Theme	ID	Title	Authors
Civil	7	Stress Evolution of Rock Bolt Elements in Intersecting Joints in Rock Masses	Milad Barzegar, Saba Gharehdash
Civil	37	Teaching Subsidence Concepts with a Physical Modeling Device	Jiliang Li, Jinyuan Zhai
CIVII	57	Structural design of tunnel supports by combining a point estimate method with a	
Civil	43	deterministic numerical analysis code (FLAC2D)	Dohyun Park, Eui-Seob Park
CIVII	45	Weathering Profiles of Some Sandstones from Sunshine Coast, Australia -	Donyun Faik, Eurseob Faik
Civil	44	Morphological and Geotechnical Approach	EDUARDO MARQUES, DAVID WILLIAMS
CIVII			
Civil	90	Prediction of Tunnelling-induced Settlement Using Gene Expression Programming	Danial Behnia, Kourosh Shahriar
		Long-term stability analysis for high arch dam based on time-dependent	
Civil	131	deformation reinforcement theory	Yaoru Liu, Zhu He, Qiang Yang, Lijun Xue
Civil	137	A new 3D constitutive model for rock mass tunnel	Qi Zhang, Hehua Zhu, Lianyang Zhang, Boqi Huang
Civil	140	Clogging of drains and its influence on the stability of concrete dams	jorge F. da Silva
CIVII	140	Geo-mechanical model test for Global Stability of High Arch Dam and its	
Civil	146	Engineering Applications	Lin Zhang, Yuan Chen
0		MICHELL—FOURIER ANALYTICAL TREATMENT OF STRESSES IN THE RING TEST	
Civil	150	UNDER PARABOLIC COMPRESSION	Mehdi Serati, David J Williams
		Numerical Modeling of Rock Brazilian Test: Effects of Test Configuration and Rock	, , , , , , , , , , , , , , , , , , ,
Civil	157	Heterogeneity	Sohrab Gheibi, Rune M. Holt, Alexandre Lavrov, Diego Mas Ivars
Civil	162	TBM Tunneling in Discontinuous Rock Masses	zixin zhang
		Study on Weakening Effect of Structural Plane and Stability Analysis for Dam	
Civil	164	Abutment of Jinping?High Arch Dam	baoquan Yang, lin Zhang, yuan Chen, jianhua Dong, jianye Chen
		Performance of Drilled Shafts Socketed in the Dead Sea Crystalline Salt under	
Civil	168	Short Term Vertical Loading Condition	Ayman Fayed
Civil	176	Induced Rockbursts and Inherent Rockbursts	Jian Deng
		A micromechanical study of the interactions between a hole and a crack under	Shuai Zhou, J. Woody Ju, Hehua Zhu, Zhiguo Yan, Qing Chen, Zeyu
Civil	179	compression using PFC2D	Dong
		Remote Structural Mapping and Discrete Fracture Networks to Calculate Rock Fall	
Civil	180	Volumes at Tornado Mountain, British Columbia	Renato Macciotta, C. Derek Martin
		Impounding Deformation Analysis for Jointed Rock Slope Based on Generalized	
Civil	196	Effective Stress	Qiang Yang, Yuanwei Pan, Yaoru Liu, Li Cheng
	207		
Civil	207	Rock Mechanical Design of Gas Storage Caverns in the Salt Dome Edge Region	Dirk Zapf
		Salt Structure Information System (InSpEE) as a Supporting Tool for Evaluation of	Dirk Zapf, Kurt Staudtmeister, Reinhard Rokahr, Sabine Donadei, Dirk
C : ''		Storage Capacity of Caverns for Renewable Energies - Rock Mechanical Design for	Zander-Schiebenhöfer, Peter-Laszlo Horvath, Stephanie Fleig, Lukas
Civil	209	CAES and H2 Storage Caverns	Pollok, Markus Hölzner, Jörg Hammer
Civil	223	Modeling Natural Fracture Network Using Object-Based Simulation	Mahdi Haddad, Kamy Sepehrnoori

Theme	ID	Title	Authors
		Numerical study of crack coalescence in rock under quasi-static and dynamic	
Civil	229	loading by using the distinct lattice spring model	Chao Jiang, Gaofeng Zhao
Civil	231	Constitutive couplings in unsaturated granular media with crushable grains	Yida Zhang, Giuseppe Buscarnera
		Modelling the shear behaviour of sedimentary rock joints under constant normal	
Civil	232	stiffness conditions	Sivanathan Thirukumaran, Buddhima Indraratna, E.T. Brown
		A CREEP CONSTITUTIVE MODEL CONSIDERING GEOMETRIC DAMAGE OF	
Civil	236	FRACTURED ROCK MASS AND ITS APPLICATION	Yong Li
		Numerical Modeling of Experimental Hydraulic Fracture Initiation and Propagation	Dharmendra Kumar, Marte Gutierrez, Luke Philip Frash, Jesse Clay
Civil	253	in Enhanced Geothermal Systems	Hampton
Civil	284	Size effect on length and width of fracture process zone	Ali Fakhimi, Mehdi Galouei
		Effect of hydraulic diffusivity and slipping zone thickness on thermal pressurization	
Civil	298	process during seismic slip	Kimia Mortezaei, Farshid Vahedifard
		A combined experimental (micro-CT) numerical (FDEM) methodology to study	
Civil	304	rock joint asperities subjected to direct shear	Bryan Tatone, Giovanni Grasselli
		Real time stability evaluation of large underground powerhouse caverns - A case	
Civil	333	study	Sivakumar Cherukuri, Karma Dandup, Kencho Dorji
		Influence of Microcrack Parameters on Splitting Failure of an Opening under High	
Civil	337	Stress	Hai Pu, Taoyi Nie, Lianguo Wang, Yinlong Lu
Civil	358	Soft Ground Shield Driven Tunnel Defect Analysis	Pan Li, Peixin Shi
Civil	373	<h2>Potential mechanisms of post-injection induced seismicity</h2>	Silvia De Simone, Jesús Carrera
Civil	206	Design and Construction of a Dean Evenyation in Extremely Dear Desk Mass	Daymand Castalli, Danald Disbards, Cardon Clark
CIVII	396	Design and Construction of a Deep Excavation in Extremely Poor Rock Mass Understanding the Correlation between Induced Seismicity and Wastewater	Raymond Castelli, Donald Richards, Gordon Clark
Civil	419	Injection in the Fort Worth Basin	Valerie Gono, Jon Olson, Julia Gale
Civii	419		
		A Calibrated Synthetic Rock Mass (SRM) Model for Simulating Crack Growth in	
Civil	430	Granitic Rock Considering Grain Scale Heterogeneity of Polycrystalline Rock	Kiarash Farahmand, Mark Stephan Diederichs
		Rock slope instability modeling analysis and mitigation at mountainous road, and	
Civil	441	prediction of debris flows utilizing the satellite image, Saudi Arabia	Bahaaeldin Sadagah
		Model test of deformation and failure mechanism of shield tunnel passed through	
Civil	450	ground fracture with small angle	Zhiping HU, Rui WANG, Xiang REN, Xiangbo XIA, Yue CHEN
		Development of an exploration, design, and construction system for bedrock	
Civil	456	reinforcement considering geology at the tunnel	shinji utsuki
		DEM Simulation of Brazilian Tensile Failure of Hard Rock in Consideration of	Shinichiro Nakashima, Takashi Sakamoto, Kazuya Taguchi, Norikazu
Civil	458	Element Configuration	Shimizu
Civil	460	Development of soil-water coupled NMM-DDA	Ryota Hashimoto, Tomofumi Koyama, Mamoru Kikumoto

Theme	ID	Title	Authors
		Experimental study on loading-unloading failure process of marble in Jinping II	
Civil	462	hydropower station, China	Peng-Zhi Pan, Wei-Wei Ji, Xia-Ting Feng
		Numerical study on long-time deformation characteristics of soft clay around	
Civil	467	subway tunnel under train vibration load	Bin Ye, Shutao Pu
		Underground Research Laboratories for conducting fault activation experiments in	Yves Guglielmi, Pierre Henry, Christophe Nussbaum, Pierre Dick,
Civil	480	shales	Claude Gout, Florian Amann
		Investigation of Roughness Algorithms Applied to Joint Roughness Coefficient	Mason McGough, Lexi Kimes, Alan Harris, O. Patrick Kreidl, Nick
Civil	493	Profiles for Assessment of Weathering	Hudyma
Civil	502	Line of Dools Mana Classification in professibility studies. An illustrative study	Tauranda Zuariu dan
Civil	503	Use of Rock Mass Classification in prefeasibility studies: An illustrative study	Tawanda Zvarivadza
Civil	F 11	Development of an oedometer cell to study the horizontal stress evolution during	Casilia Lina, Analica Lina, Lagnanda Cuimanãos, Iran Comos
Civil	511	a chemical dissolution	Cecilia Lins, Analice Lima, Leonardo Guimarães, Igor Gomes
Civil	532	Long-term creep experiments on Haynesville shale rocks	Fatemeh Rassouli, Mark Zoback
		Effect of Fracture Dilation Angle on Stress-Dependent Permeability Tensor of	Kiarash Farahmand, Alireza Baghbanan, Kourosh Shahriar, Mark
Civil	542	Fractured Rock	Stephan Diederichs
Civil	575	Micro-scale modeling of the inelastic response of a granular sandstone	Shiva Esna Ashari, Giuseppe Buscarnera, Gianluca Cusatis
		Study on the rheological properties of the surrounding rock of a deep buried	
Civil	593	phyllite tunnel	Zheng LU, Hailin YAO, Jie LIU, Shaojun LI, Dongming YU
		Experimental and Numerical Investitaions on Mixed Mode Fracturing of Concrete	
Civil	598	and Rocks by using Semi-Circular Disc (SCD) and Disc Specimens	Nazife Erarslan, Rose Obligado, Zhenghao Li , Morteza Ghamgoshar
CIVII	330		Nazire Liaisian, Rose Obligado, Zhenghao Li , Mol teza Ghanigoshai
Civil	613	Numerical Simulation for Shear Behaviors of Rock Joints under Direct Shear Test	Yong Ming Tien, Yu-Chen Lu, Kae-Shyang Sheu
Civil	614	Variability of mechanical properties of bimrock	Yong Ming Tien, Yu-Chen Lu, Hung-Hao Cheng
Civil	615	On the Tunnelling in the Weak Slate Formations in Taiwan	K.J. Shou, C.L. Lee
Civil	616	Evaluating Foundation-Structure Behavior Using a Jointed Material Model	Joseph Kovacich, Richard Barrie, Luling Yang
		Recent Tests and Large Excavations in Underground Research Laboratories and	
Civil	629	Facilities	Joseph Wang
		Modeling Hydraulic Fracturing in Naturally Fractured Reservoirs Using the	
Civil	636	Discontinuous Deformation Analysis	William Morgan, Mustafa Aral
		Investigation into the Effect of Length to Diameter Ratio on the Point Load	
Civil	639	Strength Index of Gosford Sandstone	Malcolm Forbes, Hossein Masoumi, Serkan Saydam, Paul Hagan
		Investigation of Departitive Demage Sections shout the Departicle Debuis Flow and	long thum LEE too toong KIM. Cong Man Veen turo Vek too the
Civil	642	Investigation of Repetitive Damage Sections about the Roadside Debris Flow and	Jong-Hyun LEE, Jae-Jeong KIM, Sang-Won Yoon, Jung-Yub Lee, Ho-
Civil	643	Evaluation of Efficiency of Installing Facilities for reducing Debris Flow	Bon Koo
Ci vil	666	Innovative In Situ Stress Testing Using Unconventional Equipment and Procedures	Deter Distance Manager Visillanda Jaka Varusa
Civil	666	for High-Pressure Hydropower Tunnels	Peter Dickson, Masrour Kizilbash, John Young

Theme	ID	Title	Authors
		Influence of Structuration on the Critical State Friction Angle: an Elastoplastic	
Civil	668	Description	Morteza Mohamadi
		Evaluation of conditions of rock bolts affected by corrosion using pulse echo and	El Moetazz Billeh Ishak Medfouni, Apedovi Serge Kodjo, Kaveh Saleh
Civil	685	acoustic emission methods	, Patrice Rivard, Marco Quirion
		Case Study on Field Investigation and Stability Analysis of Volcanic Rock Slopes in	
Civil	688	Southwest area of Korea	Seung-Hyun Kim, Young-Suk Oak, Chul-Hee Lee, Kwang-Don Joo
Civil	691	Numerical study on the heterogeneities of rock material under Brazilian test	Jianjun Ma, Gaofeng Zhao, Jun Wang
Civil	700	Experimental Evaluation of Rock Erosion in Spillway Channels	Michael George, Nicholas Sitar, Leonard Sklar
		Numerical modeling of crack propagation mechanism in jointed rock slopes using	
Civil	710	indirect BEM and DEM	Soheila Nazari, Alireza Yarahmadi Bafghi, Mohammad Fatehi Marji
		Simple modeling of time-dependent behavior for normally consolidated soil to	
Civil	716	structured soil	Teruo Nakai, Hossain Shahin, Hiroyuki Kyokawa
Civil	792	Stability of the rock block system that initiated the Jiweishan landslide in China	Pinnaduwa Kulatilake
		HISTORY AND MECHANISMS OF ROCK SLOPE INSTABILITY ALONG TELEGRAPH HILL,	
Civil	820	SAN FRANCISCO, CALIFORNIA	John Wallace, Dale Marcum
			Ruidong Peng, Man-chu Yeung, Chin Man Mok, Engsew Aw, Tao
Civil	829	Analysis of dam abutment erosion by overtopping water using DDA	Yeung, Robert Wright
Civil	836	Optimization of Pipe Roof Design for Gongbei Port Tunnel Excavation	Peixin Shi, Jianli Pan, Haidong Gao, Caicheng Yu
Interdisciplinary	26	Numerical modelling of salt leaching-dissolution process	Farid Laouafa, Jianwei Guo, Michel Quintard, Haishan Luo
			Mathew Ingraham, Scott Broome, Stephen Bauer, Perry Barrow,
Interdisciplinary	28	Behavior of salt from the Bayou Choctaw salt dome	Gregory Flint
		Mixed Finite Element Method applied to Non—Euclidean Model of Inelastic	
Interdisciplinary	38	Deformations	Egor Vtorushin, Vitaly Dorovsky, Evgeny Romensky
		Transferring the geomechanical behaviour of Opalinus Clay observed in lab tests	
		and the Mont Terri URL to assess engineering feasibility at a potential repository	
Interdisciplinary	57	site	Silvio Giger, Paul Marschall, Bill Lanyon, C. Derek Martin
		True-Triaxial Hydraulic Fracturing of Niobrara Carbonate Rock as an Analogue for	Luke Frash, Marte Gutierrez, Azra Tutuncu, John Hood, Mehdi
Interdisciplinary	65	Complex Oil and Gas Reservoir Stimulation	Mohktari
Interdisciplinary	66	An Analytical Boundary Condition for D3Q19 Lattice Boltzmann Model	Yanhui Han
			Michael Molenda, Ferdinand Stoeckhert, Sebastian Brenne, Michael
Interdisciplinary	69	Acoustic Emission monitoring of laboratory scale hydraulic fracturing experiments	Alber
		A Numerical Study of the Parameters that Affect the Induced Principal Stresses by	
Interdisciplinary	75	Hydraulic Fracturing in a Shale Formation	Yasser Akbarzadeh, Hugh Miller
		Fabric-enriched Modeling of Anisotropic Healing induced by Diffusion in Granular	
Interdisciplinary	87	Salt	Cheng Zhu, Chloe Arson

Theme	ID	Title	Authors
		Discrete Element modeling and analysis of shielding effects during the crushing of	Pei Wang, Esmaeel Bakhtiary, Todd Christopher, Sarah Ecker, Kyle
Interdisciplinary	111	a grain	Francis, Chloe Arson
		Numerical Manifold Modeling of Coupled Hydro-Mechanical Processes in	
Interdisciplinary	123	Fractured Porous Rock Masses	Mengsu Hu, Yuan Wang, Jonny Rutqvist
		Geomechanical evaluation of fault reactivation potential and uplift at the South	Yanhua Zhang, Laurent Langhi Langhi, Claudio Delle Piane, Peter
Interdisciplinary	127	West Hub geological CO2 storage site, Western Australia	Schaubs, Dave Dewhurst, Linda Stalker, Karsten Michael
		What can we learn from ultrasonic velocities monitoring during hydraulic	
Interdisciplinary	134	fracturing of tight shale	Jerome Fortin, Sergei Stanchits
			Matías Ezequiel Fernández, Mauro Baldini, Luis A. Pugnaloni, Martín
Interdisciplinary	135	Proppant transport and settling in a narrow vertical wedge-shaped fracture.	Sánchez, Ariel R. Guzzetti, C. Manuel Carlevaro
		Experimental assessment of the influences of temperature on geomechanical	Behzad Mehrgini, Hossein Memarian, Maurice Dusseault, Hassan
Interdisciplinary	143	characteristics of a carbonate reservoir	Eshraghi, Maryam Niknejad, Maryam Hassanzade, Ali Ghavidel
		A coupled geochemical-transport-geomechanical model to address caprock	
Interdisciplinary	165	integrity during long-term CO2 storage	Ellen F. van der Veer, Svenja Waldmann, Peter A. Fokker
		Relative Importance of THM Effects During Non-isothermal Fluid Injection in	Mohammadreza Jalali, Keith F. Evans, Benoît C. Valley, Maurice B.
Interdisciplinary	175	Fractured Media	Dusseault
		The influence of fracturing fluids on fracturing processes: a comparison between	
Interdisciplinary	182	gas and water	Jiehao Wang, Derek Elsworth, Wancheng Zhu, Jishan Liu, Yu Wu
		Calibrated acoustic emission system records M -3.5 to M -8 events generated on a	
Interdisciplinary	204	saw-cut granite sample	Gregory McLaskey, David Lockner
		Sealing capacity of a seal system in rock salt — Hydraulic impact of the EDZ long-	
Interdisciplinary	210	term evolution	Oliver Czaikowski, Klaus Wieczorek, Uwe Hertes
		A Practical Log-Based Approach for Assessing and Preventing Wellbore Instability	
Interdisciplinary	212	Considering both Mechanical and Shale Swelling Effects	Fatmir Likrama, Arturo Diaz Perez
			Mohsen Bazargan, Agust Gudmundsson, M. Y. Soliman, Mahdi
Interdisciplinary	214	Wellbore instability during plasma torch drilling in geothermal reservoirs	Habibpour, Nathaniel Forbes Inskip, Ali Rezaei
		Modeling of Failure Behavior of Anisotropic Shale Using Lattice Discrete Particle	
Interdisciplinary	225	Model	Weixin Li, Congrui Jin, Marco Salviato, Gianluca Cusatis
	220		
Interdisciplinary	228	Gas Transport Characterization of Fractured Rock by In-situ Gas-injection Tests	Michito Shimo, Susumu Shimaya, Toshio Maejima
Internalize in th	220	AE-Rate Controlled Mode II Fracture Propagation Experiments on Granite and	Mana Dilah, Daman Dahman Ukushi Galar D
Interdisciplinary	239	Sandstone	Marc Rück, Roman Rahner, Hiroki Sone, Georg Dresen
to the solid state it as	245	Monitoring of Mechanically-Induced Damage in Rock using Transmission and	Anglithe Mandisianani. Andersia Dalach Lasser I. Durals M. U
Interdisciplinary	245	Reflection Elastic Waves	Anahita Modiriasari, Antonio Bobet, Laura J. Pyrak-Nolte
to to add a starting	247	Reliability analysis of rock slopes involving correlated non-normal variables using	Mantan Alive debadi. Deinen Deinel
Interdisciplinary	247	point estimate methods	Morteza Ahmadabadi, Rainer Poisel

Theme	ID	Title	Authors
Interdisciplinary	248	Integrated Experimental and Computational Study of Hydraulic Fracturing and the Use of Alternative Fracking Fluids	Hari Viswanathan, James Carey, Satish Karra, Mark Porter, Esteban Rougier, Robert Currier, Qinjun Kang, Lei Zhou, Joaquin Jimenez, Nataliia Makedonska, Li Chen, Jeffrey Hyman
interaiscipinary	240		Ali Naeimipour, Jamal Rostami, Eric Keller, Omid Frough, Shugang
Interdisciplinary	280	Estimation of Rock Strength by Means of Scratch Test	Wang
	-	Geomechanical Modeling to Predict Wellbore Stresses and Strains for the Design	Steven Sobolik, Steven Gomez, Edward Matteo, Thomas Dewers,
Interdisciplinary	290	of Wellbore Seal Repair Materials for Use at a CO2 Injection Site	Pania Newell, John Stormont, Mahmoud Taha
			John Stormont, Rashid Ahmad, Joshua Ellison, Mahmoud Taha, Ed
Interdisciplinary	294	Laboratory measurements of flow through wellbore ceement-casing microannuli	Matteo
Interdisciplinary	300	Capturing Early Evolution of Salt Openings	Frank Hansen, Cliff Howard , Kris Kuhlman, John Holland
Interdisciplinary	302	Verification of the implementation of rock-reinforcement elements in numerical analyses based on the hybrid combined finite-discrete element method (FDEM)	Bryan Tatone, Andrea Lisjak, Omid Mahabadi, Nicholas Vlachopoulos
Interdisciplinary	303	Geomechanis Issues Regarding Heat-Generating Waste Disposal in Salt	Fank Hansen, Till Popp
Interdisciplinary	311	Anisotropic geomaterial deformation formulation for the combined finite-discrete element method in 2D	Esteban Rougier, Zhou Lei, Earl Knight, Antonio Munjiza
Interdisciplinary	312	FDEM simulation on a triaxial core-flood experiment of shale	Zhou Lei, Esteban Rougier, Earl Knight, Antonio Munjiza, William Carey, Hari Viswanathan
Interdisciplinary	315	Fracture Testing in Modes I, II, and III on Escabrosa Limestone	Karen Roth, John Kemeny, Ashley Cheesman
Interdisciplinary	324	Dual-scale modeling of time-dependent damage evolution and failure process of brittle rocks	Yinlong Lu, Lianguo Wang, Xiaokang Sun, Hai Pu, Taoyi Ni
Interdisciplinary	367	Fundamental investigation of gas injection in microfluidic shale fracture networks at geologic conditions	Mark L. Porter, Joaquin Jimenez-Martinez, James W. Carey, Hari Viswanathan, Fersheed Mody, James Sheng
Interdisciplinary	382	Acoustic Wavefront Imaging of Orthogonal Fracture Networks subjected to Bi-axial Loading	Siyi Shao, Laura Pyrak-Nolte
Interdisciplinary	384	Dynamic rupture modeling of injection-induced seismicity: Influence of pressure diffusion below porous aquifers	Loes Buijze, Bogdan Orlic, Brecht Wassing, Gerd-Jan Schreppers
Interdisciplinary	386	Caprock movements during fluid injection	Patrick Selvadurai
Interdisciplinary	389	Experimental Investigation of Hydraulic Fracturing of Shale with water	J. William Carey, Esteban Rougier, Zhou Lei, Hari Viswanthan
Interdisciplinary	391	Measure of Friction during Drilling of Rocks	Mahendra Shewalla, John R. Smith, Radhey S. Sharma
Interdisciplinary	393	Computer modeling applied in the design of underground salt caverns opened by solution mining for gas storage	Pedro Costa, Alvaro Costa, Edgard Poiate, Claudio Amaral, Andre Pereira
Interdisciplinary	399	Numerical study of the impact of CO2-fluid-rock interactions on porosity and permeability evolution in fractured carbonate rocks	Yue Hao, Megan Smith, Harris Mason, Susan Carroll
Interdisciplinary	422	Using Image Windows for the Analysis of Fracture Traces and Fractures	Matthew Mauldon
Interdisciplinary	425	Coupled Euler-Lagrange Simulation of the Response of a Tunnel in Jointed Rock to Explosive Loading	David Steedman

Theme	ID	Title	Authors
Interdisciplinary	433	New high-speed friction experiment capability for study of friction	Omid Saber, Frederick Chester, Jorge Alvarado
		Long-term modeling of coupled processes in a generic salt repository for heat-	
		generating nuclear waste: preliminary analysis of the impacts of halite dissolution	Laura Blanco Martin, Jonny Rutqvist, Jens T. Birkholzer, Alfredo
Interdisciplinary	440	and precipitation	Battistelli
Interdisciplinary	444	Injection Induced Fracturing As a Necessary Evil in Geologic CO2 Sequestration	Yun Wu, Jacob Taylor, Abraham Frei-Pearson, Steven Bryant
		Multiscale characterization of physical, chemical, and mechanical heterogeneity of	
Interdisciplinary	463	mudstones	Hongkyu Yoon, Thomas Dewers, Joseph Grigg, Peter Mozley
			Kamal Das, R Ausas, Ignacio Carol, Eduardo Rocha Rodrigues,
			Sandeep S. Sandha, Pablo E. Vargas, Nubia A. González, J.M. Segura
Interdisciplinary	464	Discrete Modeling of Multiple Discontinuities in Rock Mass using XFEM	Serra, M.R. Lakshmikantha, Ulisses Mello
		Micro-Seismic Monitoring of PDC Bit Drilling Performance during Vibration	
Interdisciplinary	474	Assisted Rotational Drilling	Yingjian Xiao, Jinghan Zhong, Charles Hurich, Stephen D. Butt
		Microseismicity induced in the Opalinus Clay by a gallery excavation in the Mont	Yves Le Gonidec, Christophe Nussbaum, Joël Sarout, Jérôme
Interdisciplinary	478	Terri underground rock laboratory	Wassermann, Paul Bossart
		Measurements of fracture aperture in granite core using microfocus X-ray CT and	Kiyoshi Kishida, Tomohiro Ishikawa, Yosuke Higo, Atsushi Sawada,
Interdisciplinary	485	fluid flow simulation	Hideaki Yasuhara
		Numerical simulation of crack initiation and growth in rock specimens containing a	
Interdisciplinary	487	flaw under uniaxial compression	Ahmadreza Hedayat, Felipe Ochoa-Cornejo, Yazen Khasawneh
		Biological influences in the subsurface: A method to seal fractures and reduce	Adrienne Phillips, Robin Gerlach, Randy Hiebert, Jim Kirksey, Lee
Interdisciplinary	490	permeability with microbially-induced calcite precipitation	Spangler, Richard Esposito, Al Cunningham
		Microstructure and Micromechanics of Wellbore Cements under Compression and	
Interdisciplinary	498	Thermal Loading	Hui Du, Ruixuan Guo, Mileva Radonjic
			Bing Q. Li, Zabihallah Moradian, Bruno Goncalves da Silva, John
Interdisciplinary	502	Observations of Acoustic Emissions in a Hydraulically Loaded Granite Specimen	Germaine
Interdisciplinary	504	Rate dependence of dry, oil- or water-saturated chalk	Katrine Andreassen, Ahmed Al Alwan
			Stephen Bauer, John Stormont, Scott Broome, Brandon Lampe,
Interdisciplinary	517	-Gas flow measurements through consolidating crushed salt	Melissa Mills, Frank Hansen
		NUMERICAL SIMULATION STUDY ON CO2 INJECTION FOR ENHANCING	
Interdisciplinary	520	HYDROCARBON RECOVERY AND SEQUESTRATION IN TIGHT OIL FORMATIONS	Sumeer kalra, Dr. Xingru Wu
meeralselphinary	520	THE EFFECT of ROCK MINERALOGIC and PETROGRAPHIC PROPERTIES on STONE	
Interdisciplinary	521	CUTTING FEED RATE	Murat Yurdakul. Hurrivet Akdas
Interdisciplinary	521	CUTTING FEED RATE DEM simulation of fracture process of inherently anisotropic rock under Brazilian	Murat Yurdakul, Hurriyet Akdas
	521 535	DEM simulation of fracture process of inherently anisotropic rock under Brazilian	
Interdisciplinary Interdisciplinary		DEM simulation of fracture process of inherently anisotropic rock under Brazilian test condition	Murat Yurdakul, Hurriyet Akdas Fiona Kwok, Kang Duan
		DEM simulation of fracture process of inherently anisotropic rock under Brazilian	

Theme	ID	Title	Authors
		DECIMETER-SCALE ANALYSIS OF GEOLOGIC HETEROGENEITY IN A BRITTLE-DUCTILE	
Interdisciplinary	540	SHEAR ZONE, & Aumi; SP&Oumi HARD ROCK LABORATORY, SWEDEN	Aaron Fox, Anders Winberg, Henrik Drake
Interdisciplinary	543	Some open issues on the design of protection barriers against rockfall	anna maria ferrero, rita migliazza, gessica umili
interdisciplinary	515	Application of Refraction Microtremor (ReMi) for predicting changes in rock	Chase Barnard, Rajagopala Kallu, Satish Pullammanappallil, Travis
Interdisciplinary	546	characterization in an underground mine.	West
Interdisciplinary	547	Study of geomechanical properties of 3D printed sandstone analogue	Sander Osinga, Gonzalo Zambrano-Narvaez, Rick Chalaturnyk
		Numerical investigation of the relationship between fracture shear compliance	
Interdisciplinary	554	and conductivity anisotropy	Joseph Morris
		Comparison of Injection-Induced Fault Reactivation and Seismicity in CO2	
Interdisciplinary	556	Sequestration and Shale-gas Fracturing	Jonny Rutqvist, Antonio Rinaldi, Frederic Cappa
Interdisciplinary	557	A Newly Developed Centrifuge Testing Program of SAGD Caprock Integrity	Jingyu Wu, Gonzalo Zambrano-Narvaez, Rick Chalaturnyk
		APPLICATION OF HPC AND NON-LINEAR HYDROCODES TO UNCERTAINTY	
Interdisciplinary	568	QUANTIFICATION IN SUBSURFACE EXPLOSION SOURCE PHYSICS	Souheil Ezzedine, Oleg Vorobiev, Lewis Glenn, Tarabay Antoun
		MULTIPHASE FLOW IN FRACTURED POROUS MEDIA: APPLICATION TO CO2	
Interdisciplinary	569	LEAKAGES FROM NATURAL AND STIMULATED FRACTURES	Souheil Ezzedine
		Numerical Model of Hydraulic Fracturing Fluid Transport in the Subsurface with	
Interdisciplinary	570	Pressure Transient and Density Effects	Daniel Birdsell, Harihar Rajaram, Hari Viswanthan, David Dempsey
Interdisciplinary	583	Coupled Waves at Fracture Intersections	Bradley Abell, Laura Pyrak-Nolte
		Coupled Modeling of the Strength Development and Distribution within Cemented	
Interdisciplinary	587	Paste Backfill Structure	Mamadou Fall
			Sangho Cho, Hyeongmin Kang, Minseong Kim, Yuzo Obara, Minami
Interdisciplinary	597	Loading rate dependency of dynamic fracture toughness of rocks	Kataoka, Kwangmin Kim
		Title: Attenuation of seismic waves in brine saturated Hawkesbury Sandstone: An	
Interdisciplinary	610	experimental study	Tharaka Rathnaweera, Ranjith Gamage, Samintha Perera
Interdisciplinary	619	Dimensioning principles in potash and salt mining to achieve stability and integrity	Wolfgang Minkley, Jan Mühlbauer, Christoph Lüdeling
		Mapping Permeability Tensors in Fractured Geothermal Reservoirs Using MEQ	
Interdisciplinary	626	Data	Yi Fang, Derek Elsworth, Trenton Cladouhos
Interdisciplinary	634	Effect of Anisotropy on Fracture Toughness and Fracturing of Rocks	Morteza Ghamgosar, David James Williams, Nazife Erarslan
			Libao ZHU, Nazife Erarslan, David Williams, Mehdi Serati, Morteza
Interdisciplinary	647	NUMERICAL STUDY OF ROCK AGGREGATE MATERIALS UNDER VARIOUS LOADINGS	Ghamgosar
		Extremely slow, dispersive seismic wave propagation within a fluid-filled fracture	
Interdisciplinary	651	and their electrokinetic effects	Seiji Nakagawa, Steven Pride, Valeri Korneev
Interdisciplinary	652	CHARACTERISTIC TRIAXIAL STRENGTH OF INTACT ROCK	Nezam Bozorgzadeh, John P. Harrison
Interdisciplinary	653	Modeling Stray Gas Leakage from Wellbores in Colorado Shale Gas Operations	Greg Lackey, Harihar Rajaram, Satish Karra, Hari Viswanathan

Theme	ID	Title	Authors
		Impact of Compression on Petrophysical and Mechanical Properties of Wellbore	
Interdisciplinary	657	Cement Containing Salt	Arome Oyibo, Mileva Radonjic
		Mechanisms of EGS Creation at The Geysers (California) revealed by seismic	
		tomography, spatiotemporal evolution of the microseismic events and	Pierre Jeanne, Jonny Rutqvist, Antonio Pio Rinaldi, Lawrence
Interdisciplinary	658	geomechanical simulations	Hutchings, Ankit Singh, Patrick F. Dobson
Interdisciplinary	662	Proppant Transport at the Fracture Scale: Simulation and Experiment	Pratanu Roy, Stuart Walsh, Wyatt Du Frane
Interdisciplinary	674	Acoustic Monitoring of Mineral Precipitation in a Fracture	Zhenyu Xu, Laura J. Pyrak-Nolte
Interdisciplinary	675	Numerical study of cracking process using a new contact model	Xiaobin Ding, Lianyang Zhang
		Thermal-Hydrological-Mechanical Modelling of Shear Stimulation at Newberry	
Interdisciplinary	680	Volcano, Oregon	Torquil Smith, Eric Sonnenthal, Trenton Cladouhos
Interdisciplinary	698	Healing of Rock Salt Damage and Applications	Christoph Lüdeling, Ralf Günther, Markus Knauth, Wolfgang Minkley
Interdisciplinary	713	Development of a geoperidynamic model for hydraulic fracture	John Edmiston
Interdisciplinary	727	Fracture-aperture alteration induced by calcite precipitation	Trevor Jones, Russell Detwiler
		Flow of high solid volume fraction fluids through fractures and around	Ricardo Medina, Russell Detwiler, Romain Prioul, Joseph Morris, Jean
Interdisciplinary	755	obstructions	Desroches, Alberto Ortega
		Geomechanical rock mass characterization with Terrestrial Laser Scanning and	
Interdisciplinary	781	UAV.	Andrea Tamburini, Davide Martelli, Walter Alberto, Fabio Villa
		Application examples of a new optical fiber sensor for reading RGB intensities of	
		light returning from an observation point in geo-materials under various natural	
Interdisciplinary	784	conditions	Shinichi Akutagawa, Yuichi Machijima
		Predicting intrinsic and apparent permeabilities from pore size distribution in tight	
Interdisciplinary	790	porous materials	David Grégoire, Fadi Khaddour, Gilles Pijaudier-Cabot
Interdisciplinary	809	Near Field Phenomenology for the Source Physics Experiments	David Steedman, Christopher Bradley
Interdisciplinary	810	Use of Geodesy to Discriminate Deformation Mechanics in Geothermal Reservoirs	Kyungjae Im, Derek Elsworth, Yves Guglielmi, Glen Mattioli
		Three-dimensional Numerical Investigation of the Effect of Injection Method on	Azadeh Riahi, Branko Damjanac, Zorica Radakovic-Guzina, Tatyana
Interdisciplinary	869	Shear Stimulation of Enhanced Geothermal Reservoirs	Katsaga
Interdisciplinary	870	Crack Band Approach to Model 3D Hydraulic Fracturing of Gas Shale Stratum	Zdenek Bazant, Viet Chau, Y Su, M Salviato
	-	Use of digital imaging processing techniques to characterise block caving	
Mining	9	secondary fragmentation and implications for a proposed Cave-to-Mill approach	YUBO LIU, Stefan Nadolski, Davide Elmo, Bern Klein, Malcolm Scoble
Mining	10	A joint asperity degradation model based on the wear process	Yingchun LI, Joung OH, Rudrajit MITRA, Bruce HEBBLEWHITE
		Rapid assessment of roof stability in coal mine entries based on the outcome of	
Mining	138	validated numerical models	Gabriel Esterhuizen, Berk Tulu
Mining	144	Cavability, the Least Known Engineering Factor Influencing Mine Designs in	
Mining	144	Secondary Extraction Layouts	Hamid Maleki

Theme	ID	Title	Authors
		A Parametric Study of Critical Factors That Affect Stability of a Cavity Induced by	
Mining	161	Borehole Mining in a Coal Deposit	Yasser Akbarzadeh, Hugh Miller
Mining	169	Rock-burst simulations with 2D-DDA	Ravit Zelig, Yossef H. Hatzor, Xia-Ting Feng
			Gautam Banerjee, Nilabjendu Ghosh, Dilip Kumbhakar, Keshar
Mining	198	A Method for Simulation of Longwall Goaf	Yadava
		A new method to measure tri-axial static strain change based on relative	
Mining	221	displacements between points for open pit slopes	Dale Preece, Ruilin Yang
Mining	224	Underground Dispessel of Fine Cool Waste	Sigura Angeler Saling Colom, Abdaltara Osauli, Mabdi Ostadbassan
Mining	224	Underground Disposal of Fine Coal Waste Nonlinear Failure Mechanism and Dynamic Simulation of the Deep Rock	Siavash Zamiran, Sajjad Salam, Abdolreza Osouli, Mehdi Ostadhassan
Mining	235	Engineering	Ning Zhang, Mingyang Wang, Jie Li, Lijian Ma, Pengxian Fan
Mining	-		
Mining	240	Ground control in China's coal mine: progress and prospects	Jiachen Wang, Jinwang Zhang, Yang Li
Mining	241	Calculating Potential Coal Pillar Bumps Using a Local Mine Stiffness Criterion	Kaifang Li, Keith Heasley
	254	Contribution of shear slip in a widespread compressive pillar failure	Eric Poeck, Ryan Garvey, Kun Zhang, Ugur Ozbay
Mining	254	Case Study: Understanding the mechanics behind the rockmass deformation	Enc Poeck, Ryan Garvey, Run Zhang, Ogur Ozbay
		observed in an extraction drive at New Gold's New Afton Mine block cave	
Mining	257	operation	Andy Davies
		The Implementation of 30 ft Wide Undercuts at TRJV	Luis Rodriguez, Drew Powell, Louis Sandbak
Mining	286	Dynamic tensile failure of rocks subjected to simulated In situ stresses around	Luis Rodriguez, Drew Powell, Louis Sandbak
Mining	296	underground openings	Kaiwen Xia, Bangbiao Wu, Rong Chen
IVIIIIIg	290	Investigation of rock fragmentation mechanism using dynamic spherical crushing	
Mining	308	test	Sheng Huang, Kaiwen Xia, Bibhu Mohanty
Mining	363	Numerical Simulation of Deformation and Failure Process of Coal-Mass	Khaled Mohamed, Berk Tulu, Ted Klemeti
Mining	374	Use of Micro-Seismic Monitoring Data as an Aid to Rock Mechanics Decision Making and Mine Design Verification	Brad Simear Bick Daradia Ali Jalbaut Tany Butlar
Mining	374		Brad Simser, Rick Deredin, Ali Jalbout, Tony Butler Zara Hosseini, David Collins, Ian Pinnock, Vladimir Shumila, Cezar
Mining	394	Induced Microseismic Monitoring in Salt Caverns	Trifu
Mining	594		Init
Mining	402	Numerical creep analysis of chalk cavities accounting for joints degradation	Faten Rafeh, Hussein Mroueh, Sebastien Burlon
		Evaluation and Selection of Surface and Production Casings for the New Wells at	
Mining	410	Eti Soda's Beypazari Trona Deposits	Hua Zhao, Bo Yu, Michael Hardy, Guray Cakmakci
Mining	418	Underground Mine Roof Crack Formation Simulation with Creep of Rock Mass	Yuting Xue, Brijes Mishra
-		Effect of Coal-Rock Interface Properties on Failure Stability of Coal Pillars	
Mining	423	Expressed in Energy Terms	Kun Zhang, Eric Poeck, Ryan Garvey, Ugur Ozbay
		Ground subsidence model for a panel caving exploitation at El Teniente mine -	
Mining	477	CODELCO CHILE	Alejandro Espinosa

Theme	ID	Title	Authors
		Investigation the Effect of Cyclic Loading on Fracture Propagation in Rocks by	
Mining	488	Using Computed Tomography (CT) Techniques	Morteza Ghamgosar, Nazife Erarslan
Mining	497	Cool mine miller failure notterne eveloped through much hilistic evelusio	
Mining	497	Coal mine pillar failure patterns explained through probabilistic analysis A review of pillar design for platinum mining to enhance stability: A Zimbabwean	Tawanda Zvarivadza
N Alia lua -	504		Wetzer Chide Chimeres Terrende Zuseinsdes
Mining	501	case study Numerical Simulation of End Constraint Effect on Post-peak Behaviors of Rocks in	Watson Chido Chinyowa, Tawanda Zvarivadza
Mining	510	Uniaxial Compression	Yuhang Yu Ming Cai
Mining	510	Calibration of inelastic constitutive behaviour at a late stage mine and the	Yuhang Xu, Ming Cai
Mining	552	challenges associated with data limited calibration	Anna Crockford, Kathy Kalenchuk, Will Bawden
IVIIIIIIg	552		
Mining	553	Borehole Breakout Analysis to Determine the In-Situ Stress State in Hard Rock	Gabe Walton, Kathy Kalenchuk, Colin Hume, Mark Diederichs
		· · ·	Seyed Saleh Behbahani, Parviz Moarefvand, Kaveh Ahangari, Kamran
Mining	567	Using particle flow code in unloading of sliding mass	Goshtasbi, Tom Iseley
		The Use of Numerical Methods in Simulating the Influence of Geological Structure	
Mining	571	on the Surface Subsidence Associated with Sub-Level Caving	Pooya Hamdi, Doug Stead, Davide Elmo, Jimmy Töyrä
		Coupled interactions between coal fracture containing gas and the induced shock	
Mining	577	monitored by microseismic and acoustic emissions	Caiping Lu, Lin Zhang, Guangjian Liu, Yang Liu
Mining	582	Influence of fine material and vertical loads on the flowability of caved rock	Diego Olivares, Raul Castro, Asieh Hekmat
Mining	623	Relationship Between Compressive Strength and Index Properties of Rock	Bibhuti Panda, Srikant Annavarapu
		INVESTIGATING BLOCK CAVING GEOMECHANICS USING SEISMIC SPACE-TIME	
Mining	638	SEQUENCES AND VIRTUAL REALITY SCIENTIFIC VISUALIZATION	James Tibbett, Fidelis Suorineni, Bruce Hebblewhite
		GEOMECHANICAL BACK ANALYSIS OF MEASURED OVERBREAK AT THE CRUSHER	
Mining	649	CHAMBER OF DACITA PROJECT, EL TENIENTE MINE	Alejandro Espinosa, Pedro Landeros
Mining	650	Rock burst of underground pillars	Omid Hosseini, Roosevelt Theodore, Mehrdad Razavi, Ali Fakhimi
	000	Optimizing the Performance of ANFIS using the genetic algorithm to estimate the	
Mining	676	deformation modulus of rock mass	Zeinab Aliabadian, Mostafa Sharifzadeh, Mansour Sharafisafa
		Numerical Estimation of the Strength of St. Peter Sandstone Pillars- A Case Study	
Mining	679	at lowa	FRANCIS ARTHUR, MAO CHEN GE
		A case study for Northern Nevada single excavation! Shaft- Technical Limit: width	
Mining	690	and depth?	Arunkumar Rai, Rory Howell, Trent Weatherwax, Raj Kallu
		Development of Cuttability Chart for a Limestone Cutting with Monowire Cutting	
Mining	714	Machine	Emre Yilmazkaya, Yilmaz Ozcelik
	1	Numerical Modeling Technique for Time Dependent Behavior of Weak Rock	
Mining	717	Masses - A Case Study	Rahul Thareja, Raj Kallu, Chase Barnard
		Strength and Elastic Properties of Paste Backfill at the Lucky Friday Mine, Mullan,	Jeffrey Johnson, Joseph Seymour, Lewis Martin, Michael Stepan,
Mining	776	Idaho	Anthony Arkoosh, Tyler Emery

Theme	ID	Title	Authors
		Deterministic and Probabilistic Block Theory Analyses Comparison for an Open Pit	
Mining	793	Mine Rock Slope in USA	Pinnaduwa Kulatilake
		Correlation of the Rock Mass Rating System (RMR) to the Unified Soil Classification	
Mining	807	System (USCS) for Geotechnical characterization of Very Weak Rock Masses	Sean Warren, Raj Kallu, Chase Barnard
		Analysis and Design of Pillars for Cave Mining Developments - A Comparative	
Mining	817	Assessment of Empirical Methodologies	Sergio Villalobos
		Evolution of ground support practices applied to low quality, squeezing rock at	
Mining	839	depth	John Henning
		Modeling Interaction between Natural Fractures and Hydraulic Fractures in Block	
Mining	842	Cave Mining	Q. He, F. Suorineni, J. Oh
Mining	846	Numerical Modelling of Roof Support Plans at 4-Way Coal Mine Intersections	Yoginder Chugh, S. Sinha
Mining	848	Case Study and Design of Steel Set Support for aged Balt Entry Debabilitation	linzong (Kovin) Ma. Oversheng Cy. John Stankus
Mining	848	Case Study and Design of Steel Set Support for aged Belt Entry Rehabilitation	Jinrong (Kevin) Ma, Quanzhong Gu, John Stankus Qingxin Qi, Junliang Li, Yu Ning, Zhenhua Ouyang, Shankun Zhao,
Mining	840	The Technology and Dractice of Deckhurst Drevention in Chinese Deen Cool Mine	Wei Like
Mining	849	The Technology and Practice of Rockburst Prevention in Chinese Deep Coal Mine Movement Regularities of Roof Strata in Extra Thick Coal Seams with Fully-	Wei Like
	050		Charlenne Verster Verster
Mining	850	mechanized Mining	Shaohong Yan, Leu Yu, Xiwen Yin
Mining	851	Modeling Overburden Strata Movement in shallow coal seam Longwall Mining	Yang Li, Wei Wu, Huaqun Wang, Ying Ge, Yusheng Peng, Meng Zhu
Mining	851	Building a Rock Mass Model for a Large Open Pit	Felipe Capdeville-Perez
IVIITIITIg	852	APPLICATIONS OF FULLY HYDRO-MECHANICALLY COUPLED 3D MINE AND	
		RESERVOIRE SCALE, DISCONTINUOUS, STRAIN-SOFTENING DILATANT MODELS	
Mining	855	WITH DAMAGE	Arnd Elatton D. Rock
Mining	855	WITH DAMAGE	Arnd Flatten, D. Beck Taoufik Ait-Ettajer, LAKSHMIKANTHA MOOKANAHALLIPATNA
Petroleum	5	Three Dimension Geomechanical Modeling for Drilling In Caronate Reservoirs	RAMASESHA, Laurent Fontanelli
Felloleulli	5	Horizontal Stress Modeling of Successively Built-up Formations: The Effect of	
Petroleum	8	Viscous Relaxation and Depth-Dependent Hardening	Tobias Hoeink, Wouter van der Zee, Daniel Moos
Felloleulli	0	A finite element technique with triangular gird split method for hydraulic fracture	
Petroleum	20	propagation simulation in reservoirs	Xian Shi, Xin Chang, Yuanfang Cheng, John McLennan
retroicum	20	Numerical study of the influence of fluid viscosity on well bore spalling in drained	And Shi, An chang, Tuamang cheng, John Welenhan
Petroleum	22	fractured rock	Wencheng Jin, Cheng Zhu, Chloe Arson, Ahmad Pouya
renoleuni	~~~	Microscopic observations of shale deformation from in-situ deformation	Wencheng Jin, Cheng Zhu, Chioe Arson, Anniau Pouya
Petroleum	27	experiments conducted under a scanning electron microscope.	Hiroki Sone, Luiz F. Morales, Georg Dresen
i cuoleuni	21		Eric Holderby, Jeff Dahl, Ron Dusterhoft, Shameem Siddiqui, Carla
Petroleum	30	Reservoir Simulation Tools as an Asset Well Planning Tool	Eichler, Jeffrey Yarus
Felloleuni	30	Experimental Investigation on the Effect of Pore Pressure on Rock Permeability-	
Petroleum	36	Bakken Formation Case	Jun He, Kegang Ling, Peng Pei, Xiao Ni
recioleuill	50	Bakken Formation Case	Juli He, Negalig Lilig, Pelig Pel, Aldu INI

Theme	ID	Title	Authors
		Application of Rock Physics in Wellbore Stability Modeling for Chayvo Field Multi-	Shekhar Gosavi, Steinar Ottesen, Shea Sanford, Randall Mathis, Shiyu
Petroleum	48	lateral ERD Wells	Xu
		Experimental and numerical 2D analysis of hydraulic fracturing using high-power	Mohsen Bazargan, Agust Gudmundsson, Reza Mohammadi,
Petroleum	59	electric discharge	Nathaniel Forbes Inskip, Mahdi Habibpour, John Browning
			Di Wang, Mian Chen, Yan Jin, Qing Lin, Peng Tan, Yiliu Sun, Liang
Petroleum	68	Experimental study of fracture initiation and propagation from a wellbore	Yuan
		XFEM-Based CZM for the Simulation of 3D Multiple-Stage Hydraulic Fracturing in	
Petroleum	70	Quasi-brittle Shale Formations	Mahdi Haddad, Kamy Sepehrnoori
		Evaluation techniques of wellbore stability on complex formation based on	Hang Wen, Mian Chen, Yan Jin, Yayun Zhang, Chao Zeng, Youchen
Petroleum	72	wettability	Zhang, Yu Zhou, Yongjun Pan, Hailong Jiang
Petroleum	73	A New Stacked Height Growth Model for Hydraulic Fracturing Simulation.	Charles-Edouard Cohen, Olga Kresse, Xiaowei Weng
		Hydraulic Fracture Design Optimization for Infill Wells: An Integrated	
Petroleum	74	Geomechanics Workflow	Jian Huang, Xiaodan Ma, Reza Safari, Uno Mutlu, Mark McClure
		Coupling Fluid Flow and Geomechanics in a Three-Dimensional Discrete Fracture	
Petroleum	80	Network Simulator	MOHSEN BABAZADEH, MARK MCCLURE
		An Integrated Analytical Workflow for Analyzing Wellbore Stress, Stability and	
Petroleum	82	Strengthening	Mojtaba P. Shahri, Reza Safari, Moji Karimi, Uno Mutlu
		Coupling of rupture growth and fluid flow along a shear fracture containing	
Petroleum	84	structural complexities	Xi Zhang, Rob Jeffrey, Bisheng Wu
		Optimum Condition of Hydraulic Fracture-Natural Fracture Interaction in Shale	
Petroleum	89	Block Experiments	Bing Hou, Mian Chen, Xiang Zhang, Yan Jin, Botao Lin, Ce Diao
		On the Use of Double Differences in Inversion of Surface Movement	
Petroleum	96	Measurements	Peter Fokker, Karin Van Thienen-Visser
		Integrated 1-D Workflow for Pore-Pressure Prediction and Mud-Weight Window	
Petroleum	97	Calculation for Subsalt Well Sections	Guoyang Shen, Crystal Clemmons, Xinpu Shen
		Subsidence due to gas production in the Wadden Sea: How to ensure no harm will	
Petroleum	98	be done to nature	Karin Thienen-Visser, Annemarie Muntendam-Bos, Jaap Breunese
			Mathew Ingraham, Stephen Bauer, Dan Bolintineau, Rekha Rao,
Petroleum	102	Proppantand host rock deformation in fractured shale flow through experiments	Jeremy Lechman, Enrico Quintana
		Development of a Transient 2D Multilayered Coomechanic Undersuite Frantisce	
Detrolours	102	Development of a Transient 3D Multilayered Geomechanic Hydraulic Fracture	Deven Louvia Line Consident and Ali Maiafi
Petroleum	103	Model to Evaluate the Temporary Localized Change in Stress Anisotropy	Bryan Lewis, Jim Surjaatmadja, Ali Najafi
Petroleum	106	Exploring Conceptual Models of Hydraulic Fracture Network Growth	Sid Senthilnathan, Mark W. McClure
			Maria-Aikaterini Nikolinakou, Mahdi Heidari, Michael Hudec, Peter
Petroleum	108	Stress changes associated with the evolution of a salt diapir into a salt sheet	Flemings
		Numerical study of thermal stresses in casing-cement-rock system with	
Petroleum	110	heterogeneity	Alexandre Lavrov, Jelena Todorovic, Malin Torsater

Theme	ID	Title	Authors
		APPLICATION OF ANALYTICAL PROBABILISTIC METHOD TO ESTIMATE MINIMUM	
	142	HORIZONTAL IN SITU STRESS FROMA LEAK-OFF TEST (LOT) ACQUIRED IN A HIGH	
Petroleum	112	INCLINED WELL IN A DEEPWATER TURBIDITES OIL FIELD, OFFSHORE BRASIL	Miguel Galarraga
	140	Wellbore Stress Changes and Microannulus Development Because of Cement	
Petroleum	118	Shrinkage Fully 3D Hydraulic Fracturing Model: Optimizing Sequence Fracture Stimulation in	Mohammad Oyarhossein, Maurice B Dusseault Ghazal Izadi, Michael Gaither, Pengcheng Fu, Leonardo Cruz, Daniel
Detreleure	110		
Petroleum	119	Horizontal Wells Modeling fluid-driven fractures using the generalized finite element method	Moos, Christine Baba
Petroleum	120		Euchan Liu, Dakchina Valivati, Batar Gardan
Petroleum	120	(GFEM)	Fushen Liu, Dakshina Valiveti, Peter Gordon
Petroleum	121	Investigation of Shear-Induced Permeability in Unconventional Reservoirs	Xiaowei Weng, Varahanaresh Sesetty, Olga Kresse
		Analysis of Stimulated Volume Resulting From Fluid Injection into a Fracture Rock	
Petroleum	125	Mass	Alexander Verde Salas
		Effect of Fracture Breakdown Pressure on Multicluster Hydraulic Fracturing	
Petroleum	126	Treatments	Hongren Gu, Bruno Lecerf, Xiaowei Weng, Olga Kresse
		An experimental study on interaction between hydraulic fractures and partially-	
Petroleum	132	cemented natural fractures	Wei Fu, Brandon Ames, Andrew Bunger, Alexei Savitski
		Development of a test setup capable of producing hydraulic fracturing in the	Bruno Gonçalves da Silva, Bing Li, Zabihallah Moradian, John
Petroleum	141	laboratory with image and acoustic emission monitoring	Germaine, Herbert Einstein
Petroleum	147	Stress Dependency of Rock Tensile Strength	Saied Mighani, Carl H. Sondergeld, Chandra S. Rai
Petroleum	148	Nanoindentation Creep Measurements on Shale	Saied Mighani, Shantanu Taneja, Carl H. Sondergeld, Chandra S. Rai
	450	Hidden Impact of Mud Loss on Wellbore State of Stresses Disclosed by Thermal-	Yuanhang Chen, Mengjiao Yu, Nicholas Takach, Zhaorui Shi, Chao
Petroleum	152	Poro-Elastic Modeling	Gao
Petroleum	159	A Simplified Analysis of Stresses in Rising Salt Domes and Adjacent Sediments	Mahdi Heidari, Maria Nikolinakou, Peter Flemings, Michael Hudec
retroicum	155	Characteristics of mechanical wellbore failure and damage: Insights of discrete	Manar Heidari, Mana Nikoimakou, Feter Heimings, Michael Hudee
Petroleum	174	element modelling and application to CO2 storage	Jan ter Heege, Bogdan Orlic, Gerco Hoedeman
retroicum	17.1	Analysis of stress variations with depth in the Permian Basin	
Petroleum	189	Spraberry/Dean/Wolfcamp Shale	Shaochuan Xu, Mark Zoback
		Experimental Demonstration of Delayed Initiation of Hydraulic Fractures below	Guanyi Lu, Efosa Uwaifo, Brandon Ames, Arinzechukwu Ufondu,
Petroleum	190	Breakdown Pressure in Granite	Andrew Bunger, Romain Prioul, Gallyam Aidagulov
		Coupled Numerical Simulation of Formation Rock and Cement Sheath Effect on	Xiaoyu Du, Yan Jin, Mian Chen, Yunhu Lu, Zhi Geng, Hailong Jiang,
Petroleum	197	Vertical Cased Well Fracturing	Yayun Zhang, Henglin Yang
			Antonio Claudio Soares, Flavia de Oliveira Lima Falcao, Melissa
		Numerical Modelling of Rock Mechanics Experiments as an Input for Coupled	Cristina Duque Nogueira Kiewiet, Raquel Quadros Velloso, Eurípedes
Petroleum	201	Hydromechanical Simulation	do Amaral Vargas Jr., Leigh Hessel Kiewiet, Shane Kager

Theme	ID	Title	Authors
		A Case Study for Wellpath Optimization and Drilling Risk Reduction for Vaca	
Petroleum	206	Muerta Shale in Argentina	Talgat Kosset, Azra Tutuncu
		Numerical Calculation of Fault Reactivation and Resultant Seismic Behavior	
Petroleum	216	Related to Cuttings Reinjection in Offshore West Africa	Xinpu Shen, Guoyang Shen, William Standifird
Petroleum	219	A Comparison of Stress Evolution in Single-layer and Multilayer Buckle Folds	Xiaolong Liu, Andreas Eckert, Peter Connolly
Petroleum	222	Boundary element analysis of non-planar three-dimensional cracks using complex variables	Dmitry Nikolskiy, Sofia Mogilevskaya, Joseph Labuz
Petroleum	237	Experimental investigation of cement to rock bonding	Pierre Cerasi, Anna Stroisz
		The effect of poroelastic stress changes on the triggering front of induced	
Petroleum	244	seismicity during fluid injection	Roman Rahner, Hiroki Sone, Georg Dresen
Petroleum	246	Sand production delay in gas flow experiments	Pierre Cerasi, Andreas Berntsen, Lars Erik Walle, Euripides Papamichos
Petroleum	249	3D modeling of hydraulic fracturing and stress perturbations during fluid injection	Vincent Roche, Mirko van der Baan, Giona Preisig
		The Effect of Desorption-induced Porosity-Permeability Changes and	
Petroleum	256	Geomechanics on Production from U.S. Shale Gas Formations	Mohammad Eshkalak, Umut Aybar
Petroleum	258	Lattice bond cell modeling of dynamic hydraulic fracture	Zhennan Zhang, Shujun Peng, Ahmad Ghassemi, Xiurun Ge
Petroleum	259	Wellbore stability of the sandstone formation buried in high pressure and high temperature considering radial porous media flows of a compressible gas	Hailong Jiang, Mian Chen, Yan Jin, Qinghui Li, Yongjun Xu, Zhipeng Zou, Kai Wang, Tong Xu
Petroleum	262	Geomecanical Modeling in CO2 Enhanced Oil Recovery	Hadi Jabbari, Mehdi Ostadhassan
Petroleum	202	Brittleness Determination of Rock Using Rock Physics Techniques Calibrated With	Zhi Geng, Mian Chen, Yan Jin, XiaoYu Du, Shuai Yang, DanDan Li, Xin
Petroleum	268	Macro Damage	Fang
Petroleum	274	Numerical Simulations on the Motions of Supercritical Carbon Dioxide Jet and Its Abrasive Particle	Zhenguo He, Gensheng Li, Zhonghou Shen, Shouceng Tian, Haizhu Wang
Petroleum	279	Study of multiple fracture interaction based on an efficient three-dimensional displacement discontinuity method	Kan Wu, Jon Olson , Matthew Balhoff
Petroleum	287	Stick-slip instabilities in rotary drilling systems	Alexandre Depouhon, Emmanuel Detournay
Petroleum	291	Coupled geomechanics and fluid flow computational algorithm for modeling hydraulic fracturing with pre-existing natural fractures in unconventional shale reservoirs	Jie Bai, Avi Lin
Petroleum	293	Developing a Framework to Simulate the Hydraulic Fracturing of Tight Gas Reservoirs Based on Integrated Adaptive Remeshing & Combined Finite/Discrete Element Approach	Matthew Profit, Martin Dutko, Jian Yu
Petroleum	297	Incorporating viscous, toughness, and intermediate propagation regimes into enhanced pseudo-3D model	Egor Dontsov, Anthony Peirce

Theme	ID	Title	Authors
		3D simulation of fluid-pressure-induced fracture nucleation and growth in rock	Andrea Lisjak, Omid Mahabadi, Bryan Tatone, Khalid Alruwaili, Gary
Petroleum	299	samples	Couples, Jingsheng Ma, Ayman Al-Nakhli
		Impact of Depletion on Integrity of Sand Screen in Depleted Unconsolidated	
Petroleum	301	Sandstone Formation	Yanhui Han, Andrew Tallin, George Wong
Petroleum	305	Numerical model of extended leak-off test (XLOT)	Andreas Bauer, Idar Larsen, Alexandre Lavrov
		Redistribution of Stresses due to Drilling and Depletion Using Different Plasticity	
Petroleum	307	Models	Sherif Akl
		Probabilistic Time-Dependent Thermo-chemo-poroelastic Borehole Stability	Mehdi Ostadhassan, Hadi Jabbari, Siavash Zamiran, Abdolreza
Petroleum	310	Analysis in Shale Formations	Osouli, Bailey Bubach, Ben Oster
Petroleum	313	FDEM SIMULATION ON FRACTURE COALESCENCE IN BRITTLE MATERIALS	Earl Knight, Zhou Lei, Esteban Rougier, Antonio Munjiza
			Siamak Bakhtiari, Ziheng Yao, Walid Ben Ismail, Robert Newman,
Petroleum	317	Modeling Plasticity in Wellbore Stability Analysis of Poorly Consolidated Sands	Assef Mohamad-Hussein
Petroleum	318	Pickling the Gas Shale in Water or Water Vapor	Asad Hayatdavoudi
Petroleum	329	Numerical Simulations of Fracture Curving Interaction of Two Fractures	Zaile Zhou, Guangqing Zhang
			Elin Skurtveit, Lars Grande, Oluwakemi Y. Ogebule, Roy H.
		Mechanical testing and sealing capacity of the Upper Jurassic Draupne Formation,	Gabrielsen, Jan Inge Faleide, Nazmul H. Mondol, Rudolf Maurer, Per
Petroleum	331	North Sea	Horsrud
			Nils Opedal, Jelena Todorovic, Malin Torsæter, Idar Akervoll, Gutlug
Petroleum	341	Filter cake behavior during leakage at the cement-rock interface in wellbores	Jafarzade
Detrolours	242	Investigating the Evolution of Polygonal Fault Systems using Geomechanical	Deniel Debente, Terry Creek, Jac Centuriekt, Metthew Dusfit
Petroleum	342	Forward Modeling Numerical modelling of casing integrity in salt layers including the effects of	Daniel Roberts, Tony Crook, Joe Cartwright, Matthew Profit
Petroleum	347	dissolution and creep	Juan David Velilla Uribe, Nelson Inoue, Sergio Fontoura, Jorel Lopes
Felloleum	547	Strategies for Forward Modeling the Evolution of Geological Structures	Daniel Roberts, Matthew Profit, Jianguo Yu, James Armstrong,
Petroleum	348	Undergoing Large Deformation	Anthony Crook
Petroleum	349	A framework for wellbore cement integrity analysis	Gerd-Jan Schreppers
retroicum	545	Pore Pressure estimation in a Tight Sand Reservoir: Neuquén Basin, Case	Juan Pablo Alvarez, Marcos Mendoza A., Emilio A. Winograd, Martin
Petroleum	351	Study	Sanchez
		A finite element geomechanical study of the brittle failure of a caprock due to	Thibaut Defoort, Saeed Salimzadeh, Adriana Paluszny, Robert W.
Petroleum	352	deflation	Zimmerman
Petroleum	360	On Poroelastic Inclusions and its Applications in Reservoir Mechanics	Houman Bedayat, Arash Dahi Taleghani
		Characterization of mechanical properties of rocks using numerical simulations	Emilio A. Winograd, Sergio Bosco, Juan Pablo Alvarez, Marcos
Petroleum	362	and image analysis	Mendoza A., Damian Hryb, Martin Sanchez
			J Donald, Erik Wielemaker, Florian Karpfinger, Francisco Gomez,
Petroleum	364	Qualifying Stress Direction from Borehole Shear Sonic Anisotropy	Xinyu Liang, Mark Tingay
Petroleum	366	Wellbore Stability Modeling with a Grain Based Rock Model	Fengshou (Frank) Zhang, BT Lee, Mark Mack
		Surface subsidence induced by hydrocarbons extraction, and the potential for	
Petroleum	375	time-dependent ground deformations	G. Marketos, R.M.A. Govers, C.J. Spiers

Theme	ID	Title	Authors
		Helium-Mass-Spectrometry-Permeameter for the measurement of permeability of	
Petroleum	376	low permeability rock with application to triaxial deformation conditions	Stephen Bauer, Moo Lee, W. Payton Gardner
retroleum	570		Carla Massignani Carrapatoso, Guilherme Lima Righetto, Carlos
			Emmanuel Ribeiro Lautenschläger, Sergio Augusto Barreto da
Petroleum	388	NUMERICAL MODELING OF SINGLE-CUTTER TESTS IN CARBONATES	Fontoura, Nelson Inoue
retroicum	500	Numerical simulation of hydraulic fracturing using a three-dimensional fracture	Liwei Guo, Jiansheng Xiang, John-Paul Latham, Axelle Viré, Dimitrios
Petroleum	397	model coupled with an adaptive mesh fluid model	Pavlidis, Christopher Pain
		Simulation of Particle Suspensions Using a Coupled Lattice Boltzmann and Discrete	
Petroleum	398	Element Method	Bruce Jones, Chris Leonardi, John Williams
		Correlations Between Acoustic Emission Microcrack Displacement Vectors and In	
Petroleum	405	Situ Stress Conditions During Laboratory Hydraulic Fracture Testing	Jesse Hampton, Luis Matzar, Marte Gutierrez
retroicum	405	Field and experimental brittleness (toughness) determination of Vaca Muerta	Ariel Alejandro Chavez, Jose Luis Otegui, Walter Morris, Martin
Petroleum	406	Shale.	Sanchez, Gustavo L. Bianchi
retroicum	100	Fracture Dimension Investigation of Laboratory Hydraulic Fracture Interaction with	
Petroleum	408	Natural Discontinuity using Acoustic Emission	Jesse Hampton, Luis Matzar, Dandan Hu, Marte Gutierrez
Petroleum	409	Static versus dynamic moduli: another piece in the puzzle	Erling Fjaer, Anna M. Stroisz, Rune M. Holt
		Observation and Modeling of Fluid Flow under Matrix and Fracturing Injections in	Alexander Chudnovsky, Yuri Shulkin, Edward Golovin, John Dudley,
Petroleum	411	Unconsolidated Sand	George Wong
Petroleum	420	An Investigation of Rough Surface Closure with Application to Fracturing	Amirhossein Kamali, Maysam Pournik
		FDEM modelling of thermo-mechanical wellbore instabilities within shale	
Petroleum	421	formations	Johnson Ha, Andrea Lisjak, Giovanni Grasselli
		3D Modeling of Sand Production in Waterflooding by Coupled Flow/	
Petroleum	426	Geomechanical Numerical Solutions	Mohammad Nassir, Dale Walters, David Yale, Robert Chivvis
			Vahid Dokhani, Mengjiao Yu, Stefan Miska, Nicholas Takach, Evren
Petroleum	431	Effects of Adsorptive Characteristics of Shale on Wellbore Stability	Ozbayoglu, Ben Bloys
Petroleum	436	Rate type isotach compaction of consolidated sandstone	Hans Waal, Karin Thienen-Visser, Jitse Pruiksma
Petroleum	437	Stress-dependent permeability model of laminated gas shale	Mikhail Geilikman, Sau-Wai Wong, John Karanikas
			James Sheng, Tim Cook, Warren Barnes, Fersheed Mody, Marshall
Petroleum	438	Screening of the EOR Potential of a Wolfcamp Shale Oil Reservoir	Watson, Mark Porter, Hari Viswanathan
		A 2D Experimental Method with Results for Hydraulic Fractures Crossing	Rob Jeffrey, James Kear, Dane Kasperczyk, Xi Zhang, D Chuprakov, R
Petroleum	439	Discontinuities	Prioul, J Schouten
		Investigation of Sequential and Simultaneous Well Completion in Horizontal Wells	
Petroleum	449	using a Non-planar, Fully Coupled Hydraulic Fracture Simulator	Ali Rezaei, Mehdi Rafiee, Mohamed Soliman, Stephen Morse
			Roberto Quispe, Pedro Firme, Deane Roehl, Luis Paullo, Miltiadis
Petroleum	469	Assessment of stress changes in hydrocarbon reservoirs using analytical methods	Parotidis, Ana Domingues

Theme	ID	Title	Authors
Petroleum	479	Testing Methods for Evaluating Drilling Fluid Effects on Gas Shale Stability	Quanxin Guo, Aaron Blue, James Friedheim
retroicum	475		Rune M Holt, Andreas Bauer, Erling Fjær, Jørn F Stenebråten, Dawid
Petroleum	484	Relating Static and Dynamic Mechanical Anisotropies of Shale	Szewczyk, Per Horsrud
Petroleum	489	The Brittleness Index in Hydraulic Fracturing	Panos Papanastasiou, Colin Atkinson
	.05	Experimental Evaluation of passive-Vibration Assisted Rotary Drilling (p-VARD) tool	Pushpinder Rana, Abdelsalam Abugharara, Dr. John Molgaard, Dr.
Petroleum	492	to enhance Drilling performance	Stephen Butt
		Dilatancy of clay shales and its impact on pore pressure evolution and effective	Katrin Wild, Florian Amann, Derek Martin, Jerome Wassermann,
Petroleum	496	stress for different triaxial stress paths	Christian David, Marco Barla
		Modeling the Interaction between Hydraulic and Natural Fractures using Dual-	
Petroleum	507	Lattice Discrete Element Method	Jing Zhou, Hai Huang, Milind Deo
		Finite Element analysis of casing-in-casing integrity due to annulus pressurization	
Petroleum	513	by means of Salt Creep	DANIEL MELO, SERGIO FONTOURA, NELSON INOUE, JOREL ANJOS
		On The Importance and Impact of Key Geomechanical Parameters in	
Petroleum	514	Unconventional Plays	Neal Nagel, Marisela Sanchez-Nagel
		A new prediction model of energy consumption on rock fragmentation and rate of	Yong Deng, Mian Chen, Yan Jin, Yunhu Lu, Daiwu Zou, Xiaoyu Du,
Petroleum	518	penetration based on the fractal theory	Hailong Jiang
		Influence of indexation and impact energy on bit/rock interface law in percussive	Marion Fourmeau, Alexandre Depouhon, Alexandre Kane, Hieu
Petroleum	522	drilling: an experimental study	Nguyen Hoang, Emmanuel Detournay
		Finite Element Modeling of Curving Hydraulic Fractures and Near- Wellbore	Christopher Sherman, Lee Aarons, Joe Morris, Scott Johnson, Alexei
Petroleum	530	Hydraulic Fracture Complexit	Savitski, Mikhail Geilikman
		Reducing the Uncertainty in Tight Rock Porosity Estimation by Combining Different	
Petroleum	537	Methods_Bakken Formation Case	Kegang Ling, Jun He, Peng Pei, Xiao Ni
		Analytical model of accelerating gas flow-induced conductivity damage in propped	Hailong Jiang, Mian Chen, Yongjun Xu, Zhifan Sun, Yu Zhou, Yan Jin,
Petroleum	538	hydraulic fractures	Xiaoyu Du
			D Nicolas Espinoza, Jean-Michel Pereira, Matthieu Vandamme,
Petroleum	541		Patrick Dangla, Sandrine Vidal-Gilbert
		Acoustic Emission Monitoring Elucidates Proppant Pack Strength Characteristics	
Petroleum	549	during Crush Testing	Jesse Hampton, Philip Nguyen, Vladimir Martysevich, Pete O'Connell
Petroleum	550	Modeling dynamic stimulation of geological resources	Oleg Vorobiev, Bradley White, Joe Morris, Eric Herbold
Petroleum	558	Simulation of Simultaneous and Zipper Fractures in SHALE Formations	Varahanaresh Sesetty, Ahmad Ghassemi
			Yong Deng, Mian Chen, Yan Jin, Yunhu Lu, Daiwu Zou, Qinglin Shan,
Petroleum	564	A new method for assessment of rock drillability based on indentation tests	Hailong Jiang
		Acidizing of hollow cylinder chalk specimens and its impact on rock strength and	
Petroleum	566	wormhole network structure	Lars Erik Wale, Euripides Papamichos
Petroleum	572	An adaptive meshing approach to capture hydraulic fracturing	Omid Omidi, Reza Abedi, Saeid Enayatpour
Petroleum	584	A combined method to measure Biot's coefficient for rock	Xuejun Zhou, Alex Vachaparampil, Ahmad Ghassemi
Petroleum	585	3D Simulation of Multiple Fracture Propagation from Horizontal Wells	Dharmendra Kumar, Ahmad Ghassemi

Theme	ID	Title	Authors
		The fully coupled fluid flow and Geo-Mechanics model for simulating simultaneous	
Petroleum	607	multiple hydraulic fractures propagation in horizontal wells.	
Petroleum	007	Development of Experimental Apparatus for Real-time Observation of Hydraulic	Xin Chang, Xian Shi, Yuanfang Cheng, Xiuting Han
Petroleum	612	Fracture in Unconsolidated Sands by X-ray CT method	Takatoshi Ito, Nagano Yu
retroieum	012		
		Long-term compaction behavior of Permian sandstones — An investigation into	Sander Hol, Antony P. Mossop, Arjan J. van der Linden, Pedro M. M.
Petroleum	618	the mechanisms of subsidence in the Dutch Wadden Sea	Zuiderwijk, Axel H. Makurat
Petroleum	624	The use of multistage hydraulic fracture data to identify stress shadow effects	Natalia Skomorowski
		The Impacts of Fracturing Fluid Viscosity and Injection Rate on the Near Wellbore	Seyed Hassan Fallahzadeh Abarghooei, Ashton Cornwell, Vamegh
Petroleum	645	Hydraulic Fracture Propagation in Cased Perforated Wellbores	Rasouli, Mofazzal Hossain
			Jose Cornielis, Julieta Hernandez, Leonardo Bracho, Luis Melendez,
-		Drilling through highly faulted / fractured zones: Case study, an integral approach	John Angel, Gustavo Padron, Ocdomar Casanova, Daniel Romero,
Petroleum	665	with successful results	Toribio Hernandez, Blanca Sanchez, Misael Gamboa
Petroleum	669	Caprock Safety Factor Assessment of SAGD Projects	Jun Xiong, Rick Chalaturnyk, Nathan Deisman
			Pengcheng Fu, Leonardo Cruz, Daniel Moos, Randolph Settgast,
Petroleum	671	Numerical Investigation of a Hydraulic Fracture Bypassing a Natural Fracture in 3D	Frederick Ryerson
Petroleum	708	Optimizing Drilling Parameters: A Preliminary ModelDrilling Carthage Mable	Wu Zhang, Ayers William, Jamie Brown, Grant Bromhal
retroieum	708	Interpretations of Fracture Initiation and Orientations In a Perforated Deviated	Wu Zhang, Ayers William, Jamle Brown, Grant Brohmar
Petroleum	719	Well during Staged Fracturing	Yarlong Wang, Fotios Karaoulanis, Yijin Zeng, Baoping Zhang
Petroleum	746	Critical pressure and scaling in cavity expansion tests	Ali Tarokh, Derrick Blanksma, Ali Fakhimi, Joseph Labuz
retroicum	740	GLOBAL SENSITIVITY ANALYSIS OF GEOMECHANICAL FRACTURED RESERVOIR	
Petroleum	748	PARAMETERS	Alexander Verde Salas
		Borehole stability analysis using results from full field reservoir geomechanical	Nathan Deisman, Richard J Chalaturnyk, Claudio Virues, Ryan
Petroleum	751	simulation: a CBM case history	Campbell
Petroleum	763	Simulation of a Microseismic Depletion Delineation Test	Jack Norbeck, Roland Horne
		Cuttings Analysis for Rotary Drilling Penetration Mechanisms and Performance	Rosana Reyes, Igor Kyzym, Pushpinder Rana, John Molgaard,
Petroleum	764	Evaluation	Stephen Butt
Petroleum	767	Comparison of Multistage to Single Stage Triaxial Tests	Malik Alsalman, Michael Myers , Munir Sharaf-Aldin
		Permeability Variations Associated with Various Stress State during Pore Pressure	
Petroleum	768	Injection	Xinkui Wang, Rick Chalaturnyk, Haibo Huang, Juliana Leung
Petroleum	771	Effect of Frac Fluid Temperature on Post Frac Gas Production	A Hayatdavoudi, M Agyei Boamah
			XIANG LI, Zijun Feng, Gang Han, Derek Elsworth, Chris Marone,
Petroleum	786	Hydraulic Fracturing in Shale with H2O, CO2 and N2	Demian Saffer

Theme	ID	Title	Authors
Petroleum	800	Anisotropic seismic velocities around salt structures via stress modelling	Adrian Rodriguez-Herrera, Olga Zdraveva, Nick Koutsabeloulis
		Matching 4D seismic time-shifts in structurally complex overburdens with 3D	Atef Onaisi, Julien Fiore, Adrian Rodriguez-Herrera, Nick
Petroleum	801	geomechanica models	Koutsabeloulis, Federico Selva
		Discrete Element Modelling of Microseismic Energy Associated with Hydraulic	
Petroleum	806	Fracturing in Natural Fractures Reservoirs	Michael Fry, Hemali Patel, Ivan Gil, Jim Hazzard, Branko Damjanac
Petroleum	814	Multi-scale X-FEM Faults Simulations for Reservoir-Geomechanical Models	Jean H Prevost, N. Sukumar
			Rustam Nizamutdinov, Joseph Kravets, Asad Hayatdavoudi, Matthew
Petroleum	816	Increasing the Pierre Shale Reservoir Volume Using Heat- Part I	Fadden, Dylan Hardy
Petroleum	843	In Situ Stress Measurements during Well Abandonment	Alvin Chan