B. Mielniczuk, M.S. El Youssoufi, L. B. Hu, L. Laloui	A THREE-SCALE CRACKING CRITERION FOR DRYING SOILS
15:00-15:15	L. Rojas Solano, D. Grégoire, G. Pijaudier-Cabot	ANALYSIS OF MESOSCOPIC INFORMATION TO UNDERSTAND THE MACROSCOPIC MECHANICAL BEHAVIOUR DURING FAILURE IN QUASI-BRITTLE MATERIALS
15:15-15:30	M. K. Kumor	MICROSTRUCTURAL AND TOMOGRAPHIC ANALYSES IN GEOTECHNICAL ASSESSMENT OF SOIL MEDIA
15:30-15:45	W. Shen, Z. He, L. Dormieux, D.Kondo	ON STRENGTH PROPERTIES OF SATURATED DOUBLE POROUS MEDIA WITH A DRUCKER-PRAGER SOLID PHASE
15:45-16:00	T. Strzelecki, A. Uciechowska	THERMAL CONSOLIDATION PROCESS OF MULTIPHASE MEDIUM CONSISTING OF ELASTIC SKELETON, WATER, AND WATER VAPOUR.
16:00-16:30	Coffee break	
<b>Presidents of the session: T. Hueckel, Z. Sikora</b>		
16:30-16:45	K. Szarf, G. Combe, P. Villard	PARTICLE SHAPE EFFECT ON MACROSCOPIC BEHAVIOUR OF UNDERGROUND STRUCTURES: NUMERICAL AND EXPERIMENTAL STUDY
16:45-17:00	F. Gemelli, D. Caillerie, C. Dascalu, C. Callari	HOMOGENIZATION OF A SATURATED POROUS MEDIUM WITH CAVITIES – DAMAGE MODELING
17:00-17:15	G. Khaddour, A. Hashemi, S. Salager, J. Desrues, T. J. Massart, B. Francois	PHASE SEGMENTATION IN 3D X-RAY IMAGES OF UNSATURATED GRANULAR MATERIALS
17:15-17:30	J. Butlańska, M. Arroyo, A. Gens	STEADY STATE OF SOLID-GRAIN INTERFACES DURING SIMULATED CPT
17:30-17:45	B.-K. Benazzouz	A NANOSCALE SIMULATION STUDY OF ELASTIC PROPERTIES OF GASPEITE
17:45-18:00	A. Surowiecki	MULTISCALE MODELLING IN RAILWAY ENGINEERING
18:00-18:15	S. Dochez, F. Laouafa, C. Franck, S. Guedon, F. Martineau, J. D'Amato, A. Saintenoy	MULTI-SCALE ANALYSIS OF WATER ALTERATION ON THE ROCKSLOPE STABILITY FRAMEWORK
18:15-18:30	M. Bartlewska-Urban, T. Strzelecki	NUMERICAL CALCULATION OF 3D PROBLEM OF THE THERMO-CONSOLIDATION OF FLOTATION WASTE LANDFILL „ŻELAZNY MOST” BASED ON BIOT'S MODEL WITH THE KELVIN - VOIGT RHEOLOGICAL SKELETON
18:30-20:00	Cocktail party at LMGC (Cocktail Languedocien)	

Tuesday, 9 July 2013		
<b>Presidents of the session: D. Breyse, B. Wrana</b>		
08:30-9:15	<b>L. Laloui, A. Ferrari, J. Eichenberger, J.Fern</b>	<b>HYDROMECHANICAL ANALYSIS OF A VOLCANIC ASH SLOPE SUBJECTED TO WETTING AND DRYING CYCLES</b>
09:15-9:30	A. Szymkiewicz, I. Neuweiler, R. Helmig	INFLUENCE OF HETEROGENEOUS AIR ENTRY PRESSURE ON LARGE SCALE UNSATURATED FLOW IN POROUS MEDIA
09:30-9:45	V. Favero, A. Ferrari, P. Marschall, L. Laloui	INVESTIGATION OF THE SHALE RETENTION PROPERTIES AND PERMEABILITY THROUGH LABORATORY TESTING
09:45-10:00	D. Jougnot, N. Linde	FROM A CAPILLARY TO A REPRESENTATIVE ELEMENTARY VOLUME: FLUX-AVERAGING FOR DETERMINING STREAMING CURRENTS IN TWO PHASE FLOW
10:00-10:15	Z. Sikora, R. Ossowski	COMPOSITE SOILS IN DIKE CONSTRUCTION – FROM LABORATORY TESTS TO CONSTITUTIVE MODELLING
10:15-10:30	P. Dobak, J. Gaszyński	EVALUATION OF SOIL PERMEABILITY FROM CONSOLIDATION ANALYSIS BASED ON TERZAGHI'S AND BIOT'S THEORY.
10:30-11:00	Coffee break	

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Tuesday, 9 July 2013- continuation		
Presidents of the session: E. Dembicki, L. Laloui		
11:00-11:15	A. Sawicki, J. Sławińska, J. Mierczyński	STRUCTURE AND CALIBRATION OF CONSTITUTIVE EQUATIONS FOR GRANULAR SOILS
11:15-11:30	B. Wrana	DYNAMICS COEFFICIENT FOR TWO-PHASE SOIL MODEL
11:30-11:45	M. Jastrzębska, M. Łupieżowiec, R. Uliniarz, A. Jaroń	ANALYSIS OF THE VIBRATION PROPAGATION IN THE SUBSOIL
11:45-12:00	A. Danilewicz, Z. Sikora	NUMERICAL SIMULATION OF CRATER CREATING PROCESS IN DYNAMIC REPLACEMENT METHOD BY SMOOTH PARTICLE HYDRODYNAMICS
12:00-12:15	M. Wojciechowski, P. Baryła, M. Lefik	MAIN PROPERTIES OF SANDS HYDROPHOBIZED BY ALKOXYSILANE EMULSIONS
12:30-14:00	Lunch	
Presidents of the session: O. Millet, K. Gwizdała		
14:00-14:45	<b>D. Breyse, A. Marache, R. Lastennet, S. M. Elachachi, J.-F. Lataste, A. Denis, R. Fabre</b>	<b>DATA GATHERING AND HETEROGENEITY MODELLING AT SITE SCALE</b>
14:45-15:00	K. Szcześniak, J.B. Michalski	GEOENGINEERING STRUCTURES IN SUSTAINABLE DEVELOPMENT OF CIVIL ENGINEERING
15:00-15:15	P. Enjaume, P. Y. Massy, Z. Gilbert, M. Janiszewski, M. Wszędyrówny-Nast	GEOTECHNICAL PROPERTIES OF ŁÓDŹ GLACIAL TILL
15:15-15:30	N. Kruyt, O. Millet, F. Nicot	FROM MICROSTRUCTURE TO THE MACROSCOPIC STRAINS IN GRANULAR SOILS
15:30-15:45	A. Di Donna, L. Laloui	TESTING SOIL-CONCRETE INTERFACE IN THE CONTEXT OF ENERGY PILES
15:45-16:00	Z. Sikora, M. Wyroślak	HYBRID TECHNOLOGIES APPLICATION AS A TOOL FOR WEAK SOIL IMPROVEMENT
16:00-16:30	Coffee break	
Presidents of the session: M. Lefik, F. Nicot		
16:30-16:45	Z. Meyer	STATIC LOAD TEST, SHORT SERIES INTERPRETATION
16:45-17:00	K. Gwizdała, P. Więclawski	INFLUENCE OF TIME ON THE BEARING CAPACITY OF PRECAST PILES
17:00-17:15	J. Bauer, W. Puła, M. Wyjadłowski	RELIABILITY OF SHEET PILE WALL IN ULTIMATE AND SERVICIBILITY LIMIT STATES
17:15-17:30	A. Krasiński, T. Kusio	COMPARATIVE MODEL TESTS OF SDP AND CFA PILE GROUPS IN NON-COHESIVE SOIL
17:30-17:45	J. Rybak	STRESS WAVE VELOCITY ESTIMATION IN LOW STRAIN DYNAMIC TESTING OF CFA PILES
17:45-18:00	L. Bałachowski, N. Kurek	DEEP SOIL COMPACTION CONTROL OF SANDY SOILS
18:00-18:15	A. Krasiński	THE ANALYSIS OF SOIL RESISTANCE DURING SCREW DISPLACEMENT PILE INSTALLATION
20:00-23:00	Gala Dinner (Brasserie du Corum, Montpellier)	

Wednesday, 10 July 2013		
8:30-9:00	Meeting of the Scientific Committee	
9:00-10:00	<b>Poster presentations</b>	
	I. Bagińska, W. Janecki, M. Sobótka	ON THE INTERPRETATION OF SEISMIC CONE PENETRATION TEST (SCPT) RESULTS
	P. Cieśla, Z. Sikora	STABILITY ANALYSIS OF EMBANKMENT DAM - COMPARISON STUDIES OF ELASTO-PLASTIC AND HYPOPLASTIC CONSTITUTIVE LAWS
	M. Kawa	FAILURE CRITERION FOR BRICK MASONRY: A MICRO-MECHANICS APPROACH
	A. Lipkowski, J. Lewandowska, P. Gouze, A. Szymkiewicz	MICROMECHANICAL MODELING OF LONG TERM ROCK DISSOLUTION USING THE INTERNAL EROSION MECHANISM
	D. Łydzba, M. Tankiewicz	STRENGTH ANISOTROPY OF VARVED CLAY: LABORATORY RESULTS AND MATHEMATICAL MODELLING
	D. Łydzba, M. Sobótka	STATE OF STRENGTH AND DISPLACEMENT IN MASSIVE CONCRETE STRUCTURE SUBJECTED TO NON-MECHANICAL LOADS
	B. Mielniczuk, M. S. El Youssoufi, L. Sabatier, T. Hueckel	BREAKING OF A LIQUID BRIDGE BETWEEN TWO GRAINS DUE TO ITS EVAPORATION OR EXTENSION
	J. M. Pieczyńska, W. Puła	EVALUATION OF STRIP FOOTING BEARING CAPACITY BY RANDOM FINITE ELEMENT METHOD
	M. Pilawski, J. Lewandowska, M. Jastrzębska	MICROMECHANICAL MODELLING OF ELASTIC PARAMETERS OF AN ORTHOTROPIC GEOMATERIAL AND COMPARISON WITH TRIAXIAL TESTS RESULTS
	M. Strzelecki	COMPUTER SIMULATION OF HEAT TRANSFER AND GROUNDWATER FLOW IN THE VICINITY OF LIGNITE DEPOSIT IN UNDERGROUND GASIFICATION PROCESS
	T. Strzelecki, E. Sawicki, M. Strzelecki	NUMERICAL MODELING OF VERTICAL WELLS IN UNSTEADY GROUNDWATER FLOW CONDITIONS
	A. Surowiecki	INVESTIGATION INTO THE EFFICIENCY OF STRENGTHENING OF SUBGRADE AT THE PROOF GROUND OF ROAD SURFACE
	A. Surowiecki	THE ANALYSIS OF RAIL SLEEPER DEFORMATION IN THE FUNCTION OF SUBGRADE PARAMETERS
10:00-10:30	Coffee break	
10:30~19:00	<b>Millau bridge visit, departure by bus from LMGC at 10:30</b>	
13:30-13:40	Welcome of the Participants by CEVM	
13:40-14:00	Film concerning the construction of the Millau bridge	
14:00-14:15	Presentation by C. Servant: Foundation and geotechnical monitoring after completing of construction works of the Millau bridge	
14:15-14:45	Presentation by M. Virlogeux: Conception of the Millau bridge and large cable-stayed bridges	
14:45-16:30	Technical Visit	
16:30	End of the Technical Visit	



XVI<sup>th</sup> French-Polish Colloquium of Soil and Rock Mechanics, Multiscale Modelling in Soil and Rock Mechanics

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