

IDENTIFICATION CODE	Title	Authors	PRESENTATION DATE	TIME TO HANG THE POSTER	TIME TO REMOVE THE POSTER	PRESENTATION TIME
P001	A methodology for semi-quantitative analysis of rockfall hazards and cost-benefit-based	R. Ortiz, L. Castro, S. Marambio.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P002	A review study about spatial correlation measurement in rock mass	S. Shokri, M. Shademan, M. Rezvani, B. Cami, T. Yacoub, S. Javankhoshdel.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P003	An accessible implementation of Bayesian data analysis for rock engineering applications	N. Bozorgzadeh, J. P. Harrison.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P004	Application of Quantitative Hazard Assessment System (HAS-Q) in rock mine slopes	T. B. Santos, A. E. M. Santos, M. S. Lana.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P005	Design of foundations on rock of arch type reinforcement in Antahuacana bridge	C. B. C. Peña, C. J. G. Rocha, M. A. Camacho, V. H. A. Iriarte.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P006	Displacement analysis of shallow tunnels by considering spatial variability	H. Mohammdi, E. Mohammadi, S. Moallemi, T. Yacoub, S. Javankhoshdel.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P007	Evaluation of behavior of a longwall entry subjected to the entire process of mining-induced	H. Kang, L. Wu, F. Gao, H. Lv..	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P008	Geotechnical Characterization of Methadiabase from Quadrilátero Ferrifero - MG, Brazil	L. C. Marcellino, J. R. F. Galindo, E. A. G. Marques, A. C. N. B. Arêdes, M. F. Leão, C. C. S.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P009	Influence of nearby structures in the design of a road tunnel	O. A. Varde, R. J. Rocca, M. E. Zeballos, R. E. Terzariol.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P010	Investigation of the impact of geodynamic risk on the financial and economic activities of mining	V. Noskov, S. Tsirel, P. Korchak.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P011	Investigation on the settlement of Yangtze River levee caused by the shield tunneling : a case	Y. Xue, X. Li, F. Kong, D. Qiu, Xianfengtan, Hongshuaizhen, Y. Tao.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P012	Method to Execute Damage Mapping in the Support and Reinforcement of Underground	R. C. Padula, L. C. B. Costa, J. P. B. Amaral.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P013	Rockfall risks along highways - A case study in the Serra do Mar mountain range (São Paulo,	L. M. N. Castilho, M. S. Paula, G. A. Campanha, M. A. Cunha.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P014	Rockfall Susceptibility: An Estimation Of The Main Factors Using Multivariate Statistics	L. R. C. Silveira, M. S. Lana, T. B. Santos.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P015	Strata Control Problems Encountered and Support Designing in one of the Incline	M. N. Bagde, A. G. Sangode, J. C. Jhanwar, J. Buragohain, A. Kumar.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P016	Study of a collapse occurred during the reinforcement work of a vault in a chalk quarry located	A. Hosni, B. Meire, D. Pennequin, N. Gildas.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P017	Tibetan Plateau rock tunnels in permafrost	D. Zhang, J. Harrison.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P018	Anisotropic Deformation Model of Jointed Rock Mass with Dilatancy	A. Vlasov, D. Vlasov, M. Zertsalov.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P019	Application of geomechanical classification systems in a Brazilian gold mine for estimation	T. B. Santos, C. O. Rodrigues.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P020	Assessment of the rock mass using the georesistivity method – A case study of the Kovire	C. J. Barriga, J. P. Barriga, E. L. Pereira.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P021	Definition of discontinuity sets by cluster analysis: a case study	M. S. Lana, M. A. Silva, J. M. P. Alves, A. M. Klen.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P022	Determination of RQD using GSI applied to Isotropic Igneous Rocks for Bieniawski's RMR	C. Franco, S. S. Salgado, A. F. Amaral Junior, E. A. G. Marques.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P023	Geomechanical Classification weak rocks masses: Application of a modified RMR System to an	P. R. C. Cella, L. G. Almeida, L. Castro.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P024	Geomechanics Core Logging Validation– Study Case Córrego do Sítio Mine	F. C. Pereira, Y. C. Vilca, T. C. A. Lima, S. S. Chaves, S. V. O. Ribeiro, R. L. P. Canabrava.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P025	Improvement of Rock Mass Basic Quality (BQ) Classification Method	W. Zhao, P. Jia, Y. Chen, C. Li, H. Yang.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P026	Mine Overburden Geomaterial Characterisation Using Digital Image Processing Technique	R. Koner, V. S. Kurre, S. Bose.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P027	Natural caves empirical stability assessments – four empirical methods application to caves in	A. Q. Paula, T. R. Corrêa, C. S. Sebastião, I. V. Brandi, H. M. Lima, R. P. Figueiredo.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P028	Rock fracture characterization and the influence of blasting parameters	A. O. B. F. Magalhães, R. A. Cunha, O. A. Quaglio.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P029	Selection of quasi-homogenous units of rock mass due to engineers classification systems	P. Konicek, K. Soucek, M. Vavro, L. Stas, P. Waclawik, L. Vondrovic, L. Vavro.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P030	SfM-MVS digital models applied to rock surface roughness	C. D. Viana, A. Endlein, C. H. Grohmann, G. A. Campanha, J. P. Monticelli.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P031	Step-Path Method an opportunity to better understand rock masses	N. Baczynski.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P032	Analysis of progressive failure process of layered gneiss based on digital speckle correlation	X. Liu, Y. Zhou, F. Wang, W. Zhang, C. Wang, X. Feng.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P033	Analysis of the influencing factors on b-value of rock acoustic emission	X. Liu, M. Han, X. Li, Z. Liu, T. Ming, W. He.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P034	Brittleness Effect on Acoustic Emission Response of Rocks under Uniaxial Compression	H. R. Nejati, A. Ghazvinian, A. Nazerigivi.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P035	Characteristics of AE quiet period of red sandstone under uniaxial compression	K. Zhao, Y. Zhuo, P. Zeng, Q. Li, C. Gong, Z. Huang.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P036	CHARACTERIZATION OF FRACTURE TOUGHNESS AND PROPAGATION ON INTRUSIVE	S. A. R. Cerrato, A. C. C. Perim, E. A. G. Marques.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P037	Coupling THMC of Fracture Conductivity of Hydro-Shearing stimulation in Enhanced	Y. Xiao, H. Wang, J. Guo, M. Chen.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P038	Cracking across a smooth interface in a rock-model material	D. M. Moura, A. Bobet.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P039	Cracking behaviors of rock-like specimens containing a flaw subjected to dynamic loading: a	B. Wu, P. Dong, Q. Wang.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P040	Defining the damage variable of sandstone from electrical impedance spectroscopy	X. Qianjun, Y. Duohao.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P041	Determination of effective surface energy of coal samples using methods of uniaxial	Vasilenko, A. Kirillov.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P042	Development of a true triaxial device for hydraulic fracturing experiments	J. Delgado-Martín, A. Muñoz-Ibáñez, R. J. Rivera, L. Romera-Rodríguez, L. R. A. Monge, J.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P043	Effect of microwave irradiation on the dynamic compressive behavior of Fangshan granite	K. Xia, S. Wang, Y. Xu, X. Li, G. Lu, Y. Xu.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P044	Estimating the fracture density in a Cox-Boolean discrete fracture network model	A. Hekmatnejad.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P045	Experimental characterization of dynamic elastic properties of a transversely isotropic clayrock in	D. Grgic, A. Giraud, L. Schoumacker.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P046	Influence of interface inclination on hollow cylinder based on hydro-mechanical coupling	Y. Zhu, X. Liu, E. Wang, J. Zhong.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P047	Influence of strain resolution on experimental correlation between ultrasonic amplitude and surface	D. Shirole, G. Walton, A. Hedayat.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P048	Investigation of directional hydraulic fracturing based on deformation reinforcement theory	J. Deng, Q. Yang, Y. Liu, W. Cui, Y. Zhu.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P049	Microcosmic failure features of rock under combined tension-shear stress	S. Li, J. Guo, X. Li, J. He.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P050	Observation of Failure Processes of Rock Containing Elliptical Holes under Compression Based	D. Li, Q. Zhu, Z. Han, X. Li.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P051	Shock Tests and Some considerations	Ö. Aydan, T. Ito, N. Tokashiki, S. Kodate.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P052	Study on prediction method of shale fracture toughness in southern Sichuan by logging	C. Shi, X. Liu, L. Liang, X. Wei, J. Xiong.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P053	Study on the attenuation law of blasting pressure and blasting vibration in extra thick coal	X. Wu, F. Cui.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P054	Study on the damage and failure characteristics of shale using micro-focus X-ray computed	Y. Duan, X. Li, J. He, R. P. Gamage.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P055	The electromagnetic radiation model of rock fracture	L. Peng, W. Pengcheng, W. Cheng, L. Ming.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P056	AE Characteristics on the Energy Dissipation and Liberation of Coal-Rock Mass Failure	P. Shan, X. Lai, X. Chen.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P057	Back analysis (BEM) in hard rock and the implications in further mining layouts	G. A. P. Batista, J. H. Silva, J. E. F. Ramires, M. P. Campos, K. D. Plooy.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P058	Deformation and failure characteristics of hard rocks under true triaxial compression	X.-T. Feng, R. Kong, J. Zhao, H. Xu, Z. Zheng, Y. Gao, W. Zhaofeng.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P059	Diamond wire cutting – Sense of Rock Strength	L. Seppo.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P060	Impact of faults and their mechanical properties on the regional stress field	J. Maury, T. Guillon, A. Blaisonneau.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P061	Influence of Anisotropy on the Swelling Properties of Alentejo Flysch Rocks (Portugal)	A. B. Pinho, I. M. R. Duarte.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P062	Investigation of the mechanical properties of dry, saturated and frozen highly porous limestone	B. Vasarhelyi, M. Davarpanah, A. Török, M. H. Ahmadi.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P063	Modelling the 3D Directional Dilation of Brittle Rocks	D. M. A. Oliveira, M. S. Lana, J. M. P. Alves.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P064	Modification of structural properties of filled soil by the "Geocomposite" method in the	D. Chunyuk, A. Vlasov, V. Znamensky, E. Morozov.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P065	Role of joint material properties on the apparent cohesion of a gravity dam foundation	A. Rulliere, P. Rivard, L. Peyras, P. Breul.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P066	ROMAN TRAVERTINE GEOMECHANICAL PROPERTIES	M. G. Benedicto Junior, A. F. Borges, J. H. F. Gaona, E. A. Vargas Júnior, R. Q. Velloso.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P067	The effect of alteration layers on UG2 pillar behaviour in the Bushveld Complex	A. G. Hartzenberg, M. Plessis, D. F. Malan.	16th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P068	Oedometer testing of swelling gouge materials at different water contents	A. H. Høien, B. Nilsen, R. Olsson.	16th September - morning	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P069	ANALYSIS OF THE ALTERABILITY OF QUARRY ROCK USED IN THE ALCORLO	J. A. D. Torres.	16th September - morning	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P070	The estimation of rockburst hazard for hard rocks by the test results below and beyond the	N. Kuznetsov, A. Kozyrev, I. Fedotova, A. Shokov.	16th September - morning	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P071	The Transfer and Lose of Grains with Water Flow in Broken Rock	H. Kong, L. Wang, G. Xu, B. Xu, C. Qiu, D. Zhang.	16th September - morning	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P072	Small-scale model preliminary testing on the interaction between paste backfills and	M. Nujaim, T. Belem, C. Auvray.	16th September - morning	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P073	Distinctions between the failure mechanisms of intact and jointed rocks under compression	Z. Zhang, J. Deng, J. Zhu.	16th September - morning	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P074	Borehole Geophysics Applied to the Geomechanical Characterization of Fractured	W. Pereira, R. P. Figueiredo.	16th September - morning	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P075	Laboratory measurements and numerical investigations of thermally-induced and gas-	L. Siemann, B. Leuger, D. Zapf.	16th September - morning	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P076	Influence of shear velocity on induced micro-seismicity and permeability	A. Giwelli, J. Sarout, J. Dautriat, M. Nogueira Kiewiet, L. Esteban, M. B. Clennell, D. Nguyen, Y.	16th September - morning	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P077	Static and dynamic elastic moduli of Limestone: comparison of results	M. P. Figueiredo, J. C. R. Justen, G. F. Vasquez, M. J. Morschbacher.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P078	Elastic properties of thermally heated Westerly granite under hydrostatic pressure	T. Lokajicek.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P079	ASR study of accelerated mortar bars by ultrasonics and acoustic emission	T. Lokajicek.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P080	Study on the Interaction of 'Rock-Machine' Based on the Newly Developed Whole Process	S. Li, W. Hou, X. Li, Z. Zhou.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P081	Microbiologically influenced stress corrosion cracking of cable bolts in underground mines	S. Saydam, H. L. Ramandi, H. Chen, S. Wu, A. Crosky, O. Kimyon, M. Manfield.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P082	Multichannel method of reliable precursors of failure define	V. V. Makarov, M. A. Guzev, A. M. Golosov.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P083	Experimental study of gneiss elastic anisotropy	T. Lokajicek.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P084	Abrasive WJ cutting: Effect of rock properties on kerf production energy	P. B. Arab, T. B. Celestino.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P085	Contribution to the knowledge of the alterability of the ardosifer schists of the Poio quarries, Foz	L. M. F. Gomes, C. R. V. Batalha, L. J. A. Pais.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P086	Performance analysis between drilling machines- models CAT MD6420 (rotatory drill) and	F. G. Costa.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P087	Long term behavior of a chalk: effect of relative humidity and flooding	M. Souley, C. Auvray, N. Lafrance, J.-M. Watelet, R. Vincent.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P088	Form study of coarse aggregates of geological domains using distinct tests	A. H. Back, E. Z. Porto, R. J. B. Pinheiro, A. V. Nummer, T. R. Sanguibuche, A. V. Sagrilo, P.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P089	Pull-out creep lab test for rock bolts embedded in soft rock-like material	N. Montero, R. A. G. Aires, C. O. Marañón, M. M. Menéndez.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P090	Ageing of cement grouted joint by water and acidic flows for assesing dam foundation quality	N. Néron, P. Rivard, M. Quirion.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P091	Shear strength of rock-concrete interface via direct shear test – a data compile	V. O. S. Vizini, M. M. Futai.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P092	Cover systems analysis in decommissioned gold mines to reduce acid drainage	T. S. C. Souza, C. A. Lima, L. E. Assis, E. A. G. Marques, S. J. M. C. Menezes.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P093	Hydraulic fracturing and In Situ Stress in the Cachoeira Mine, Caetité-BA, Brazil.	L. A. Rocha, R. P. Figueiredo, F. S. Magalhães, A. F. Amaral.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P094	Compaction banding in triaxial experiments on a high porosity limestone	Y. Abdallah, J. Sulem, M. Bomert, S. Ghabezloo, I. Stefanou.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P095	Investigation on the influence of the acid on the rock mechanical parameters of carbonate	G. Kepan, L. Xiang-Jun, L. Li-Xi.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P096	Energy characteristics of sandstone failure process under true triaxial loads	D. Li.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P097	Failure characteristics and mechanisms of Jinping marble under true triaxial compression	Z. Zheng, X.-T. Feng, S. Li, C.-X. Yang.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P098	Parametric studies of cable bolts using a modified Short Encapsulation Pull-out Test	D. Li, S. Saydam, P. Hagan, H. Masoumi.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P099	Experimental study on the effects of large single-joints on Oya tuff pillar strength	T. K. M. Dintwe, T. Seiki, O. Aydan, N. Tokashiki, H. Shimada.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P100	Pressure dependent dynamic elastic properties of anisotropic rocks	W. Li, X.-J. Liu, L.-X. Liang.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P101	Stress Level Dependence of Brittleness in Marbles	Z. Wang, X.-T. Feng, Y. Zhou, Y. Gao.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P102	Tensile mechanical properties of the flexible bent rockbolt and its application in the deep roadway	B. Wang, Z. Guo, T. Feng, W. Wang, Y. Ning.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30



P103	Abrasion tests combined with accelerated alteration cycles in different rock materials for railway	R. S. Santos, R. P. Ribeiro, A. B. Paraguassu, J. A. C. Neto, G. C. Xavier, M. J. Remedio.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P104	Experimental study on flexible supporting high-stress broken roadway and micro-seismic	S. Huayou, Y. Ning, C. Haiyan, S. Li.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P105	Experimental investigation and field application of deep hard rock fragmentation using conical	S. Wang, H. Linqi, J. Du, X. Li.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P106	Investigation of the Mechanisms of Stick-Slip Behaviour in Smooth Granite Joints	M. T. A. Labeid, W. Dossett, M. Diederichs, J. J. Day.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P107	In-situ tracer experiment at underground research laboratory in Japan	Y. Tanaka, T. Uda, S. Nohara, S. Okamoto.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P108	Point load test database of the Republic of Macedonia, statistical overview and	I. Peshevski, M. Jovanovski, D. Velinov.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P109	Inter relationship between shear parameter & resistivity for different rock matrix's using	S. Manish, P. Sudani.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P110	Experimental Study of the Shear Behaviour of a Rough Discontinuity Infilled by Different	M. Jeffery, S. Fityus, J. Delahunty, A. Giacomini.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P111	Analysis of rock mechanical strength tests of deposits in Rio Grande do Sul	T. R. Sanguibuche, A. H. Back, R. J. B. Pinheiro, A. V. Nummer.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P112	Experimental investigation of the grout-bolt interface behavior by optical fiber	M. Bost, D.-A. Ho, A. Khadour.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P113	Mechanic Characterization of Gneiss Weathering Materials from Southeast Brazil.	L. C. Marcellino, E. A. G. Marques, J. R. F. Galindo, D. S. Jaques, M. F. Leão, C. C. S.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P114	Rational design of waste rock (muck) barricades (WRBs) as paste backfill-retaining structures	T. Belem, M. Mbonimpa, L.-P. Gélinas, J. Alcott, D. Dallaire.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P115	Evaluation procedure of rock degradation by wet and dry cycles.	H. B. Justi, J. L. E. D. Filho, P. C. A. Maia.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P116	Comparative analysis between capping types used in the cylindrical test specimens of	R. S. Pereira, D. T. Peterle, J. P. B. Amaral.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P117	Comparative analysis of reinforcing fibers from the shotcrete used in the Cuiabá	R. S. Pereira, J. P. B. Amaral, D. T. Peterle.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P118	Iron ore mines blast optimization based on geomechanical information.	L. A. Silva, R. C. Candia, T. A. V. Costa, A. Lubene, D. Mazzinghy, G. V. Gouveia, T. Resende.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P119	Mechanical behavior of clay-rich shale under lateral decompression test with	Z. Liu, C. Zhang, J. Feng, X. Chen, J. Shao.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P120	Statistical validation of dip and dip direction of discontinuity planes of rock masses, obtained	J. Mancera-Alejándrez, E. Villareal-Rubio, S. Marcías-Medrano, A. Hernández-Espriu,	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P121	In situ pull out test results of double corrosion protected fully grouted rock bolts and analytical	M. H. Aghchai, P. Moarefvand, H. S. Rad.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P122	Grinding or not grinding, that is the question	J. Arzua, J. González, I. E. Varas, L. R. A. Monge, M. C. Vidal.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P123	Research on the influence of Confining Pressure on Nonlinear Dilatancy of Rock	W. Bin, Y. Jianmin, W. Aiqing.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P124	Fracturing under Polyaxial Stress States for Understanding and	I. Buocz, N. Rozgonyi-Boissinot, Á. Török.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P125	Joint orientation measurement application with two advanced systems	Y. Wang.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P126	Modelling the behaviour of oil well cement paste: a challenge spanning from the early age to	S. Ghabezloo, M. Samudio, J. Sulem.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P127	Seismic characteristics of micro-tremors of rock block and related slope revealed by physical model	T.-T. Wang, T.-T. Lee, K.-L. Wang, M.-C. Tsao.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P128	Process Management in Brazilian University Laboratories - Autonomy and Competitiveness	M. F. Leão, E. A. G. Marques.	th September - morni	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P129	Experimental investigation of the optimum sample geometry for the Luong core tension test	W. Chenghu, G. Gao.	th September - morn	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P130	Effect of bolt configuration on the rock bolt-grout interface behaviour	Y. Yokota, Z. Zhao, W. Nie, J. Shang, K. Date, K. Iwano, Y. Koizumi, Y. Okada.	th September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P131	A new method for cover depth threshold of tunnels in soft rock mass	Z. Hu, J. Lai, C. Wang, H. Lai, Y. Xie, K. Hua, Y. Wang.	th September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P132	Geotechnical solutions depending on the changes of soil parameters	M. Uljarević, B. Grujic, S. Zekan, D. Biorac, L. Palikuća.	th September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P133	The use of fiber reinforced shotcrete as rock support at the Cuiabá mine excavation	V. Monteiro, F. A. Silva, F. B. Pereira, A. R. Silva.	th September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P134	A methodology for assessing rock mass damage in underground mining	A. C. Adoko, M. Zhalel.	th September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P135	Soil-structure Interaction Study of a Building in Reinforced Concrete with Foundation in	Y. R. P. Santos, M. I. M. C. Bello, A. D. Gusmão.	th September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P136	Effect of boulder blasting on nearby structures of a tunnel being excavated by a TBM	Q. Zhang, Z. Zhang, J. Yang, Y. Liang, S. Bai.	th September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P137	Theoretical and Technological Study Progress of Preventing Dynamic Disasters in Mines	Q. Qi, L. Shu, W. Zheng, H. Li, Y. Li, Y. Pan, S. Liu.	th September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P138	Prediction of Tunnel Closure in Time-Dependent Rock Mass using Grey Verhulst Model	H. U. Chol, I. Y. Kang, K. U. Hong.	th September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P139	Stability Analysis of Free Span in Excavations with Diameter greater than 10 meters – Study	F. C. Pereira, Y. C. Vilca, T. C. A. Lima, R. L. P. Canabrava, S. S. Chaves.	th September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P140	ANALYSIS OF THE SUPPORT OF THE INCAHUASI TUNNEL (BOLIVIA), DESPITE A BAD	C. C. Martinez.	th September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P141	Landslide triggers of coastal cliff and the influence on highway tunnel – investigations through	C. Y. Chu, P. C. Lo, T.-T. Wang.	th September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00

P142	Poroelastic analysis of tunnel face advance in low permeability anisotropic ground	G. C. L. Maria, J. Sulem, S. Ghabezloo, I. Stefanou.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P143	The influence of the discontinuities on the mining performance	J. H. Silva, G. A. P. Batista, J. E. F. Ramires, A. S. Carvalho, G. R. Ribeiro, P. F. S. Resende, K. D.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P144	Behavior of gravity dams built on sedimentary rocks: deformation analysis of Dona Francisca HPP	V. O. Santos, L. A. Bressani, C. S. D. Smirdele, L. F. Tomasi.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P145	Heave of a sports centre on anhydritic claystone formation	A. Ramon, E. Alonso.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P146	Effect of gas flow rate on gas fracturing in Callovo Oxfordian claystone	A. Gilles, R. L. Vaissiere, M. N. Vu, J. Talandier, F. Comet.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P147	Sobol Sensitivity Analysis Based on the Extended RBSN	L. L. Rasmussen, A. P. Assis, M. M. Farias.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P148	Rock Physics Modeling of Anisotropic Shale and its Application to Geomechanics	S. Vorobiev, B. Cuesta, R. Sonwa.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P149	A Quick Rock Mass Classification Method of NATM Tunnel During Construction Based on Mask R-	Y. Xue, S. Zhang, Y. Cao, H. Shao.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P150	A FEM Study on Bearing Capacity and Safety of Shallow Footings on Slopes for Garhwal	K. Pandit, S. Sarkar, A. Godayal, M. Shazan.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P151	Probabilistic numerical evaluation of the open stope compression failure at the Niobec Mine,	S. Heidarzadeh, A. Saeidi, A. Rouleau.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P152	Numerical tests on the shear behavior of asymmetric single triangular rock joints	M. Huang, C. Xia, C. Ma, D. Zhang, Q. Xu.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P153	On anisotropy of deformational and ultimate properties of poro-elasto-plastic rocks	K. Ustinov, V. Karev.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P154	Thermomechanical numerical analysis of bowing in marble slabs	W. H. Ito, A. M. Ferrero, F. Vagnon, M. R. Migliazza, P. I. B. Queiroz.	14th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00

P155	A Numerical Study on the Optimization of Rockbolt Support for Flat-Roofed Excavations in	G. Walton, R. Abousleiman, S. Sinha, A. Crockford.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P156	Cosserat's effect (microstruture) coupled to Biot's poroelasticity in stability of circular openings in	D. M. S. Lopes, R. P. Figueiredo.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P157	Study of pipe jacking method for roadway excavation in deep and complex coal mine environment	X. Ding, Y. Tan, H. Mo, J. Chen.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P158	Side Friction of large diameter steel cylinder simulated using DEM	Y. Shi, X. Ding, R. Chen.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P159	Mechanical Mechanism and Test Verification of Deformation and Failure of Surrounding Rock	X. Zeng, Y. Guangming, Z. Yanhua, Q. Ju, Y. Yingnian, L. Tengchao, C. Cunji.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P160	Numerical Geological Modeling of the Karst System from Lajedo Arapuá, Jandaíra Formation,	F. B. Quadros, E. A. Vargas Júnior, F. O. L. Falcão.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P161	Study on the shear behaviour of rock joints using different models of artificial neural networks	A. R. S. Leite, S. A. D. Neto, K. Polemis Júnior, C. M. S. Oliveira.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P162	Computational simulation using solid finite elements with high aspect ratio	B. Maciel, L. L. Alvarez, I. F. Gomes, L. J. N. Guimarães.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P163	CIRCULAR TUNNEL IN A GRADIENT ELASTOPLASTIC ROCK MASS	G. Efremidis, H. Chen, C. Qi, E. C. Aifantis, I. Tsagrakis.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P164	Three dimensional numerical modelling of a large cavity formed in an underground	R. Bhasin.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P165	Excavation damage zone prediction for deep tunneling based on distinct element	N. Dadashzadeh, M. Diederichs.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P166	Methodology to assess rockburst potential and dynamic support design in tunnels by numerical	F. Villalobos, S. Villalobos, L. Aguilera.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P167	Design of shotcrete barricade for paste filled stopes using numerical modelling approach	J. L. Porathur, S. Sekhar, A. K. Mandal, M. Jose, C. P. Verma.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00

P168	Study on Horizontal and Vertical Seismic Response of Single-Arch and Large-Span Prefabricated	P. Ding, T. Lianjin, C. Shi, W. Xiao-Wa, S. Wu, S. Li.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P169	Improved contact model of discrete element method for simulating strain rate effect of	Z. Yuan, J. Zhou, Z. Guoyan.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P170	Constitutive behavior of rock mass anchored with constant-resistance-large-deformation	M. He, W. Gong, Y. Sun.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P171	Study of thermal and mechanical stresses variations on rock caused by laser drilling in high	M. Ahmadi, A. Dini.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P172	Analysis of backfill stability using the beam theory with the method of numerical simulation	F. Ma, F. Liu, R. Lu, J. Guo.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P173	Insitu blocks and yield dimension stone block size distributions assessment by using 3DEC	R. Bhusan, S. R. NAIK, R. KUMAR, S. S. FALKE, R. V. GIREESH .	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P174	Numerical study of the effect of delay timing on blast induced rock damage	A. S. Hashemi, P. Katsabanis.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P175	Using Numerical Model as Tool to Predict the Stability Behavior of a Stope	D. Santana, A. R. Rati, P. L. Oliveira, F. C. Melo.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P176	Simplified method for the Identification of geologic osmotic pressure based on pore	M. Takeda, M. Manaka, K. Ito.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P177	Sill pillars and hangingwall stability charts based on numerical modelling for Cuiabá	L. Pimenta, L. C. B. Costa, R. S. Guzman, L. Lorig, D. Toro.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P178	Thermo-Hydro-Mechanical characterization of Soft Rock from Sillar Zone km 137	D. B. T. Arispe, C. B. C. Peña, G. R. Roca, D. R. Sandoval.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P179	A simplified analytical method to estimate long term concrete lining stress in deep	V. Martyniak, F. Emeriault, R. Plassart, F. Laigle.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P180	Three-Dimensional Trajectory Reconstruction of Induced Single Block Rockfall	A. Ringenbach, A. Caviezel, L. Meier, S. E. Demmel, G. Lu, Y. Bühler, M. Christen, P. Bartelt.	ch September - afterno	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00

P181	Numerical investigation of massive roof failure in an Underground Coal Mine in	B. Mishra, R. Sebastian.	17th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P182	Fluid flow simulation in naturally fractured media using interface solid finite elements with high	P. R. Cleto, O. L. Manzoli, H. Fabbri, E. A. Rodrigues, L. A. G. Bitencourt Jr., A. T. Gaiotto Jr..	17th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P183	Parametric analysis for support definition during construction of road tunnels to overcome	A. J. C. Caicedo, J. Carrillo, F. Nanclares.	17th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P184	Geostatistical analyzes applied to estimating geotechnical parameters – Case Study:	Y. C. Vilca, C. E. A. Ortiz, R. L. P. Canabrava, F. C. Pereira, S. S. Chaves, T. C. A. Lima, M. S.	17th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P185	A simple and efficient 3D clumped particle strategy to model brittle rocks	Y. Ye, K. Thoeni, Y. Zeng, O. Buzzi, A. Giacomini.	17th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P186	Variants of the shear strength reduction method and their impact on the assessment of	K. P. Lawrence, M. Yetisir, K. M. Moffitt, J. L. Carvalho.	17th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P187	Excavation simulation and support time study of deep buried double-shield TBM tunnel	Y. Liu, S. K. Hou, Q. Yang, F. Jin, C. Y. Li, P. X. Qin, H. W. Zhou.	17th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P188	A method for applying a variable disturbance factor to Hoek-Brown properties in large open	K. Gallant, E. Tasse, P. Matlashewski, K. Lawrence, J. Carvalho.	17th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P189	The Groundwater Impacts of Rock Tunneling Analysis Based on Stochastic Modeling	Y. Li, X. Li, Z. Chen, C.-F. Chang, Y. Rubin.	17th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P190	Subsidence Analysis of Waste Dumps Located inside an Active Caving Crater	C. Cancino, C. Alvarez, P. Gomez, P. Cavieres, R. Jara, C. F. Badilla, J. Millan.	17th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P191	Microplane Damage Model for Rocks and Its Application	X. Chen, Y. Fu, Z. Feng.	17th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P192	Analysis of Microseismic Parameters for the Safety of Underground Structures	D.-S. Cheon, K. Jin, C.-O. Kim.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P193	Budgeting for Deformation	E. Hancock, E. Jones.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P194	Dependence of the distribution of seismic events on the location of geological faults	D. Kotikov, S. Tsirel.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P195	Complex approach to the allocation of hazardous areas within the mine field	Y. Zamorkina, M. Belova, A. Popov, A. Shabarov, F. Pellet.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P196	Empirical analysis for ground vibration induced by air decking blasting in a copper mine	R. Cheng, Z. Zhou, X. Cai, D. Ma.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P197	Implementation of "GTSism V1.0" didactic computer program for seismic refraction survey	C. J. Geronimo, C. B. Camacho, M. A. Camacho.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P198	Study on warping structure of overlying strata and roof comovement effect between two	L. Y. Zhe, Z. S. Kun, P. P. Zhi, W. X. Zhi.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P199	Analysis of rock blasting at an open pit and its influence in the community	A. S. Carvalho, G. A. P. Batista, J. H. Silva, P. F. S. Resende, G. R. Ribeiro.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P200	The Use of Mechanofacies to Characterize the Evaporite Section of Brazilian Basins	D. L. P. Domingues, J. P. Oliveira, N. C. Ferreira, V. R. Marchesi, S. A. B. Fontoura, R.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P201	Use of GEM4D in evaluating operational geometry in Open Pit Mining – Case Study: Córrego	R. L. P. Canabrava, Y. C. Vilca, S. S. Chaves, T. C. A. Lima, F. C. Pereira.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P202	Slope monitoring by vector of prism displacement	Y. C. Vilca, R. L. P. Canabrava, F. C. Pereira, S. S. Chaves, T. C. A. Lima.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P203	A low-cost terrestrial photogrammetric system for rockfall monitoring and hazard	A. Giacomini, K. Thoeni, M. Santise, S. Fityus, S. W. Sloan, R. Roncella.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P204	Seismic Analysis of Vibration Induced by Rock Blasting in Underground Mining	A. R. Matos, A. A. Gontijo, L. R. Fonseca, F. B. Pereira, B. B. Frontini, A. R. Rati, L. C. Costa,	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P205	Developing a rock mechanical coupling study over drilling through hydrate bearing	Y. Cheng, U. Ansari, Q. Li, Z. Han.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P206	Hydro-geomechanical fields in borehole vicinity and stress-dependent permeability	L. Nazarova, L. Nazarov, N. Golikov.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30



P207	Acoustic and Mechanics Characteristics Research on Conglomerate	Z. Bao-Wei, L. Xiang-Jun, L. Li-Xi, Z. Wen.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P208	Simulating the effects of transient pore pressure envelop on rock mechanical stresses	Y. Cheng, U. Ansari, Q. Li, Z. Han.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P209	Static versus dynamic elastic moduli of carbonate reservoir rocks during stress cycles	A. Giwelli, J. Sarout, L. Esteban, M. B. Clennell, C. D. Piante, D. N. Dewhurst, L. Kiewiet, S. Fims, S.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P210	Geomechanical and flow characterization of deep coal with continued generation of	S. Saurabh, S. Harpalani, R. Pandey.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P211	A Fully Coupled 3D Simulation of Hydraulic Fracture Networks from the Horizontal Wells	D. Kumar, A. Ghassemi.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P212	Heat Transfer with Phase Transition in Geomaterials	L. Wang, Z. Liu.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P213	Modelling of Coal Matrix Deformation and Swelling of Coal Induced by Gas Adsorption	J. Feng, N. Zhao.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P214	Geomechanical Analysis Directed at Basin and Petroleum System Modeling	P. Miranda, E. A. Vargas Júnior, A. Moraes.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P215	On the empirical correlations for pre-salt carbonates – a numerical modeling approach	M. A. M. C. C. Fernandes, G. L. Righetto, S. A. B. Fontoura.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P216	Evaluation of THM long-term behavior in HLW near-field: Gain reliability of future prediction by	S. Nishimoto.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P217	Numerical simulation of multiple stage hydraulic stimulation in Enhanced Geothermal System	L. Xie, K.-B. Min.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P218	Numerical Investigation of the Hydraulic Fracture Propagation Using the Distinct Element	P. He, X. Li, B. Zhang, J. He, Z. Zhabin, T.-Q. Mao, G.-F. Li.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P219	The effect of natural fractures on the hysteresis of stress-dependent permeability in	H. Qu, F. Zhou, J. Hu, Y. Peng, Y. Zhong, Z. Pan.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P220	Sealing property of the compacted block joint with bentonite particles/powder	H. Zhang, Y. Wang, S. Han, R. Yu, G. Zhou.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P221	Assessment of thermal performance of engineered barrier system made up of	M. K. Jha, P. K. Gautam, A. K. Verma.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P222	Monitoring and numerical modeling of long-term geothermal heat pump operation	K. Sosna, M. Cerný, H. Semíková, T. Pluhar.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P223	Sensitivity analysis of hydraulic properties of naturally fractured reservoirs	H. B. Assis, P. R. Cleto, R. A. Rodrigues, O. L. Manzoli, C. G. Nogueira.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P224	Characterization of the transversely isotropic behaviour of the Callovo-Oxfordian	P. Braun, S. Ghabezloo, P. Delage, J. Sulem, N. Conil.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P225	Numerical methodology for mechanical analysis of casing integrity across salt dissolved	D. D. E. F. Melo, S. A. B. Fontoura, J. D. V. Uribe, J. L. R. Anjos, L. F. M. Almeida, C. J. C.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P226	Simulation of Mixed Mode Hydraulic Fracture Propagation in Shale Gas Reservoirs	Y. Suo, Z. Chen, S. Rahman, H. Yan.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P227	Deformation visualization in oil sand under water injection by using continuous photographic	H. Pang, Y. Jin, J. Dong, Y. Gao, S. Wang, J. Guo.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P228	Fault reactivation and seismicity associated with geologic carbon storage, shale-gas fracturing and	J. Rutqvist, A. P. Rinaldi.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P229	Effect of natural thermal cycles on rock slopes stability- study of 2 French sites	M. Gasc-Barbier, V. Merrien-Soukatchoff.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P230	Estimations of Swellex's life of time at Lamego Mine - Sabará/MG	D. R. Lima.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P231	Integration of 3D limit equilibrium models with live deformation monitoring from interferometric	N. Bar, T. Yacoub, N. Coli, N. Harries, J. Bu, S. Rea, A. Mcquillan, K. Pano, L. Leoni, C.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P232	Preliminary analysis of rock slope stability by SMR in Canguçu, RS, Brazil	P. B. Arab, L. Vieira.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P233	Stability Assessment of a Road Cut Slope Using 3D Numerical Simulation – A Case Study	S. Sardana, R. K. Sinha, M. Jaswal, A. K. Verma, T. N. Singh.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P234	Method to determine the Stability of Rock Mass in front of Piles Based on Deep Excavation	Z. Dapeng, H. Lei, Y. Bo, L. Xue.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P235	Development of a dimensioning concept for the flexible rockfall protection solution Attenuator.	H. Hofmann, D. J. Glover, D. D. Wyllie.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P236	Kinematic Analysis of a Kimberlite Slope in the East of the Main Pit at Letseng Diamond	N. Lefu, E. Hingston.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P237	From creep to rapid sliding: back analysis of the Vajont landslide with the numerical DDA method	J. P. Ibanez, Y. H. Hatzor.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P238	Kinematic Analysis Applied to a Study of Stability from a Brazilian Slope Located at the “Serra do	M. A. Silva, I. C. Salah, A. M. G. Acevedo, L. B. Passini, A. C. M. Kormann.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P239	ANALYSIS OF SLOPE STABILITY IN CLAY MINE FOR INDUSTRIAL PURPOSES	B. G. Duz, A. O. B. F. Magalhães, É. P. Freire.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P240	The use of hig-tensile wire mesh in order to promote active stress field in a Rockmass	F. Gobbi, A. Pereira, N. Stein, B. Denardin, M. Strauss, S. Asakawa, A. Savarius, P. H.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P241	Slope stability assessment based on a Digital Outcrop Model: a case-study at Jardim	C. D. Viana, J. P. Monticelli, C. H. G. Carvalho, M. M. Futai, G. P. B. Garcia, R. W. Albuquerque.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P242	Using Intelligent Systems for Evaluating the Rock Slope Stability Defined by Unfilled	S. A. D. Neto, G. A. Barreto, Y. M. P. Matos.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P243	Slope stability assessment by using the finite element method: the case study of the Riacho dos	D. T. Peterle, M. E. Hartwig, L. R. Lima.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P244	Definition of geological-geotechnical models in slope stability studies applied to road	A. Balbis, J. Cerutti.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P245	Study on Dynamic Soil Pressure Response and Spectrum Characteristics of Micro-piles in	W. Zhixin, W. Honggang, W. Fei, L. Hao, P. Lifang, Z. Jin, X. Xianlong.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30

P246	Risk analysis based on geotechnical slope behavior in Rio Piracicaba (MG), Brazil	L. E. Assis, C. A. Lima, E. A. G. Marques, S. J. M. C. Menezes.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P247	Numerical analysis of thermomechanical processes in slope stability problems of	R. N. Almeida, E. A. Vargas Júnior, R. Q. Velloso.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P248	Alto Parana basaltic rock slope stability	J. P. Mendoza, R. C. Alvarez.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P249	Prediction of Failure Mode in Weak Rock Slopes Using Fuzzy Slope Mass Rating	A. G. Yardimci, C. Karpuz.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P250	Effects of Discontinuities and Groundwater on Rock Slope Stability	R. C. Silva, M. Ehrlich, D. P. Costa.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P251	Slope kinematic analysis in mining pits: case-study in São Jorge quarry, Balsa Nova/PR	M. Lima, A. M. G. Acevedo, J. C. Leite, E. Salamuni.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P252	Stability analysis considering water effect for reservoir bank slope based on deformation	Y. Liu, Z. Wu, O. Yang, W. Wang, Z. He.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P253	Slope stability evaluation in weak rock masses using sensitivity analyses and multivariate	D. A. Menezes, T. B. Santos, M. S. Lana, S. R. C. Cameiro.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P254	Assessment of mine rock slope stability using classification trees	T. B. Santos, M. S. Lana.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P255	On the Estimation of GSI for Weak Rock Masses in Large Pit Slopes	P. R. C. Cella, F. A. Padovani, F. N. Santos.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P256	Amount of fracturing inside rock slopes due to strength variation	A. Alzo'Ubi.	18th September	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30
P257	Constitutive models with damage applied to geotechnical behavior of evaporate rock	J. Forero; J. J. V. Braga; I. A. Pimentel; F. K. C. Pinedo; S. A. B. Fontoura.	18th September - afternoon	14h15 - 15h00	16h10 - 16h30	15h30 - 16h00
P258	Experimental study on the relationship between creep and permeability of coal under high	Z. Feng; T. Cai; D. Zhao; D. Zhou; Y. Ma.	18th September - morning	09h15 - 10h00	11h40 - 12h00	11h00 - 11h30