

Time	Sunday (01.09.19)	Monday (02.09.19)	Tuesday (03.09.19)	Wednesday (04.09.19)	Thursday (05.09.19)	Friday (06.09.19)	
08:00 - 09:00		Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	
09:00 - 10:00		Opening	Keynote 3	Keynote 5	Keynote 6	Keynote 8	
		Keynote 1					
10:00 - 11:00		Session 1	Session 3	Session 5	Session 6	Session 8	
		Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	
11:00 - 12:00		Session 1	Session 3	Session 5	Session 6	Session 8	
12:00 - 13:00							
13:00 - 14:00		Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break	
14:00 - 15:00			Keynote 2	Keynote 4	Boat trip	Keynote 7	
15:00 - 16:00		Registration & hotel check-in opens	Session 2	Session 4		Session 7	
			Coffee Break	Coffee Break		Coffee Break	
16:00 - 17:00		Poster Session 1	Poster Session 2	Session 7			
17:00 - 18:00							
18:00 - 19:00	Welcome reception & buffet dinner	Side trip incl. dinner					
19:00 - 20:00			Buffet dinner	Buffet dinner	BBQ		
20:00 - 21:00							

Monday, 02.09.2019

Session 1: Fluid driven fractures and seismicity

9:20-10:00

Keynote 1: Physical behavior of fluid driven earthquakes (M. Violay)

10:00-10:20

S1.1: Laboratory Study of the Dynamics of Stick-Slip Sliding in Large Sandstone Block Induced by Fluid Injections (S. Stanchits)

10:20-10:40

S1.2: Impact of heterogeneity, anisotropy and discontinuities on hydraulic fracture propagation – a lab study (F. Stoeckhert)

11:10-11:30

S1.3: Hydraulic fracturing process in granite under different fracturing regime (KY. Kim)

11:30-11:50

S1.4: Fluid-driven tensile fracture and fracture toughness in Nash Point shale at elevated pressure (P. Benson)

11:50-12:10

S1.5: In-situ synchrotron X-ray tomography of fluid injection experiments at elevated confining pressure (M. Chandler)

12:10-12:30

S1.6: Fault Reactivation for Permeability Enhancement and Associated Induced Seismicity in Crystalline Rocks (O. Moradian)

Session 2: Compaction and damage of porous rock I

14:00-14:40

Keynote 2: The physics behind sandstone reservoir compaction: the cause of induced seismicity in gas fields (S. Hangx)

14:40-15:00

S2.1: A Rock Mechanical Model for Overbalanced, Managed Pressure, and Underbalanced Drilling Applications (M. Al Awad)

15:00-15:20

S2.2: Damage accumulation and wellbore stability (E. Shalev)

15:20-15:40

S2.3: High Pore Pressures: What Is Indicated by Vein-Filled Rock Masses? (G. Couples)

Tuesday, 03.09.2019

Session 3: Laboratory fracture and rock characterization studies

09:00-09:40

Keynote 3: Fault structure, damage and induced microseismicity - what do we learn from the lab? (G. Dresen)

09:40-10:00

S3.1: The permeability of fracture intersections in basalt (A. Stanton-Yonge)

10:00-10:20

S3.2: The effect of temperature on physical and mechanical properties of carbonate rocks (S. Vinciguerra)

10:20-10:40

S3.3: Petrographic Analysis and Geomechanical Characterization of the Late Cretaceous Naparima Hill Formation, Trinidad (U. Iyare)

11:10-11:30

S3.4: Using Roughness and Fragmentation Fractal Dimensions of a Volcanic Bimrock in Estimation of its UCS (E. Avsar)

11:30-11:50

S3.5: Inversion of fracture properties – A Genetic FWI algorithm applied to inversion of fracture stiffness from seismic waves (A. Fuggi)

11:50-12:10

S3.6: Characterization of mechanical anisotropy in clayey rocks by Digital Image Correlation (A. Dimanov)

12:10-12:30

S3.7: Observations on fracture toughness of mode I and mixed mode (I+II) fractures from three-point bending tests at elevated confining pressures (H.-W. Yang)

Session 4: Poroelasticity and seismicity of reservoir rocks

14:00-14:40

Keynote 4: Poroelastic interaction and seismicity induced by fluid productions and injections (S. Shapiro)

14:40-15:00

S4.1: Undrained pore pressure changes in rocks surrounding a reservoir: From poroelastic theory to fault activation? (R.M. Holt)

15:00-15:20

S4.2: The mechanical behaviour of porous synthetic rocks (L. Carbillat)

15:20-15:40

S4.3: The acoustic signature of fluid substitution in reservoir rocks (C. David)

Wednesday, 04.09.2019

Session 5: Simulation of fractures and faults

09:00-09:40

Keynote 5: Simulation of hydraulic driven fractures, joints and faults (H. Konietzky)

09:40-10:00

S5.1: Numerical modeling of hydraulic stimulation and induced seismicity in deep geothermal reservoirs (F. Pellet)

10:00-10:20

S5.2: Multiphysics of faulting: influence of porosity and damage evolutions on the deformation modes within the lithosphere (A. Jacquey)

10:20-10:40

S5.3: Modeling crack and compaction band propagation in porous rocks with a phase-field fracture model (R. Denzer)

11:10-11:30

S5.4: Combination of experimental data and numerical simulations to unravel weakening mechanism on gypsum (R. Tomás)

11:30-11:50

S5.5: Non-linear anisotropic damage rheology model: theory and experimental verification (I. Panteleev)

11:50-12:10

S5.6: Simplified seismic modelling of fractured rock - how effective is a locally effective medium (LEM) compared to explicit representation of individual fractures. (E. Parastatidis)

12:10-12:30

S5.7: On the seismic visibility and testability of fracture growth models (M. Hildyard)

Thursday, 05.09.2019

Session 6: Hydraulic, thermal and mechanical cyclic loading at multiple scales

09:00-09:40

Keynote 6: Cyclic hydraulic fracturing of granite: laboratory-scale proof of concept for the mitigation of induced seismicity (L. Zhuang)

09:40-10:00

S6.1: Controlling fluid-injection-induced seismicity and permeability enhancement in granitic rock by fatigue hydraulic fracturing predicted from laboratory and in-situ experiments (A. Zang)

10:00-10:20

S6.2: Stimulation and fracture network creation in anisotropic rock (C. Böse)

10:20-10:40

S6.3: Controlling Fluid-Induced Seismicity during a 6.1-km-Deep Geothermal Stimulation in Finland (G. Kwiatek)

11:10-11:30

S6.4: Slip and Instability Mechanisms of Coal-Rock Parting-Coal Structure (CRCS) Under Coupled Dynamic and Static Loading (C. Lu)

11:30-11:50

S6.5: Structural analysis and effect of impurity content in Salt Rock deformation under Cyclic Thermo-Mechanical Loading Conditions (C. Martin-Clave)

11:50-12:10

S6.6: Microstructural controls on thermal crack damage during temperature-cycling experiments on volcanic rocks (P. Meredith)

12:10-12:30

S6.7: Mechanics of fluid-saturated granular gauges under seismic oscillations (S. Parez)

Session 7: Compaction and damage of porous rock II

14:00-14:40

Keynote 7: Stress estimation and structural observations around a subduction fault (M. Conin)

14:40-15:00

S7.1: New global correlations to assess depletion-induced compaction of progressively-buried sandstone (S. Hol)

15:00-15:20

S7.2: Localized versus distributed fracturing in the damage rheology model with evolving yield conditions (H. Gajst)

15:20-15:40

S7.3: Impact of water-weakening on mechanical strength of microporous carbonate rock: fluid substitution and ultrasonic monitoring of water-induced damage (D. Geremia)

16:10-16:30

S7.4: Impact of shear-enhanced compaction bands on fluid flow via High-Speed Neutron Tomography (E.-M. Charalampidou)

16:30-16:50

S5.5: Synchrotron X-ray imaging in 4D: Multiscale failure and compaction localization in triaxially compressed porous limestone (P. Baud)

16:50-17:10

S7.6: Fracture or Band? – A Potentially Common Transitional Type of Deformation and its Consequences for Fluid Movement through Fracture and Fault Systems (H. Lewis)

17:10-17:30

S7.7: Full 3D investigation at microstructural scale of heterogeneous swelling strains and induced damage in anisotropic clayey rocks (M. Bornert)

Friday, 06.09.2019

Session 8: Hydraulic fracturing, hydromechanics and fracture permeability

09:00-09:40

Keynote 8: Key implementation aspects and results from the in-situ stimulation experiment at the Grimsel test site (F. Amann)

09:40-10:00

S8.1: Hydraulic fracture growth in the heterogeneous strata of the upper carboniferous (C. Solibida)

10:00-10:20

S8.2: Microseismic events barrier effect during hydraulic fracturing of infill horizontal well in shale gas reservoir (X. Tang)

10:20-10:40

S8.3: Role of stress tensor rotation due to pore pressure stress coupling for induced seismic hazard in georeservoirs (T. Hake)

11:10-11:30

S8.4: Stress reorientation by earthquakes near Ganzi-Yushu strike slip fault and interpretation with discrete element modeling (Z. Su)

11:30-11:50

S8.5: Laboratory experiments investigating the hydro-mechanical behaviour of rocks containing a single fracture (M. Kewel)

11:50-12:10

S8.6: Hydraulic-mechanical characterisation of microfaults in granite – an experimental study (C. Kluge)

12:10-12:30

S8.7: Thermo-Mechanical Investigations on the Self-propping Potential of Tensile Fractures in Sandstone (C. Cheng)

Poster session 1 (Monday, 02.09.2019 16:10-17:30)

P1.1: Fracture aperture and flow evolution due to confined shear displacement using X-ray computerized tomography on crystalline and clay-rich rocks (Q.C. Wenning)

P1.2: Measurement of the thermal diffusivity for several types of rocks at high pressures and high temperatures using a pulse method (S. Miao)

P1.3: Compressive and tensile strength of Naparima Hill organic mudstone (O. Blake)

P1.4: Experimental study on the difference between gas and water permeability and the mechanism of permeability evolution in response to the presence of water in clay-rich fault and reservoir rocks (Q. Duan)

P1.5: Relations between pore pressure and acoustic emissions in critically stressed wet sandstone (A. Catalinac)

P1.6: Experimental study on plastic characteristics of conglomerate reservoir rocks (J. Wang)

P1.7: Creep behavior of Bowland and Posidonia shale at In Situ pc, T conditions (J. Herrmann)

P1.8: Numerical investigation of hydraulic stimulation and related induced seismicity in Pohang fractured geothermal reservoir, South Korea (M. Farkas)

P1.9: Laboratory experiments and discrete element method grain based models exploring the thermo-mechanical behaviour of intact sandstone and discontinuities (J. Woodman)

P1.10: Velocity anisotropy response to failure in travertine (D. Drayton)

P1.11: Effective stress laws for permeability and deformation of clayey sandstones (F. Meng)

P1.12: A New Laboratory Method for Measuring Hydraulic Fracture Permeability at Reservoir Conditions (P. Ibemesi)

P1.13: Rock and Geo-material Fracture toughness testing using a novel circular shape test specimen and under modes I, II and III loading (M. Aliha)

P1.14: Photogrammetry and Distinct Element modelling analysis of the morphological evolution of stream-channels and sinkholes at the Dead Sea (D. Al-Halbouni)

Poster session 2 (Tuesday, 03.09.2019 16:10-17:30)

- P2.1: Time-dependent analyses of first motion derived focal mechanism solutions and machine learning algorithms in rock deformation laboratory experiments (T. King)
- P2.2: Impact of partly sealed fractures on hydro-mechanical properties of a granite block (G. Blöcher)
- P2.3: Anisotropic poroelasticity and permeability under true triaxial stress conditions: measurements and modelling (B. Elsigood)
- P2.4: Hydro-fracturing experiments in highly porous and permeable sandstone (M. Fazio)
- P2.5: Evolution of elastic wave velocities and amplitudes during triaxial deformation of anisotropic Freiberg gneiss (B. Adero)
- P2.6: The application of pore pressure oscillation method to determine permeability and storage coefficient in a fractured rock (A. Hazzanzadegan)
- P2.7: Comparisons between Brittleness index equations and their relationship with Fracture Toughness for a shale formation (A. Pena)
- P2.8: Stress distribution along heterogeneous faults (J. Bedford)
- P2.9: Mechanical compaction of Hollington Sandstone (B. Ardo)
- P2.10: Numerical analyses of temperature controlled fault reactivation during diking (S. Vinciguerra)
- P2.11: Geomechanical stability(Fault Activation Analyses) of Gas Containment at the Persian Gulf t of Iran: A One-Way Coupled Geomechanical Modelling Approach (S. Hosseinzadeh)
- P2.12: Impact of fluid-injection scheme on injectivity enhancement of granite by laboratory hydraulic fracturing under true triaxial stresses (L. Zhuang)
- P2.13: Fracture Permeability and Saturation Effects on Hydrothermally Altered Rocks from a Philippine Geothermal Field and Pre-Thermally Treated Cornish Granite (D.C. Austria)
- P2.14: How to publish Open Access in earth sciences (A. Hübner)

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