

The background of the top half of the poster is a photograph of a large, layered rock formation, possibly a cliff face, with distinct horizontal and slightly curved strata. The rock is a mix of light tan and reddish-brown colors. Above the rock, the sky is blue with some white clouds. In the top right corner, there is a faint, white geometric pattern of lines and dots, resembling a network or a molecular structure. In the top left corner, there is a green rectangular box containing the EAGE logo and its full name.

EAGE

EUROPEAN
ASSOCIATION OF
GEOSCIENTISTS &
ENGINEERS

Seventh EAGE Rock Physics Workshop

**BEYOND PROCESSING: UNLEASHING AI AND ROCK PHYSICS
FOR THE NEXT-GENERATION SEISMIC IMAGING**

10-12 NOVEMBER 2025 • CAPE TOWN, SOUTH AFRICA

● **First Announcement**

WWW.EAGE.ORG

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OVERVIEW

Fueled by the recent surge in artificial intelligence (AI) capabilities and the development of advanced depth imaging workflows, seismic imaging is undergoing a transformative revolution. The 7th Rock Physics Workshop delves into this paradigm shift, exploring how rock physics principles are now playing a critical role in unlocking the full potential of these technologies for enhanced reservoir characterization. The workshop will showcase how cutting-edge advancements, such as Full Waveform Inversion (FWI), Extended FWI (EFWI), and deep learning, when synergistically integrated with rock physics knowledge, are ushering in a new era of seismic imaging. This era promises unparalleled detail and accuracy in characterizing the subsurface. Moving beyond theoretical discourse, the workshop will bridge the gap between theory and practice. It will explore how recent advancements in rock physics research are being translated into practical workflows and tools specifically designed for seismic imaging and reservoir characterization. Real-world case studies will be presented, equipping participants with the knowledge and expertise to leverage these advancements for optimized exploration and development strategies.

TOPICS

Data Conditioning & Feasibility

- Seismic & Well Data Conditioning for Rock physics and QI
- Rock physics & AVO feasibility
- Seismic Petrophysics

Applied Rock Physics

- Seismic Processing and Rock Physics
 - FWI
 - Advanced seismic imaging
 - Pore pressure prediction
 - Seismic velocities update
- Seismic Geomechanics
- 4D feasibility study and reservoir monitoring
- Quantitative seismic interpretation
 - Joint AVA inversion
 - Azimuthal inversion
 - Inverse Rock Physics
- Uncertainty quantification and error analysis
- Multiphysics Integration including Non-seismic
- Unconventional Rock Physics
- Carbonate Rock Physics

Laboratory Rock physics

- Digital Rock Physics
- Experimental Rock physics
 - Laboratory Rock Physics tests for Co2 effects on the carbonates elastic properties
 - Effects of dispersion, anisotropy and scale on velocities.

Theoretical Rock Physics

- Rock physics models for shales
- Rock physics models for crystalline rocks
- Fluid substitution theories and limitations
- Seismic attenuation

Digital Transformation

- Rock physics data libraries and management
- Rock physics AI/ML analysis

Energy Transition and CCUS / Renewable Energy

- Rock physics for environmental monitoring
- Energy storage and Hydrogen
- Rock physics for Measurement, Monitoring and Verification (MMV) plans
- Rock physics for ensuring Conformance and Containment.
- Geothermal





IMPORTANT DATES

Call for Abstracts Open	19 June 2024
Call for Abstracts Close	14 May 2025
Technical Programme Available	1 July 2025
Registration Open	1 July 2025
Early Registration Deadline	1 October 2025

SPONSORSHIP

To view the full range of sponsorship opportunities available at the Seventh EAGE Rock Physics Workshop, please get in touch at mai@eage.org.

CONTACT

For more information on the workshop, please get in touch with the EAGE MEA team via middle_east@eage.org or +971 4 369 3897.

CALL FOR ABSTRACTS NOW OPEN!





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