

# **2nd EAGE Workshop on Rock Physics 2014**

## **Rock Physics: Integration and Beyond**

**Muscat, Oman  
12-14 January 2014**

**ISBN: 978-1-63266-050-3**

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© (2014) by the European Association of Geoscientists & Engineers  
All rights reserved.

Printed by Curran Associates, Inc. (2014)

For permission requests, please contact by the European Association of Geoscientists & Engineers  
at the address below.

EAGE  
PO Box 59  
3990 DB Houten  
The Netherlands

Phone: +31 88 995 5055  
Fax: +31 30 634 3524

[eage@eage.org](mailto:eage@eage.org)

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2634  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

<b>RP01 Opening Address</b> .....	N/A
<i>S. Al-Rawahi</i>	
<b>RP02 Invited Speaker - Simultaneous Static and Dynamic Measurements of the Anisotropic Elastic Properties of Shales</b> .....	N/A
<i>D. Schmitt, J. Melendez</i>	
<b>RP03 Static Moduli Prediction Using Integration Between Rock Physics and Dynamic Moduli</b> .....	1
<i>A. Petrov</i>	
<b>RP04 Rock Physics Characterization of Light Tight Oil Plays</b> .....	6
<i>S. Al-Farsi, S. Al-Mahruqi, K. Mohammed, H. Cornelius, S. Antonio</i>	
<b>RP05 Petrophysical Rock Texture Prediction in the Upper Jurassic Series in Saudi Arabia: Aiming Toward Stratigraphic Trap Identification</b> .....	9
<i>H. Soepriatna</i>	
<b>RP06 Petrophysics and Nuclear Magnetic Resonance (NMR) Study of Low-Resistivity Pay in Lower Silurian Sandstone Reservoir</b> .....	15
<i>L. Marzouk</i>	
<b>RP07 Invited Speaker - Carbonates &amp; Quantitative Interpretation</b> .....	N/A
<i>J. Walls</i>	
<b>RP08 Promises and Pitfalls: Acoustic Properties in Carbonate Rocks</b> .....	21
<i>G. T. Baechle</i>	
<b>RP09 Permeability Predictions from Acoustic Core Measurements</b> .....	27
<i>A. Draege</i>	
<b>RP10 QI Workflow to Identify Sweet Spots in the Tight Amin Gas Play in North Oman</b> .....	33
<i>M. Scholten-Vissinga</i>	
<b>RP11 Complex Paleozoic Clastic Systems: Reducing Field Development Uncertainties with Quantitative Seismic Interpretation Workflows</b> .....	38
<i>M. Ahmed, J. Ahmad, H. Soepriatna, A. Rees</i>	
<b>RP12 Rock Property Analysis for Visualization of Upper Gharif Fluvial System Using Spectral Decomposition, Sultanate of Oman</b> .....	46
<i>H. Salem, D. Alsop, Y. Aufi, L. Bazalgette</i>	
<b>RP13 Rock Physics Modeling Guided by Depositional and Burial History in Low to Intermediate Porosity Sandstones</b> .....	51
<i>T. A. Johansen, P. Avseth, A. Bakhorji, H. M. Mustafa</i>	
<b>RP14 Rock Physics and Seismic Characterization of Oman's Unconventional Reservoirs</b> .....	56
<i>A.-M. H. Wulff, S. Scholten, J. G. Rehling</i>	
<b>RP15 An Integrated Solution to Rock Physics Modelling in Fractured Carbonate Reservoirs</b> .....	61
<i>S. Payne, P. Wild, R. Lubbe</i>	
<b>RP16 Update on Digital Rock Physics for Oil and Gas Shales</b> .....	66
<i>A. Nur, J. Walls</i>	
<b>RP17 Towards a Representative Rock Model from a Micro-CT Image</b> .....	68
<i>E. H. Saenger, C. Madonna, N. Tisato, B. Quintal</i>	
<b>RP18 Is it Possible to Predict Porosity at Different Scales?</b> .....	73
<i>S. Vega, M. Soufiane Jouini, E. Amin Mokhtar</i>	
<b>Author Index</b>	