




EAGE

EUROPEAN
ASSOCIATION OF
GEOSCIENTISTS &
ENGINEERS



EAGE Middle East Geomechanics Workshop

LESSONS LEARNED & NEW FRONTIERS

1-3 MARCH 2022 • ONLINE

- **Technical Programme**

WWW.EAGE.ORG

TECHNICAL COMMITTEE

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Francis Elisabeth (Co-chair)	Saudi Aramco
Robert Newman (Co-chair)	Schlumberger
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James Verdon	University of Bristol
Julian Guerra	Schlumberger
Satya Perumalla	Baker Hughes
Sotirios Kokkalas	University of Patras

WORKSHOP OVERVIEW

The fourth edition of the EAGE Geomechanics Workshop, held under the theme 'Lessons Learned & New Frontiers', will bring together leading researchers and scientists to discuss new developments in geomechanics and interesting field studies. The fully virtual workshop is a prime opportunity to assess state-of-the-art technologies when applying geomechanics to fields in the Middle East.

Many new digital technologies are being developed and tested, but it is not yet clear which will be the most accurate and efficient, and how their results should be incorporated into strategic and operational decisions. Sharing of experiences and recommendations for such technologies is therefore essential for the global community.

The Technical Committee invite practitioners, innovators, academia and students as well as industry experts to share their achievements and challenges, lay out big innovative ideas and seek new alliances to jointly develop a road for the future.

TECHNICAL PROGRAMME

All timings are in GST (Gulf Standard Time)

Tuesday, 1 March

DAY 1	
10:00	Co-chair Welcome
10:10	The Effect of Capillary Condensation on the Geomechanical Properties of Tight Formations: An Experimental Study - Keynote by Dr. Aamer Al Banny (ADNOC)
Session 1: Natural Fractures & Drilling Operations Session Chairs: A. Noufal (ADNOC), A. Bauer (AkerBP)	
10:50	GE01 - The Geomechanics Impact of Faults and Discontinuities in Field Development—A Must-Do Assessment - J. Guerra ^{1*} ¹ Schlumberger
11:20	GE02 - Cluster Spacing Optimization: A Geomechanical Modeling Perspective - N.A. Gonzalez ^{1*} , P.E. Vargas ¹ , J. Alvarelllos ¹ , R.H. Lakshminantha ¹ ¹ Repsol TechLab
11:50	GE03 - Fracture density variation at different observation scales in carbonate reservoir outcrop analogues - S. Kokkalas ^{1*} , I. Vakalas ² , R. Jones ³ ¹ University of Patras; ² National Technical University of Athens; ³ Geospatial Research, University of Durham
12:20	GE04 - Paleo-to Present-day-in-Situ Stress Discrepancies - H. Alshehhi ^{1*} , A. Noufal ¹ , M. Belouahchia ² ¹ ADNOC; ² AIQ
12:50	Discussion Session
13:05	Break
13:35	GE05 - Wellbore Instability Mechanism Evaluation by Computer Vision on Cavings - N. Castillo ^{1*} , J.R. Campos ¹ , M.A. Caja ¹ , E. Ibanez ¹ , C. Santos ¹ ¹ Repsol TechLab
14:05	GE06 - Understanding near wellbore fracture behaviour for loss mitigation - K. Galbraith ^{1*} , R. Newman ² ¹ Lundin Energy Norway; ² Schlumberger
14:35	P001 - Drilling efficiency improvement driven by geomechanics study - G. Xi ^{1*} , H. Biyanni ¹ , R. Singh ¹ , S. AlJaberi ¹ , J. Alblooshi ¹ ¹ ADNOC Offshore
14:55	Discussion Session
15:10	End of Day 1



Wednesday, 2 March

DAY 2	
10:00	Methods and Applications for 3D Geomechanics - Highlight Session presented by Robert Newman (Schlumberger)
13:00	Break
Session 2: Reservoir Geomechanics Session Chairs: G. Volonte (Eni S.p.A. E&P), S. Kokkalas (University of Patras)	
13:30	GE07 - A parametric study on overburden stress evolution using a generalized Geertsma solution - M. Asaka ^{1,2*} ¹ NTNU; ² INPEX
14:00	GE08 - Digital Assistants for 3D Geomechanical Modeling: an Application for a Pre-salt Carbonate Field - F. Falcao ^{1*} , R. Amaral ¹ ¹ Petrobras
14:30	GE09 - Application of New Geomechanics Technology and Workflow for E&P in a Carbonate Field - N. Koutsabeloulis ^{1*} , D. Press ¹ , C. Guerra ² , R. Sonwa ² , T. Swedan ³ , P.E. Menon ³ ¹ Geomex Software Solutions Limited; ² WintershallIDEA GmbH; ³ ADNOC
15:00	Break
15:30	GE10 - Geomechanical Integration for Infill Wells Optimization in Fractured Condition Waterflooding Field: An example from Sultanate of Oman - M. Al Aamri ^{1*} ¹ Petroleum Development of Oman
16:00	GE11 - Geomechanical Assessment De-risking Fault Stability and Cap Rock Integrity for Gas Injection in a Carbonate Field in Sultanate of Oman - M. Al Aamri ^{1*} ¹ Petroleum Development of Oman
16:30	Discussion Session: Lessons Learned and New Frontiers in Geomechanics
17:00	End of Day 2

Thursday, 3 March

DAY 3	
10:00	Procedures for Core Testing and Application to Middle Eastern Rocks - Highlight Session presented by J. Wesley Martin (Schlumberger)
13:00	Break
Session 3: Experimental Geomechanics Session Chairs: M. Al Aamri (Petroleum Development of Oman), F. Elisabeth (Saudi Aramco)	
13:30	GE12 - How to obtain inexpensive calibration of unconfined compressive strength without destructing the core - M. Kepirski ^{1*} ¹ Polish Oil and Gas Company; ² AGH University of Science and Technology, Faculty of Drilling, Oil and Gas
14:00	GE13 - Core Testing Solutions of Shale Formations Through Shale Stability Analysis for Drilling Optimization - E. Muniz ^{1*} , R.N. Khan, J.B. Molster, M.A. Shaver, J.W. Martin, A.J. Mascarenhas, J. Guerra ¹ ADNOC/Schlumberger
14:30	GE14 - Sonic Velocity in Dolostones. Examples from the Arabian Platform - M. Salih ^{1*} , A. El-Husseiny ¹ , J.J.G. Reijmer ^{1,2} , H. Eltom ¹ , A. Abdelkarim ¹ , M.A. Kaminski ¹ ¹ King Fahd University of Petroleum & Minerals; ² Independent Researcher
15:00	Break
15:30	P003 - A Novel Approach to Evaluate the Nature and Rock Mass Quality of Near-Surface Granitic Strata - A.S. Akingboye ^{1,2*} , A.A. Bery ¹ ¹ School of Physics, Universiti Sains Malaysia; ² Department of Earth Sciences, Adekunle Ajasin University
15:50	P004 - Land Surface Movement Driven by Groundwater Dynamics - M. Elkamali ^{1*} , C. Loupasakis ² , I. Papouptsis ³ , A. Abuelgasim ¹ ¹ National Water & Energy Center, Geography & Urban Sustainability, United Arab Emirates University; ² The National Technical University of Athens, School of Mining & Metallurgical Engineering, Dept. of Engineering Geology & Hydrogeology; ³ Institute for Astronomy, Astrophysics, Space Applications & Remote Sensing, National Observatory of Athens
16:10	Discussion Session
16:40	Closing Remarks & End of Workshop



REGISTRATION

Please note 5% VAT will be applied on the below rates.

REGISTERED AND PAID	
EAGE Green Member	€ 360
EAGE Bronze/Silver/Gold Member	€ 340
EAGE Platinum Member	€ 300
Non-member	€ 440
EAGE Student Green Member	€ 155
EAGE Student Bronze/Silver/Gold Member	€ 140
Student Non-member	€ 180

Members please note: To qualify for the member registration fee, your EAGE membership dues for 2022 must have been paid and confirmed. The processing time for membership applications or renewals is 10 working days.

To qualify for the reduced student registration fee:

- Students must be enrolled in a full time study programme at a recognized university or institute
- The registration must be accompanied by a copy of a student ID card and/or official proof of enrolment

The Non-member fee includes EAGE membership for the remainder of 2022. This membership will be activated shortly after the event.

Student Non-members cannot be older than 34 years of age (when registering).

Green membership status gives you a € 80 discount (€ 25 for students) on the Non-member fee for each EAGE event registration; starting from the Bronze status, you can benefit from an even greater reduced EAGE member registration fee. Find here for more information on the recognition programme.

All fees are in Euros (€). One Euro of your total registration fee is donated to the EAGE Green Fund.

EAGE registration fees differentiate between EAGE membership recognition levels and non-members. In the table below you can see what the different fees are. First year members have Green membership status which gives you a € 80 discount (€ 25 for students) on the Non-member fee for each EAGE event registration; starting from Bronze status, you can benefit from an even greater reduced EAGE member registration fee. More information can be found on the EAGE website.

VIRTUAL WORKSHOP

The workshop will be held fully online from 1-3 March 2022, with live sessions starting at **10:00 AM GST** (UAE local time) on all days. All registered participants will receive a link to join the event platform 24 hours prior to the start, and will not be required to download any software to take part in the workshop. The entire workshop will be held on a browser-based platform AirCast, hosted by OnAir.

The workshop will be available to watch on-demand up to 1 month after the workshop, and will be made available to registered participants after the workshop has concluded.

SPONSORSHIP

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CONTACT

For any questions, please reach out to the EAGE MEA team via middle_east@eage.org.



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