

# **Third EAGE Workshop on Pore Pressure Prediction 2020**

Online  
14 - 16 December 2020

ISBN: 978-1-7138-2981-2

**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© (2020) by the European Association of Geoscientists & Engineers (EAGE)  
All rights reserved.

Printed with permission by Curran Associates, Inc. (2021)

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

European Association of Geoscientists & Engineers (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: 845-758-2633  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

GEOLOGICALLY CONSTRAINED GEOMECHANICAL EVOLUTIONARY MODELLING OF DIAPIR AND BASIN EVOLUTION: TARFAYA BASIN, WEST AFRICA .....	1
<i>J.J. Van der Linden d'Hooghvorst Rodriguez, M. Nikolinakou, O. Fernández Bellón, T. Harrold, P. Flemings, A. Marcuello</i>	
PILOT FIELD TRIAL OF REAL-TIME PORE PRESSURE AND WELL STABILITY UPDATES IN A DIGITAL TWIN .....	6
<i>A.E. Lothe, A. Grøver, O. Roli, P. Cerasi, J.O. Skogestad, T.G. Kristiansen, A. Bauer, A. Guida, M. Boukili</i>	
PORE PRESSURE PREDICTION BASED ON THE FULL EFFECTIVE STRESS (FES) METHOD .....	11
<i>G. Richards, D. Roberts, A. Bere, S. Martinez, M. Tilita, T. Harrold</i>	
RESISTIVITY-BASED PORE PRESSURE INVESTIGATION USING THE WAXMAN-SMITS EQUATION IN THE NORTH ALPINE FORELAND BASIN, SE GERMANY .....	16
<i>I. Shatyrbayeva, M. Drews</i>	
PORE PRESSURE, FRACTURE GRADIENT, SHALLOW HAZARDS AND RESERVOIR INTEGRATION FOR WELL LOCATION SELECTION AND WELL EXECUTION .....	21
<i>T. Harrold, M. Tilita, J. Reveron Becerra, S. Martinez Martinez, P. Rouillé, W. Hermoza Cusi, K. Sodden, K. Lake, M. Bonora</i>	
3D PORE PRESSURE MODELING AROUND GAS CHIMNEYS AND MUD VOLCANOES AT OFFSHORE EVROS BASIN .....	26
<i>A. Uyanik</i>	
INFLUENCE OF OVERBURDEN PRESSURE AND STRESS ON RESERVOIR TEMPERATURE AND PRODUCTIVITY, NORTH ALPINE FORELAND BASIN, GERMANY .....	31
<i>M. Drews, I. Shatyrbayeva, F. Duschl</i>	
MODELLING THE IMPACT OF GEOLOGICAL UNCERTAINTY ON LATERAL FLUID TRANSFER AND PORE PRESSURE IN OVERPRESSURED BASINS .....	36
<i>L. Heaton, S. Petmecky, B. Kirkland</i>	
FROM 1D WELL SCALE TO 3D SEISMIC SCALE PORE PRESSURE PREDICTION: IMPLICATION ON PROSPECT MATURATION .....	39
<i>O. Chailan, M. Courbe, A. Golmohammadi, S. Frambati</i>	
COUPLING A 3D GEOMECHANICAL MODEL WITH SEISMIC VELOCITY TO PREDICT PRESSURE AND THE FULL STRESS TENSOR .....	43
<i>M. Heidari, M. Nikolinakou, P. Flemings</i>	
STOCHASTIC MONTE-CARLO SIMULATIONS OF THE EFFECT OF SMECTITE-ILLITE TRANSFORMATION IN SHALES ON PORE PRESSURES BUILD UP .....	48
<i>A.E. Lothe, A. Grøver, O. Roli, T.G. Kristiansen</i>	
SUBSURFACE PRESSURE REGIME EVALUATION WITH 2D BASIN MODELING: A CASE STUDY OF TWO SUBBASINS FROM HUNGARY .....	53
<i>Z. Nagy, K. Kiss, M.K. Baracza, N.P. Szabo</i>	

NOVEL APPLICATION OF CENTROID ANALYSIS TO UNDERSTAND RESERVOIR SIZE AND CONNECTIVITY .....	59
<i>S. Martinez Martinez, T. Harrold, M. Tilita, P. Rouillé, M. Gonzalez Quijano</i>	
ORIGIN OF OVERPRESSURE IN THE WIELKIE OCZY GRABEN (SE POLAND) .....	63
<i>M. Kępiński</i>	
OVERPRESSURE AND MUDROCK COMPACTION CHARACTERISTICS ON THE ONSHORE PART OF THE EAST JAVA BASIN .....	67
<i>A. Ramdhan, H. Boro, L. Hutasoit, T. Atarita</i>	
KEYNOTE: BREAKING NEW AND OLD GROUND IN PORE PRESSURE AND FRACTURE PRESSURE PREDICTION .....	72
<i>P. Flemmings</i>	
KEYNOTE: GEOMECHANICAL PORE PRESSURE AND STRESS IN LARGE GEOLOGIC SYSTEMS .....	76
<i>M. Nikolinakou, P. Flemmings, M. Heldari, M. Hudec</i>	

**Author Index**