

# Sixth EAGE Rock Physics Workshop

**IMPACTS & TRENDS OF THE DIGITAL TRANSFORMATION** 

15-17 NOVEMBER 2022 • RIYADH, SAUDI ARABIA

• First Announcement & Call for Abstracts

# WORKSHOP OVERVIEW

The vital role of Rock Physics in understanding the reservoir is only getting bigger with the continuous and rapid advancements in Artificial Intelligence and Machine Learning. The ever-growing computation power and algorithms allow for easier integration of big data in geology and geophysics, resulting in far better understanding of reservoir quality and characteristics, and an ever more solid foundation for all Rock Physics models. The conventional methods act as the cornerstone of these foundations and allow deep learning networks to build on them, while also utilizing all imaging and inversion techniques to provide all available types of information and data to these networks.

This latest workshop will focus heavily on the developments of machine learning and deep learning in Rock Physics, and how we can match the similar improvements we see in seismic imaging. While the focus is on artificial intelligence, conventional Rock Physics models play an even more important role as the base for the deep learning models. These conventional models and all advancements to them will also be discussed in this workshop.

# TOPICS

#### Data Conditioning & Feasibility

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

## **Applied Rock Physics**

- Joint AVA inversion
- Pore pressure prediction
- Geomechanics
- 4D reservoir monitoring
- Quantitative seismic interpretation
- Uncertainty quantification
- Multiphysics Integration including Non-seismic
- Unconventional Rock Physics

#### Laboratory Rock physics

- Digital Rock Physics
- Experimental Rock physics

#### **Theoretical Rock Physics**

#### **Digital Transformation**

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

#### Energy Transition / Renewable Energy

- Rock physics for environmental application
- Energy storage
- Carbon Capture Utilization & Storage (CCUS)
- Geothermal
- Hydrogen

# **TECHNICAL COMMITTEE**

| Aiman Bakhorii (Co-Chair) | Saudi Aramco |
|---------------------------|--------------|
| Mukarram Abmod            | Saudi Aramco |
|                           |              |
| Simon Payne               | IKONScience  |
| Alexander Rozhko          | Equinor      |
| Said Busaidi              | PDO          |
| Ammar ElHusseiny          | KFUPM        |
| Wael Abdallah             | Schlumberger |
| Khalid Obaid              | ADNOC        |
| Beth Rees                 | GeoSoftware  |

# **IMPORTANT DATES**

| Call for Abstracts Open       | 1 March 2022        |
|-------------------------------|---------------------|
| Call for Abstracts Close      | 15 May 2022         |
| Technical Programme Available | 15 June 2022        |
| Registration Open             | 1 July 2022         |
| Workshop                      | 15-17 November 2022 |

### **SPONSORSHIP**

To view the full range of sponsorship opportunities available at the Sixth EAGE Rock Physics Workshop, visit the workshop website by scanning the QR code:



# 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.

# See you in Riyadh!

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