W(H)YDOC 15

5th International Workshop of Young Doctors in Geomechanics

Programme

École des Ponts ParisTech

UNIVERSITÉ PARIS-EST

École des Ponts ParisTech
Champs-sur-Marne, France
December 2 – 4, 2015

Wednesday, December 2, 2015

8:45 – 9:15	Registration
9:15 – 9:30	Welcome ceremony *Prof. Pierre Delage, Dr. Françoise Prêteux (Head of the Research Department)* *École des Ponts ParisTech*
Session 1: Computational geomechanics Discussion leader: Dr. Patrick Dangla, IFSTTAR Secretary:	
9:30 – 10h15	**Keynote lecture** The role of geotechnics in high-level nuclear waste disposal *Prof. Antonio Gens, Universitat Politècnica de Catalunya*
10h15 – 10h25	Discussion
10h25 – 10h45	*Coffee break*
10h45 – 11h20	Insights into the response of a gallery sealing over the entire life of a deep repository *Daniel Ruiz, Universitat Politècnica de Catalunya*
11h20 – 11h55	A robust numerical framework for reactive transport in cement paste *Fabien Georget, Princeton* University
11h55 – 12h30	The role of rheology and pore water pressure during the modelling of landslides propagation with SPH *Paola Dutto, Universidad Politécnica de Madrid*
12h30 – 13h00	Discussion
13h00 – 14h30	*Lunch*
Session 2: Experimental geomechanics and modelling Discussion leader: Prof . Yves Guéguen, Ecole Normale Supérieure Secretary:	
14h30 – 15h05	Comparison of experimentally determined and theoretically predicted elastic properties of VTI shale under uniaxial loading *Viacheslav Sviridov, Freie Universität Berlin*
15h05 – 15h40	Experimental and modelling study of concrete delayed strain in a nuclear containment building *Adrien Hilaire, Ecole Polytechnique Fédérale de Lausanne*
15h40 – 16h00	*Coffee break*
16h00 – 16h35	Early-age non-aging viscoelastic properties of cement paste: lessons learned from macroscopic testing *Muhammad Irfan-ul-Hassan, Technical University Wien*
16h35 – 17h10	Early-age behaviour of oil-well cement and well integrity *Nicolaine Agofack, École des Ponts ParisTech*
17h10-17h45	Brittle and semibrittle deformation of limestones: experiments and model *Aurélien Nicolas, Ecole Normale Supérieure*
17h45 – 18h15	Discussion
18h15 – 20h00	*Cocktail*

Thursday, December 3, 2015

Session 3: Constitutive behaviour and microstructure Discussion leader: Prof. Antonio Gens, Universitat Politècnica de Catalunya Secretary:	
9:00 – 9h45	**Keynote lecture** Simple ideas on the physics and mechanics of source rocks *Prof. Henri Van Damme, MIT-CNRS*
9h45 – 9h55	Discussion
9h55 – 10h15	*Coffee break*
10h15 – 10h50	Strength, stability, and microstructure of simulated calcite faults sheared under laboratory conditions spanning the brittle-plastic transition *Berend Antonie Verberne, University of Utrecht*
10h50 – 11h25	Significance of mineralogy for hydro-mechanical behaviour of clays *Wiebke Baille, Ruhr Universiteit Bochum*
11h25 – 12h00	Quantitative comparison between the crack apertures, strains and microstructure in Tournemire clayrocks *Anne-Laure Fauchille, Université de Poitiers*
12h00 – 12h30	Discussion
13h00 – 14h30	*Lunch*
Session 4: Multiscale modelling and analysis Discussion leader: Prof. Christopher Spiers, *Utrecht University* Secretary:	
14h30 – 15h05	Development and application of a multiscale modelling approach for hydromechanical coupling *Bram van den Eijnden, Université Grenoble Alpes*
15h05 – 15h40	Multiscale modelling of the thermo-viscoelastic properties of cement-based materials and structures at early-age *Tulio Honorio de Faria, ENS Cachan - CEA*
15h40 – 16h00	*Coffee break*
16h00 – 16h35	Methodologies for an efficient forecast of the delayed behavior of prestressed concrete based on imaging and numerical simulations *Francis Lavergne, École des Ponts ParisTech*
16h35 – 17h10	A micro-mechanical study of cemented granular materials *Alessandro Tengattini, L3SR, Université de Grenoble*
17h10 – 17h40	Discussion
20h00 – 23h00	*Banquet (Restaurant Le Procope, Paris, 6e)**

* The banquet is sponsored by CFMS and CFMR.
Invited dinner for young doctors and discussion leaders

Friday, December 4, 2015

Session 5: Structures Discussion leader: Prof. Manoel Cordao Neto, University of Brasilia Secretary:	
9:00 – 9h45	**Keynote lecture** Effects of fluid-rock interaction on rock and fault behavior under in-situ conditions *Prof. Christopher Spiers, Utrecht University*
9h45 – 9h55	Discussion
9h55 – 10h15	*Coffee break*
10h15 – 10h50	Tunnelling in anisotropic squeezing conditions *Tran Manh Huy, École des Ponts ParisTech*
10h50 – 11h25	Mechanical characteristics of monopile foundation in sand for offshore wind turbine *Nuo Duan, University College London*
11h25 – 12h00	A probabilistic approach for rainfall-induced landslide susceptibility at large scale *Giulia Fanelli, University of Perugia*
12h00 – 12h30	Discussion
12h30 – 14h00	*Lunch*
14h00 – 14h30	W(H)YDOC15 Prize ceremony

Organising Committee

Pierre Delage
Siavash Ghabezloo
Jean-Michel Pereira
Matthieu Vandamme
and Laboratoire Navier - CERMES at École des Ponts ParisTech, France.