

Time	Tuesday June 17					
08:30 - 13:00	Cosmos 1 & 2 - Plenary Sessions and Opening Ceremony					
10:10 - 10:30	Coffee break					
12:00 - 13:00	Keynote 1 - Mark Diederichs					
13:00 - 14:00	Lunch					
Hall	Cosmos 1 & 2	Cosmos 3A	Cosmos 3B	Cosmos 3C	Cosmos 3D	
	Session 1	Session 2	Session 3	Session 4	Session 5	
	Theme 04: Prognosis Models in Rock Tunneling	Theme 07: Laboratory Testing of Rock	Theme 02: Rock support design	Theme 08: Brittle Failure	Theme 05: Fluid Flow in Rock Mass	
Chair	NN	NN	NN	NN	NN	
Co-Chair	NN	NN	NN	NN	NN	
14:00 - 14:20	12. Improved Analytical Thrust per Cutter Formulations for Hard Rock Tunnel Boring Machines Prof. Thomas Marcher	09. Laboratory tests for demonstrating two new methods for defining shut-in pressure in hydraulic tests for rock stress measurement Nghia Trinh	06. Numerical Investigation of Load Transfer and Uplift Mechanisms in Rock Masses Surrounding Rock Anchors Bjarte Grindheim	24. On modelling uniaxial quasi-static tension and compression tests on rock with explicit time stepping <i>Timo Saksala</i>	31. On the possible effect of roughness on hydraulic fracturing pressure Alexandre Lavrov	
14:20 - 14:40	23. Modern tunnelling trends vs. the NTNU prognosis model for D&B blast design – a case study Sondre Gjengedal	32. Experimental study on the penetration characteristics of a button bit into rock Kimihiro Hashiba	11. Tension-torsion Coupling Effect and Failure Mechanism of Anchoring Section of Anchor Cable Shuren Wang	47. Monte Carlo Simulation of the Cohesion Weakening Friction Strengthening Approach for Assessment of Brittle Failure Around Underground Excavations Dr. Andrew Corkum	103. A THM coupled distinct element model for simulating hydraulic fracturing in discontinuum reservoir with application to enhanced geothermal system <i>Botong Du</i>	
14:40 - 15:50	41. SEMMERING BASE TUNNEL – Challengies in predicting rock mass quality in a major fault system Robert Holzer	123. Experimental investigation of pore collapse in Brazilian pre-salt carbonates Guilherme Righetto	34. SEMMERING BASE TUNNEL – Extaordinary deformations in a major fault system Mario Hein	51. A novel perspective on the transition from the consideration of damage-plasticity to the incorporation of damage modelling for intact rocks Wabit Azaminour	168. Permeability Evolution in Shear-Induced Rough-Walled Fractures: Role of Roughness and Tortuosity Min Gao	
15:00 - 15:20	60. Utilizing drilling data in data assimilation for prediction of ground deformation during construction of underground structures Yasuhisa Aono	59. Evolution of Mechanical Properties and Energy Loss in Cement Mortar under Loading and Unloading Cycles Abhay Anand	81. Effect of radial confining pressure on the mechanical behaviour of deformation- controlled rock bolts during tunnel excavation Masataka Mishiro	65. Evaluation of the Effectiveness of Face Destress Blasting for a Deep Drift Based on Energy Method Zongze Li	179. Design of Water Barrier Pillar for Safety in Underground Coal Mines Mr. Roshan Kumar	
15:20 - 15:40	83. Investigating Time and Stress-Dependent Behaviour of Swelling Rocks Cigdem Culha	64. Investigation of anisotropic failure in slate under thermo-hydro-mechanical coupling using the discrete element method Meng-Chia Weng	88. Calibration of 2D Finite Element Models using Pre-Yield Axial Testing Data for Fully Grouted Rebar Rockbolts Caitlin Fischer	112. Implementing emergent properties from PFC2D to control the constitutive behavior in FLAC2D in response to the maximum principal strain Fedilberto J. Gonzalez	190. Complete Permeability Tensor of Single Fracture Surface and Its Influence on Flow Characteristics Tai-tien Wang	
15:40 - 16:00		68. Experimental Assessment of the Geomechanical Properties of Mowry Shale Dr. Kam Ng	98. Estimation of the Failure Probability of Attenuator Rockfall Protection Structures Using a Reliability Analysis Approach (RBD) and Kriging Metamodel Maria Tenesa Carriero	149. A rational method for assessing the occurrence of brittle failure in deep tunnels Alessandra Insana, Lorenzo Milan	191. Improving porosity and permeability of sandstone reservoirs for CO2 storage by enhancing mineral dissolution with bio-based biodegradable chelating agents <i>Rvata Tamura</i>	
16:00 - 16:20			Coffee break			
Hall	Cosmos 1 & 2	Cosmos 3A	Cosmos 3B	Cosmos 3C	Cosmos 3D	
	Session 6	Session 7	Session 8	Session 9	Session 10	
	Theme 04: Prognosis Models in Rock Tunneling	Theme 07: Laboratory Testing of Rock	Theme 02: Rock support design	Theme 08: Brittle Failure	Theme 05: Fluid Flow in Rock Mass	
Chair	NN	NN	NN	NN	NN	
Co-Chair	NN	NN	NN	NN	NN	
16:20 - 16:40	117. The NTNU model 1976 – 2016 Helge-Ivar Frostad	71. Experimental investigation of mechanical properties of gypsum over a range of strain rates Peerzadi Arzeena Imtiyaz	102. Practical span and support design strategies for underground rooms in stratified rock masses Dr. Ignacio Pérez-Rey	231. Numerical modeling of Rock Spalling in the Mine-by experiment, using Zero-thickness interface elements with a fracture-based visco- plastic constitutive model <i>Laura Crusat</i>	217. Impact of Tunnel Induced Stress Redistribution on Hydrautic Conductivity in Fractured Rocks Romain Le Goc	
	253. Modelling the interaction between jointed rock and concrete pilar structures for Korsvägen railway station in Gothenburg, Sweden Roger Olsson	85. Predicting time-to-failure of rocks based on secondary creep strain rate Mohammadreza Aghajanzadeh	118. The Potential of Distributed Fiber-optic Sensing for Improved RRS Understanding Mohammadreza Aghajanzadeh	269. Mechanical stability of salt caverns under intensive gas storage conditions using LOCAS and DISROC Hajar Habbani	245. Estimation of groundwater inflow into tunnels in layered rockmasses Simone Markus	
17:00 - 17:20		101. Experimental study on the fracture toughness alternation of transversely isotropic shales in response to CO2-water-rock interactions Xuefeng Li	119. Interpreting Energy Absorbing Values for Rockbolts from Quasi Static and Impact Tests John Hadjigeorgiou	298. Effect of Splay Fractures on Fault Shear Behaviour and Microseismicity: A Discrete Element Analysis Lie Kong	267. Preliminary self-sealing laboratory test results for mudstones of the Mercia Mudstone Group and Ancholme Group in England Thomas Berry	
17:20 - 17:40		122. Effective Parameters on the Self-Healing Behavior of Rock Salt Sasan Moravej	124. Investigation of spiling behavior with respect to block size and joint orientation Civ. Eng. Mateusz Maciej Swillo		287. Simulating Cyclic Hydraulic Fracturing with a Novel Hydromechanical Damage Model Chang Xia	
17:40 - 18:00					300. Fault Thickening and Permeability Variations: Implications for 3D Hydraulic Models Mr. Mo Akbariforouz	



EUROCK 16.-20. June 2025







Time	we Wednesday June 18						
	Cosmos 1 & 2 - Plenary sessions						
8:30 - 09:10	Keynote 2 - Marco Barla						
9:10 - 09:50			-				
	• • • • • • • • • • • • • • • • • • • •						
9:50 - 10:20	Coffee break						
Hall	Cosmos 1 & 2 Session 11	Cosmos 3A Session 12	Cosmos 3B Session 13	Cosmos 3C Session 14	Cosmos 3D Session 1: ECF		
	Theme 02: Rock support design	Theme 07: Laboratory Testing of Rock	Theme 01: New Tools and Techniques	Theme 13: Sustainability in Rock Engineering	Theme: ECF		
	NN NN	NN	NN	NN	NN		
Co-Chair	11N 138. Design of an underground multilevel limestone mine Prof. DrIng. Michael Alber	NN 131. Mode I fracture toughness of a low- porosity rock subjected to freeze-thaw cycles Giulia Torsello	1414 26. Predicting the Crack Stress Thresholds of the Intact Granitic Rocks by machine learning and multivariate analysis techniques Samad Narimani	NNN 87. Early-Age Strength Performance of Shotcrete Mixes with Crushed Waste Glass as a Replacement for Natural Sand Dr. Mehdi Serati			
0:40 - 11:00	145. Investigating Rock Fall Characteristics during Mountain Tunnel Construction via Machine Learning Approaches Karnallisa Desmy Halim	236. Study on gas moisture absorption- desorption characteristics and volumetric deformation law of red-bed mudstone under the influence of environmental humidity gradient Yu Fei	30. Method of fundamental solutions in computational geomechanics Alexandre Lavrov	198. Fundamental Study on Chemical Reaction of Rocks with CO2: Implication for Carbonate Precipitation Yang Xiurong			
1:00 - 11:20	162. Optimal rock slope support and geological survey from value of information analysis Renato Pereira	142. Evaluation of thermal damage in Bateig limestone through ultrasonic pulse velocity and resonant frequency technics Chamran Kazemi	70. Spatial analysis of intact rock strength properties using graph neural networks for geotechnical applications Jorge Alvarez	239. Modelling Hydrogen Embrittlement in Pressurised Lined Rock Caverns within Fractured Rock Masses Prof. Qinghua Lei			
1:20 - 11:40			Coffee break				
Hall	Cosmos 1 & 2	Cosmos 3A	Cosmos 3B	Cosmos 3C	Cosmos 3D		
	Session 15	Session 16	Session 17	Session 18	Session 2: ECF		
	Theme 02: Rock support design	Theme 07: Laboratory Testing of Rock	Theme 01: New Tools and Techniques	Theme 12: Rock Mass Grouting			
Chair Co-Chair	NN NN	NN NN	NN	NN NN	NN NN		
1:40 - 12:00	197. Investigation of the performance of PVC- Concrete prop for Mine Supports Dr Mehdi Serati	146. Evaluation of Analytical Models in Estimation of the Breakdown Pressure in Hydraulic Fracturing Achini Ranasinghe	86. A new method for rapid quantitative measurement of the strikes and dips of cracks on the tunnel face Hayato Tobe	10. Reducing subsidence technology by overlying bed separation grouting in thick coal seams top coal caving mining Wenbing Guo			
2:00 - 12:20	248. Dynamic Tensile-Shear Responses of Rock-Concrete Interfaces with Varying JRC Profiles Sunita Mishra	151. Height to Diameter Ratio Effect on Sample Failure modes and Mechanisms – Implications for Pillar and Underground Excavations Design Fidelis T Sucrineni	93. DIGITAL TOOLS TO ENHANCE DESIGN OPTIMIZATION AND TUNNEL CONSTRUCTION IN THE SOTRA LINK PROJECT Guido Barbieri, Marte Jørstad Uthus	16. Investigating the Relationship Between Grouting Response Curves and Stress Measurements at Fornebu Metro Line Martin Hovda Haugsand			
2:20 - 12:40	264. Consideration of the initial stress state for deep tunnels design – lessons learned from a collapse on Avrieux (TELT) Gabriel Lopard, Nicolas Berthoz, Adrien Saitta	154. Understanding the mechanics of drilling in rocks through experimental methods Shwetabh Yadav	136. Exposing the rockmass response by means of radar technologies Jan Abram Maritz	259. Semmering Base Tunnel: Prediction of Groundwater Inflows and Aquifer Boundaries based on Hydraulic Field Testing carried as part of Grouting Mag. Robert Holzer			
	268. A simplified analytical method for bolt reinforcement of the tunnel face in deep conditions Wassim Mohamad	156. Investigations into the Effect of Standardized Stress Rates on the Strength and the Deformation Behaviour of a Crystalline Rock Material Jens Schneider	150. Tackling missing data: ML approaches for reliable rock engineering design applications Dr. Asieh Hamidi	261. Reducing CO2 emissions from grouting in hard rock tunnelling Helene Strørnsvik			
3:00 - 14:00			Lunch				
Hall	Cosmos 1 & 2	Cosmos 3A	Cosmos 3B	Cosmos 3C	Cosmos 3D		
	Session 19	Session 20	Session 21	Session 22	Session 3: ECF		
	Theme 10: Geohazards	Theme 07: Laboratory Testing	Theme 01: New Tools and	Theme 09: Rock Mass	Theme: ECF		
Chair	NN	of Rock	Techniques	Monitoring NN	NN		
Co-Chair	NN	NN	NN	NN	NN		
4:00 - 14:20	225. Investigation of the impact of chemical dissolution on the mechanical behavior of calcareous rocks Stephan Rollbühler	174. Non-destructive testing in weathering evaluation - from rock massif to stone sculpture Małgorzata Sokołowska	152. Stope wall convergence-based design for open stopes in narrow vein orebodies Fidelis T Suorineni	18. Stress monitoring of tunnel support during excavation using distributed fibre optic sensing technology Hayato Nonaka			
4:20 - 14:40		184. Effects of freeze-thaw history on the stability of rock slopes Dai Nakamura	158. Large-strain poro-elastoplastic analysis of axisymmetric boreholes Michalis Kattis, Doctor Euripides Papamichos, Doctor Alexandre Lavrov	45. Multi-scale monitoring of rock mass deformations at mid-latitude through an optical FBG array at the Acuto Field Laboratory (Central Italy) Matteo Fiorucci			
4:40 - 15:00	44. Fragmentation patterns during rockfall: analysis of the influence of discontinuities and impact conditions through drop tests Maddalena Marchelli	200. Fluid flow and heat transfer behaviors of fractured rock sample: physical test Jiacheng Wang	171. Application of Machine Learning and Explainable AI for prediction of Water Ingress in the Skaugum Tunnel Abishek Shrestha	66. Measuring and modelling the sea-waves impact on a cliff: first results from the Ventotene Field Laboratory (Italy) Federico Feliziani, Dr. Gian Marco Marmoni, Ph.D. Guglielmo Grechi, Mattia Montagnese, Prof. Salvatore Martino			
	46. Prediction of residual rockfall risk in presence of net fences according to the location of the impact Valerio De Biagi	205. Unlocking Precision in Carbon Sequestration Monitoring: Advanced Lab-Scale Monitoring of CO2 saturation with Combined Acoustic and Resistivity Measurement Kanitthom Adisornsupawat	214. Multi-parameter responses at several monitoring stations in Cappadocia in relation to 2023 Kahramanmaraş Earthquakes of Türkiye Omer Aydan	111. Passive seismic monitoring of a jointed rock mass at Acuto Field Lab (Italy) Lorena Di Toro			
5:20 - 15:40	55. Validation of the rockfall SIF and SAI indexes by a 3D analysis of a rock slope in Valsesia Valley (Italy) Maria Lia Napoli	207. Tensile-shear stress induced crack initiation in granite specimens loaded in compression Lars Jacobsson	272. Using Machine Learning for Predicting Collapse extending in Abandoned Underground Quarries Nathalie Conil	144. Deformation characteristics of surrounding rock in a large underground opening situated in Southwest China Peivang Yu			

	69. Simulation of Slope Movements at Åknes using 2D Distinct Element Modeling Christian Cancino	210. Behavior of H-B Parameters of Marble During Plastic Deformation Sarbartha Sarkar	274. Borehole tensor strainmeters based on interferometric displacement sensors Jiayong Tian, Cheng Jiang	173. Evaluating Wedge Stability Using Analytical and Numerical Approaches Hare Ram Timalsina, PhD Sanyam Ghimire		
16:00 - 16:20	Coffee break					
Hall	Cosmos 1 & 2					
16:20-17:00	Keynote 4 - Jessa Vatcher					
17:00-17:10			Short break			
Hall	Cosmos 1 & 2	Cosmos 3A	Cosmos 3B	Cosmos 3C	Cosmos 3D	
		Session 23	Session 24	Session 25	Session 26	
		Theme 07: Laboratory Testing of Rock	Theme 01: New Tools and Techniques	Theme 09: Rock Mass Monitoring	Theme 11: 3D Modeling and Visualization	
Chair	NN	NN	NN	NN	NN	
Co-Chair	NN	NN	NN	NN	NN	
17:10 - 17:30	Rock Bowl final	212. An experimental study on the physico- mechanical properties of pumice from Cappadocia and Gölcük volcanic provinces of Türkiye	275. Deep-seated ground deformations measured by robotized system, Roma Metro C Line Danilo Godone	244. Rock mass dynamics during coal longwall mining at great depth Vlastimil Kajzar	33. Assessing inertial effects on Rockfall Protection Embankments: field & numerical tests Maddalena Marchelli	
17:30 - 17:50	Rock Bowl final	216. Experimental and Numerical Analysis of Single Joint around Circular Hole Dr. Rakesh Kumar	295. Numerical analysis of the mechanical stability of salt caverns for Underground Hydrogen Storage under Severe Solicitations Hippolyte Djizanne	266. Back analysis of a rockfall catalog using radar tracking Qiuyi Li	56. Comparative Analysis of Multiple Mining Schemes for Large-Scale Deep Iron Ore Mines Haoyan Wu	
17:50 - 18:10	Rock Bowl final	227. Experimental Investigation on the Influence of Swelling on Hydraulic Conductivity in Sulfate Rocks Maximiliano R. Vergara	297. Phase field modeling of brittle-ductile fracture on OpenGeoSys Hanzhang Li	289. Understanding the behavior of intersections excavated at the URL of Andra: a feedback concerning three intersection experiments	67. Stress-strain analysis of SLC mine design in Kyrgyzstan Neil Bar	
18:10 - 18:30	Rock Bowl final	135. Determination of the mode I fracture toughness of different types of rocks under the influence of temperature and pressure Yan Li	304. Advancing a Unified Data Repository for Decision-Making in Tunnel Construction: Automated Knowledge Extraction from Archived Documents Alla Saaronova		74. Uncertainty and probability analysis of rock slope engineering based on 3D modelling Jessica Ka Yi Chiu	
18:30 - 18:50	Rock Bowl final	241. Degradation Due to Swelling-Induced Cracking in Gypsum-Bearing Dolomite and Its Potential Impact on High-Speed Rail Infrastructure Zhangiun Dai	311. Advanced Acoustic Signal Classification for Rockfall Detection Using Machine Learning Karnel Drif			
20:00 - 23:00	Banquet Dinner					



EUROCK





ISRM

Time	Thursday June 19						
Time	Cosmos 1 & 2 - Plenary sessions						
08:30 - 09:10	Keynote 5 - Hongwei Huang						
09:10 - 09:50							
	Keynote 6 - Thomas Marcher						
09:50 - 10:20	0	0	Coffe break	0	0		
Hall	Cosmos 1 & 2 Session 27	Cosmos 3A Session 28	Cosmos 3B Session 29	Cosmos 3C Session 30	Cosmos 3D Session 31		
	Theme 06: Ground Investigations	Theme 07: Laboratory Testing of Rock	Theme 03: Rock Mass Characterization	Theme 10: Geohazards	Theme 11: 3D Modeling and Visualization		
Chair	NN	NN	NN	NN	NN		
Co-Chair	NN	NN	NN	NN	NN		
	25. In-situ rock stress determination from hydraulic fracturing test data by combining generalized least squares inversion and statistical analysis Yarad Bekele	247. A Study on the Compressive to Tensile Dynamic Strength Ratio of Synthetic Sandstone Rock under varying Loading Conditions Sunita Mishra	194. Classification systems for Geotechnical data collection Charles Baylis	80. Comparison of erosion risk index methods for rocky coastal flysch cliffs, SW Slovenia Timotej Verbovšek	84. Hydromechanical simulation of post- mining flooding and the associated seismicity Sevda Dehkhoda		
	76. Quality Assurance and Review of Acoustic Emission Based In-situ stress Measurements Arthur De Alwis	271. Experimental analysis of the influence of gas sorption and associated swelling on the poro-elastic properties and permeability of coal Professor Dragan Grigic	130. Non-destructive and destructive tests for mechanical characterization of an ornamental stone quarry under flexural buckling Federico Vagnon	99. An innovative design solution for mitigating rockfall risk: the Darfo Boario case study Gessica Umili	97. Analysis of behavior of underground coal panel surrounded with goaved-out workings Dr. Sreenivasa Rao Islavath		
11:00 - 11:20	204. Development of roadway through backfilled stope for underhand mining: a case study Mr. Pradeep Kumar, Dr. Rakesh Kumar	286. Micromechanical Effects of Chemical Weathering on Carrara Marble Azemeraw Wubalem 291. Evaluation of the impact of heating and	58. Retro-analysis of convergence measurements in squeezing carboniferous soit, "Houiller Convergent" at Saint-Martin-La- Porte construction site (TELT): excavation axecuted in two geometries Gregorie Rousselet	100. Surveying existing rockfall flexible barriers to create a cartographic database aimed at the maintenance planning process Gessica Umili	108. Rock mechanical optimization of the shape and depth for a high-pressure lined rock cavern Presenting author: Leuri Uotinen		
11.00 11.10	221. QUANTIFYING ANISOTROPIES IN GEOTECHNICAL PARAMETERS FROM PRESSUREMETER TESTING IN SOFT ROCKS Lang Liu	291. Evaluation of the impact of heating and subsequent liquid nitrogen cooling on the properties of Rajahmundry basalt Rajeswar Das	63. MWD Data-Based Rock Mass Classification Using Machine Learning Techniques Tek Bahadur Katuwal	161. Hydrogeological investigations in slow- moving landslides Roberta Narcisi	110. Towards developing a large-scale 3D in- situ stress model Presenting author: Sanyam Ghimire		
11:40 - 12:00			Coffe break				
Hall	Cosmos 1 & 2 Session 32	Cosmos 3A Session 33	Cosmos 3B Session 34	Cosmos 3C Session 35	Cosmos 3D Session 36		
	Theme 06: Ground Investigations	Theme 07: Laboratory Testing of Rock	Theme 03: Rock Mass Characterization	Theme 10: Geohazards	Theme 11: 3D Modeling and Visualization		
Chair	NN	NN	NN	NN	NN		
Co-Chair	NN	NN	NN	NN	NN		
12:00 - 12:20	256. Investigating Roof Bolt Efficacy in Blast- Induced Damage Zone Around the Footwall Drive of an Underground Copper Mine Satyam Choudhury	292. Anisotropic Behavior of Schists Under Brazilian Test Conditions Abhilash Mishra	77. Unexposed rock joint identification based on point cloud analysis Chia-Chi Chiu	170, Enhancing Seismic Damage Assessment in Rock Tunnels: A Comprehensive Classification Approach Ainala Dinesh Reddy	116. Measuring physical aperture of a fracture affected by dislocation using photogrammetry Masoud Torkan		
12:20 - 12:40	260. Practical experience during rock stress measurements by using HF and HTPF methods at Røldal HPP Dirk Van Oosterhout	294. Enhancing Chalk Formation Integrity by Diammonium Phosphate Treatment: A Study on Downhole Cores Mahmoud Desouky	126. Application of Qslope classification in seismic prone regions Milorad Jovanovski	183. Factor of safety analysis in fractured multi layered slopes Kévin Elkharrat	147. Numerical assessment on the influence of faults in In-situ stress state distribution Bikash Chaudhary		
	280. Practical experience during rock stress measurements by using HF and HTPF methods at Røldal HPP Stian Femanger Mathiassen, Stefan Müller,	299. Study the Impact of Fluid Formulations on Sandstone Rocks Through Core Flooding Experiments and Uniaxial Compressive Strength Tests	52. A novel data-driven criterion to predict peak shear strength of rock fractures between different rock types Jinfan Chen	213. Effect of coal seam gradient on the stability of internal dump in opencast coal mines Dr. Sreenivasa Rao Islavath	164. Discontinuum Response of Jointed Rock Tunnels under Impact Loads Balakrishna K		
13:00 - 14:00	Kristine Thorsen Sæthern	Raghavandra Maddirala	Lunch				
14:00 - 14:50			Keynote 7 - Charlie Li				
14:40 -14:50			Short break				
Hall					Cosmos 3D		
	Cosmos 1 & 2	Cosmos 3A	Cosmos 3B	Cosmos 3C	Cosmos 3D		
	Cosmos 1 & 2	Cosmos 3A Session 37	Cosmos 3B Session 38	Cosmos 3C Session 39	Session 40		
	Cosmos 1 & 2	Session 37 Theme 07: Laboratory Testing of Rock	Session 38 Theme 03: Rock Mass Characterization	Session 39 Theme 10: Geohazards	Session 40 Theme 11: 3D Modeling and Visualization		
Chair	Cosmos 1 & 2	Session 37 Theme 07: Laboratory Testing of Rock NN	Session 38 Theme 03: Rock Mass Characterization NN	Session 39 Theme 10: Geohazards NN	Session 40 Theme 11: 3D Modeling and Visualization NN		
Chair Co-Chair 14:50 - 15:10	Cosmos 1 & 2	Session 37 Theme 07: Laboratory Testing of Rock NN NN 309. Determining Elastic Constants of Transversely laotropic Rock Using Digital Image Correlation and Strain Inversion from a Single Core SungBi Hong	Session 38 Theme 03: Rock Mass Characterization NN NN 189. Proposals for development of protocols for in-situ stress characterization Asieh Hamidi	Session 39 Theme 10: Geohazards	Session 40 Theme 11: 3D Modeling and Visualization NN NN 177. Research on the structure optimization of gravity-type foundation for onshore wind turbines Janqiang Deng		
Co-Chair		Session 37 Theme 07: Laboratory Testing of Rock NN NN 309. Determining Elastic Constants of Transversely laotropic Rock Using Digital Image Correlation and Strain Inversion from a Single Core Saungil Hong 312. Mechanical behaviour of granite with naturally occurring open-joints under compression Susmite Chaudhury	Session 38 Theme 03: Rock Mass Characterization NN NN 169. Proposals for development of protocols for in-situ stress characterization Asieh Hamidi 49. Numerical Modelling of Uniaxial Compressive Tests on Sille Bimrock Nadi Tunar Ozcan	Session 39 Theme 10: Geohazards NN NN 28. Monitoring Bonnard rock glacier under the effect of climate change Erika Prina Howald 238. Are fault-slip rockbursts triggered by static or dynamic effects? Qinghus Lei	Session 40 Theme 11: 3D Modeling and Visualization NN NN 177. Research on the structure optimization of gravity-type foundation for onshore wind turbines Jiangiang Deng 195. Transberg Method. Utilising Drone Photogrammetry to create real time hazard maps and optimise slope monitoring. Glan Guy		
Co-Chair 14:50 - 15:10		Session 37 Theme 07: Laboratory Testing of Rock NN NN 309. Determining Elastic Constants of Transversely leotropic Rock Using Digital Image Correlation and Strain Inversion from a Single Core Saungil Hong 312. Mechanical behaviour of granite with naturally occurring open-joints under compression	Session 38 Theme 03: Rock Mass Characterization NN NN 169. Proposals for development of protocols for in-situ stress characterization Asieh Hamidi 49. Numerical Modelling of Uniaxial Compressive Tests on Sille Bimrock Nadi Tunar Ozcan	Session 39 Theme 10: Geohazards NN NN 28. Monitoring Bonnard rock glacier under the effect of climate change Erika Prina Howald 238. Are fault-slip rockbursts triggered by static or dynamic effects? Qinghus Lei	Session 40 Theme 11: 3D Modeling and Visualization NN NN 177. Research on the structure optimization of gravity-type foundation for onshore wind turbines Jianqiang Deng 195. Transberg Method. Utilising Drone Photogrammetry to create real time hazard maps and optimise slope montoring.		

Hall	Cosmos 1 & 2	Cosmos 3A	Cosmos 3B	Cosmos 3C	Cosmos 3D
		Session 41	Session 42	Session 43	Session 44
		Theme 07: Laboratory Testing of	Theme 03: Rock Mass	Theme 10: Geohazards	Theme 11: 3D Modeling and
		Rock	Characterization		Visualization
Chair		NN	NN	NN	NN
Co-Chair		NN	NN	NN	NN
16:10 - 16:30		314. Influence of temperature on physico- mechanical properties of granite with reference to microcrack analysis Rishimon Munshi	232. A simple kriging technique for characterising geotechnical zones of a Zimbabwean Great Dyke deposit Tawanda Zvarivadza, Professor Hendrik Grobler, Professor Moshood Onifade	285.Impact of Joint Orientation on Rock Mass Erosion: Insights from Physical Spillway Model Testing Vineeth Reddy Karnati	257. Integrating Ground Investigations and 3D Modeling to Assess the Dynamic Response of Low-Rise Residential Buildings to Blast- Induced Vibrations Monika Tewari
16:30 - 16:50		565. Experimental Study of Thermal-Hydro- Mechanical Behavior of Gneiss Under True Triaxial Compression Zeobao Liu	234. Integrating non-contact surveys to characterize rock masses: the URLA case study Mateusz Janiszewski	308. Quantification of rockfall breakage in underground mines and rock engineering Álvaro Vergara Barría	258. Are We Being Deceived by Visually Appealing Models? Emilie Kolstø Strømøy, Marcus Lawton
16:50 - 17:10			242. An experimental investigation of fault gauge material under confined conditions Ali Mortazavi	37. Solutions for draining the Åknes rockslide, Norway Nicole Ragvin	306. Digital solutions for rock cuts – Experiences from the Være rock cut, E6 Ranheim – Værnes Sander Zakariassen
18:00 -19:00	Closing Ceremoney				