

3rd EAGE Workshop on Advanced Seismic Solutions in the Gulf of Mexico 2024

Held online

Mexico City, Mexico
16-17 October 2024

ISBN: 979-8-3313-1126-1

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© (2024) by the European Association of Geoscientists & Engineers (EAGE)
All rights reserved.

Printed with permission by Curran Associates, Inc. (2026)

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

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
Web: www.proceedings.com

TABLE OF CONTENTS

The Value of MEMS Sensors – an Overview of OBN and Land Point Receiver Seismic Data Acquisition	1
<i>H. Watt, S. Ronen, N. Tellier</i>	
Resolving the Model Building Challenges in Southeast Basin – a Case Study from Offshore Mexico.....	6
<i>A. I. Aboulela, A. P. Alipi Ramirez, K. Ponce Munoz, J. R. Ruiz Torres, J. Graniel Vazquez, A. Jimenez, G. Tellez Velazquez, J. Diaz De Leon Chagolla</i>	
Improving Land Seismic Imaging in the Sureste Basin Using a Time-Lag FWI Driven Workflow	10
<i>T. Dy, M. Wang, S. Mothi, D. Dobesh, O. Andrade, A. Vazquez, A. Mendez, A. Cabrales</i>	
Improving Fluid Mapping for Exploration and Appraisal Through a Quantitative Multi-Physical Approach	14
<i>D. Helland-Hansen, D. Baltar, E. Nerland</i>	
Rock Physics Modelling in Clay-Sands Reservoirs in Gulf of Mexico.....	18
<i>E. Osorio Santiago</i>	
Is Elastic Full Waveform Inversion with Sparse Node OBN Acquisition the End of the Road?	21
<i>D. Vigh, K. Glaccum, X. Cheng, B. Bai</i>	
Elastic FWI for Subsalt Imaging: A Case Study from Central Gulf of Mexico.....	24
<i>C. Parekh, A. Stephenson, J. Paerdomo, C. Flores, C. McMorland, M. Vanger Griend, A. Boles, A. Fuhrmann</i>	
Improving Complex Mesozoic Structure Imaging with WAZ and OBC Iterative TLFWI in the Gulf of Mexico	29
<i>Z. Su, X. Wang, J. Yang, N. Chazalnoel, A. Bustos Vázquez, A. Guadalupe Romero Luévano, S. Domínguez García, K. Aurora Hernández Rivera</i>	
Shallow Water Imaging Using Ocean Bottom Cable Data with Time-Lag FWI in Southern Gulf of Mexico.....	34
<i>X. Zhang, B. Wray, W. L. Chan, H. Zhu, R. P. Salvador, J. C. R. Gutiérrez, S. D. Garcia, K. A. H. Rivera</i>	
Exploring the Impact of a Low-Frequency Rich Source in Three Geological Environments	38
<i>S. Rentsch, E. Hager</i>	
Low-Environmental Impact Broad-Band Seismic Sources	42
<i>S. Ronen, H. Watt</i>	
Effective Conditioning of Migrated Gathers for Image Enhancement in Special Processes Through Automated Dense Velocity Analysis	46
<i>H. Ángeles-Hernández, O. De La Vega-Cabrera</i>	
Numerical Modeling in a Low-Velocity Zone and Its Effects on Seismograms Recorded with Optic Fiber	51
<i>F. Valencia Flores, J. De Basabe, M. Sen</i>	
Pushing Geophysical Boundaries by Multiphysical Acquisition	56
<i>D. Helland-Hansen, L. Parker</i>	

Author Index